

## THE STATUS OF THE WORD *hây* IN THAI

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### 1. INTRODUCTION<sup>1</sup>

There has long been controversy about the word *hây* 'to give' in Thai: about how many homophonous words *hây* exist in Thai and to which grammatical categories they belong. This paper examines the status of the form *hây* based on distribution and meaning. Within the Lexicase version of dependency grammar, this analysis classifies the form *hây* into six homophonous variants: three ditransitive verbs, two causative verbs, and an adverb.

The form *hây* is most commonly a verb carrying the meaning 'to give'. However, there are several homophonous *hây*'s, as illustrated in the following example:

- (1) *Nóy bôók wáa mĕĕ hây tǎy hây kuncĕĕ dĕĕĭ hây sǎm*  
Noy say that mother cause Toy give key Dang cause repair

*rót hây míchanán cà? tii hây.*  
car for otherwise will hit for

Noy said that mother ordered Toy, under the threat of being hit, to give the key to Dang to fix the car for (mother).

The forms pronounced as *hây* in the example above differ in distribution and meaning. The purpose of this paper is to classify the Thai form *hây* into different categories based on their distribution and meaning. The syntactic framework used in this analysis is Lexicase, a version of dependency grammar developed by Stanley Starosta in the early 1970s. While the first part of this paper is an introduction, the second part is a review of previous analyses of *hây*. Sections 3–5 provide a reanalysis of the form *hây*: §3 discusses the ditransitive verbs *hây* 'to give'; §4 discusses the causative verbs *hây*; and §5 discusses the adverb *hây*. The last part of the paper presents a conclusion.

### 2. PREVIOUS ANALYSES

#### 2.1 PANUPONG 1970

Vichin Panupong's work *Inter-sentence relations in modern conversational Thai* is a detailed structuralist analysis of spoken Thai based on the use of test frames. Panupong

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<sup>1</sup> This article is a revision of Indrambarya (1990). I would like to thank Professor Stanley Starosta and Marybeth Clark for their valuable comments regarding previous versions of this article.

(1970:122) proposes the two test frames (a) and (b) for ditransitive verbs, as shown in example (2).

- (2) a. n 2 n n *l'éew*  
 b. n *kamlaj* 3 n n (where n refers to NP *l'éew* is an adverb of completion and *kamlaj* is an adverb of progression)

Panupong states that any words which may replace 2 in (a) and 3 in (b) are to be labelled as ditransitive verbs. Since *hây* in (3) fits in either position, it is an instance of a ditransitive verb in Panupong's classification.

- (3) a. *MÊE hây taŋ nit l'éew.*  
 mother give money Nit already  
 Mother has already given Nit some money. (Panupong 1970:122)
- b. *MÊE kamlaj hây taŋ nit.*  
 mother in.progress give money Nit  
 Mother is giving Nit some money. (Panupong 1970:122)

However, Panupong does not state how she would treat *hây* in (4) below, in which the third NP of pattern (a) is replaced by a prepositional phrase.

- (4) *MÊE hây taŋ kèe nit.*  
 mother give money to Nit  
 Mother gave some money to Nit.

Panupong analyses *hây* in (5) and (6) in terms of its function and considers it to be a "verbal linker" because it links two verbs. However, she does not state to which grammatical category (i.e. a noun, a verb, a preposition, or an adverb) this verb linker *hây* belongs.

- (5) *Còtmăay chabàp nii tŋŋ ɣàan hây dii.*  
 letter issue this must read linker good  
 This letter must be read carefully.
- (6) *Khruu sàŋ hây ɣàan náŋsĕi.*  
 teacher order linker read book  
 The teacher ordered us to read a book. (Panupong 1970:164–165)

## 2.2 DEJTHAMRONG 1970

Orathai Dejthamrong (1970), Panupong's student, investigates the grammatical function of *hây* and finds five syntactically distinct but orthographically and phonemically identical forms of *hây*. These forms are: a ditransitive verb, a preposition, a causative transitive verb, a clause linker, and a postverb functioning as part of the nucleus.

Dejthamrong defines ditransitive verbs in accordance with Panupong's (1970) ditransitive verb test frames. However, Dejthamrong notes that there are three types of ditransitive verbs: those that require a preposition, such as *sòŋ* 'to send', as in (7); those that do not allow a preposition, such as *tŋŋp* 'to answer' in (8); and those that may or may not have a preposition, such as *hây* 'to give' in (9).

- (7) a. \**Lék sòŋ còtmǎay ɔrathay.*  
Lek send letter Orathai  
Lek sent the letter to Orathai.
- b. *Lék sòŋ còtmǎay kèe ɔrathay.*  
Lek send letter to Orathai  
Lek sent the letter to Orathai.
- (8) a. *Kháw tɔɔp khamthǎam khɔɔ nii khruu.*  
he answer question bunch this teacher  
He answered this question for the teacher. (lit. He answered this question the teacher.)
- b. \**Kháw tɔɔp khamthǎam khɔɔ nii kèe khruu.*  
he answer question bunch this to teacher  
He answered this question for the teacher. (lit. He answered this question to the teacher.)
- (9) a. *Dɛɛŋ hây náŋsǎi dèkdèk.*  
Dang give book children  
Dang gave the children some books.
- b. *Dɛɛŋ hây náŋsǎi kèe dèkdèk.*  
Dang give book to children  
Dang gave some books to the children.

Verbs which require prepositions do not fit in Panupong's verb test frame. Dejthamrong's explanation for treating such verbs as ditransitive verbs is based on their overlapping distribution. They are included, according to Dejthamrong (1970:43), only because they may replace ditransitive verbs like *hây* 'to give' and *cèek* 'to distribute' when such verbs are followed by a preposition.

*Hây* in (10) and (11) is considered to be a preposition, since it fits in a preposition test frame, while *hây* in (12) is identified as a causative transitive verb followed by a clause.

- (10) *Dɛɛŋ yím hây chán.*  
Dang smile give I  
Dang smiled at me.
- (11) *Dɛɛŋ kwàat báan hây mɛ̂e.*  
Dang sweep house give mother  
Dang swept the house for her mother.
- (12) *Dɛɛŋ hây nɔɔŋ kwàat báan.*  
Dang cause younger.sibling sweep house  
Dang had his younger sibling sweep the house.

Dejthamrong considers *hây* in (13) and (15)–(18) to be instances of *hây* functioning as a "clause linker", which "introduces" a noun clause or an adverbial clause. For example, in (13a), *hây* is analysed as a clause linker, introducing a noun clause, because *hây chán maa* may be replaced by a noun *náŋsǎi* 'book', a direct object of the transitive verb *tɔŋkaan* 'to want', as in (13b) (Dejthamrong 1970:100).

- (13)a. *Dεεη ɿŋkaan hây chán maa.*  
 Dang want I come  
 Dang wants me to come.
- b. *Dεεη ɿŋkaan náŋsǎi.*  
 Dang want book  
 Dang wants a book.

When *hây* occurs with the ditransitive verb *bǝk* ‘to tell, to order’, as in (14a), Dejthamrong treats the clause introduced by *hây* as a direct object of the verb because it may be replaced by the noun *khàaw* ‘news’, as shown in (14b), despite the meaning difference of the verb *bǝk*. However, according to Dejthamrong, “unlike other ditransitive verbs”, which require a direct object to precede an indirect object, the indirect object *dεεη* ‘Dang’ precedes the direct object noun clause in (14a). To accommodate this fact, Dejthamrong (1970:101) stipulates that when the direct object is a noun clause, it appears after an indirect object.

- (14)a. *Kháw bǝk dεεη hây klàp bâan.*  
 he order Dang return home  
 IO DO  
 He ordered Dang to return home.
- b. *Kháw bǝk khàaw dεεη.*  
 he tell news Dang  
 DO IO  
 He told Dang the news.

In Dejthamrong’s analysis, the clause linker *hây* may introduce an adverbial clause modifying a verb, as in (15a) and (16a). *Hây* and the words that follow it constitute an adverbial clause because one could replace the clause with the adverb *yàaŋray* ‘how’, as in (15b), and *thammay* ‘why’, as in (16b) (Dejthamrong 1970:120–121).

- (15)a. *Chán cà? nǝn hây sabaay.*  
 I will sleep comfortable  
 I will sleep comfortably.
- b. *Chán cà? nǝn yàaŋray?*  
 I will sleep how  
 How will I sleep?
- (16)a. *Nít yók kâwǎi hây khèek nâŋ.*  
 Nit lift chair guest sit  
 Nit got a chair for the guest to sit on.
- b. *Nít yók kâwǎi thammay?*  
 Nit lift chair why  
 Why did Nit lift a chair?

Dejthamrong also considers the *hây* which can appear only at the beginning of a sentence to be a clause linker introducing an adverbial clause, as in (17a), because *hây* plus the words which accompany it may be replaced by *yàŋŋay yàŋŋay* ‘whatever happens’ in (17b) (Dejthamrong 1970:123).

- (17)a. *Hây fõn tòk chán kớ cầ? pay rooḡrian.*  
 rain fall I then will go school  
 Even if it rains, I will still go to school.
- b. *Yanḡayyanḡay chán kớ cầ? pay rooḡrian.*  
 whatever.happens I then will go school  
 Whatever happens, I will still go to school.

Finally, Dejthamrong also sets up a category called postverb for the form *hây* which appears after a transitive verb. The postverbal *hây* functions as part of the nucleus, as illustrated in (18). However, she does not state to which syntactic category (e.g. noun, verb, adverb) this *hây* belongs.

- (18) *Mấ kàt khâw hây.*  
 dog bite he  
 The dog bit him.

### 2.3 KULLAVANIJAYA 1974

Pranee Kullavanijaya (1974), working within an early version of the Lexicase framework, discusses the ditransitive verb *hây*, the causative verb *hây*, and the derived preposition *hây*. According to her analysis, a sentence like (19) is ambiguous. Read in one way, *hây* is considered to be a preposition, a benefactive case assigned to its following noun.

- (19) *Mế yép sía hây lúuk.*  
 mother sew shirt for child  
 +N +P +N  
 +NM<sup>2</sup> +B +AC  
 +AGT +BEN

A mother sewed a dress for her child. (Kullavanijaya 1974:85)

Example (19) also has another reading, in which *hây* is a non-finite ditransitive verb. The sentence is interpreted as 'Mother sewed the dress and gave it to the child', as illustrated in (20).

- (20) *Mế yép sía hây lúuk.*  
 mother sew shirt give child  
 +N +V +N  
 +NM -finite +AC  
 +AGT +BEN

<sup>2</sup> The lexicase abbreviations for case markers used by Kullavanijaya (1974) are as follows:

Case Forms	Case Relations
AC Accusative	AGT Agent
B Benefactive	BEN Benefactive
C Comitative	DAT Dative
NM Nominative	



- (26) *Surii khàprốt hây suda.*  
 Suri drive for Suda  
 Suri drives for Suda. (Thepkarnchana 1986:200)

Coverbs are “semantically depleted”. According to Thepkarnchana (1986:201), *hây* in (26) does not lose its semantic properties; it only loses its literal sense – to give something to Suda. However, it maintains the metaphorical interpretation, namely a favour that *Suri* bestows on *Suda*. From this interpretation, Thepkarnchana concludes that *hây* in this construction is a verb. However, her claim seems to contradict itself. If a word which loses its literal sense is not a coverb, what is semantically depleted?

Thepkarnchana advances two syntactic arguments for claiming that all words which have corresponding verbs are verbs. First, these words have the potential to occur as full verbs in isolation, while maintaining the same meaning. Thus, they can be analysed as verbs in other contexts as well. For example, the word *khâam* ‘to cross’ in (27a) may appear as a full verb in (27b) and is thus regarded as a verb rather than a preposition.

- (27)a. *Kháw dæ̀n khâam saphaan pay.*  
 he walk cross bridge go  
 He walked across the bridge.
- b. *Kháw khâam saphaan pay.*  
 he cross bridge go  
 He crossed the bridge. (Thepkarnchana 1986:205–206)

However, applying the same test to (26), we find that *hây* cannot appear as a free verb without changing the meaning from ‘for’ to ‘to give’, as shown in (28). Hence, by Thepkarnchana’s own criterion, *hây* in this instance is not a verb.

- (28) *Surii hây suda.*  
 Suri for Suda  
 \*Suri for Suda.  
 Suri gave Suda (something).

Second, if a word can be negated, it is a verb. Thepkarnchana exemplifies this claim with *khâam* ‘to cross’.

- (29) *Kháw kradòot mây khâam rúa.*  
 he jump not cross fence  
 He jumped, but failed to hurdle the fence. (Thepkarnchana 1986:206)

Since *khâam* ‘to cross’ in (30) may be negated, Thepkarnchana concludes that all words in Thai which have corresponding verbs have verbal status synchronically. However, Thepkarnchana has neglected to note that some adverbs, such as *bây* ‘often’, may also be negated, as shown in (30b). *Bây* is clearly not a verb, since it never appears as a free verb in Thai, as illustrated in (30c). It is evident that the negation test cannot reliably distinguish a verb from an adverb when the word in question occurs after another verb.

- (30)a. *Kháw maa thîi nîi bây.*  
 he come at here often  
 He comes here often.

- b. *Kháw maa thii nī máy bǎy.*  
 he come at here not often  
 He does not come here often.
- c. \**Kháw bǎy.*  
 he often  
 \*He often.

### 3. DITRANSITIVE VERBS *háy*

*Háy* meaning 'to give' always functions as a verb. I claim that there are three ditransitive verbs *háy* 'to give'. *Háy*<sub>1</sub> requires two bare noun phrases as its complements, as in (31). *Háy*<sub>2</sub> requires, as its complements, a bare noun phrase followed by a prepositional phrase, as in (32). *Háy*<sub>3</sub> differs from *háy*<sub>1</sub> only in that it requires an additional verb complement and forbids a PP, as shown in (33).

- (31) *Lék háy<sub>1</sub> còtmǎǎy dεεŋ.*  
 Lek give letter Dang  
 Lek gave Dang a letter.
- (32) *Lék háy<sub>2</sub> còtmǎǎy kēε dεεŋ.*  
 Lek give letter to Dang  
 Lek gave a letter to Dang.
- (33) *Chán háy<sub>3</sub> náŋsǎi dèkdèk ʔaan.*  
 I give book children read  
 I gave a book to the children to read.

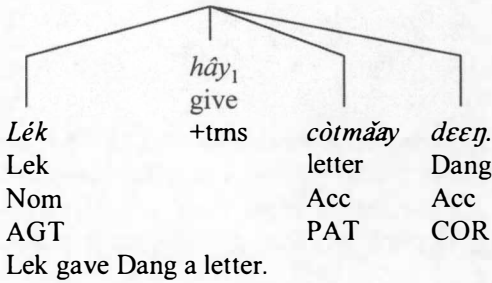
In Thai, the nominal case forms, that is the case markings without a preposition, are found to be limited to the Nominative, Accusative, and Locative case forms. The Nominative marks a Patient (PAT) of an intransitive finite verb and an Agent (AGT) of a transitive finite verb.<sup>3</sup> The Locative marks the locational noun of a locational verb as Locus case relation (LOC). Patient of transitive verbs and Correspondent actants are realised as the Accusative case form. The Locus actant of a non-locational verb and a Means actant, on the other hand, always occur as an immediate dependent of a preposition and carry the Accusative case form assigned by the regent preposition (Indrambarya 1994:62). The Patient Centrality Hypothesis, together with the One per Sent constraint, ensures that every verb must have a Patient in its case frame and that a clause may carry only one Patient (Starosta 1988:128,138). Since the ditransitive verb *háy*<sub>1</sub> in (34) has two accusative nouns, only one of them will be assigned as Patient. The other must be a Correspondent actant. The question is which noun is assigned Patient and which Correspondent.

In a passive construction, an object (Patient) of a transitive verb is omitted and is interpreted as the Patient of the verb *thiuk* or *doon* (see P2P Control Rule in Appendix IV). Since only a transitive verb may be passivised in Thai, a passive construction may serve as

<sup>3</sup> Locational verbs are verbs which expect a dependent which is lexically marked as [+lctn]. These verbs are, for example, *pay* 'to go' and *yuu* 'to stay' (Indrambarya 1994:53).

a test for the Patient case relation. Unfortunately, this process is not very productive in Thai and is subject to certain semantic constraints, so that neither of the two objects of *hây*<sub>1</sub> nor those of other ditransitive verbs may occur as Patient of *thùuk*, as shown in (34b) and (34c). In this paper, I will assume that the semantically transferred object of the ditransitive verb *hây*<sub>1</sub>, such as *còtmăăy* ‘letter’, is assigned PAT in the same way that the bare transferred object of the ditransitive verb *hây*<sub>2</sub>, which is the only accusative actant of the verb, is assigned PAT. Hence, in (34), *còtmăăy* ‘letter’ is PAT and *dεεŋ* ‘Dang’ is COR.

(34)a.



- b. \**Còtmăăy thùuk lék hây1 dεεŋ.*  
 letter undergo Lek give Dang  
 A letter was given to Dang by Lek.
- c. \**Dεεŋ thùuk lék hây1 còtmăăy.*  
 Dang undergo Lek give letter  
 Dang was given a letter by Lek.

Before arguing whether a form belongs to two separate lexical entries, one first needs to distinguish a complement, an argument that subcategorises a verb, from an adjunct, which by general rule may optionally occur with that verb. The distinction is tested here in two ways: by the Question Pull test and by the head substitution criterion.

Since Thai is a ‘pro-drop language’ (Cole 1987:606–607), that is a language which makes significant use of zero anaphora, any of the three arguments of *hây*<sub>1</sub> may be omitted contextually. When the arguments of verbs are omitted, the Question Pull test (Hasagawa 1988) may help to determine whether a verb is transitive or ditransitive. According to Hasagawa, given an utterance consisting of a verb with few or no other accompanying words, an addressee is expected to ask What-Who-questions about obligatory arguments, that is, complements, which are not clear in a conversation. Questions introduced by ‘why’, ‘where’, and ‘when’, which extract adjuncts, will be asked only after all required arguments are retrieved. Consider example (35):

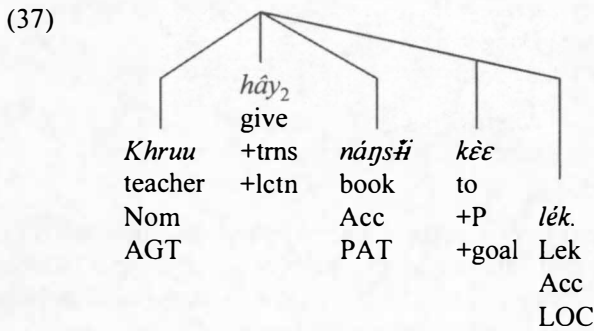
- (35) Speaker A: *lék hây còtmăăy*  
 Lek give letter
- Speaker B: *hây khray*  
 give who
- Speaker A: *hây dεεŋ*  
 give Dang

Because speaker A gave insufficient information about the word *hây* ‘to give’ to speaker B, speaker B is expected to inquire as to whom *lék* ‘Lek’ gave a letter. This shows that *hây* in (35) is looking for three arguments and must be interpreted as the ditransitive verb *hây*<sub>1</sub>.

The head substitution test is another criterion for complement and adjunct distinction. Heads may differ in their ability to cooccur with a particular complement type, while an adjunct may occur freely with any head, subject to pragmatic considerations. Taking *kêê dɛɛŋ* ‘to Dang’ in (36) as an example, when the head *hây<sub>2</sub>* is replaced with one or another verb denoting a transfer meaning, *kêê dɛɛŋ* ‘to Dang’, if it is a complement, should not be able to occur with such verbs, subject to pragmatic constraints. Example (36) shows that this is in fact the case. Since *tɔɔp* ‘to answer’ may not appear with *kêê dɛɛŋ*, I conclude that *kêê dɛɛŋ* in (36) is a complement of *hây<sub>2</sub>*.

- (36) *Lék hây<sub>2</sub>/\*tɔɔp còtmăăy kêê dɛɛŋ.*  
 Lek give/answer letter to Dang  
 Lek gave/\*answered the letters to Dang.

*Hây<sub>2</sub>* is a locative ditransitive verb requiring three arguments. In (37), the subject *khruu* is AGT, and *hây<sub>2</sub>* takes only one accusative actant. If a verb expects only one object, that object must be assigned Patient according to the Patient Centrality Hypothesis. Hence *náŋsĥĩ* must be PAT. *Lék* ‘Lek’ is assigned the LOC case relation since it is the accusative actant of the locative preposition *kêê* ‘to’.



The teacher gave a book to Lek.

The head substitution test below illustrates that *ʔaan* ‘to read’ in example (33) is a complement of *hây<sub>3</sub>*. Only *hây* but not *cêek* ‘to distribute’ may occur with the embedded clause containing *ʔaan*, as shown in (38).

- (38) *Chán hây<sub>3</sub>/\*cêek náŋsĥĩ dèkdèk ʔaan.*  
 I give/distribute book children read  
 I gave/distributed books to the children to read.

In Lexicase grammar, a form is considered to be two distinct lexical entries if it occurs in two distinct GRAMMATICALLY SIGNIFICANT ENVIRONMENTS A and B and there is a word X which may appear in pattern A but not in B and/or there is a word Y which may appear in B but not in A (Starosta 1988:98). Consider (39) and (40):

- (39) a. *Nit tɔɔm námman rôt khan nii léew.*  
 Nit fill oil car vehicle this already  
 Nit has already filled this car with gas.
- b. *\*Nit tɔɔm námman kêê rôt khan nii léew.*  
 Nit fill oil to car vehicle this already  
 Nit has already filled the gas into this car.

- (40)a. \**Kulayaa mɔ̌ɔp còtmăăy chabàp nán khruu.*  
 Kulaya deliver letter issue that teacher  
 Kulaya delivered that letter to the teacher.
- b. *Kulayaa mɔ̌ɔp còtmăăy chabàp nán kèè khruu.*  
 Kulaya deliver letter issue that to teacher  
 Kulaya delivered that letter to the teacher.

*Təəm* 'to fill' in (39) and *mɔ̌ɔp* 'to deliver' in (40) can each appear in only one of the two constructions. *Təəm* 'to fill' may appear only in (39a) but not in (39b), while *mɔ̌ɔp* 'to deliver' may appear in (40b) but not in (40a). The distribution shows that the two patterns exemplify two grammatically significant environments.

By this criterion, if a single form appears in both environments, it must belong to two separate verb classes and constitute two distinct lexical entries, since if two forms differ in either pronunciation, meaning, or distribution, they must be learned and stored separately. Thus, from the observation that the form *hây* can appear in both of the frames (a) and (b), as shown in examples (31) and (32), we can conclude that they are two distinct lexical items. *Hây*<sub>1</sub> belongs to the same verb class as *təəm* 'to fill' in (39a), and *hây*<sub>2</sub> belongs to the same verb class as *mɔ̌ɔp* 'to deliver' in (40b).

The grammatically significant environments criterion also shows that *hây*<sub>1</sub> in (31) and *hây*<sub>3</sub> in (33) belong to two different classes. Consider (41):

- (41)a. *Chán cèèk<sub>1</sub> náŋsĕ̌ dèkdèk.*  
 I distribute book children  
 I distributed the books to the children.
- b. *Chán cèèk<sub>2</sub> náŋsĕ̌ kèè dèkdèk.*  
 I distribute book to children  
 I distributed the books to the children.
- c. \**Chán cèèk náŋsĕ̌ dèkdèk òan.*  
 I distribute book children read  
 I distributed the books to the children to read.

Again, while the form *hây* may appear in both constructions (31) and (33), the form *cèèk* 'to distribute' can be used in (41a) but not in (41c). Unfortunately, an example of a ditransitive verb other than *hây* which could occur in (41c) but not in (41a) has not been found. Nevertheless, the distribution exemplified in (41a) and (41c) is sufficient to show that the forms *hây* in the two patterns are two different lexical entries.

The words A and B are related by the synchronic derivational rule if they are distinct lexical items which are etymologically related and if (A:B) is a member of an analogical set {X:Y} which contains other pairs of lexical items related in the same way (Starosta 1988:63). Example (41) demonstrates that *hây*<sub>1</sub> and *hây*<sub>2</sub> are derivationally related, since there is the form *cèèk* which may appear in both the (a) and (b) patterns of (41). However, since no other ditransitive verbs may appear in the same environment as *hây*<sub>3</sub>, there is no derivational relationship between *hây*<sub>1</sub> and *hây*<sub>3</sub> or *hây*<sub>2</sub> and *hây*<sub>3</sub>. The derivational rule which relates *hây*<sub>1</sub> to *hây*<sub>2</sub> may be formulated as follows (see abbreviations in Appendix I):

(42)	+crsp +trns -lctn -xtns n[+COR]	:	+goal +lctn +trns -crsp n[+LOC]
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The derivational rule in (42) says that the ditransitive verb *hây<sub>1</sub>* is related to the locative ditransitive verb *hây<sub>2</sub>*. The contextual features n[+COR] in the left column and the contextual features n[+LOC] in the right column illustrate that the Correspondent actant in *hây<sub>1</sub>* corresponds to the Locus actant in *hây<sub>2</sub>*.

I consider the embedded verb *ʔaan* ‘to read’ in (33) (repeated as (43a) below) to be a transitive verb, the object of which is missing. This conclusion is based on the fact that *ʔaan* can be followed by an object which refers to part of the higher object, as shown in (43b).

- (43)a. *Chán hây<sub>3</sub> náŋsĕ̃ dèkdèk ʔaan.*  
 I give book children read  
 AGT +trns PAT COR +trns  
 I gave a book to the children to read.
- b. *Chán hây<sub>3</sub> náŋsĕ̃ dèkdèk ʔaan náapòk.*  
 I give book children read cover  
 AGT +trns PAT COR +trns PAT  
 I gave a book to the children to read the cover.

The reason that I do not consider *ʔaan* in (43a) and (43b) to be two separate lexical items, an intransitive and transitive pair, is that I cannot find verbs which may occur in one of the two constructions but not the other. By the grammatically significant environments criterion, *ʔaan* in the two examples must therefore be regarded as a single lexical item.

In (43a) the missing object of the transitive verb *ʔaan* ‘to read’ is interpreted as *náŋsĕ̃* ‘book’, which is the higher Patient (PAT). This relationship between the missing lower object and the higher object is stated informally in Pagotto’s account of English ‘Tough’ movement (Pagotto 1985:42). In Thai, I find that a similar relationship holds in verbs which carry the feature [+cntn] (continuing). The feature [+cntn] shows the continuation of actions between the regent verb and its dependent verb. I will formulate this relationship in terms of Lexicase control chaining rules, rules which state the relationship between words in different domains. Furthermore, the relationship between a lower direct object in (43b), which refers to part of the higher object, and the higher direct object could be accounted for by a similar rule which will not be formulated in this paper. The coreference between a missing Patient of an infinitival verb complement and the Patient of a regent continuing verb in example (43a) is accounted for by the Patient-to-Patient Control Chaining Rule,

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<sup>4</sup> Domain: direct and indirect relationship between a lexical head and its dependent. Y is in the domain of X if X is the regent of Y.

hereafter called the P2P Control Rule (Indrambarya 1994:299–301), as shown in (44).<sup>5</sup> This rule applies only to a subset of verbs taking infinitival complement clauses.

(44)

$$a. \left[ \begin{array}{l} -fint \\ ?[+PAT] \\ nndex \end{array} \right] \rightarrow [m[+PAT]] \setminus \left[ \begin{array}{l} +cntn \\ m[+PAT] \\ n[-fint] \end{array} \right]$$

- b. The actor of the non-finite verb is interpreted as the closest available noun-headed dependent of a regent verb to the left of the embedded verb. (Indrambarya 1994:300)

As shown in (44), the P2P rule consists of two parts, one looking for a missing Patient of the lower clause in (44a) and another looking for an actor of the lower clause in (44b), only the first of which is formulated. A non-finite verb with *nndex* is looking for a Patient shown by  $[? [+PAT]]$ .<sup>6</sup> The non-finite verb will find its Patient by copying the index *m* from  $[m[+PAT]]$  of the regent. The relationship between the non-finite verb and its regent is shown by the feature  $[n[-fint]]$  on the regent. That is, a regent is looking for a non-finite verb with an index *n*. The feature  $[+cntn]$  restricts this rule to apply only to continuing verbs and shows the continuation of actions between the regent verb and its dependent verbs (Indrambarya 1994:299–304). Moreover, the Redundancy Rule 1 (RR-1) states that the feature  $[+cntn]$  expects a non-finite transitive verb as its dependent, indicated by question mark in front of the features. When the requirement is fulfilled, each question mark is replaced by an index number (see Appendix II for members of continuing verbs in Thai).

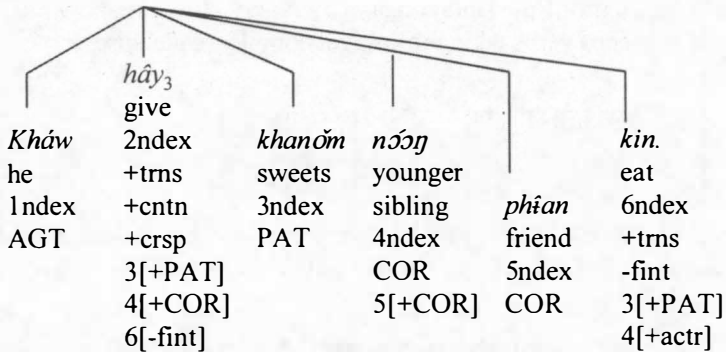
$$RR-1 \quad [+cntn] \rightarrow \left[ \begin{array}{l} +V \\ ?[-fint] \\ ?[+trns] \end{array} \right]$$

The missing actor of the infinitival complement verb, on the other hand, is interpreted as the closest available noun-head dependent of a regent verb to the left of the embedded verb (see Pagotto 1985:44–45). The term ‘available nominal’ refers to a noun which is free in its governing category following Principle B of the Binding theory (Chomsky 1981:181). A governing category is defined here as the domain of the verb containing the missing Patient. In other words, to satisfy the binding requirement, an implied actor to the left of the embedded verb must not be coreferential with the missing Patient. As an example, consider (45).

<sup>5</sup> This rule is a revision of the Patient-to-Patient Control Rule proposed in Indrambarya (1990:43).

<sup>6</sup> The first letter *n* in *nndex* denotes the number for the index which specifies a given word’s position in a sentence.

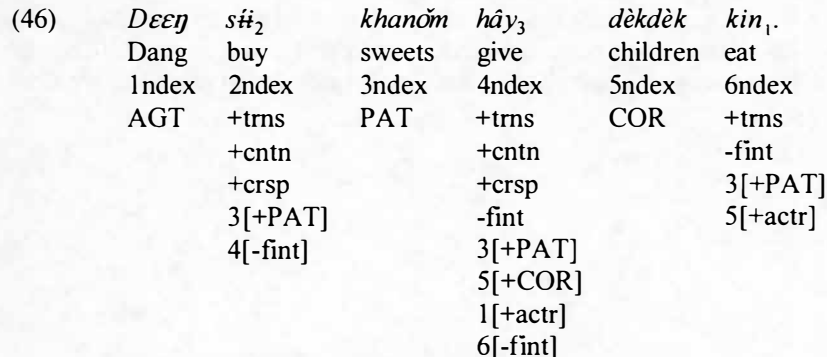
(45)



He gave his friend's younger sibling sweets to eat.

According to the P2P rule in (44), the missing Patient of the verb *kin* 'to eat' is coreferential with the higher Patient *khanǒm* 'sweets'. This implied coreferentiality is shown by [3[+PAT]] on the lexical matrix of *kin*. To search for the actor of the embedded verb *kin*, one looks to the left of *kin* to find two noun-headed dependents of the regent verb *hây<sub>3</sub>*, namely *khanǒm* 'sweets' and *nǒŋ phĭan* 'friend's younger sibling'. If *khanǒm* were chosen as an implied actor for *kin*, the Binding Principle would be violated. Since *khanǒm* is already selected as a coreferential Patient, it is not an available noun. Hence, *nǒŋ phĭan* 'friend's younger sibling' is the implied actor for *kin* because it is the available noun closest to the embedded verb *kin*. This fact is shown by the implied feature 4[+actr] on the lexical matrix of *kin*.

Similarly, when the ditransitive verb *hây<sub>3</sub>* appears in an embedded clause, as in (46), the missing Patient of *hây<sub>3</sub>* is chained to the Patient *khanǒm* 'sweets' of the higher verb *sĭi* 'to buy', while *dεεŋ* 'Dang', the first available noun phrase to the left of *hây<sub>3</sub>*, is the actor. However, if the closer nominal *khanǒm* were the actor, *hây<sub>3</sub>* would have 3[+PAT] as both actor and Patient, violating the Binding Principle. Likewise, the Patient of the lower verb *kin* 'to eat' is interpreted as *khanǒm* 'sweets' by the feature 3[+PAT] in the same way as is the object of *hây<sub>3</sub>*. The actor of *kin* is the closest available nominal, *dεkdεk*.



Dang bought sweets to give to the children to eat.

The embedded clause containing *hây<sub>3</sub>* is considered to be a complement. In applying the head substitution test in (47), the heads *mǒŋ* 'to look' and *duu* 'to search' cannot occur with the embedded *hây* clause, while *hǎa* 'to search' can.

- (47) *Dɛɛŋ \*duul/\*mɔɔŋ/hǎǎ khaŋǎm hây<sub>3</sub> dèk kin<sub>1</sub>.*  
 Dang search/look/search sweets give child eat  
 Dang looked for sweets to give to the child to eat.

The ditransitive verbs *hây<sub>1</sub>* and *hây<sub>2</sub>*, as in (48) and (49), may appear in an embedded clause with a missing Patient, and undergo the P2P rule in the same way as *hây<sub>3</sub>* does. The index 3[+PAT] on *hây<sub>1</sub>* and *hây<sub>2</sub>* comes from the index 3[+PAT] of the higher verb *s#<sub>2</sub>* 'to buy', showing that the Patients of both verbs are coreferential. *Dɛɛŋ* 'Dang', the first available NP to the left of the *hây* clause, is the actor of *hây<sub>1</sub>* as well as *hây<sub>2</sub>*.

- (48) *Dɛɛŋ s#<sub>2</sub> náŋs#<sub>1</sub> hây<sub>1</sub> lék.*  
 Dang buy book give Lek  
 1ndex 2ndex 3ndex 4ndex 5ndex  
 AGT +trns PAT +trns COR  
 +cntn +cntn  
 3[+PAT] +crsp  
 1[+actr] -fint  
 4[-fint] 3[+PAT]  
 1[+actr]

Dang bought a book to give to Lek.

- (49) *Dɛɛŋ s#<sub>2</sub> náŋs#<sub>1</sub> hây<sub>2</sub> kèɛ lék.*  
 Dang buy book give to Lek  
 1ndex 2ndex 3ndex 4ndex 5ndex 6ndex  
 AGT +trns PAT +trns +P LOC  
 +cntn +cntn +goal  
 3[+PAT] +lctn  
 1[+actr] -fint  
 4[-fint] 3[+PAT]  
 1[+actr]

Dang bought the book to give to Lek.

The forms *hây* in (48) and (49) are considered to be verbs (as opposed to the adverb *hây<sub>6</sub>*, to be discussed in §5 for the following reasons. First, as shown in (50a) and (50b), the forms *hây* in examples (48) and (49) above may appear as finite verbs independently, preserving the meaning of *hây<sub>1</sub>* and *hây<sub>2</sub>*, respectively, and omit an understood object.

- (50)a. *Dɛɛŋ hây<sub>1</sub> lék.*  
 Dang give Lek  
 Dang gave (it) to Lek.
- b. *Dɛɛŋ hây<sub>2</sub> kèɛ lék.*  
 Dang give to Lek  
 Dang gave (it) to Lek.

Second, the auxiliary adverb *cà?* 'will' may precede a verb, but not an adverb or a preposition (Noss 1964, Indrambarya 1994). For example:

- (51)a. *Chán cà? pay duu nǎŋ phrûŋnîi.*  
 I will go look movie tomorrow  
 I will go to see a movie tomorrow.

- b. *Chán tâŋcay cà? pay duu nǎŋ phrúgnii.*  
I intend will go look movie tomorrow  
I intend to go to see a movie tomorrow.
- c. \**Chán pay duu nǎŋ cà? bɔ̄y.*  
I go look movie will often  
I go to see movies often.
- d. \**Chán pay duu nǎŋ cà? kàp phían.*  
I go look movie will with friend  
I go to see movies with a friend.

*Hây*<sub>1</sub> and *hây*<sub>2</sub> in an embedded clause may be preceded by *cà?*, which shows them to be verbs. Another piece of supporting evidence is based on a semantic test, namely the number of actions implied by the sentence. According to Li and Thompson (1973:267), if a sentence contains more than one action, there must be more than one verb. Since (48) and (49) contain two actions, to buy a book and to give it to *lék*, the evidence suggests that each sentence has two verbs, *sii* 'to buy' and *hây* 'to give'.

- (52)a. *Deeŋ sɨ́₂ náŋsɨ́ cà? hây₁ lék.*  
Dang buy book will give Lek  
Dang bought a book to give to Lek.
- b. *Deeŋ sɨ́₂ náŋsɨ́ cà? hây₂ kɛ̀ɛ lék.*  
Dang buy book will give to Lek  
Dang bought a book to give to Lek.

#### 4. CAUSATIVE VERBS *hây*

This section discusses two causative verbs *hây*: the personal causative verb *hây*<sub>4</sub> and the impersonal causative verb *hây*<sub>5</sub>.

##### 4.1 PERSONAL CAUSATIVE VERB *hây*<sub>4</sub>

The causative verb *hây*<sub>4</sub>, which carries the meaning of 'to order, to cause or to allow', is a non-verbal causative transitive verb which requires a sentential complement. Consider (53a) and (53b):

- (53)a. *Nít hây lék càt dɔ̀kmaáy.*  
Nit cause Lek arrange flower  
Nit had Lek arrange the flowers.
- b. \**Nít khɔ̀ɔ̀ɔ̀ŋ lék càt dɔ̀kmaáy.*  
Nit plead Lek arrange flower  
Nit pleaded with Lek to arrange the flowers.

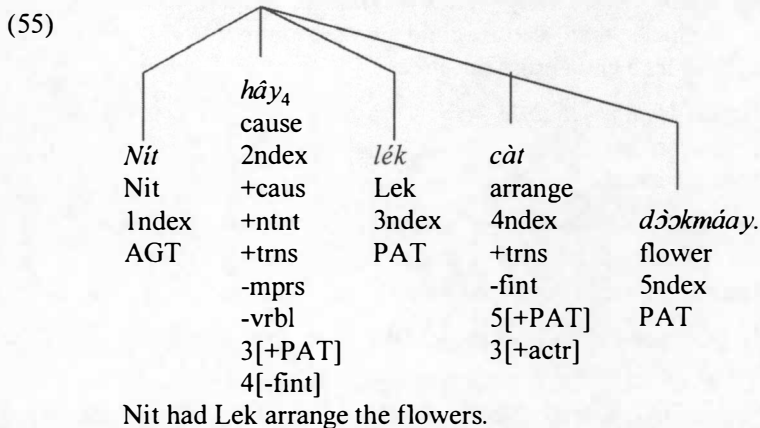
<sup>7</sup> Two major types of causative verbs are non-verbal and verbal causative verbs. *Hây*<sub>4</sub> and *thamhây* are instances of non-verbal causative verbs. Verbal causative verbs are, for example, *khɔ̀ɔ̀ɔ̀ŋ* and *sáŋ* (Indrambarya 1994:279).

The head substitution test tells us that the embedded clause is a complement, because only *hây* but not *khô̄r̄ô̄ng* ‘to plead’ may appear with the embedded clause.

The verb *thiuk* ‘to undergo’ marks passive construction in Thai. Its subject is coreferential with the missing Patient object of the embedded transitive. Only transitive verbs, though not all transitive verbs, may occur in the *thiuk* passive construction. Since *hây<sub>4</sub>* in (53) may occur in the *thiuk* passive construction, as illustrated in (54), *lêk* ‘Lek’ as subject with *hây<sub>4</sub>* is analysed as transitive verb in this study. This evidence eliminates the possibility that *hây<sub>4</sub>* might be an intransitive verb taking a finite complement. In the Lexicase framework, a finite verb, by definition, is a verb which allows a subject.

- (54) *Lêk thiuk mêe hây<sub>4</sub> càt dđokmáay.*  
 Lek undergo mother cause arrange flower  
 Lek was ordered by her mother to arrange the flowers.

The tree structure for (53a) is shown in (55). The personal causative transitive verb *hây<sub>4</sub>* is marked in its lexical matrix with the feature [+caus,+ntnt,+trns,-mprs,-vrbl] (causative, intentional, transitive, non-impersonal, and non-verbal) to be distinguished from other causative verbs in Thai (Indrambarya 1994:281). According to the Regular Actor Control Rule for infinitival complements (Starosta 1988:133; see Appendix IV), *lêk* ‘Lek’ is a Patient of the higher verb *hây* as well as the actor of the lower clause.



As with other Thai transitive verbs, the Accusative Patient of the causative transitive verb *hây* may be omitted. In this case, the Patient of the matrix verb is contextually bound and may be recovered by the index *x* in the lexicase external linking rule. The simplified version of the external linking rule is shown in (56). On the other hand, the actor of the lower non-finite complement verb is accounted for by the Regular Actor Control Rule. In other words, there are two types of missing constituents: one is a null anaphor which can be replaced by an overt noun and recovered by a widely applicable external linking rule; the other cannot be replaced by an overt noun and must be accounted for by a control chaining rule.

- (56)  $\left. \begin{array}{l} +trns \\ ?[+PAT] \end{array} \right\} \rightarrow [x[+PAT]]$

- (57) *Mêe hây<sub>4</sub> càt dđokmáay.*  
 mother cause arrange flower  
 Mother had someone arrange the flowers.

In (57), the missing object of a transitive verb *hây* is not grammatically recoverable at the sentence level and so is given an arbitrary index x, as [x[+PAT]]. The index x is also assigned to the actor of the lower clause yielding [x[actr]] in (57), according to the Regular Actor Control Rule for infinitival complements.

The causative verb *hây*<sub>4</sub> may appear in an embedded clause as a complement of a manipulative verb. One reason for identifying this form *hây* as a verb is that it may also appear as a main verb with the same syntactic frame and semantic reading, as shown in (58b) and (59b).

- (58)a. *Phô sàŋ<sub>2</sub> manít hây<sub>4</sub> klàp bâan.*  
 father order Manít cause return house  
 Father ordered Manít to return home.
- b. *Phô hây<sub>4</sub> manít klàp bâan.*  
 father cause Manít return house  
 Father had Manít return home.
- c. \**Phô sàŋ<sub>2</sub> manít phô hây<sub>4</sub> klàp bâan.*  
 father order Manít father cause return house  
 Father ordered Manít to return home.
- (59)a. *Kháw yùt rôt khan nán hây<sub>4</sub> dèk khâam thanõn.*  
 he stop car vehicle that cause child cross street  
 He stopped that car to let a child cross the street.
- b. *Kháw hây<sub>4</sub> dèk khâam thanõn.*  
 he cause child cross street  
 He let a child cross the street.
- c. \**Kháw yùt rôt khan nán kháw hây<sub>4</sub> dèk khâam thanõn.*  
 he stop car vehicle that he cause child cross street  
 He stopped that car to let a child cross the street.

The unacceptability of (58c) and (59c) when a subject is inserted shows that the embedded *hây*<sub>4</sub> in (58a) and (59a) is non-finite.

I will apply the head substitution test to (58a) and (59a) to see whether the embedded clause introduced by *hây*<sub>4</sub> is a complement. Consider (60) and (61):

- (60) *Phô \*hây<sub>4</sub>/bôk/\*tham manít hây<sub>4</sub> klàp bâan.*  
 father cause/order/make Manít cause return house  
 Father caused/ordered/made Manít (to) return home.
- (61) *Kháw yùt/côot/hâam rôt hây<sub>4</sub> dèk khâam thanõn.*  
 he stop/park/halt car cause child cross street  
 He stopped/parked/physically halted the car to let a child cross the street.

The unacceptability of *hây*<sub>4</sub> and *tham* in (60) shows that the embedded clause containing *hây*<sub>4</sub> is a complement. On the other hand, the embedded clause in (61) is an adjunct because all of the three verbs *yùt*, *côot*, and *hâam* can occur with the embedded clause.

The following subsection discusses the characteristics of *hây*<sub>4</sub> in an embedded clause. Verbs which require the presence of the causative *hây*<sub>4</sub> as their verb complement are referred to as manipulative verbs in this study. Semantically, manipulative verbs may be

divided into two subclasses: manipulative verbal causative verbs and manipulative resultative verbs.

#### 4.1.1 PERSONAL CAUSATIVE VERB *hây* EMBEDDED UNDER MANIPULATIVE VERBAL CAUSATIVE VERBS

The personal causative transitive verb *hây*<sub>4</sub> may be embedded under manipulative verbal causative verbs. Manipulative verbal causative verbs are verbs which show the intention of speakers to cause a Patient to undergo certain processes or actions, and which require the presence of the *hây*<sub>4</sub> clause as their dependent. There are three classes of manipulative verbal causative verbs: non-correspondent manipulative verbal causative intransitive verbs, Correspondent manipulative verbal causative intransitive verbs, and manipulative verbal causative transitive verbs.

##### 4.1.1.1 NON-CORRESPONDENT MANIPULATIVE VERBAL CAUSATIVE INTRANSITIVE VERBS

Non-correspondent manipulative verbal causative intransitive verbs are intransitive verbs which require only a Patient in their case frame. They include *anúlyâat* 'to allow', *wăj* 'to hope', *yàak* 'to want', *khǎw* 'to ask', *khǎwǎw*<sub>1</sub> 'to plead', *sàŋ*<sub>1</sub> 'to order', and so forth. In example (62), the actor of *hây*<sub>4</sub> is interpreted as the upper Patient *dεεŋ* 'Dang' in accordance with the Regular Control Rule for infinitival complements (P2a).

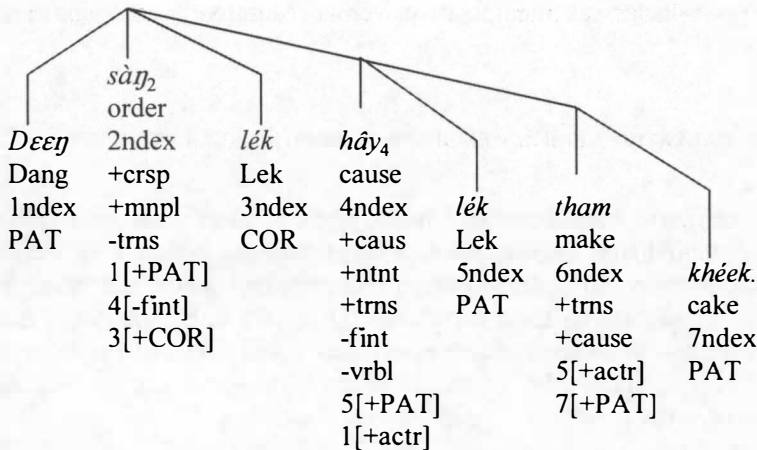
(62)	<i>Dεεŋ</i>	<i>khǎwǎw</i> <sub>1</sub>	<i>hây</i> <sub>4</sub>	<i>lék</i>	<i>tham</i>	<i>khéek</i> .
	Dang	plead	cause	Lek	make	cake
	1ndex	2ndex	3ndex	4ndex	5ndex	6ndex
	PAT	+caus	+caus	PAT	+trns	PAT
		+mnpl	+ntnt		-fint	
		+vrbl	-fint		4[+actr]	
		-trns	-mprs		6[+PAT]	
		1[+PAT]	+trns			
		1[+actr]	-vrbl			
		3[-fint]	4[+PAT]			
			1[+actr]			
			5[-fint]			

Dang pleaded with Lek to make a cake.

##### 4.1.1.2. CORRESPONDENT MANIPULATIVE VERBAL CAUSATIVE INTRANSITIVE VERBS

Correspondent manipulative verbal causative intransitive verbs require both Patient and Correspondent case relations in their case frames. They are, for example, *sàŋ*<sub>2</sub> 'to order', *khǎwǎw*<sub>2</sub> 'to plead', *waan*<sub>2</sub> 'to ask', *bǎk*<sub>2</sub> 'to order', and so forth. The object of the embedded verb *hây* is obligatory for these verbs. These verbs have manipulative verbal causative transitive verb homophones. Again, by the P2a Control Rule, *hây* finds its actor from the higher Patient *lék*.

(63)a.



Dang ordered Lek to make a cake. (lit. Dang ordered Lek to cause Lek to make a cake.)

(63)b.

\**Lék nà? dεεη sàη₂ hây lék tham khéek.*

Lek TOP Dang order cause Lek make cake

As for Lek, Dang ordered Lek to make a cake. (lit. Lek, Dang ordered to cause Lek to make a cake.)

(63)c.

\**Lék thiuk₅ dεεη sàη₂ hây lék tham khéek.*

Lek undergo Dang order cause Lek make cake

Lek was ordered by Dang to make a cake.

(63)d.

\**Dεεη sàη lék.*

Dang order Lek

Dang pleaded with Lek.

The verb *sàη₂* is analysed as a correspondent intransitive verb rather than a transitive one, because the noun phrase *lék* may not be topicalised, as shown in (63b), in contrast to an Accusative Patient of the homophonous transitive verb *sàη₃*, as shown in (64b), in §4.1.1.3.

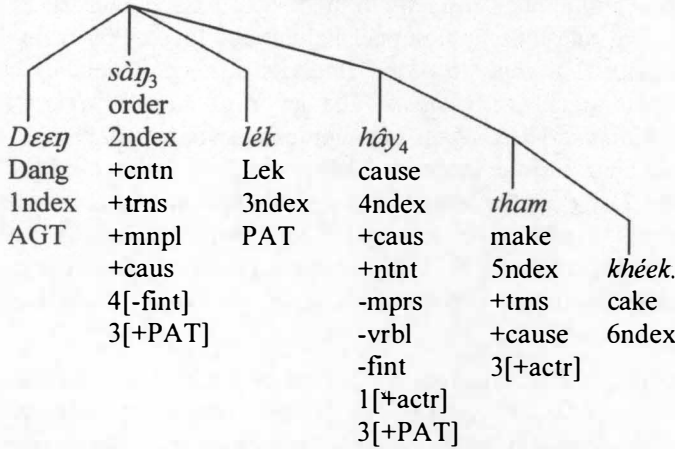
Supporting evidence for treating *sàη₂* as a correspondent intransitive verb is the fact that the verb *sàη₂* may not occur as the dependent of a continuing verb, such as *thiuk₅*, which are interpreted by the P2P rule, as shown in (63c) (as opposed to *sàη₃* in (64c) in the next subsection).

The embedded clause headed by *hây* is considered a complement because it is obligatory, as shown in the unacceptable (63d) without context.

#### 4.1.1.3 MANIPULATIVE VERBAL CAUSATIVE TRANSITIVE VERBS

Manipulative verbal causative transitive verbs require both Agent and Patient in their case frames. They include *sàη₃* 'to order', *khǎxǎη₃* 'to plead', *waan₃* 'to ask', *bǎk₃* 'to order', and so forth. The evidence for treating these verbs as transitive verbs stems from the fact that the missing object of *hây* is recovered by the P2P Control Rule, that the noun phrase *lék* can be topicalised, as in (64b), and that there is a related *thiuk* passive construction, as in (64c).

(64)a.

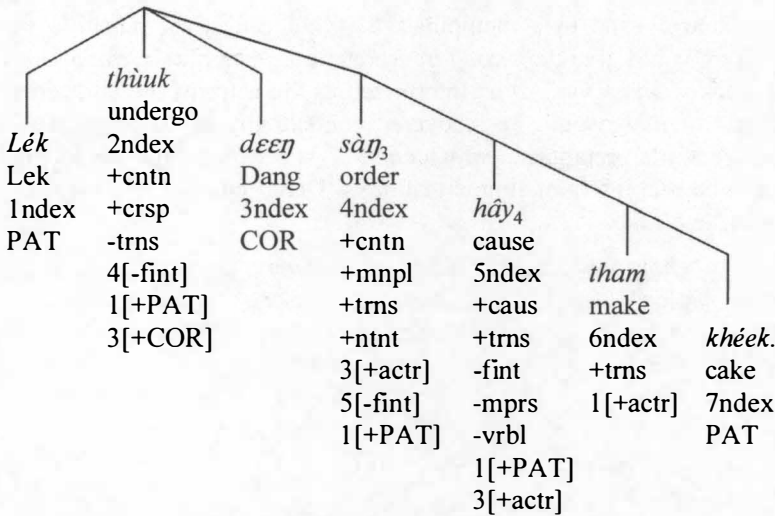


Dang ordered Lek to make a cake. (lit. Dang ordered Lek to cause (Lek) to make a cake.)

(64)b. *Lék nà? dɛɛŋ sàŋ<sub>3</sub> hây tham khéek.*

Lek TOP Dang order cause make cake  
 As for Lek, Dang ordered (her) to make a cake. (lit. Lek, Dang ordered to cause to make a cake.)

(64)c.



Lek was ordered by Dang to make a cake.

The Patient of the embedded *hây*<sub>4</sub> is always coreferential with the higher accusative Patient of the transitive manipulative verbal causative verb, in accordance with the P2P Control Rule demonstrated earlier in (44). Thus in (64a), the missing Patient of *hây*<sub>4</sub> must be coreferential with the higher Patient *lɛk* 'Lek'. *Dɛɛŋ* 'Dang', the closest available NP to the left, serves as its actor. The Regular Control Rule applies to the lower verb *tham* 'to make', since the higher verb *hây*<sub>4</sub> does not match the description of the P2P rule. Thus, *lɛk* 'Lek' is the actor of the lower verb. The fact that the noun phrase *lɛk* may be topicalised in example (64b) illustrates that the verb *sàŋ*<sub>3</sub> is transitive.

This P2P Control Rule still applies correctly in the related passive construction in (64c). First of all, by the chaining rule linking the upper Patient and lower Patient in the passive construction (see Appendix IV), *sàŋ*<sub>3</sub> ‘to order’ finds its missing Patient by copying the 1[+PAT] index from the regent verb *thiuk*. The actor of *sàŋ*<sub>3</sub> is *dεεŋ* ‘Dang’, the Correspondent actant of *thiuk*. Then, again in accordance with the P2P rule, the feature [?(+PAT)] in the lexical matrix of the embedded *hây*<sub>4</sub> copies the index of [1(+PAT)] from *sàŋ*. The other NP, *dεεŋ* ‘Dang’, is the actor of *hây*<sub>4</sub>, since there are only two actants in this sentence and *dεεŋ* ‘Dang’ is again the closest available NP to the left, which is a dependent of the regent verb *thiuk*. As in (64a), *lεk* ‘Lek’, which is the actor of the lower verb *tham* ‘to make’, is identified as the higher Patient of its regent verb *hây*<sub>4</sub> by the Regular Actor Rule.

When the object of *hây*<sub>4</sub> is different from the patient of the higher verb, the sentence is unacceptable. As shown in (65), the object of *hây* is *dεεŋ* ‘Dang’, while the object of the higher verb *khǎw*<sub>2</sub> ‘to plead’ is *phǎw* ‘father’. The sentence hence is ungrammatical because it violates the P2P rule.

- (65) \**Púk khǎw*<sub>2</sub> *phǎw hây*<sub>4</sub> *dεεŋ pay thiaw*.  
 Pook plead father cause Dang go travel  
 AGT +trns PAT +trns PAT  
 Pook pleaded with her father to allow Dang to go out.

Unlike the case of manipulative verbal causative intransitive verbs, the application of the Regular Actor Control Rule to a manipulative verbal causative transitive verb such as *khǎw*<sub>2</sub> in (66a) would give the wrong interpretation. Such a case would allow *chán* ‘I’, which is the object of *khǎw*<sub>2</sub>, to be interpreted as the actor of the embedded *hây*<sub>4</sub>. The unspecified object of *hây*<sub>4</sub> would be recovered contextually by the external linking rule, yielding an incorrect interpretation in which *chán* ‘I’ is causing some unspecified person to make a cake. The correct interpretation is that *dεεŋ* ‘Dang’ pleaded with *chán* ‘I’ and hence causes *chán* to make a cake.

- (66) a. *Dεεŋ khǎw*<sub>2</sub> *chán hây*<sub>4</sub> *tham khéek*.  
 Dang plead I cause make cake  
 1ndex 2ndex 3ndex 4ndex 5ndex 6ndex  
 AGT +cntn PAT +trns +trns  
 +mnpl -fint -fint  
 +trns \*3[+actr] \*x[+actr]  
 3[+PAT] \*x[+PAT]  
 4[-fint]  
 \*Dang pleaded with me to cause somebody to make a cake. (lit.)

- (66) b. *Dεεŋ khǎw*<sub>2</sub> *chán hây*<sub>4</sub> *tham khéek*.  
 Dang plead I cause make cake  
 1ndex 2ndex 3ndex 4ndex 5ndex 6ndex  
 AGT +cntn PAT +trns +trns  
 +mnpl -fint -fint  
 +trns 1[+actr] 3[+actr]  
 3[+PAT] 3[+PAT] 6[+PAT]  
 4[-fint]  
 Dang pleaded with me to make a cake. (lit. Dang pleaded with me to cause (me) to make a cake.)

To get the proper rule to apply for the correct interpretation, we need the convention that a more specific rule (the P2P rule) applies before a more general rule (the P2a rule). That is, if a form is eligible to undergo either the Regular Control Rule or the P2P rule, the latter, which specifically applies to continuing verbs, should apply first.

In (66b), the application of the P2P rule yields the correct coindexing. The missing Patient of *hây* is coreferential with the upper Patient *chán* 'I' according to the P2P Control Rule. The actor of *hây*<sub>4</sub>, on the other hand, is *dɛɛŋ* 'Dang', the closest available NP to the left of *hây*. The actor of the lower verb *tham* 'to make' is *chán*, the Patient of *hây*<sub>4</sub>, in accordance with the Regular Actor Control Rule.

#### 4.1.2 PERSONAL CAUSATIVE VERB *hây* EMBEDDED UNDER MANIPULATIVE RESULTATIVE VERBS

*Hây*<sub>4</sub> 'to cause, to make' may appear to be embedded under manipulative resultative verbs which designate a change in the state of the Patient. Verbs of this class may be divided into two subclasses: correspondent manipulative resultative intransitive verbs, as in (67), and manipulative resultative transitive verbs, as in (68). The verb in the lower clause is a stative verb. However, it is questionable whether this *hây* is even a verb and, if so, whether it is the same as the causative verb *hây*<sub>4</sub>.

- (67) *Kháw cà? kin<sub>3</sub> kúaytíaw hây<sub>4</sub> kúaytíaw môt.*  
 he will eat noodles cause noodles use.up  
 PAT +crsp COR  
 +caus  
 +mnpl  
 -trns

He will finish the noodles.

- (68) *Kháw cà? kin<sub>4</sub> kúaytíaw hây<sub>4</sub> môt.*  
 he will eat noodles cause use.up  
 AGT +caus PAT  
 +mnpl  
 +trns

He will finish the noodles.

Assuming that all verbs in Thai may appear as main verbs, if *hây* in (67) and (68) is a verb, then the embedded clause containing *hây* should be able to occur independently. Consider (69) and (70):

- (69) \**Kháw hây kúaytiaw môt.*  
 he cause noodles use.up  
 He finished the noodles.

- (70) \**Kháw hây môt.*  
 he cause use.up  
 He finished the noodles.

The forms *hây* in (69) and (70) may not appear as main verbs without context. Hence one might conclude that *hây* is not a verb in these constructions. However, this analysis in fact does consider *hây* in (67)-(68) to be a verb, not an adverb, for two reasons. First, *hây* in

(68) is similar to the causative *hây* discussed in the previous section in that it may take its own complement, namely *kuaytïaw* ‘noodles’. This is a major characteristic of a verb. An adverb, on the other hand, does not allow any dependent. Moreover, if *hây* were treated as an adverb, one would not be able to explain the presence of the second noun phrase *kuaytïaw* in (67), which is also a dependent of the regent verb *kin*<sub>3</sub>.

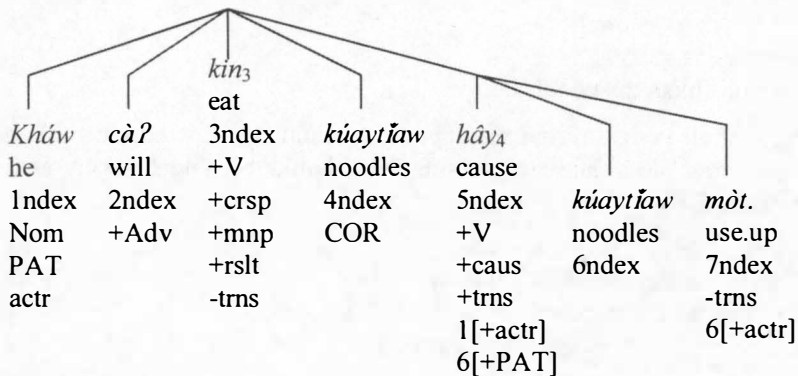
Second, the control rules for infinitival clauses, namely the upper and lower actor control rule (P2a) and the P2P rule, are applicable to the *hây* clause in these two constructions. These control chaining rules are applicable only to a verb and not to an adverb. As in the case of manipulative causative intransitive verbs, *hây* in (67) finds its missing actor from a higher Patient, following the P2a Control Rule. *Hây* in (68), on the other hand, allows its missing object to be coreferential with the Patient of a higher verb in accordance with the P2P rule, as in the case of manipulative causative transitive verbs. Moreover, since these rules are control rules for infinitival complements, this analysis suggests that the *hây* clauses in (67) and (68) are complements.

Because of the similarities between *hây* in (67) and (68) and the causative transitive *hây*<sub>4</sub> discussed in §4.1.1, this analysis concludes that *hây* in (67) and (68) and the causative verb *hây*<sub>4</sub> discussed in §4.1.1, are the same lexical entry, namely the personal causative transitive verb. This conclusion is determined by the ability of *hây* in (67) and (68) to take its own complement and to undergo the control rules for complements. However, the fact that *hây* in these constructions may not appear in a corresponding main verb position, while all other embedded verbs can, remains unexplained. Further study of this construction may shed some light on the matter.

In parallel to the analysis of manipulative verbal causative verbs, manipulative resultative verbs can be syntactically divided into two classes: correspondent manipulative resultative intransitive verbs and manipulative resultative transitive verbs, depending on which control rule is applied to each construction. The tree structures of (67) and (68) are shown in (67'a) and (68'a), respectively.

**Correspondent Manipulative Resultative Intransitive Verbs**

(67'a).



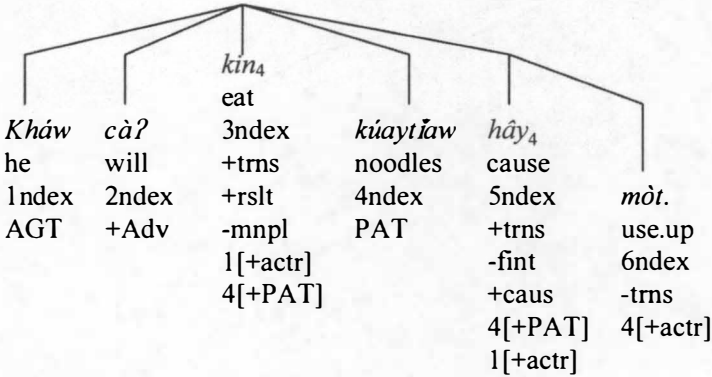
He will finish the noodles.

- b. \**Kuaytïaw nà? kháw cà? kin hây kuaytïaw mòt.*  
 noodles TOP he will eat cause noodles use.up  
 As for noodles, he will finish them.

In (67'a), the verb *kin* is analysed as a corresponding manipulative resultative intransitive verb because its object *kúaytǎw* cannot be topicalised. The embedded verb *hây* finds its missing actor from the higher Patient *kháw* according to the Regular Actor Control Rule (P2a). Similarly, the lower verb *mòt* finds *kúaytǎw* as its higher Patient. Now consider the manipulative resultative transitive verb *kin* in (68'a) and (68'b).

**Manipulative Resultative Transitive Verbs**

(68'a).



He will finish the noodles.

- b. *Kúaytǎw nà? kháw cà? kin<sub>4</sub> háy<sub>4</sub> mòt.*  
 noodles TOP he will eat cause use.up  
 As for noodles, he will finish them.

Unlike *kin*<sub>3</sub> in (67'a), *kin*<sub>4</sub> in (68'a) can occur in a topicalised construction, as shown in (68'b). Therefore, this study considers *kin* in (68'a) to be a transitive verb. The embedded verb *hây* finds its missing Patient from the higher Patient *kúaytǎw* 'noodles', written as [4[+PAT]], in accordance with the P2P Control Rule. The NP *kháw* 'he' is interpreted as the actor of the causative verb *hây* because *kháw* 'he' is the closest available nominal to the left.

Now consider the *hây* clause in the following sentences.

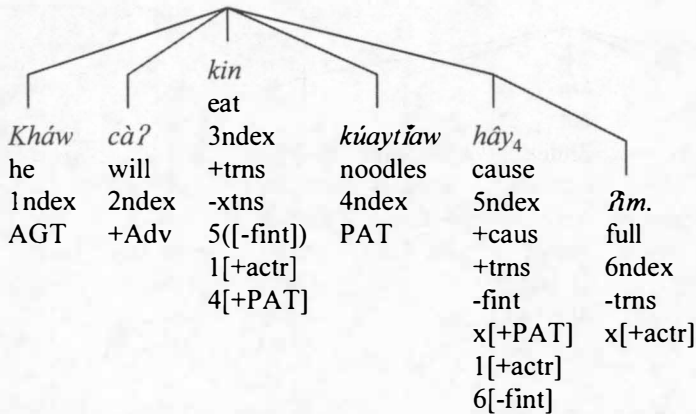
- (71) *Kháw cà? kin<sub>1</sub> kúaytǎw háy<sub>4</sub> ðm.*  
 he will eat noodles cause full  
*He will eat the noodles until he is full.*
- (72) *Kháw cà? kin<sub>1</sub> kúaytǎw háy<sub>4</sub> tua?εεη ðm.*  
 he will eat noodles cause self full  
*He will eat the noodles until he is full.*

The verb *kin*<sub>1</sub> in (71) and (72) is a non-extension transitive verb. It does not require the presence of a dependent non-finite verb complement. Hence, the clauses introduced by *hây*<sub>4</sub> in (71) and (72) are infinitival adjuncts. The actor of *hây*<sub>4</sub> in (71) and (72) is interpreted as the higher actor *kháw* 'he' in accordance with the control rule for infinitival adjuncts.

The missing Patient of *hây*<sub>4</sub> in (71) is a null anaphor recovered by the external linking rule in (56), which assigns the arbitrary index x to [?(+PAT)]. Grammatically, the x index which is written as 'xndex' could be interpreted as anyone; however, one cannot make anyone else full by eating food. Pragmatic considerations thus narrow the interpretation of the subject of *ðm* to *kháw*. Then if *kháw* is the actor of *ðm*, it must, by the Regular Actor

Control Rule, be coreferential to the object of *hây*. Since the actor and the Patient of *hây* are coreferential with the same word, the object can be expressed only as a reflexive. This interpretation is supported when the reflexive pronoun *tuaʔeeŋ* 'self' is present, as in (72). Example (71) is rewritten with the tree structure in (71'). The optionality of a non-finite clause introduced by *hây* is shown by the parentheses [5([-fint])] on the lexical matrix of *kin*<sub>1</sub>.

(71')



He will eat the noodles until he is full.

An alternative analysis for *hây* in (67), (68), (71) and (72) could be that *hây* is an adverb, which would explain why *hây* may not appear as a main verb. In such an analysis, *hây* and the following noun in (67) and (72) could not form a constituent in Lexicase. However, the second *kúaytǎw* 'noodles' in (67) could then not occur as a sister of the head verb *kin* 'to eat', since that would make it a clausemate of a coreferential noun, the first *kúaytǎw*, violating the binding requirement that a noun must be free. The second *kúaytǎw* 'noodles' would instead have to be treated as the subject of the lower verb *mòt* 'use up'. That is, the lower verb would be a finite verb. However, the reflexive pronoun *tuaʔeeŋ* in (72) cannot be treated in the same way. A reflexive in Thai, as in most languages, needs an antecedent in the same clause; and therefore *tuaʔeeŋ* cannot be the subject of the lower verb *ʔm* 'to be full'. It must occur as a sister dependent of the verb *kin* 'to eat' in order to be bound with the subject *kháw* 'he'. The drawback of this alternative analysis is that not only does one need two different structures for the two sentences, but also one more often finds cognitive verbs such as *rúu* 'to know' and *bòk*<sub>1</sub> 'to tell', rather than action verbs such as *kin* 'to eat', followed by a finite verb. Thus, the verb analysis is preferable.

In short, I have demonstrated that there is a single personal causative transitive verb *hây*<sub>4</sub> which may appear in an embedded clause as a complement or as an adjunct. As in Kullavanijaya (1974), the analysis presented here treats the causative *hây*<sub>4</sub> and the ditransitive verbs *hây* 'to give' as distinct lexical entries because of their differences in meaning and distribution.

#### 4.2 IMPERSONAL CAUSATIVE TRANSITIVE VERB *hây*<sub>5</sub>

Impersonal verbs are verbs which do not allow referential subjects in their subcategorisation frame. In this paper *hây*<sub>5</sub> 'to let' is analysed as an extension impersonal causative transitive verb requiring a non-finite verb complement. This section discusses two

functions of the impersonal causative verb *hây*<sub>5</sub>: as a marker for the third person imperative construction and as a complementiser.

#### 4.2.1 IMPERSONAL CAUSATIVE TRANSITIVE VERB *hây*<sub>5</sub> FUNCTIONING AS AN IMPERATIVE FOR THE THIRD PERSON

Semantically, *hây*<sub>5</sub> 'to let' shows a speaker's indifference regarding the performance or non-performance of a third person's act. Consider (73a) and (73b).

- (73)a. *Hây*<sub>5</sub> *khruu maa ciŋciŋ thəʔ?*  
 let teacher come true PRT  
 +caus +V  
 +mprs -fint  
 +trns  
 +xtns  
 Let the teacher really show up.

- b. \**Thəʔ hây*<sub>5</sub> *khruu maa ciŋciŋ thəʔ?*  
 you let teacher come true PRT  
 You let the teacher really show up.

*Hây*<sub>5</sub> in example (73a) implies indifference or defiance. Whether or not the action indicated in the *hây* clause takes place will have no effect on the speaker. The insertion of the second person pronoun subject *thəʔ* changes the grammaticality of the sentence, as illustrated in (73b). This incidence suggests that *hây*<sub>5</sub> in example (73a) is an impersonal causative verb. Now consider the same *hây*<sub>5</sub> in another example:

- (74) *Hây*<sub>5</sub> *kháw khəʔy pay siʔ?*  
 let he wait thither PRT  
 +trns  
 +caus  
 +mprs  
 Let him wait!

Sentence (74) may have another interpretation in which *hây* is the personal causative transitive verb *hây*<sub>4</sub> (see §4.1). In this case, it allows a subject insertion, as shown in (75).

- (75) *Thəʔ hây*<sub>4</sub> *kháw khəʔy pay siʔ?*  
 you cause he wait thither PRT  
 +caus  
 +trns  
 -mprs  
 You let him wait.

In other words, the impersonal causative *hây*<sub>5</sub> and the personal causative *hây*<sub>4</sub> differ only in that the latter allows a referential subject and the former does not. Another piece of supporting evidence for positing the impersonal causative *hây*<sub>5</sub> as a separate lexical entry is the fact that only *hây*<sub>5</sub>, and no other Thai verb, allows third person imperatives. Consider (76).

- (76) *Khəəy dīaw ná?*  
 wait soon how.about  
 How about (you) waiting for a moment?

This sentence has only one interpretation: a speaker asks the hearer to wait. There is no interpretation such that the speaker would ask the second person to cause a third party to wait. The difference between *hây*, in (74) and (75), and other verbs, leads us to the conclusion that *hây*<sub>5</sub> in (74) is lexically marked as impersonal and deserves a separate lexical entry.

#### 4.2.2 IMPERSONAL CAUSATIVE VERB *hây* FUNCTIONING AS A COMPLEMENTISER

*Hây*<sub>5</sub> ‘to let’ may introduce a clause in complex sentences, which suggests that this *hây* is a conditional complementiser.

- (77) a. *Hây*<sub>5</sub> *khruu maa ciŋciŋ chán kɔɔ mây klua.*  
 let teacher come really I also not fear  
 Given the teacher really showing up, I am not afraid.
- b. \**Thəə hây*<sub>5</sub> *khruu maa ciŋciŋ chán kɔɔ mây klua.*  
 you let teacher come true I also not fear  
 Given the teacher really showing up, I am not afraid.

This analysis considers the form *hây* in (77a) to be the impersonal verb *hây*<sub>5</sub> functioning as a complementiser, not as a personal verb or a preposition. This decision is based on the following arguments. As with a verb in general, *hây* in (77a) may appear as a free verb in a root causative sentence, as shown earlier in (73a). Moreover, *hây* in (77a) does not allow the insertion of a subject, as shown in the ungrammatical (77b).

Note that (77b) would be acceptable if the form *hây* were the personal causative transitive verb *hây*<sub>4</sub> ‘cause’ cooccurring with the complementiser *méewáa* ‘even if’, as shown in (78).

- (78) *Méewáa thəə hây*<sub>4</sub> *khruu maa ciŋciŋ chán kɔɔ mây klua.*  
 even.if you cause teacher come true I also not fear.  
 Even if you really make the teacher show up, I am not afraid.

The contrast in the ability of (77a) and (78) to allow the presence of a subject shows that the form *hây* in (77) and in (78) are two separate lexical items. While *hây*<sub>4</sub> in (78) is a personal verb, *hây*<sub>5</sub> in (77) is an impersonal verb functioning as a complementiser, introducing a concessive clause in a complex sentence.

Due to this parallel in interpretation between (73) and (77), the form *hây* in these two constructions is considered to be the same impersonal causative *hây*<sub>5</sub>. This semantic evidence however, does not provide conclusive evidence that *hây* in (77a) is an impersonal verb. An alternative analysis might be that it is a preposition functioning as a complementiser. The preposition *méewáa* ‘even if’ in (79), like *hây* in (77a), allows the main clause to take a consequence aspect such as *kɔɔ* ‘also’. Since *méewáa*, which occurs in the same syntactic position, is a preposition, by analogy one might analyse *hây* as a preposition. The possibility that *hây* in constructions such as (77a) might better be analysed as a preposition is left open for further study.

- (79) *Méewâa khruu maa cijcij chán kôô mây klua.*  
 even.if teacher come true I also not fear  
 Even if the teacher shows up, I am not afraid.

## 5 ADVERB *hây*<sub>6</sub>

This section will investigate the form *hây*<sub>6</sub> which appears in the frame:

NP V [+trns] NP \_\_\_ (NP)

in which the regent verb is a transitive verb and the noun following *hây* may be omitted contextually, as shown in the (a) and (b) examples of (80) and (81).

- (80)a. *Nídaa thĕĕ krapăw hây<sub>6</sub> wiinaa.*  
 Nida carry bag for Weena  
 Nida carried a bag for Weena.
- b. *Nídaa thĕĕ krapăw hây<sub>6</sub>.*  
 Nida carry bag for  
 Nida carried a bag for (someone).
- (81)a. *Nídaa khăay krapăw hây<sub>6</sub> deej.*  
 Nida sell bag to Dang  
 Nida sold a bag to Dang.
- b. *Nídaa khăay krapăw hây<sub>6</sub>.*  
 Nida sell bag to  
 Nida sold a bag to (someone).

*Hây* in (80) carries a benefactive meaning 'for'. In (81), *hây* is interpreted as a direction towards a goal, which may be equivalent to the English 'to'. In the following sections, different tests are applied to determine the status of the form *hây*<sub>6</sub>.

### 5.1 TESTS FOR THE SYNTACTIC CATEGORY OF *hây*<sub>6</sub>

Various tests may be applied to determine the status of the form *hây*<sub>6</sub>, which may appear in the frame: NP V NP \_\_\_ NP, in comparison with the characteristics of a verb, a preposition, and an adverb. To begin, let us examine verbs, prepositions, and an adverb representing each category. The two verbs taken as verb models are *tòk* 'to fall' and *cèek* 'to distribute', as shown in (82) and (83).

- (82) *Kháw plàk dèk tòk lŭm nán.*  
 he push child fall pit that  
 He pushed a child down into that pit.
- (83) *Deej sĕĕ<sub>2</sub> khanŏm cèek dèkdèk.*  
 Dang buy sweets distribute children  
 Dang bought sweets to distribute to the children.

Two of the least controversial prepositions, *kàp* 'with' and *phĕa* 'for', have been selected to represent the characteristics of prepositions, as shown in (84) and (85). These two prepositions synchronically do not have corresponding verbs in the language.

- (84) *Dεεγ khuy ríaγ níi kàp lék.*  
 Dang talk story this with Lek  
 Dang talked about this matter with Lek.
- (85) *Phộ́ thamγaan nàk phía lúuk.*  
 father work heavy for offspring  
 A father works hard for his children.

Most adverbs in Thai are not followed by a noun. However, there exists an adverb *wáy* 'lying', which may or may not be followed by a locational noun, as shown in (86a) and (86b).

- (86) a. *Kháw thíγ náγsǎ́ wáy.*  
 he abandon book lying  
 He left a book.
- b. *Kháw thíγ náγsǎ́ wáy bāan nán.*  
 he abandon book lying house that  
 +lctn  
 He left a book at that house.

The status of the word *wáy* 'lying' is controversial. It could be argued that *wáy* is a preposition. However, I consider *wáy* to be an adverb for the reason that it fails to show the characteristics of verbs and prepositions in the tests presented in this paper (to be illustrated in the next section). Therefore, I treat *wáy* as an adverb cooccurring with the regent verb *thíng* 'to abandon'.

The four tests used to examine the status of *háy* in (80a) and (81a) are: the free-verb test, the number-of-actions test, the topicalisation of *háy* together with the following NP, and the topicalisation of the NP after the form *háy*. Since *háy* in (80b) and (81b) is not followed by a noun, only the first two tests are applicable.

If *háy* in these constructions is a verb, it should be able to occur as a free verb while maintaining the meaning and syntactic restrictions it carried in (80) and (81). Furthermore, the NP after *háy* should be topicalisable, while *háy* together with the following NP should not. Moreover, there should be more than one action implied by the sentence. If *háy*<sub>v</sub> is a preposition, as claimed in previous analyses (Dejthamrong 1970, Kullavanijaya 1974), then the NP after *háy* should not be independently topicalisable, but rather *háy* with the following NP should form a PP constituent which can be topicalised. In addition, *háy* should not be stranded at the end of the sentence. If *háy*<sub>v</sub> is an adverb of the same class as

8 The adverb *cà?* test exemplified in (51) and (52) in §3 yields only a one-way implication: an element immediately dominated by *cà?* is a verb. However, not all verbs may cooccur with *cà?*. For example, the presence of *cà?* before the verb *tham* is unacceptable.

\**supriya háy chán cà? tham khanǎm.*  
 Supriya cause I will make sweets  
 +V

Supriya made me make sweets.

Since *háy* in (80) and (81) does not allow the presence of *cà?*, this test is not a reliable criterion for determining the verbal status of *háy* in these constructions.

*wáy* 'lying', *hây* together with the following NP should not be topicalisable, since they do not form a PP constituent, while the NP after *hây* should be topicalisable (see §§5.1.1–5.1.4 for discussion). A summary of the results of these tests is shown in Table 1.

TABLE 1: THE RESULT OF THE TESTS FOR THE STATUS OF *hây*

	Free Verb	Number of Actions	Phrase Topicalisation	Toicalisation of NP
Preposition	-	1	+	-
Verb	+	2	-	+
Adverb <i>wáy</i>	-	1	-	+
<i>hây</i> in (80a)	-	1	-	+
<i>hây</i> in (80a)	-	1	-	+
<i>hây</i> in (81b)	-	1	N/A	N/A
<i>hây</i> in (81b)	-	1	N/A	N/A

The summary table shows that the free-verb test and the number-of-actions test agree that *hây* in (80) and (81) could be either an adverb or a preposition but not a verb. *Hây* with the following NP cannot be topicalised, as in the situation with a verb or an adverb, while the NP after *hây* may be topicalised, as with the NP occurring after a verb and after the adverb *wáy*.

#### 5.1.1 THE FREE-VERB TEST

Only a verb, but not a preposition or an adverb, may appear as a free verb representing a valid sentence.

- (87) *Dèk tòk lǔm nán.*  
child fall pit that  
A child fell into that pit.
- (88) *Dεεη cèek dèkdèk.*  
Dang distribute children  
Dang distributed (something) to the children.
- (89) \**Dεεη káp lék.*  
Dang with Lek  
Dang with Lek.
- (90) \**Phôô phâa lúuk.*  
father for offspring  
Father for children.
- (91) \**Kháw wáy bâan nán.*  
he lying house that  
He lying at that house.

Since *wáy* may not appear as a free verb in (91), this test supports the proposition that *wáy* is not a verb. If *hây* in the (a) and (b) examples of (80) and (81) is a verb, it should be able to appear as a free verb independently while preserving the meaning of *hây* in (80) and (81).

- (92)a. *Nidaa hây<sub>6</sub> wiinaa.*  
 Nida for Weena  
 \*Nida for Weena.
- b. *Nidaa hây<sub>6</sub>.*  
 Nida for  
 \*Nida for.
- (93)a. *Nidaa hây<sub>6</sub> dεεŋ.*  
 Nida to Dang  
 \*Nida to Dang.
- b. *Nidaa hây<sub>6</sub>.*  
 Nida to  
 \*Nida to.

The fact that *hây<sub>6</sub>* in (92) and (93) cannot maintain the benefactive meaning 'for' or the directional meaning 'to' when appearing as a main verb indicates that *hây* in (80) and (81) is not a verb. *Hây* in these constructions is acceptable only when interpreted as 'to give'.

#### 5.1.2 THE NUMBER-OF-ACTIONS TEST

Li and Thompson (1973:176) have claimed that a sentence which contains more than one action should contain more than one verb. Although such subjective tests are not always reliable, it is apparent to Thai speakers that only (82) and (83) represent two actions, since both sentences contain a pair of verbs, *plàk* 'to push' and *tòk* 'to fall', and *s#<sub>2</sub>* 'to buy' and *cék* 'to distribute', respectively. On the other hand, sentences (84) and (85), containing the prepositions *kàp* 'with' and *pháa* 'for', and sentence (86), containing the adverb *wáy* 'lying', express only one action. If *hây* in (80) and (81) is a verb, the sentences should denote more than one action. In these examples, to carry a bag for someone in (80) and to sell a bag to someone in (81) reflect only one action. Thus, the number-of-actions test provides a piece of supporting evidence that *hây* in (80) and (81) is not a verb.

#### 5.1.3 THE TOPICALISATION OF *hây<sub>6</sub>* TOGETHER WITH THE FOLLOWING NP

While prepositional phrases may be topicalised, as in (94) and (95), verbs plus their objects may not be topicalised together, as shown in (96) and (97).

- (94) *Kàp lék nà? dεεŋ khəəy khuy ríəŋ nī.*  
 with Lek TOP Dang ever talk story this  
 With Lek, Dang talked about this matter. (lit.)
- (95) *Pháa lúuk phō thəmŋaan nək.*  
 for offspring father work heavy  
 For their children fathers work hard. (lit.)
- (96) *\*Tòk lum nán kháw plàk dək.*  
 fall pit that he push child  
 Into that pit, he pushed a child down. (lit.)

- (97) \**Cèek dèkdèk dɛɛŋ sɨ̌<sub>2</sub> khanǒm.*  
 distribute children Dang buy sweets  
 To distribute to the children, Dang bought sweets. (lit.)

Consider the topicalisation of *wáy* together with the following NP in (98).

- (98) \**Wáy bâan nán kháw thǐŋ náŋsǎi.*  
 lying house that he abandon book  
 At that house, he left a book. (lit.)

Unlike a prepositional phrase, *wáy* with the following NP cannot be topicalised together. This supports our claim that *wáy* is not a preposition. Similarly, the unsuccessful topicalisation of *hây* plus the following NP in (99) and (100) show that *hây* in (80) and (81) does not have the characteristic of a preposition in Thai. This test shows that *hây* behaves like a verb and like an adverb.

- (99) \**Hây<sub>6</sub> wiinaa nídaa thǎi krapǎw.*  
 for Weena Nida carry bag  
 For Weena, Nida carried the bag.
- (100) \**Hây<sub>6</sub> dɛɛŋ nídaa khǎy krapǎw.*  
 to Dang Nida sell bag  
 To Dang, Nida sold the bag.

#### 5.1.4 THE TOPICALISATION OF NP AFTER *hây<sub>6</sub>*

Examples (101) and (102) show that prepositions in Thai cannot be stranded and do not allow the following NP to be topicalised.

- (101) \**Lék nà? dɛɛŋ khuy rǐaŋ ní kàp bǎy bǎy.*  
 Lek TOP Dang talk story this with often  
 As for Lek, Dang often talks with (her) about this matter.
- (102) \**Lúuk nà? phǎw thamŋaan nàk pháa.*  
 offspring TOP father work heavy for  
 As for children, fathers work hard for (them).

Examples (103), (104), and (105) show that NP occurring after verbs and the adverb *wáy* 'lying' may be topicalised. Both the verbs and the adverb *wáy* may be stranded.

- (103) \**Lǔm nán nà? kháw khǎy plàk dèk tòk.*  
 pit that TOP he ever push child fall  
 As for that pit, he once pushed a child down (into it).
- (104) \**Dèkdèk nà? dɛɛŋ sɨ̌<sub>2</sub> khanǒm cèek.*  
 children TOP Dang buy sweets distribute  
 As for the children, Dang bought sweets to distribute (to them).
- (105) \**Bâan nán nà? kháw thǐŋ náŋsǎi wáy.*  
 house that TOP he abandon book lying  
 As for that house, he left a book (there).

Unlike NP after prepositions, the NP after *hây<sub>6</sub>* may be topicalised, similar to the NP after verbs and the adverb *wáy*.

- (106) *Wiinaa nà? nídaa thǎi krapǎw háy<sub>6</sub>.*  
 Weena TOP Nida carry bag for  
 As for Weena, Nida carried the bag for (her).
- (107) *Deɛŋ nà? nídaa khǎy krapǎw háy<sub>6</sub>.*  
 Dang TOP Nida sell bag to  
 As for Dang, Nida sold the bag to (her).

## 5.2 ANALYSIS OF *háy<sub>6</sub>*

The results of the four tests agree that *háy* in (80) and (81) behaves like the adverb *wáy*, rather than like a verb or a preposition. Verbs and prepositions are counterindicated by two tests. The free-verb test and the semantic test show that *háy* in (80) and (81) is not a verb. Furthermore, the topicalisation of the NP after *háy<sub>6</sub>* and the impossibility of topicalising *háy<sub>6</sub>* with the following NP rule out the possibility that *háy<sub>6</sub>* is a preposition.

The present analysis considers *háy* in both the (a) and (b) examples of (80) and (81) to belong to a single class of adverb, for the following reasons. First, since verbs in Thai have the potential to occur as free verbs, that is as main verbs of independent clauses, the inability of *háy<sub>6</sub>* to appear as a free verb, demonstrated in (92) and (93), provides a strong piece of evidence that *háy* in (80) and (81) is not a verb. This claim is supported by the number-of-actions test. Second, in Lexicase, a preposition always needs a dependent cohead in an exocentric construction. If *háy<sub>6</sub>* were a preposition, then *háy<sub>6</sub>* together with the following NP should form a PP constituent and permit topicalisation. In contrast, examples (99) and (100) illustrate that *háy* and the following noun phrase cannot be topicalised together. Third, although a preposition cannot be stranded, as shown in (101) and (102), *háy* in (80) and (81) may be left stranded, as shown in (106) and (107), indicating that *háy* is not a preposition. Finally, all of the four tests demonstrate that *háy* exhibits the same characteristics as the adverb *wáy*.

Furthermore, our claim that *háy* in (80) and (81) is an adverb also allows us to explain why the NP after *háy* may be left out when the context is given, in contrast with the NP after a preposition in Thai, which may not be omitted. This claim is further supported by the analysis of the benefactive *gei* 'for' in Chinese, *cho* 'for' in Vietnamese, and *hir* 'for' in Tai Nung, which have the corresponding verb 'to give' and which have been analysed as derived adverbs when they appear without the presence of a following noun (Starosta (1985:224) for Chinese, and Clark (1992:146–147) for Vietnamese and Tai Nung).

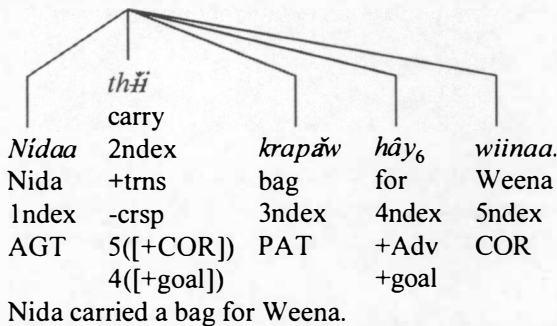
*Háy* in (80) and in (81) shows similarities in distribution, as discussed. I shall claim further that the form *háy* in these two constructions belongs to a single lexical entry *háy<sub>6</sub>*, despite the differences in interpretation. The difference in interpretation between (80) and (81) is governed by the difference in the classes of the regent verbs. When *háy<sub>6</sub>* appears with correspondent ditransitive verbs such as *khǎy<sub>2</sub>* 'to sell', *sǎn<sub>2</sub>* 'to teach', and *mǎp* 'to

<sup>9</sup> This is analogous to the analysis of case inflection systems. The same case inflection may encode different meanings, depending on the verb or preposition with which it cooccurs, and no one would propose setting up distinct case inflection categories for different functions.

deliver', it is interpreted as a direction towards a goal, corresponding to the English 'to'. Conversely, when it appears with non-correspondent transitive verbs such as *síi*<sub>1</sub> 'to buy', *thĕĕ* 'to carry', *khăy*<sub>1</sub> 'to sell', and *sŏm*<sub>1</sub> 'to teach', it carries the meaning of a benefactive action towards a goal and is interpreted as 'for'. Thus the adverb *hây*<sub>6</sub> is represented by the localistic feature [+goal]. Moreover, as illustrated in (99) and (100), *hây* and the following noun phrase do not form a constituent which can be topicalised together. This analysis hence considers the two elements to be grammatically independent of each other.

Since *hây*<sub>6</sub> behaves similarly in the two examples for each group (80) and (81), I will discuss only the constructions (80a) and (81a) in this section. Illustration (108) shows the tree structure of the clause containing the non-correspondent transitive verb *thĕĕ* 'carry'. *Thĕĕ* allows but does not require the presence of the adverb *hây* 'for' and the following correspondent noun *wiinaa* 'Weena', shown by the parentheses [4([+goal])] and [5([+COR])] on the governing verb *thĕĕ*. That is, *hây* and *wiinaa* are both considered to be independent adjuncts of *thĕĕ*.

(108)



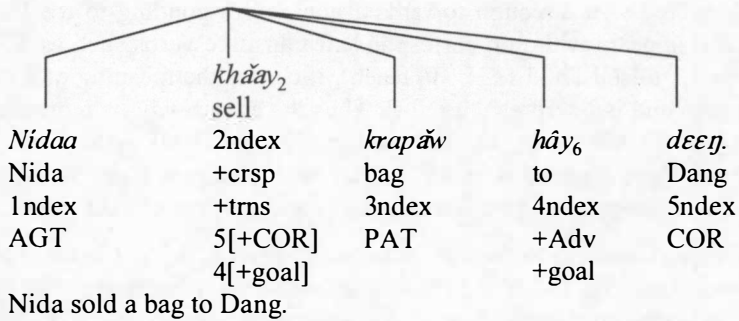
Unlike other adjuncts, *hây*<sub>6</sub> 'for' is needed to disambiguate a benefactive interpretation from a possessive interpretation. *Hây*<sub>6</sub> cannot be omitted if the benefactive interpretation is to be maintained, as illustrated in (109). In other words, *hây*<sub>6</sub> in (80a) and (108) is obligatory due to semantic interference.

- (109) *Nidaa thĕĕ krapăw wiinaa.*  
 Nida carry bag Weena  
 \*Nida carried a bag for Weena.  
 Nida carried Weena's bag.

The tree structure of a sentence containing the correspondent ditransitive verb *khăy*<sub>2</sub> 'to sell', which expects the cooccurrence of *hây*<sub>6</sub>, is shown in (110). In other words, *hây* and the following NP in this structure are complements of *khăy*<sub>2</sub> 'to sell'.<sup>10</sup>

<sup>10</sup> Besides this correspondent ditransitive verb *khăy*<sub>2</sub>, there is another correspondent ditransitive *khăy*<sub>3</sub>, which may cooccur with the preposition *kĕĕ* 'to' and an optional adverb *hây*<sub>6</sub> indicating goal, as shown in the following examples (a) and (b).

(110)



There are two pieces of evidence supporting the claim that *hây*<sub>6</sub> and the following NP cooccurring with correspondent ditransitive verbs are complements, while *hây* and the following NP cooccurring with non-correspondent transitive verbs are adjuncts.

First, the goal adverb *hây*<sub>6</sub> cannot appear with the non-correspondent verb *s#*<sub>1</sub> 'to buy' to give the interpretation 'to'. This is shown in the unacceptable interpretation of (111).

- (111) *Nidaa yìp*<sub>1</sub> *krápǎw hây*<sub>6</sub> *dεεŋ*.  
 Nida pick.up bag to Dang  
 \*Nida picked up a bag to Dang.

Second, only the directional *hây*<sub>6</sub> may occur closer to the head, as in (112). Sentence (113) shows that the first *hây* can only be interpreted as the goal direction and not as the benefactive. This analysis suggests that the directional *hây*<sub>6</sub> is a complement, while the benefactive *hây*<sub>6</sub> is an adjunct.

- (112) *Chán mɔɔp dɔɔkmáay chɔɔ nán hây*<sub>6</sub> *khruuyàŋ hây*<sub>6</sub> *khruu lééw*.  
 I deliver flower bunch that to principal for teacher already  
 I have already delivered that bouquet of flowers to the principal for the teacher.
- (113) *Chán mɔɔp dɔɔkmáay chɔɔ nán hây*<sub>6</sub> *khruu hây*<sub>6</sub> *khruuyàŋ lééw*.  
 I deliver flower bunch that teacher for principal already  
 \*I have already delivered that bouquet of flowers for the teacher to the principal.  
 I have already delivered that bouquet of flowers to the teacher for the principal.

Furthermore, the goal adverb *hây*<sub>6</sub> may occur with non-correspondent non-causative affect transitive verbs, such as *dù?* 'to reproach', and *tii* 'to hit', as in (114). In this case, the

- 
- a. *Nidaa khǎ̃y*<sub>3</sub> *krápǎw hây*<sub>6</sub> *kéε chán*.  
 Nida sell bag to to I  
 1ndex 2ndex 3ndex 4ndex 5ndex 6ndex  
 AGT +trns +Adv +P COR  
 +crsp +goal +goal  
 5[+goal]  
 6[+COR]  
 4([+goal])  
 Nida sold a bag to me.
- b. *Nidaa khǎ̃y*<sub>3</sub> *krápǎw kéε chán*.  
 Nida sell bag to I  
 Nida sold a bag to me.

sentence has a malefactive interpretation. The form *hây* does not precede a noun, and can be omitted, as shown in (115).

(114) *Dǎw chán cà? tii thəə hây<sub>6</sub>*  
 soon I will hit you  
 Any minute now, I will hit you.

(115) *Dǎw chán cà? tii thəə*  
 soon I will hit you  
 Any minute now, I will hit you.

When *hây* in (114) is followed by a noun, it is interpreted as benefactive, as in (116).

(116) *Dǎw chán cà? tii thəə hây<sub>6</sub> mĕĕ.*  
 soon I will hit you for mother  
 For mother's sake, I will hit you any minute now.

Because of the complementary distribution between the interpretation of the form *hây* in (114) and (116), the form *hây* in both sentences is considered to be the same lexical item *hây<sub>6</sub>*. The differences in meaning may be attributed to pragmatic usage of the verb in each sentence. The goal adverb *hây<sub>6</sub>* is interpreted as malefactive when it occurs with verbs which are perceived as unfavourable. Such verbs are, for example, *kàt* 'to bite', *tii* 'to hit', *dǔi* 'to reproach' *dàa* 'to scold', *kròot* 'to be angry', and *yĕĕŋ* 'to snatch'. *Hây<sub>6</sub>* may also occur with verbs which do not carry unfavourable meanings by themselves, such as *cùup* 'to kiss', if the action is perceived as threatening or destructive.

In short, the form *hây* in (80) and (81) is shown to be a single word, namely an adverb *hây<sub>6</sub>* indicating a goal. This *hây<sub>6</sub>* may appear with non-correspondent transitive verbs to carry the benefactive meaning, as in (80) and (116), or the malefactive meaning, as in (114), in which case it marks an adjunct. When *hây<sub>6</sub>* cooccurs with a correspondent ditransitive verb, it carries a directional meaning and is a complement. *Hây<sub>6</sub>* cooccurring with correspondent ditransitive verbs may carry the benefactive meaning only if there is an additional form *hây* bearing the directional interpretation.

Claiming that *hây<sub>6</sub>* cooccurring with an optional noun is an adverb is somewhat counterintuitive when seen from the perspective of English grammar. However, as shown in earlier tests, the form *hây* in (80) and (81) fails to exhibit the prominent characteristics of prepositions and verbs. Thus, the adverb analysis is the most preferable one, linguistically. It is, however, possible that this adverb *hây<sub>6</sub>* is derived from prepositions (Clark: pers. comm.). An alternative analysis which assumes that *hây* could be a transitive preposition when it is followed by a noun and an intransitive preposition when the following noun is not present (see Emonds 1976:172) is ruled out here, because to formalise such an analysis within the constrained theory of Lexicase is not possible.

## 6. CONCLUSION

This study concludes that there are altogether six different homophonous forms of *hây* in Thai. There are three homophonous ditransitive verbs *hây*: *hây<sub>1</sub>* requires two bare noun phrases as complements; *hây<sub>2</sub>* takes a bare noun phrase and a prepositional phrase as complements; *hây<sub>3</sub>* requires two bare noun phrases and a verb complement. The two causative verbs, namely the personal causative verb *hây<sub>4</sub>* and the impersonal causative verb

*hây<sub>5</sub>*, differ in their ability to allow a subject. Moreover, *hây<sub>5</sub>* implies the speaker's indifference to or defiance of the action of a third person. Finally, *hây<sub>6</sub>*, of the benefactive meaning 'for' and of the directional meaning 'to', is considered to be a single lexical entry of the adverb category because it fails to exhibit the characteristics of either verbs or prepositions, a finding which contrasts with Dejthamrong (1970) and Thepkarnchana (1986). Differences in interpretation in the different uses of *hây<sub>6</sub>* are governed by the different classes of the regent verbs.

## APPENDIX I: ABBREVIATIONS

Acc	Accusative	lctn	location	PAT	Patient
actr	actor	lit	literal translation	PP	prepositional phrase
Adv	adverb	LOC	Locus	PRT	particle
afct	affect	mnpl	manipulative	rslt	resultative
AGT	Agent	mprs	impersonal	TOP	topic marker
caus	causative	N	noun	trns	transitive
cntn	continuing	ndex	index of	V	verb
COR	Correspondent	Nom	Nominative	vrbl	verbal
crsp	correspondent	NP	noun phrase	xtns	extension
fint	finite	P	preposition		

## APPENDIX II: CONTINUING VERBS IN THAI

Continuing verbs are verbs which are interpreted by the Patient-to-Patient Control Rule (P2P). The following lists exemplify members of continuing verbs in Thai, based on Indrambarya's (1994) analysis.

## 1. Correspondent Continuing Intransitive verbs:

*thiuk<sub>5</sub>* 'to undergo'      *doon<sub>4</sub>* 'to undergo'

## 2. Non-manner Continuing Non-manipulative Transitive Verbs:

*hàn<sub>3</sub>* 'to chop'    *sàŋ<sub>6</sub>* 'to order (food)'    *yìp<sub>3</sub>* 'to pick up'  
*tii<sub>5</sub>* 'to hit'      *sĥ<sub>3</sub>* 'to buy'                      *yé<sub>2</sub>* 'to sew'

## 3. Non-manner Continuing Manipulative Transitive Verbs:

## a. Verbal causative continuing transitive verbs

*chəən<sub>5</sub>* 'to invite'    *khǎw sǎŋ<sub>3</sub>* 'to plead'    *waan<sub>4</sub>* 'to ask'  
*sàŋ<sub>7</sub>* 'to order'      *bǎk<sub>7</sub>* 'to order'              *cháy<sub>7</sub>* 'to order'  
*plàk<sub>5</sub>* 'to push'      *nĕŋnam<sub>4</sub>* 'to suggest'    *chuan<sub>5</sub>* 'to persuade'

## b. Resultative Continuing Transitive Verbs

*tii<sub>6</sub>* 'to hit'          *khian<sub>6</sub>* 'to whip'      *yik* 'to pinch'  
*sĥ<sub>4</sub>* 'to buy'        *kin<sub>4</sub>* 'to eat'              *thǎŋ* 'to memorise'

## 4. Correspondent Non-benefactive Transitive Verbs:

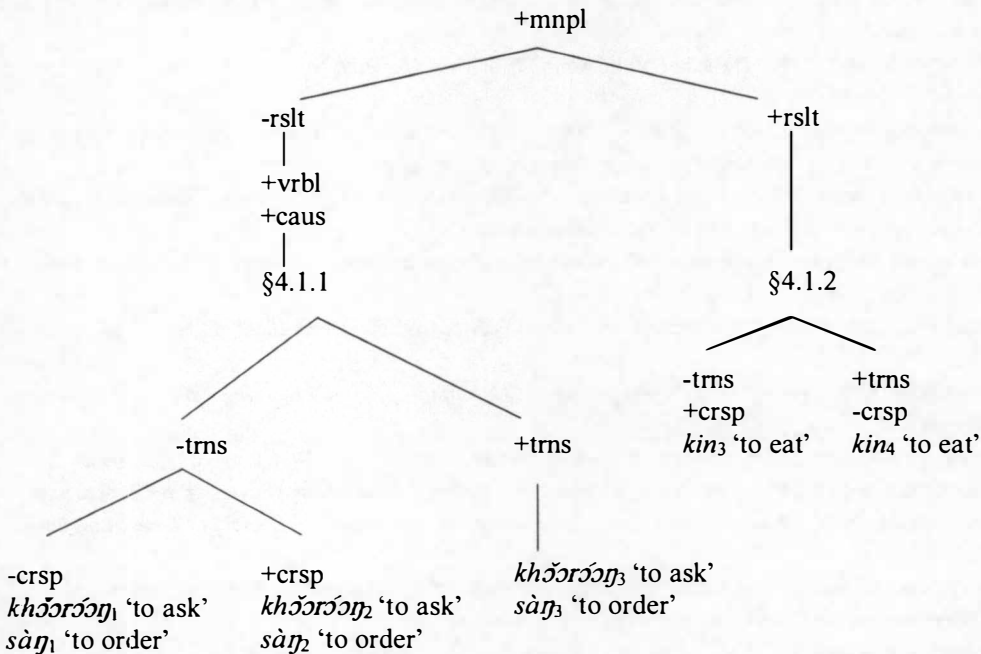
*hây<sub>3</sub>* 'to give'

5. Correspondent Benefactive Transitive Verbs:

*cêk<sub>5</sub>* 'to distribute'    *hîat* 'to show'    *lâw* 'to relate'  
*pô<sub>3</sub>m* 'to feed to somebody's mouth'

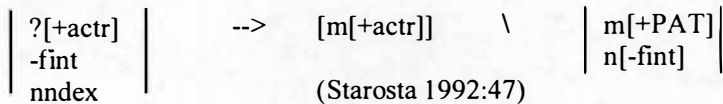
APPENDIX III: SUBCATEGORISATION OF MANIPULATIVE VERBS

Manipulative verbs are verbs which require the presence of the causative verb *hây* in the embedded complement clause. The following table illustrates the subcategorisation of manipulative verbs which can be semantically divided into verbal causative manipulative and resultative manipulative verbs

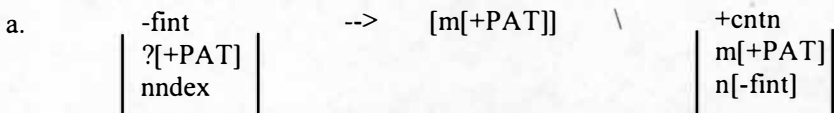


APPENDIX IV: CONTROL CHAINING RULES

1. Regular Actor Control Rule:



2. PAT-to-PAT Control Rule (P2P):



b. The actor of the non-finite verb is interpreted as the closest available noun-headed dependent of a regent verb to the left of the embedded verb (Indrambarya 1994:300).

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