

## The Syntax and Semantics of Serial Verb Constructions in Thai : LFG Approach

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### 1. Serial Verb Constructions in Thai

Verb Constructions (hereafter SVCs) across languages have been widely discussed in the literature. According to Durie (1997), it is a single serial verb complex describes what is conceptualized as single event. It follows from this that a serial verb complex can often be best translated into a non-serializing language using a single, mono-verbal clause. Some examples of the SVCs in Thai are shown in (1)–(4).

- (1) ka :nda:    dʌn    pay    sǐ:    nǎŋsǐ:  
Kanda        walk    go        buy        book  
'Kanda walked away to buy a book.'
- (2) ka :nda:    ʔaw    mǐ:t    hàn    kày  
Kanda        take    knife    cut        chicken  
'Kanda took a knife to cut a chicken.'
- (3) ka :nda:    yǐ:n    ró:ŋplɛ:ŋ  
Kanda        stand    sing  
'Kanda sang, while standing.'
- (4) ka :nda:    tham    kê:w    tɛ:k  
Kanda        make    glass    break  
'Kanda made a glass broke.'

All SVCs in Thai are composed of at least two verbs or two VPs in the series. No overt conjunction appear in between those two verbs, and all verbs in series share at least one argument, which can be either subject sharing or object sharing.

### 2. Type of Thai SVCs

According to the limitation of the verbs that can occur in each SVCs, I propose to divide the SVCs in Thai into eight types, as follow:

#### 2.1 Motion SVCs

There are two types of the Motion SVCs regarding to the set of verbs that occur in the sequence: Motion-deictic SVCs as in (5) and Motion-directional SVCs in (6).

- (5) a. ka :nda:    wǐŋ    ma:  
Kanda        run        come  
'Kanda runs / ran towards the speaker.'

- b. ka :nda:      dɤn      pay  
 Kanda            walk      go  
 ‘Kanda walks / walked away from the speaker.’
- (6) ka :nda:      dɤn      khâw      ro:ŋrian      pay  
 Kanda            walk      enter      school      go  
 ‘Kanda entered the school, walking away from the speaker.’

The set of the first verb in the motion- deictic SVCs is limited to the manner-of-motion verbs, and the set of its second verb is limited to the deictic verbs: *ma:* ‘come’ and *pay* ‘go’. The deictic verb *ma:* ‘come’ shows the direction towards the speaker’s viewpoint, and *pay* ‘go’ shows the direction away from the speaker’s viewpoint.

For the Motion-directional SVCs, the set of the first verb in the motion – directional serialization is limited to the manner-of-motion verb; but the set of the second verb in sequence belongs to the directional verb. When the final verb denotes an intentional action such as *khó:ʔ* ‘knock’ as in (7 a and b), the sentences have the semantic ambiguity. They can be interpreted either as the overlapping temporal interpretation (meaning (i)) or as the purposive interpretation (meaning (ii)).

- (7) a. ka :nda:      wîŋ      ma:      khó:ʔ      pràtu:  
 Kanda            run      come      knock      door  
 (i) ‘While Kanda was running towards the speaker, she knocked on the door.’ (overlapping)  
 (ii) ‘Kanda runs / ran towards the speaker to knock the door.’ (purposive)
- b. ka :nda:      dɤn      ʔɔ:k      pay      khó:ʔ      pràtu:  
 Kanda            walk      exit      go      knock      door  
 (i) ‘While Kanda was walking out away from the speaker, she knocked on the door.’ (overlapping)  
 (ii) ‘Kanda walks / walked out away from the speaker to knock the door.’ (purposive)

On the other hand, when the final verb does not denote the intentional action such as *cɤ:* ‘find’ in (8 a. and b.), the sentence has only one semantic interpretation, which is the overlapping temporal interpretation.

- (8) a. ka :nda:      dɤn      ma:      cɤ:      chǎn  
 Kanda            walk      come      find      I  
 ‘While Kanda was walking towards the speaker, she found me.’ (overlapping)
- b. ka :nda:      dɤn      ʔɔ:k      pay      cɤ:      chǎn  
 Kanda            walk      exit      go      find      I  
 ‘While Kanda was walking out away from the speaker, she found me.’ (overlapping)

I will discuss the semantic interpretation of Thai SVCs later.

## 2.2 Posture SVCs

The set of first verb in the posture SVCs is the postural verb, and the second verb in the series can be any verb, which I would like to call them as the verbs in the open class, as in (9).

(9) ka :nda :      yì :n      khó :?      pràtu :  
      Kanda            stand        knock       door  
 ‘Kanda knocked the door while standing.’

Even though the final verb denotes the intentional action such as *khó :?* ‘knock’ in (9), it does not have the purposive interpretation. It has only one semantic interpretation, which is the simultaneous interpretation. The postural verb indicates the action of the body in a particular position while the agent carries out an action. The ungrammatical sentence in (10) shows that the posture SVCs cannot have the purposive verb phrase.

(10) \* ka :nda :      yì :n      thǎŋ      chánwa :ŋkhǒ :ŋ      bonsùd  
      Kanda            stand        reach       shelf                            top  
 (Intended meaning: Kanda stood in order to reach the top shelf.)

### 2.3 Take-SVCs

The first verb in the series of the Take-SVCs is the verb *ʔaw* ‘take’ and the second verb belongs to the open class verb, which is usually an activity verb, as in (11).

(11) ka :nda :      ʔaw      mî :t      hàn      kày  
      Kanda            take      knife      cut      chicken  
 (i) ‘Kanda took the knife (and) cut the chicken.’ (sequential)  
 (ii) ‘Kanda takes / took the knife to cut the chicken.’ (purposive)

It has two semantic interpretations, either the sequential interpretation, which is the interpretation that all events in the sentence happened in sequences, the first event is terminated before the second verb happened, or the purposive interpretation, which the second event is the purpose of the first event.

### 2.4 Use-SVCs

The first verb in series of the Use-SVCs is the verb *cháy* ‘use’ and the second verb belongs to the open class verb, which is usually an activity verb, as in (12).

(12) ka :nda :      cháy      mî :t      hàn      kày  
      Kanda            use      knife      cut      chicken  
 ‘Kanda cut the chicken with the knife.’

It has only one semantic interpretation, which is the sequential interpretation. When the Use-SVCs is added more verb phrase, which is the verb that denotes the intentional action as in (13), it has either the sequential or purposive interpretation.

(13) ka :nda :      cháy      mî :t      hàn      kày      hây      nô :ŋ  
      Kanda            use      knife      cut      chicken      give      sister  
 (i) ‘Kanda cut the chicken with the knife (and) gave (it) to her sister.’ (sequential)  
 (ii) ‘Kanda cuts / cut the chicken with the knife to give (it) to her sister.’ (purposive)

## 2.5 Open class SVCs

There are two verbs in series in the Open class SVCs. Both of them can be any verb in the open class, as in (14). They have two semantic interpretations, which are the sequential and purposive interpretations.

- (14) ka : nda :      hǔŋ      khâ : w      kin  
          Kanda          cook      rice          eat  
 (i) ‘Kanda cooked rice (and) ate (it).’ (sequential)  
 (ii) ‘Kanda cooks / cooked rice to eat.’ (purposive)

There is one restriction for these two verbs, which is neither of them can be a stative verb as the ungrammatical sentences in (15).

- (15) \* ka : nda :      khít      rî : ŋ      rian      klûmcay  
          Kanda          think      issue      study      be upset  
 (Intended meaning: ‘Kanda thought about her study and she was upset about it.’)

## 2.6 Give-SVCs

There are two verbs in series in the Give-SVCs. The first verb is limited to a verb *hây* ‘give’, and the second verb belongs to the open class verb, as the second part of the Open class SVC in (16), which is ‘give sister read’.

- (16) ka : nda :      sî :      nǎŋsǎ :      hây      nô : ŋ      ?à : n  
          Kanda          buy      book          give      sister      read  
 ‘Kanda bought a book (and) gave (it) to her sister to read.’

The Give-SVC has only the purposive interpretation. The second verb *?à : n* ‘read’ denotes the purpose of the first verb *hây* ‘give’.

Follow Pingkarawat (1989), Rungkupan (1997), and Muansuwan (2002), I consider *hây* ‘give’ in this construction as a verb.

## 2.7 Causative SVCs

There are two verbs in series in the Causative SVCs. The first verb is restricted to the verb *t ham* ‘make’. For the second verb, it belongs to the intransitive verb in the open class, as in (17), not the transitive verb, as the ungrammatical sentence in (18).

- (17) ka : nda :      t ham      dèk      rô : ŋhâ : y  
          Kanda          make      child      cry  
 ‘Kanda made the child cry.’  
 (18) \* ka : nda :      t ham      dèk      ?à : n      nǎŋsǎ :  
          Kanda          make      child      read      book  
 (Intended meaning: Kanda made the child read a book.)

The Causative SVC has only one semantic interpretation, which is the causative interpretation. The verb *t ham* ‘make’ has the causative meaning, making the agent to be a causer that made the theme changes state.

## 2.8 Resultative SVCs

The Resultative SVCs are composed of two verbs in series. Both verbs belong to the open class verbs in which the second verb is also the result verb, as in (19).

- (19) a. ka :nda :      plùk      wi :ra      lóm  
          Kanda          push      Vira          fall  
 ‘Kanda pushed Vira (so) Vira fell down.’  
 b. ka :nda :      kin      khâ :w      ?ìm  
          Kanda          eat          rice          be full  
 ‘Kanda ate rice until she was full.’

The object of the first verb can be the subject of the result verb as in (19 a.) and the subject of the first verb can be the subject of the result verb as in (19 b.). Furthermore, in (20), either the subject or the object of the first verb can be the subject of the result verb.

- (20) ka :nda :      khì :      mâ :      nê :y  
          Kanda          ride      horse      be tired  
 (i) ‘Kanda rode the horse (as the result) she got tired.  
 (ii) ‘Kanda rode the horse (as the result) the horse got tired.’

The Resultative SVCs have only one semantic interpretation, which is the result interpretation. The second verb shows the result state of the agents or themes after the action of the first verb.

In sum, there are eight types of the SVCs in Thai with respect to the restriction of the verb groups that occur in the series. One of the verbs in the series in each type of Thai SVCs except the Open class SVCs and the Resultative SVCs appear to be restricted to a limited set of verbs, while the other is more open. For example, the first verb of the motion SVCs is restricted to the set of the manner-of-motion verb while the second verb can be the other verb. So, the open class verb here means the verb in general. It is not limited to the specific verb. All eight types of the SVCs in Thai is shown in table 1.

Table 1.: Eight types of SVCs in Thai

<b>Types of serialization</b>	<b>Class of verb</b>
1. Motion SVCs	Manner-of-motion verb + deictic/directional verb
2. Posture SVCs	Postural verb + open class verb
3. Take-SVCs	Take + open class verb
4. Use-SVCs	Use + open class verb
5. Open class SVCs	Open class verb + open class verb
6. Give-SVCs	Give + open class verb
7. Causative SVCs	Make + open class verb
8. Resultative SVCs	Open class verb + open class verb (result)

### 3. The Syntactic structure of Thai SVCs

To study the syntactic structure of all eight types of the SVCs in Thai, I address two key syntactic questions:

- (i) What is the mode of combination of the verbs of VPs in Thai SVCs: coordination or subordination?
- (ii) What are the mechanisms of argument sharing in Thai SVC?

With respect to the negation and coordinate structure constraint argued in Ross 1976, Thai SVCs structures are different from the coordinate structures. Here are some examples:

In the coordinated sentence, the negative item *mây* occurs in front of either verb, as in (21) and (22).

(21) ka:nda: mây pay ro:ŋrian lé? mây sǐ: nǎŋsǐ:  
 Kanda NEG go school and NEG buy book

‘Kanda did not go to school and did not buy a book.’

(22) a. ka:nda: mây pay ro:ŋrian lé? sǐ: nǎŋsǐ:  
 Kanda NEG go school and buy book

‘Kanda did not go to school and bought a book.’

b. ka:nda: pay ro:ŋrian lé? mây sǐ: nǎŋsǐ:  
 Kanda go school and NEG buy book

‘Kanda went to school and did not buy a book.’

In contrast, in SVCs, the negative item *mây* occurs only in front of the first verb, as in (23).

(23) a. ka:nda: mây dɯn pay sǐ: nǎŋsǐ:  
 Kanda NEG walk go buy book

(i) ‘It is not the case that while Kanda was walking away from the speaker, she bought a book.’ (overlapping)

(ii) ‘It is not the case that Kanda walked away from the speaker to buy a book.’ (purposive)

b. \*ka:nda: dɯn mây pay sǐ: nǎŋsǐ:  
 Kanda walk NEG go buy book

c. \*ka:nda: dɯn pay mây sǐ: nǎŋsǐ:  
 Kanda walk go NEG buy book

In (23a), the negative item *mây* occurs in front of the first verb and takes a wide scope the whole sentence, both in the overlapping temporal interpretation in (a) and the purposive interpretation in (b). The negative item *mây* cannot occur in front of the other verbs as the ungrammatical sentences (23b) and (23c). All eight types of Thai SVCs, except Resultative SVCs, share this property.

Another syntactic structure showing that the SVCs have the different structures from the coordinate structures is the extraction. According to the

Coordinate Structure Constraint argued in Ross (1967), extraction is not possible out of the coordinate structures. This is illustrated for Thai sentences in (24).

Coordination:

(24) a. ka:nda: dʌn léʔ pay sǐ: nǎŋsǐ:  
 Kanda walk and go buy book

‘Kanda walked and went to buy a book.’

b. \* nǎŋsǐ: i, ka:nda: dʌn léʔ pay sǐ: \_\_\_\_\_ i  
 book Kanda walk and go buy

c. \* léʔ pay sǐ: nǎŋsǐ: i, ka:nda: dʌn \_\_\_\_\_ i  
 and go buy book Kanda walk

In contrast, the SVCs allow extraction. Either the object in each verb phrase or even the whole verb phrase in Thai SVCs, except the Posture SVCs, the Use-SVCs, and the Causative SCVs, can have topicalization. Here are the examples of the topicalization in of Thai SVCs.

Motion-deictic SVCs:

(25) a. ka:nda: dʌn pay sǐ: nǎŋsǐ:  
 Kanda walk go buy book

(i) ‘While Kanda was walking away from the speaker, she bought a book.’ (overlapping)

(ii) ‘Kanda walks / walked away from the speaker to buy a book.’ (purposive)

b. nǎŋsǐ: i, ka:nda: dʌn pay sǐ: \_\_\_\_\_ i  
 book Kanda walk go buy

(i) ‘As for the book, while Kanda was walking away from the speaker, she bought (it).’ (overlapping)

(ii) ‘As for the book, Kanda walks / walked away from the speaker to buy (it).’ (purposive)

d. pay sǐ: nǎŋsǐ: i, ka:nda: dʌn \_\_\_\_\_ i  
 go buy book Kanda walk

(i) ‘Going away from the speaker, (and) buying a book, Kanda did while she was walking.’ (overlapping)

(ii) ‘To go away from the speaker to buy a book, Kanda intends to do while she walks / walked.’ (purposive)

Since it is possible to extract the object in each verb phrase out of them, they all have the subordination structure.

There are two questions to address about the subordination structure of Thai SVCs, which are:

1: which is the head? And which is the dependent?

2: Is the dependent a complement or an adjunct?

As for the first question, the first verb in V1 – V2 sequence is the head while the second verb is dependent. This is because the first verb is the close class item, for example take, use, give, posture verb, manner of motion verb, except for the Open class SVCs. The first verb, as the head, selects the second verb phrase as its dependent.

For the second question, the second verb of the take-SVCs and use-SVCs are complement since both verbs ‘take’ and ‘use’ cannot occur without the second VP as I

already showed in chapter 2. The sentence without the second VP is ungrammatical as shown in (26) and (27).

- (26) \* ka : nda :    ʔaw       mî : t  
          Kanda        take       knife  
 (Intended meaning: ‘Kanda took a knife.)
- (27) \* ka : nda :    cháy       mî : t  
          Kanda        use        knife  
 (Intended meaning: ‘Kanda used a knife.)

Since the second VP is obligatory in the Take-SVCs and Use-SVCs, it is indeed the complement of the verb ‘take’ and ‘use’.

The second verb in the Causative SVCs is also obligatory, as in (28a). The first verb *t ham* ‘make’ cannot occur separately as the ungrammatical sentence (28b).

- (28) a. ka : nda :    t ham       k ê : w       t ε : k  
          Kanda        make       glass        break  
 ‘Kanda made the glass break.’
- b. \* ka : nda :    t ham       k ê : w  
          Kanda        make       glass

The verb *t ham* ‘make’ has to select the second VP as shown in (28a), showing that the second VP is actually its complement.

For the other SVCs, it seems that the second VP is optional, for example the manner of the motion verb in the Motion-deictic SVCs can occur separately in the sentence as in (29). It can also occur with the deictic verb as the second verb as in (30).

- (29) ka : nda :    d ʏ n  
          Kanda        walk  
 ‘Kanda walked.’
- (30) ka : nda :    d ʏ n        p a y  
          Kanda        walk        go  
 ‘Kanda walked away.’

When the manner of the motion verb occurs separately as in (29), it is a simple sentence. When it selects the deictic verb as the second verb to occur with as in (30) his sentence is called serial verb construction. So, in the SVC sentence (30), the second verb is obligatorily selected by the first verb in order to express the distinction of reference with respect to location.

However, there can be more than one verb that occurs in the motion-deictic SVC as in (31)

- (31) ka : nda :    d ʏ n        p a y        s í :        n ǎ ŋ s ǐ :  
          Kanda        walk        go        buy        book
- (i) ‘While Kanda was walking away, she bought a book.’ (overlapping)  
 (ii) ‘Kanda walked away to buy a book.’ (purposive)

The third VP *sǐ : nǎŋsǐ*: ‘buy book’ is optional. The sentence without this VP, as in (30), is perfectly fine. In this case, it seems that the third VP is an adjunct.

To sum up, all eight types of Thai SVCs have different structure from the coordinate structure. They are rather subordinate structures since it is possible to extract out of them. Besides, the first verb in the subordinate structure is a head and the second verb is its dependent. And the dependent is the complement of the first verb in Thai SVCs, except the dependent that is the purposive clause, which seems to be an adjunct.

#### 4. Explain and illustrate ‘argument sharing’ in Thai SVCs

##### 4.1 Subject control in Thai SVCs involves functional control

In the Lexical functional Grammar (LFG), the functional control is the control relation that defines on the grammatical functions. Bresnan (2001: 298) indicates that functional control identifies the f(unctional)-structures of the controller and the controlled. So, f-structure attributes for grammatical functions like CASE are expected to be shared between the controller and the controlled.

As I discuss above, Thai SVCs have VP-complement structures. The Lexical Functional Grammar (LFG) notation of the grammatical functions of this complement type is XCOMP or ‘open complement’ (Bresnan 1982, 2001). The predicate complement of the XCOMP can be of any lexical category type X (X = Verb, Noun, Adjective, or Preposition). In Thai SVCs in Group 1 case, the predicate complement is the lexical category type of verb. The XCOMP is incomplete, lacking a c-structure subject. It shares the subject with the matrix verb of the sentence. I propose that the relation between the subject of the matrix verb and the subject of the complement in Thai SVCs is the functional control.

##### 4.2 Object control in Thai SVCs involves thematic control

One of the key characteristics of SVCs that Durie (1997:291) indicates is that the serial verb complex takes only one subject, that is, all the verbs in series shares the same external argument. The SVC sentences in (32) also have this characteristic, that is, the subject *ka :nda*: ‘Kanda’ is shared by every verb in series.

(32) *ka :nda* :<sub>i</sub>    *sǐ* :    *nǎŋsǐ* :    *hây*    *wi :ra* <sub>j</sub>    *sòŋ*    *hây*  
          Kanda        buy        book        give        Vira        send        give

*tau?e :ŋ* <sub>ij</sub>

self

(i) ‘Kanda bought a book to give (it) to Vira to send (it) to Kanda.’

(ii) ‘Kanda bought a book to give (it) to Vira to send (it) to Vira.’

In (32), the bare reflexive *tau?e :ŋ* ‘self’ can be bound by the grammatical subject of the matrix clause *ka :nda*: ‘Kanda’ as a long binding, and also be bound by the indirect object of the verb *hây* ‘give’, *wi :ra* ‘Vira’, as a short binding. Thus Vira is the subject, presumably the subject of the verb *sòŋ hây* ‘send-give’.

Given the bare reflexive *tau?e:ŋ* ‘self’ is bound by the indirect object of the verb *hây* ‘give’ as a short binding in Thai SVCs, it confirms that the indirect object of the verb *hây* ‘give’ is the subject of the verb after that give-SVC.

As I already discussed that the verb *hây* ‘give’, as a verb of possession transfer, requires an animate subject. It targets the benefactive argument *wi:ra* ‘Vira’, not the theme argument *nǎŋsǎi*: ‘book’, as its object since its object is also functioned as the subject of the verb *sòŋ hây* ‘send-give’, which is a verb of possession transfer too. The verb before the verb *hây* ‘give’, here the verb *sí:* ‘buy’, then targets the theme argument of the verb *hây* ‘give’, which is *nǎŋsǎi*: ‘book’. In other words, both the verb *sí:* ‘buy’ and the verb *hây* ‘give’ have the thematic restriction on selecting its argument, which is the property of thematic control.

To sum up so far, I show that Thai SVCs have the different structures from the coordinate structures. Evidence comes from the negation test and the topicalization test. Further I discuss four mechanisms for argument sharing between verbs in the series in the SVCs across languages. They are functional control, anaphoric control, thematic control, and complex predicates. I show that Thai SVCs involve two kinds of argument sharing mechanisms. That is the relation between the subject of the matrix verb and that of the verbs in series is functional control since the share arguments are syntactically identical. The relation between the object of the verb before the verb *hây* ‘give’ and the *hây* ‘give’ involves thematic control due to the thematic restriction of these two verbs.

## 5. The Semantic Structure of the SVCs in Thai

### 5.1 Temporal relations between the events in Thai SVCs

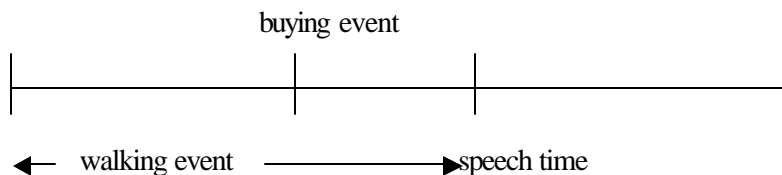
There are six kinds of semantic interpretation of Thai SVCs, which are:

1. The temporal overlapping interpretation: the interpretation that the motion verb encodes the ongoing event that overlaps in time with the second event. If it is temporally interpreted as in the past time, then both events happened before the speech time.

*Motion-deictic SVC:*

(33) *ka:nda:*    *dŷn*    *pay*    *sí:*    *nǎŋsǎi:*  
           Kanda    walk    go    buy    book

‘While Kanda was walking away from the speaker, she bought a book.’ (overlapping)

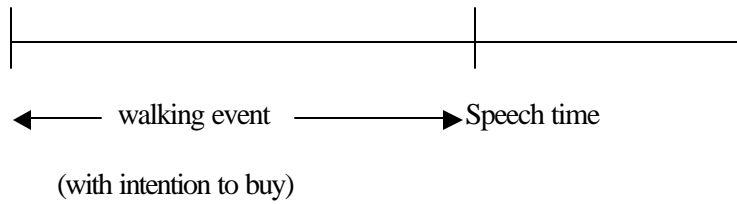


2. The purposive interpretation: the interpretation that the second event is the purpose of the first event.

*Motion-deictic SVC:*

(34) ka : nda :    dɿn    pay    sɿ :    nəŋsɿ :  
          Kanda        walk    go        buy        book

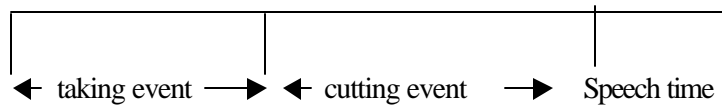
‘Kanda walks / walked away from the speaker to buy a book.’ (purposive)



3. The sequential interpretation: the interpretation that all verbs in series encode eventualities that occur in sequence. The first event is terminated before the second event happened.

(35) ka : nda :        ʔaw        mɿ : t        hàn        kà y  
          Kanda            take        knife        cut        chicken

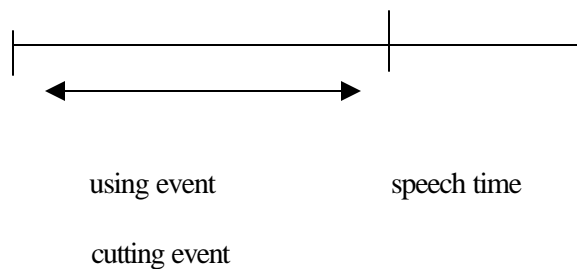
(i) ‘Kanda took the knife (and) cut the chicken.’ (sequential)



4. The simultaneous interpretation: the interpretation that both verbs in the series happened at the same time, however before the speech time.

(36) ka : nda :        cháy        mɿ : t        hàn        kà y  
          Kanda            use        knife        cut        chicken

‘Kanda cut the chicken with the knife.’ (simultaneous)



5. The causative interpretation: the interpretation that the first verb, which is *tham* ‘make’ has the causative meaning, making the agent to be a causer of the event denoted by the following VP, that is, the verb *tɛ:k* ‘break’ in (38) shows the change of state of the theme *kê:w* ‘glass’ from the state of unbroken glass to the state of broken glass.

(37) *ka:nda:*      *tham*      *kê:w*      *tɛ:k*  
           Kanda            make      glass      break  
 ‘Kanda made the glass broke.’

6. The result interpretation: the second verb in the Resultative SVCs denotes the result state of the agent after s/he did the action of the first verb.

(38) *ka:nda:*      *plùk*      *wi:ra*      *lóm*  
           Kanda            push      Vira      fall  
 ‘Kanda pushed Vira (so) Vira fell down.’

The temporal relations between the events in Thai SVCs are shown in table 2.

Table 2: The temporal relations between the events in Thai SVCs

Thai SVCs	Overlapping	Sequential	Purposive	Simultaneous	Causative	Result
Motion SVCs	Yes	No	Yes	No	No	No
Take SVCs	No	Yes	Yes	No	No	No
Use-SVCs	No	No	No	Yes	No	No
Open class SVCs	No	Yes	Yes	No	No	No
Give-SVCs	No	Yes	Yes	No	No	No
Posture SVCs	No	No	No	Yes	No	No
Causative SVCs	No	No	No	No	Yes	No

Resultative	No	No	No	No	No	Yes
SVCs						

## 5.2 Andrews and Manning’s split PRED-attribute idea

Andrews and Manning (1999) believe that the basic concept of Predicate Composition (Alsina 1997, Butt 1997) is correct. They propose the alternative analysis for complex predicates and serial verbs in LFG framework on the basis of Predicate Composition idea. They present the reformulation of LFG that better supports a grammar, in which headship, understood in terms of information sharing, is inherently multidimensional rather than unitary.

The analysis of sentences in the LFG framework consists of two components: c-structure, which is phrase structure categories that belong to the overt structure of forms of expression, and f-structure, which is syntactic functions that belong to the abstract system of relators of roles to expressions. The structures are associated by principles of functional correspondence, which is called ‘linking’ or ‘mapping’ principles. The key elements in f-structure are the PRED-attribute, and its associated grammatical function attributes.

The essential proposal of Andrews and Manning (1999) for dealing with the SVCs and Complex Predicates is that they propose to replace the PRED-attribute with two features: one is the Lexical Conceptual Structure (LCS), a representation of the meaning (which comes from Jackendoff’s idea in (1990)); the other is a list of TERMS, an argument structure that encoded information about how the lexical item expresses the grammatical relations of its arguments. The example of split PRED-attribute of a verb ‘kill’ in English is shown in (39).

(39) the meaning of *kill*

The PRED of this verb would be replaced by:

LCS	[Cause (X,Y,Become (Not (Alive (Y))))]
TERMS	<X,Y>

The LCS of ‘kill’ is X causes Y to become not alive. And the arguments in the TERMS lists are X and Y. These arguments will map to the grammatical functions via the linking rule. In this case, X maps to a subject and Y maps to an object.

## **6. The semantic structure of Thai SVCs**

In order to deal with the semantic interpretation of all eight types of Thai SVCs, I would like to posit two kinds of LCS, which are complex LCS and simple LCS.

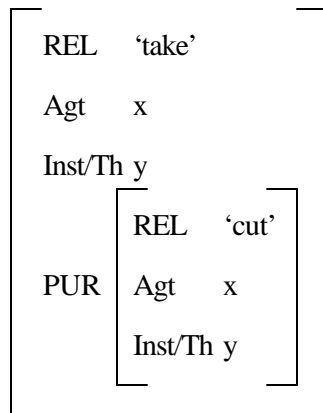
### 1. Complex LCS

The complex LCS has an embedded LCS inside the first verb’s LCS. This kind of LCS allows the events that happen in the different time. The example of the complex LCS is the Take-SVCs. The Take-SVC has two verbs in the series, the first verb is the verb *ʔaw* ‘take’ and the second verb is a transitive verb, as in (40).

- (40) ka : nda :      ʔaw      mî : t      hàn      kày  
          Kanda            take      knife      cut      chicken  
 (i) 'Kanda took the knife and cut the chicken.' (sequential)  
 (ii) 'Kanda took a knife to cut a chicken.' (purposive)

The LCS of the verb *hàn* 'cut' is embedded inside of the LCS of the first verb, *ʔaw* 'take', as shown in (41).

- (41) *ʔaw* - *hàn* 'take - cut'



## 2. Simple LCS

The simple LCS has only one LCS in the sentence. This kind of LCS does not allow the events in the sentence to have the different time. Both events have to happen simultaneously. The example of the simple LCS is the Use-SVC. The Use-SVC has two verbs in the series, the first verb is the verb *chây* 'use' and the second verb is a transitive verb, as in (42).

- (42) ka : nda :      chây      mî : t      hàn      kày  
          Kanda            use      knife      cut      chicken  
 'Kanda cut a chicken with the knife.' (simultaneous)

There is only one LCS in (42). The verb *chây* 'use' means 'use with an instrument', and the verb *hàn* 'cut' means 'cut something with a tool'. So, the meaning of the verb *chây* 'use' is already included in the meaning of the verb *hàn* 'cut', as shown in (43).

(43) *hàn* ‘cut’

REL	‘cut’
Agt	x
Th	y
Inst	z

For Thai SVCs, the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, have the complex LCS while the Posture SVCs, Use-SVCs, Causative SVCs, and Resultative SVCs have the simple LCS. The evidence comes from the cancellation test and the time marker test.

According to the cancellation test and the time marker test, the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, have at least two separate events in the sentence while the Posture SVCs, Causative SVCs, Use-SVCs, and Resultative SVCs, have only one event in the sentence.

(44) *is the example of the full analysis of Take – SVC*

(44) Take-SVCs:

The Take-SVC has two verbs in series, the first verb is the verb *ʔaw* ‘take’ and the second verb is a transitive verb, as in (a).

(a) ka :nda:      ʔaw      mî : t      hàn      kày  
Kanda          take      knife      cut      chicken  
‘Kanda took a knife to cut the chicken.’

The c-structure of this sentence looks like that in (b).



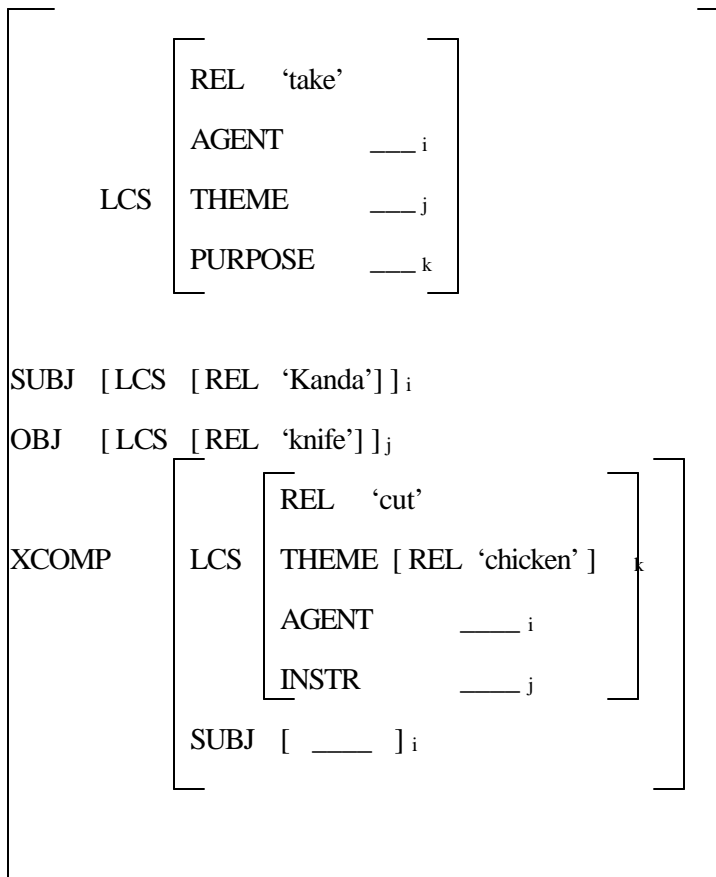
$$(\uparrow \text{LCS INSTR}) = (\uparrow \text{XCOMP LCS INSTR})$$

(d). *hàn* 'cut'

$$\begin{aligned} (\uparrow \text{LCS REL}) &= \text{'cut'} \\ (\uparrow \text{LCS AGENT}) &= (\uparrow \text{SUBJ LCS}) \\ (\uparrow \text{LCS THEME}) &= (\uparrow \text{OBJ LCS}) \end{aligned}$$

Its f-structure is shown in (f).

(f)



In the lexical properties of the verb *ʔaw* 'take', the defining equation  $(\uparrow \text{LCS AGENT}) = (\uparrow \text{SUBJ LCS})$  maps the agent of the verb *ʔaw* 'take' to the LCS of the subject, which is *ka :nda :* 'Kanda'. The equation  $(\uparrow \text{LCS INSTR}) = (\uparrow \text{OBJ LCS})$  maps the LCS of the instrumental argument to the LCS of the object, which is *mî :t* 'knife'. The equation  $(\uparrow \text{LCS PURPOSE}) = (\uparrow \text{XCOMP LCS})$  indicates that the LCS of the purpose clause is the same as the LCS of its XCOMP. The equation  $(\uparrow$

SUBJ) = ( $\uparrow$  XCOMP SUBJ) identifies the subject with the XCOMP's subject, which is *ka:nda:* 'Kanda'. The equation ( $\uparrow$  LCS INSTR) = ( $\uparrow$  XCOMP LCS INSTR) indicates that the LCS of the instrumental argument is the same as the LCS of the instrumental argument of its XCOMP. And the equation ( $\uparrow$  CS AGENT) = ( $\uparrow$  SUBJ LCS) in the lexical properties of the verb *hàn* 'cut' maps the LCS of the agent of the verb *hàn* 'cut' to the LCS of its subject, which is *ka:nda:* 'Kanda' while the equation ( $\uparrow$  LCS THEME) = ( $\uparrow$  OBJ LCS) maps the LCS of the theme to the LCS of its object, which is *kày* 'chicken'.