The Dissertation Committee for Cholthicha Sudmuk Certifies that this is the approved version of the following dissertation:

THE SYNTAX AND SEMANTICS OF SERIAL VERB CONSTRUCTIONS IN THAI

Committee:

Stephen Wechsler, Supervisor

Carlota S. Smith

Lisa J. Green

Bernhard Schwarz

Chiyo Nishida

THE SYNTAX AND SEMANTICS OF SERIAL VERB CONSTRUCTIONS IN THAI

by

Cholthicha Sudmuk, BA.; M.A

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To….My family

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THE SYNTAX AND SEMANTICS OF SERIAL VERB CONSTRUCTIONS IN THAI

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Cholthicha Sudmuk, Ph.D.

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Supervisor: Stephen Wechsler

This dissertation examines both syntax and semantics of the Serial Verb Constructions (SVCs) in Thai in Lexical Functional Grammar (LFG) framework. It is proposed that there are eight types of the SVCs in Thai with respect to the restriction of the limited set of verbs that occurs in the series, which are the Motion SVCs, Posture SVCs, Take-SVCs, Use-SVCs, Open Class SVCs, Give-SVCs, Causative SVCs, and Resultative SVCs. I show that the syntactic structure of Thai SVCs is different from the coordinate construction. Their syntactic structure is subordination. I further propose that the argument sharing between verbs in the series of all eight types of SVCs in Thai involves two kinds of control relation, which are functional control and thematic control. Only the Give-SVCs exhibits the object control. For the semantic structure of Thai SVCs, I provide the cancellation test and the time marker test to show that verbs in the series of the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs encode at least two

separate events while those in the Posture SVCs, Use-SVCs, Causative SVCs, and Resultative SVCs encode only one event.

I adopt Andrews and Manning's split PRED attribute idea as the analysis of the SVCs in Thai. I propose two kinds of the Lexical Conceptual Structure (LCS) for SVCs in Thai, which are Complex LCS for the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, and Simple LCS for the Posture SVCs, Use-SVCs, Causative SVCs, and Resultative SVCs. The predicate composition is the mechanism for the merger of the Lexical Conceptual Structure (LCS) of each verb in the series. The LFG analysis of every type of Thai SVCs is shown in chapter 5.

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LIST OF ABBREVIATIONS

ACT: actor

Ag, agt: agent

AM: aspect marker

ARG-ST: argument structure

AUX: auxiliary

Ben: benefactive

CL: classifier

COMP: complement

DEF: definite article

FUT: future marker

INST, INSTR: instrumental

IMPFV: imperfective

LCS: Lexical Conceptual Structure

LFG: Lexical Functional Grammar

NEG: negative morpheme

NP: noun phrase

OBJ: object

PERF, PFCT: perfect

PETV: perfective

PUR: purpose

Pt: patient

REL: relation

SPFV: semi-perfective

SUBJ: subject

SVCs: Serial Verb Constructions

Th: theme

TM: time marker

TP: time phrase

UND: undergoer

VP: verb phrase

XCOMP: open complement

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CHAPTER 1
Serial Verb Constructions

1.1 Introduction

Serial Verb Constructions (hereafter SVCs) across languages have been widely discussed in the literature (e.g. Li and Thompson 1973, Thepkanjana 1986, Sebba 1987, Baker 1989, 1997, Collin 1997, Bodomo 1997, Andrews and Manning 1999, Muansuwan 2002, among others). Some of them study only the syntactic structure of the SVCs, e.g. Thepkanjana 1986, Baker 1989, 1997, Collin 1997, and some of them study both syntactic and semantic structure of the SVCs, e.g. Duries 1997, Bodomo 1997, Andrews and Manning 1999, Muansuwan 2002. This thesis is interested in studying both syntactic and semantic structure of Thai SVCs in the Lexical Functional Grammar (LFG) framework. Durie (1997) put in some key characteristics of the SVCs as following:

> 'a single serial verb complex describes what is conceptualized as single event: this is repeatedly reported to be clear intuition of native speakers, and can be demonstrated through semantic analysis. 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.'
>
> (p. 291)

This thesis studies the syntax and semantics of the SVCs in Thai, which is in the Tai language family. The Thai language on which this thesis studies is the dialect spoken in the central part of Thailand where Bangkok, the capital of the country, is situated. This dialect is used in the classroom and in conducting national affairs and is officially

considered the national language of Thailand or 'Standard Thai'. Some examples of the SVCs in Thai are shown in (1) – (4).

(1) ka:nda: dɤn pay sí: nǎŋsǐ:

Kanda walk go buy book

'Kanda walked away to buy a book.'

(2) ka:nda: ʔaw mî:t hàn kày

Kanda take knife cut chicken

'Kanda took a knife to cut a chicken.'

(3) ka:nda: yɨ:n ró:ŋple:ŋ

Kanda stand sing

'Kanda sang, while standing.'

(4) ka:nda: tham kɛ̂: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.

This thesis studies all SVCs in Thai, both their syntactic and semantic structures. Firstly, I will divide types of Thai SVCs with respect to the limitation of the verbs that can occur in each SVC. Secondly, I contrast the SVCs with the coordinate structures in

order to see their differences. Thirdly, I test them with the coordination constraint to find out their syntactic structure. Fourthly, I find out how many events are there in each type of SVCs. Finally, I present the analysis of Thai SVCs in the LFG framework.

The thesis is organized as followings:

Chapter 2 concerns types of the SVCs in Thai. This chapter reviews the definition of Thai SVCs in Thepkanjana 1986, Wilawan 1993, and Muansuwan 2002 and tries to come up with the appropriate criteria for the SVCs in Thai based on the standard criteria that determine the SVCs in the other languages. It is proposed in this chapter that there are eight types of the SVCs in Thai with respect to the restriction on the verbs that occur in the verb sequence: Motion SVCs, Take-SVCs, Use-SVCs, Open class SVCs, Give-SVCs, Causative SVCs, and Resultative SVCs. The characteristics of the SVCs in Thai are also discussed. Finally, the possible combination among each type of the SVCs in Thai is presented.

Chapter 3 discusses the syntactic structures of the SVCs in Thai. By applying the negation test and the topicalization test to Thai SVCs, it is found that they have the different structures from the co-ordinate structures. It is further proposed that Thai SVCs have VP complement structures. Thai SVCs involve two kinds of argument sharing mechanisms. Some argument sharing, such as the relation between the subject of the matrix verb and that of the verbs in series is LFG's functional control because it is defined on grammatical relations. However, the relation between the object of the matrix

verb and that of its complement verb phrase is thematic control due to their thematic restriction. That is, the first verb targets the specific thematic argument of the second verb. The control relation that involves here is then the thematic control due to the thematic restriction of the matrix and embedded verbs.

Chapter 4: discusses the semantic structures of the SVCs in Thai. First, the semantic interpretation of the SVCs in Thai is discussed. It is proposed that the verbs in series of the motion deictic SVCs, motion-directional SVCs, take-SVCs, Open class SVCs, and give-SVCs, express multi-events structure while the verbs in series of the posture SVCs, Causative SVCs, Use-SVCs, and Resultative SVCs, expresses only one single event structure. The Lexical Conceptual Structure (LCS) is proposed to show their semantic structures.

Chapter 5 presents the analysis of both the syntactic and semantic structures of the SVCs in Thai in LFG framework. The argument mapping for Thai SVCs are proposed.

Chapter 6 is the conclusion and the further direction.

1.2 Thai Phonemes and Syntax: overview

1.2.1 Thai Phonemes

The Thai language on which this study is based is the dialect spoken in the central part of Thailand. This dialect is officially considered the national language of Thailand or

Standard Thai. The following symbols will be used for phonemic transcription throughout this study.

1.2.1.1 Consonants:

	Bilabial	Labio-dental	Dental	Palatal	Velar	Glottal
Voiced unaspirated Stops	b		d			
Voiceless Unaspirated Stops	p		t	c	k	ʔ
Voiceless aspirated Stops	ph		th	ch	kh	
Voiceless Fricatives		f	s			h
Nasals	m		n		ŋ	
Liquid			l			
Flap			r			

Semi-vowels	w			y		

1.2.1.2 Vowels:

	Front	Central	Back
High	i	ɨ	u
Mid	e	ɤ	o
Low	ɛ	a	ɔ

All vowels can occur long or short. Long vowels are represented by the colon sign behind the short vowel symbol, for example high front long vowel is 'i:', low back long vowel is 'ɔ:', etc.

There are three diphthongs in Thai:

ia

ɨa

ua

1.2.1.3 Tones

Standard Thai has five tones:

Mid tone	unmarked
Low tone	à
Falling tone	â
High tone	á
Rising tone	ǎ

1.2.2 Thai Syntax: Overview:

The most important property of Thai words is that they all are free morphemes. In other words, they do not have the inflectional change. *(see the structure of Thai words in Phanuphong 1983).*

Thai language has SVO word order. The phrase structure rule of Thai is S NP VP, which generates the following Thai sentences:

(5) ka:nda: nɔ:n

Kanda sleep

'Kanda sleeps.'

(6) ka:nda: kin khâ:w

Kanda eat rice

'Kanda eats rice.'

Thai sentences in (5) and (6) are simple sentences that have only one verb. In (5), a verb *nɔ:n* 'sleep' has only one argument, which is *ka:nda:* 'Kanda', while a verb *kin* 'eat' in (6) has two arguments, which are *ka:nda:* 'Kanda' and *khâ:w* 'rice'. The preverbal arguments such as an NP *ka:nda:* 'Kanda' in (5) and (6) are subjects while the post verbal argument such as an NP *khâ:w* 'rice' is an object, which is equivalent to Dixon's term 'pivot'. *(see Dixon 1994).*

However, there are also sentences as shown above in (1) – (4) that allow more than one verb in the sentence in which the phrase structure rule S NP VP cannot generate. This study will concentrate to those sentences in (1) – (4). I will try to find out both their syntactic structures and semantic structures.

CHAPTER 2
Types of Serial Verb Constructions in Thai

2.1 Introduction

Serial Verb Constructions (SVCs) are very common in Thai. Thepkanjana is the first person that studies the SVCs in Thai in 1986. She broadly defines them as a surface form in which more than one verb phrase is strung together, so her data include a wide range of constructions, such as passives, causatives and control constructions. Wilawan (1993) and Muansuwan (2002) are the others that study them later but they did not study every type of them. This chapter concerns types of the SVCs in Thai. I propose to divide the SVCs in Thai into eight types with respect to the restriction of the limited set of verbs that occur in the series. The organization of this chapter is following:

In section 2, I review three previous literature: Thepkanjana 1986, Wilawan 1993, and Muansuwan 2002, which study the SVCs in Thai. I show that some constructions that Thepkanjana treats as SVC such as passive and complements of modality verbs constructions are in fact not SVC according to their syntactic structures.

In section 3, I discuss the criteria for the SVCs in Thai based on the standard criteria that determine the SVCs in the other languages. It is proposed in this section that there are eight types of the SVCs in Thai with respect to the restriction of the limited set of the verbs that occurs in the verb series. They are Motion SVCs, Posture SVCs, take-SVCs, use-SVCs, Open class SVCs, give-SVCs, Causative SVCs, and Resultative SVCs.

In section 4, I conclude the finding in this chapter.

2.2 Previous studies of the SVCs in Thai

There are three studies about the SVCs in Thai: Thepkanjana (1986), Wilawan (1993), and Muansuwan (2002), as the followings:

2.2.1 Thepkanjana 1986:

Thepkanjana (1986: 2) broadly defines SVCs as a surface form in which more than one verb phrase is strung together. She considers the SVCs as one kind of multi-verb construction; the other kinds of multi-verb constructions are compound verbs and consecutive constructions. She indicates the functions of serial verbs in Thai as the followings:

(i) Complementing the initial verb, which results in the semantic implications of causative, passive, and resultative.

(ii) Indicating direction and aspect.

(iii) Acting as grammatical markers and/or case markers for which she will use the specialized term 'coverb'.

(iv) Indicating purposive and simultaneous actions.

Thepkanjana classifies serial verbs in Thai into seven types: causatives, complements of modality verbs, resultatives, passives, directional and aspectual serial verbs, and simultaneous serial verbs.

2.2.1.1 Causatives

Thepkanjana considers *tham* 'make', *hây* 'give' and *tham hây* 'make give' in (1) –(3) causative verbs. For her, all sentences that contain a series of VP + hây + (NP) + VP are considered as the causative. The examples of the causative are in (1) – (3).

(1) sùɾi: tham kæ̂:w tæ:k

Suri make glass break

'Suri broke a glass.'

(2) sùɾi: hây lû:ksă:w pay du: nǎŋ

Suri give daughter go look movie

'Suri let her daughter go to see the movie.'

(3) sùɾi: tham hây chăn mo:hŏ:

Suri make give I be upset

'Suri made me upset.'

2.2.1.2 Complements of modality verbs

The examples of the complements of modality verbs are in (4) and (5).

(4) sùɾi: yà:k lɤ́:k tham ŋa:n

Suri want quit do work

'Suri wanted to quit the job.'

(5) sùɾi: phaya:ya:m tɨ̀:n châ:w

Suri try get up morning

‘Suri tried to get up early.’

Thepkanjana indicates that the verbs such as *yà:k* ‘want’, *phaya:ya:m* ‘try’ are modality verbs, which require a sentential complement whose subject is identical to that of the modality verb itself. She proposes that a sentence like (4) has the underlying syntactic structure as in (6).

(6) sùɾi: yà:k thî: [PRO cà lɤ̂:k tham ŋa:n]

Suri want COMP will quit do work

She proposes two transformational rules: first, the COMP-Deletion, which deletes the complementizer thî:, and second, the AUX-Deletion, which deletes the future marker cà.

Pingkarawat (1989) treats such a construction in (5) and (6) as the control construction in which the verbs *yà:k* ‘want’ and *phaya:ya:m* ‘try’ are control verbs that subcategorize for a complement clause and assign control relation of the embedded subjects to their subjects *(see the detail in Pingkarawat 1989)*.

2.2.1.3 Resultatives

The sentences (7) and (8) are the examples of two kinds of resultatives in Thai. Both of them express the results, which follow the prior events. The initial verb in (7) is intransitive verb while it is transitive verb in (8). The examples of the resultatives are in (7) and (8).

(7) sùɾi: kin ʔìm

Suri eat full

'Suri ate and become full.'

(8) sùɾi: yìŋ nók ta:y

Suri shoot bird die

'Suri shot a bird dead.'

In addition, the subject of the second verb in (8) is the object of the initial verb. As for a construction in (7), both verbs share the same subject. This construction basically conveys the meaning that an event happens to the subject, and that event is followed by another event also occurring to the same person. The second event is the result of the first event. On the other hand, a construction in (8) conveys the meaning that the subject initiates the action directly onto the direct object and, as a result, something happens to the direct object.

Thepkanjana (1986: 122) claims that the whole verb phrase string of resultaive SVCs in Thai is 'complex predicate'. The semantic interpretation is not merely the sum

of the meanings of all the parts, but the meaning of the verb phrase as a whole. She then proposes that the Predication theory postulated by Edwin Williams (1980) is appropriate to Thai resultative SVCs since it allows the semantic interpretation of verb phrase as a whole (Thepkanjana 1986: 120-124), as illustrated in (9).

(9) sùɾiː$_i$ [kin ʔìm$_i$]$_j$

Suri eat full

'Suri ate and become full.'

According to the Predication Theory, Williams postulates a level of syntactic representation in which the subject-predicate relation is indicated by indexing. This level of representation is termed the Predicate Structure (PS). The subject-predicate relation in Williams' terms is based on the notion of subject as an external argument. An external argument refers to a single argument that is located outside the maximal projection of the predicate phrase. According to Williams, the subject must c-command the predicate. And there are two kinds of environments for predication: grammatically governed and thematically governed.

The syntactic representation in (9) provides information as to which argument is predicated. This representation indicates that the subject argument is predicated by the whole verb phrase. And *sùɾiː* 'Suri' in (9) is assigned the external thematic role of both verbs in the square bracket. Here Thepkanjana claims that both verbs do not belong to the

same argument complexes, so no theta criterion violation takes place with Williams' formulation of the theta criterion. (p.96). [1]

This Predication Theory may work with the resultative SVCs as in (8) where the subject of the second verb is the object of the initial verb, so a second verb *ta:y* 'die' assigns an external theta role to the object of the initial verb *yìŋ* 'shoot' and the whole verb phrase *yìŋ nók ta:y* 'shoot a bird dead' assigns an external theta role to a subject *sùri:* 'Suri' as in (10).

(10) sùri:$_j$ [yìŋ nók$_i$ [ta:y]$_i$]$_j$

Suri shoot bird die

2.2.1.4 Passive

(11) khăw thù:k mă: kàt

He Passive dog bite

'He was bitten by a dog.'

[1] Dr. Wechsler presumes that the index in (9) is just a typo. The index on Suri should be j since Thepkanjana posits complex predicate formation, the [V V] constituent assigns a single role, not two. I agree that this is the most possible explanation. Following Wechsler's presumption, no theta criterion violation takes place here.

Thepkanjana argues that the construction in (11) does not transformationally derived as a passive construction but a serial verb construction in which a passive morpheme *thù:k* is a full verb expressing the inherent concept of passivity.

Sudmuk (2003) studies the *thù:k* construction, which many Thai linguists considered as passive, and proves that it is not a true passive since it lacks of the most crucial property of 'passive', which is the lexical alternation in grammatical function of the argument roles. According to the status of the NP after the verb *thù:k* as a subject of an embedded complement and the property of the verb *thù:k* as a control verb, Sudmuk proposes that the *thù:k* construction such as (11) has a structure like (12), in which *thù:k*, as a main verb, requires a clausal complement and the syntactic category of the gapped object and the matrix subject matched, which is a property of long distance dependencies. The dependency between the gapped object and the matrix subject involves functional control. This construction is similar to the 'Tough" construction in English, which is considered as a weak unbounded dependency construction (Sudmuk 2003).

(12) khăw$_i$ thù:k [mă: kàt _____$_i$]

He suffer dog bite

'He suffered (from the experience that) a dog bit (him).'

The construction in (11) is surely not a serial verb construction since the second verb *kàt* 'bite' does not share the same subject with the first verb *thù:k*. This verb has its own subject, which is *mǎ:* 'dog'. The embedded clause *mǎ: kàt* 'dog bit' is the complement of the verb *thù:k*.

2.2.1.5 Directional and aspect serial verbs

Thepkanjana proposes that Directional serial verbs as in (13) have a flat recursive VP structure of the form VP VP VP *, and argues that when several verbs occur in this construction.

(13) sùɾi: dɤn pay (directional)

Suri walk go

'Suri walked away (from the speaker's center of attention).'

She proposes that Directional serial verbs must conform to a constraint on linear order as follows:

(i) The initial verb: motion verbs

(ii) The geometric shape of the path: *won* 'circle', *tɾoŋ* 'go straight', etc.

(iii) The direction with respect to the previous path: *yô:n* 'reverse', *thǒ:y* 'retreat, back up', etc.

(iv) The direction with respect to the outside world: *lɤ:y* 'pass', *khâ:m* 'cross'.

(v) The direction with respect to speech act participants: *pay* 'go', *ma:* 'come.

She claims that the maximal number of verbs that can be serialized is six including the first verb of the string as in (14).

(14) khăw wîŋ troŋ yŏ:n klàp khâw pay

He run go straight reverse return enter go

'He ran along straight back in (away from the speaker's center of attention).'

For the aspectual serial verbs in (15), Thepkanjana proposes to analyze strings of verbs and aspectual verbs as 'complex verbs'. The aspectual verbs will signal meanings only if they are serialized and occur with certain types of verbs. The main verb in the string can be either transitive or intransitive. As for the aspectual verb, it never subcategorizes for an object since it loses its syntactic properties when serialized.

(15) sùri: kin ʔa:hă:n ʔù: (aspectual)

Suri eat food be located

'Suri is/was eating.'

2.2.1.6 The *ʔaw* 'take' and *chây* 'use' serial verbs

The examples of the *ʔaw* 'take' and *chây* 'use' serial verbs are in (16) and (17).

(16) khăw ʔaw mî:t tàt sɔ:ŋ

He take knife cut envelope

'He took the knife to cut the envelope.'

(17) khăw chây kankray tàt yâ:

He use scissors cut grass

'He used the scissors to cut grasses.'

Thepkanjana suggests that *ʔaw* 'take' is similar to *chây* 'use' in that both indicate the subject agent's intention to choose the instrument or means to accomplish something. They differ slightly in that the notion of instrument or means is inherent in the meaning of the isolated *chây* 'use' but not in the isolated *ʔaw* 'take'.

2.2.1.7 Simultaneous serial verbs

Thepkanjana proposes two kinds of simultaneous serial verbs: purposive simultaneous serial verb in (18), and simultaneous action serial verb in (19).

(18) sùɾiː ma: khùy kàp chăn

Suri come talk with I

‘Suri came to talk to me.’

(19) a. sùɾiː yɨːn ɾóːŋpleːŋ

Suri stand sing

‘Suri stood singing.’

b. sùɾiː dɤn ʔàːn năŋsɨ̌ː

Suri walk read book

‘Suri read a book while walking.’

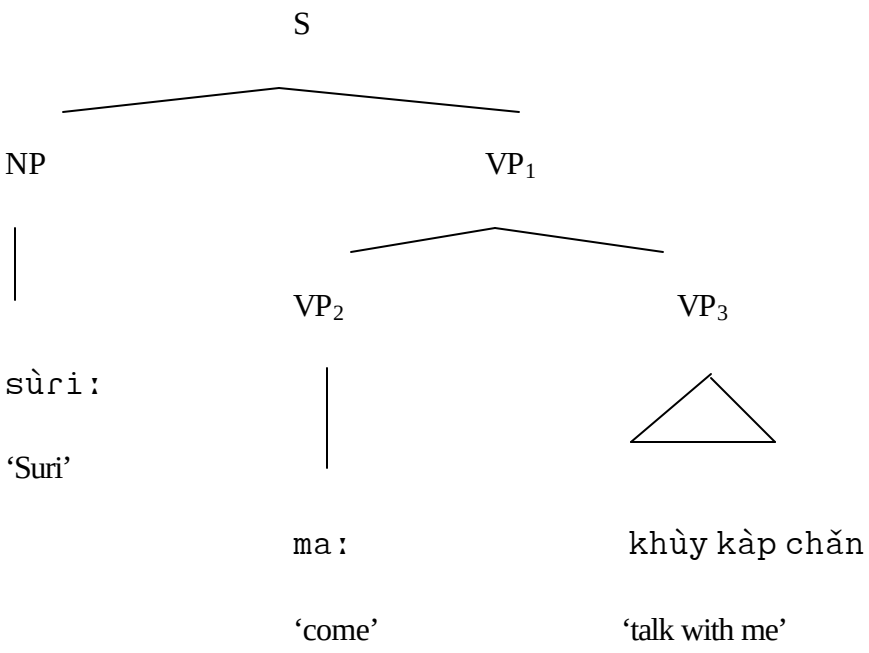
The sentences in (18) and (19) represents two actions and the second action is subsequent in time to the other. The action of the non-initial verb *khùy* ‘talk’ in (18) is the goal of carrying out the first action. Since the notion of purpose is inherent in the SVCs, verbs in the series must be activity verbs and require an agent as their subject. Also, verbs in the purposive simultaneous SVCs must assign the same thematic role to their subject, which they share.

Thepkanjana indicates that the initial verb in simultaneous SVCs must indicate the posture of the body such as sitting, standing, or walking. Such verbs of body posture indicate actions, which presumably last for a while. During the time when the agent’s body is in a particular position, the agent carries out an action.

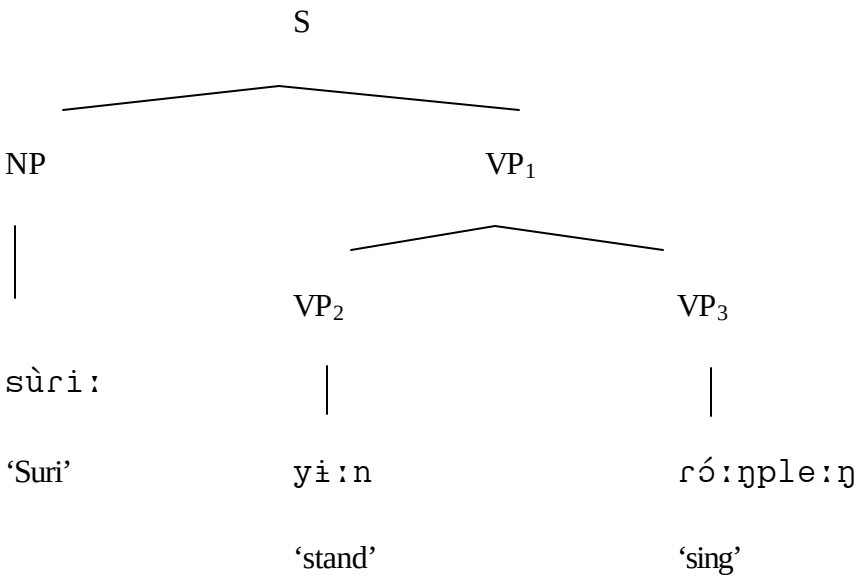
Thepkanjana claims that the simultaneous actions SVCs have many of the same properties as the purposive simultaneous SVCs, for example verbs in the series share the

same subject bearing the same thematic role. So she proposes that both kinds of simultaneous SVCs have the same syntactic representation, that is verbs in the string of simultaneous SVCs constitute the VP node in the underlying structure. The SVCs consists of a cluster of verb phrases strung together, which contribute the highest VP immediately dominated by the S node. The syntactic representation of purposive simultaneous SVCs is shown in (20) and the syntactic representation of simultaneous actions SVCs is shown in (21).

(20)



(21).



2.2.2 Wilawan 1993:

Wilawan (1993) studies SVCs on four languages in four different language families: Thai, Khmer, Mandarin Chinese, and Yoruba. She proposes dependency analysis, which is in the Lexicase framework, for reanalysis of SVCs in those four languages, and claims that some of these constructions can be analyzed as conventional infinitival complement structures or as coordination structures. Since this dissertation focuses especially in Thai, I will discuss only SVCs in Thai.

Wilawan (1993: 69) groups SVCs in Thai into two major groups according to the syntactic properties of the first verb in the series, which is called the 'regent verb'. The first group is those with intransitive regents and the second group is those with transitive regents. There are three constructions in these two groups that are relevant to this dissertation.

2.2.2.1 Manner intransitive regent and intransitive dependent

This construction consists of two verbs with a shared NP subject. The regent verb is interpreted as referring to the manner in which the action of the dependent verb is performed. Thus, Wilawan claims that the first verb can only be a manner intransitive verb and the second verb is an intentional intransitive verb as in (22) and (23).

(22) ma:li: dɤn ɾó:ŋhây

Mali walk cry

'Mali walked and cried (at the same time).'

(23) ma:li: wîŋ klàp bâ:n

Mali run return home

'Mali returned home by running.'

Wilawan analyzes the second verb, according to a Lexicase Analysis, as a complement of the first verb because it cannot freely occur with all types of intransitive verbs as in (24).

(24) a.* ma:li: sà?ɨk ɾó:ŋhây

Mali hiccup cry

'Mali hiccupped and cried (at the same time).'

b.* ma:li: lôm ɾó:ŋhây

Mali fall cry

'Mali fell and cried (at the same time).'

And she analyzes the part of the sentence headed by the second verb as a subordinate construction since we cannot reverse the order of the verb and its dependent as in (25).

(25) * ma:li: ɾó:ŋhây dɤn

Mali cry walk

'Mali cried and walked (at the same time).'

The interpretation of this construction is processed by a new actor-to-actor complement control rule. An actor in the higher clause is co-indexed with an actor in the lower clause.

2.2.2.2 Manner intransitive regent and transitive dependent

In this construction, Wilawan indicates that the first verb must be a manner intransitive verb and the second verb must be an intentional transitive verb as in (26).

(26) ma:li: nâŋ tham ka:nbâ:n

Mali sit do homework

'Mali sat doing her homework.'

Wilawan analyzes this construction in the same way with the first construction, that is, the second verb is a complement of the first verb because the first verb only occurs with particular verb, and the part of the sentence headed by the second verb is analyzed as a

subordinate construction. So the syntactic structure of a sentence in this construction is the same as the manner intransitive regent and intransitive dependent.

2.2.2.3 Transitive regent and transitive dependent with a shared object NP

This construction consists of a purpose transitive regent verb with its transitive dependent, so it has only one overt NP object between two verbs as in (27).

(27) nuan phàt khâ:w kin

Nuan fry rice eat

'Nuan fried some rice to eat.'

The presence of an overt NP object of the second verb or the presence of an intransitive second verb gives rise to ungrammaticality as in (28) a. and b. respectively.

(28) a. * nuan phàt khâ:w kin khâ:w / man

Nuan fry rice eat rice / it

'Nuan fried some rice to eat it.'

b. * nuan phàt khâ:w hăurɔʔ

Nuan fry rice laugh

'Nuan fried some rice and laughed.'

Wilawan analyzes the second verb in this construction as a subordinate dependent of the first verb because the shared NP object must appear after the first verb. The presence of a shared NP object after rather before the second verb creates an unacceptable sentence as in (29).

(29) * nuan hă: kin khâ:w

Nuan seek eat rice

'Nuan seeks some rice to eat.'

The syntactic representation of a sentence in this construction is also the same as the manner intransitive regent and intransitive dependent and the manner intransitive regent and transitive dependent. The interpretation of the missing object NP is process by a Patient-to-Patient control rule, i.e. a patient of a lower transitive infinitival complement clause is co-indexed with a patient of the upper clause, and the actor of the nonfinite verb is interpreted as the closest available noun dependent of a regent verb to the left of the embedded verb.

To sum up, Wilawan divides the SVCs in Thai based on the syntactic properties of the verbs in series as follows:

1. Manner intransitive verb and intransitive verb
2. Manner intransitive verb and transitive verb
3. Transitive verb and transitive verb with a shared object NP

According to the above three groups of SVCs that Wilawan have for SVCs in Thai, there are some SVCs that are left out, for example the causative serialization in which the first verb is always the verb 'make' and the second verb can be either the unergartive verb as in (30a) or the unaccusative verb as in (30b).

(30) a.ka:nda: tham dèk rô:ŋhâ:y

Kanda make child cry

'Kanda made the child cry.'

b.ka:nda: tham kɛ̂:w tɛ:k

Kanda make glass break

'Kanda made the glass broke.'

For the syntactic structure of the SVCs, Wilawan analyzes the part of the sentence headed by the second verb of all three SVCs in Thai as nonfinite subordinate construction. However, Muansuwan (2002) shows that some types of SVCs in Thai such as Directional SVCs have an extended complementation structure. I discuss the study of SVCs in Thai in Muansuwan (2002) next.

2.2.3 Muansuwan 2002:

Muansuwan (2002) studies three SVCs in Thai: directional SVCs, aspectual construction in SVCs, and adjoining construction in sequential SVCs.

2.2.3.1 Directional SVCs

The directional SVCs in (31) consists of six verbs, which share a common subject *ma:li:* 'Mali'.

(31) ma:li: wîŋ troŋ yó:n khâ:m sàpha:n ʔɔ:k pay

Mali run go straight reverse cross bridge exit go

'Mali ran straight back, crossing the bridge, out away from the speaker.'

Semantically, *ma:li:* 'Mali' is the figure of the complex motion event encoded by the sequence of verbs in (31). The first verb in (31) denotes a manner of motion and the non-initial verbs encode a directed motion, which includes information about the path, direction, and/or deictic center of the motion event. Each verb in Directional SVC describes the same, single event from different perspective.

Muansuwan argues that Thai Directional serial verb constructions include two kinds of syntactic structures: a recursive co-head structure and a complementation structure. According to the adverb placement test *dûayfǐ:thá:bau* 'with the light footsteps' in (32) and the anaphoric VP test *thamyà:ŋdiawkan* 'do the same' in (33), there can be a VP break after any verb in an SVC except before a deictic verb.

(32) a. ma:li: dɤn ʔɔ:k won klàp yó:n pay

Mali walk exit circle return reverse go

dûayfǐ:thá:bau

with light footsteps

‘Mali walked out, circling, back, away from the speaker, with the light footsteps.’

b. ma:li: dɤn ʔɔ:k won *dûayfǐ:thá:bau* klàp yɔ́:n

Mali walk exit circle with the light footstep return reverse pay

go

‘Mali walked out, circling, with the light footsteps, back away from the speaker.’

c. ma:li: dɤn ʔɔ:k *dûayfǐ:thá:bau* won klàp yɔ́:n

Mali walk exit with the light footsteps circle return reverse pay

go

‘Mali walked out, with the light footsteps, circling back away from the speaker.’

d. * ma:li: dɤn ʔɔ:k won klàp yɔ́:n

Mali walk exit circling return reverse

dûayfǐ:thá:bau pay

with the light footsteps go

(Intended meaning: Mali walked out circling, back, with the light footsteps, away from the speaker)

(33) a. ma꞉li꞉ wîŋ yó꞉n klàp ʔɔ꞉k won pay

Mali run reverse return exit circle go

lɛ́ʔ pì̀ti kɔ̂ʔ *thamyà꞉ŋdiawkan* tɾoŋ ma꞉

and Piti then do the same go straight come

‘Mali ran back out away, circling, and Piti did the same straight towards the speaker.’

b. ma꞉li꞉ wîŋ yó꞉n klàp ʔɔ꞉k won pay lɛ́ʔ

Mali run reverse return exit circle go and

pì̀ti kɔ̂ʔ thamyà꞉ŋdiawkan loŋ tɾoŋ ma꞉

Piti then do the same descend go straight come

‘Mali ran back out away, circling, and Piti did the same down straight towards the speaker.’

c. * ma꞉li꞉ wîŋ yó꞉n klàp ʔɔ꞉k won pay

Mali run reverse return exit circle go

lɛ́ʔ pì̀ti kɔ̂ʔ *thamyà꞉ŋdiawkan* ma꞉

and Piti then do the same come

(Intended meaning: Mali ran back out away, circling, and Piti did the same towards the speaker)

Given the adverb placement test in (32) and the anaphoric VP test in (33), Muansuwan proposes that verbs in Directional SVC in Thai form a recursive VP-over-VP structure except when a verb in the SVC is followed by a deictic verb [1].

In addition, verbs that do not encode manner-of-motion in Directional SVCs allow optional arguments as in (34).

(34) pìti dɤn khâ:m (sàpha:n) klàp (ca:k tàlà:d)
Piti walk cross (bridge) return (from market)
pay (ro:ŋrian)
go (school)
'Piti walked, crossing (the bridge), back (from the market), away (to school).'

In (34), the NP *sàpha:n* 'bridge', the PP *ca:k tàlà:d* 'from the market', and the NP *ro:ŋrian* 'school' are optional complements of the serial verbs *khâ:m* 'cross', *klàp* 'return', and *pay* 'go' respectively. The omission of the complements is a properties of directional verbs as serial verbs only, that is, directional verbs cannot leave out their complements when they function as the only verb in a clause as the ungrammatical sentences in (35a), (36a), and (37a).

[1] However, Directional SVC can be combined with the other types of SVC as I show in (135) – (137).

(35) a. *pìti khâ:m

Piti cross

b. pìti khâ:m sàpha:n

Piti cross bridge

‘Piti crossed the bridge.’

(36) a. *pìti khâw

Piti enter

b.pìti khâw hɔ̂:ŋ

Piti enter room

‘Piti entered the room.’

(37) a. *pìti pay

Piti go

b. pìti pay ro:ŋria:n

Piti go school

‘Piti went to school.’

Muansuwan concludes from the argument structure or subcategorization properties of verbs that occur in Thai Directional SVCs showing above that the structure of Thai Directional SVCs has also an extended complementation structure.

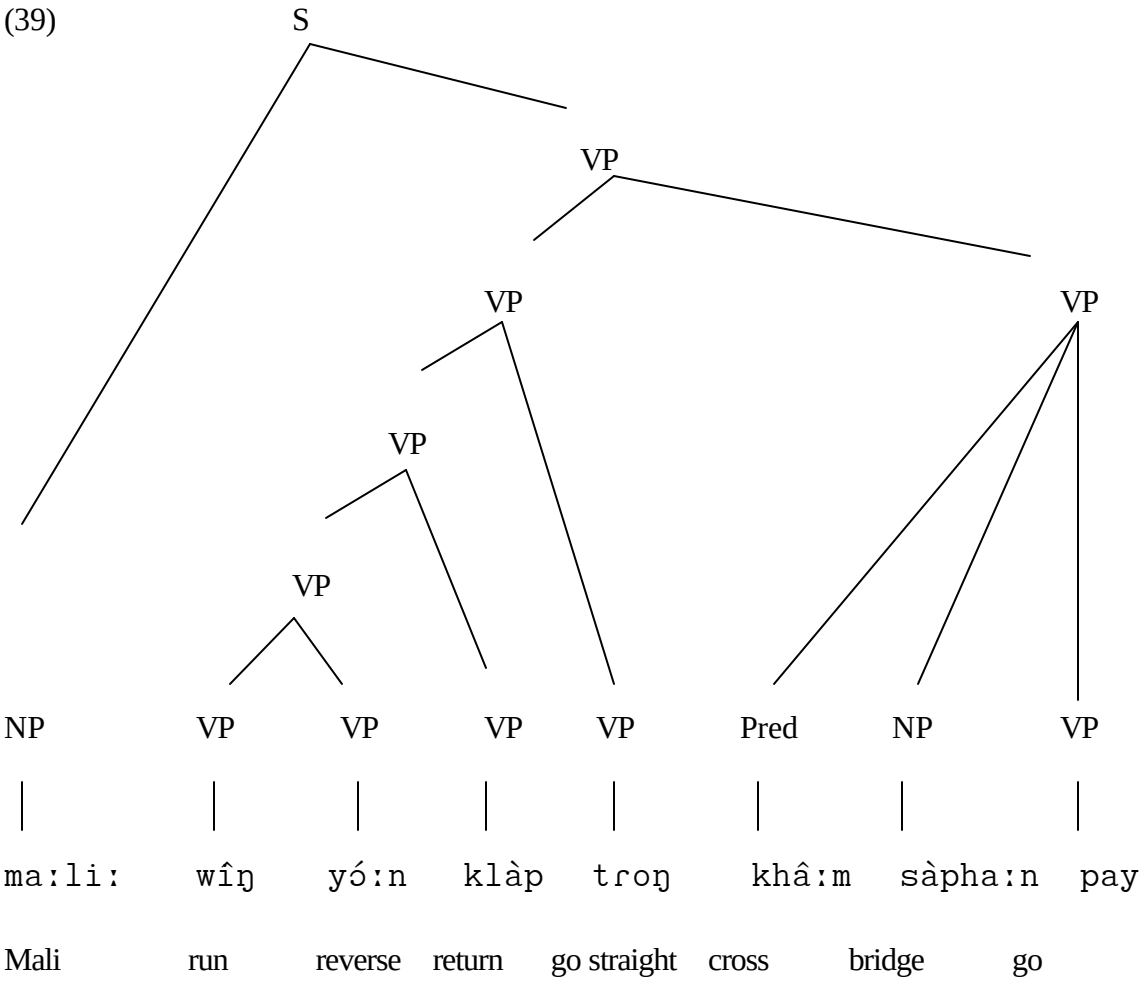
Muansuwan proposes the structure of Thai Directional SVCs in (38) as in (39).

(38) ma:li: wîŋ yó:n klàp troŋ khâ:m sàpha:n pay

Mali run reverse return go straight cross bridge go

‘Mali ran back straight, crossing the bridge, away from the speaker.’

(39)



Muansuwan proposes that a sequence of Thai Directional SVC such as the one in (38) is formed through the use of two phrase structural schemata: a recursive VP VP VP rule and a head-complement rule. Thai Directional SVCs thus involve two kinds of

serializations: symmetric and asymmetric serialization, in the sense of Andrews and Manning (1999). All verbs in symmetric serialization structure have equal status, meaning that the occurrence of one verb is not determined by another. Symmetric serialization is exemplified in Thai by the sequence of non-deictic verbs in Directional SVCs. Verbs in asymmetric SVCs do not have equal status (one verb is the complement of the other); the VP containing a deictic verb in Thai SVCs is an instance of asymmetric serialization.

2.2.3.2 Aspectual construction in SVCs

Muansuwan (2002) considers all verbs that appear at the end of the sentences such as in (40) – (49) as aspect markers.

(40) ma:li: kin khâ:w sèd

Mali eat rice finish

'Mali finished eating rice.'

(41) ma:li: ʔà:n nǎŋsǐ: còp

Mali read book end

'Mali ended/finished reading a book.'

(42) a. wanna dɤn khîn (directional meaning)

Wanna walk ascend

'Wanna walked up.'

b. wira tɛ̀:ŋ klɔ:n khɨ̂n (aspectual meaning)

Wira compose poem SPFV (ascend)

‘Wira composed a/the poem.’

(43) a. piti dɤn loŋ (directional meaning)

Piti walk descend

‘Piti walked down.’

b. thàhă:n ta:y loŋ (aspectual meaning)

soldier die SPFV (descend)

‘A/The soldier died.’

(44) a. wira dɤn ʔɔ:k (directional meaning)

Wira walk exit

‘Wira walked out.’

b. wira tɛ̀:ŋ klɔ:n ʔɔ:k (aspectual meaning)

Wira compose poem SPFV (exit)

‘Wira composed a/the poem.’

(45) a. wira wî ŋ pay pen we:la: sa:m chûamo:ŋ

Wira run IMPFV (go) be time three hour

‘Wira ran for three hours.’

b. khăw ta:y pay

He die PFTV (go)

‘He died.’

(46) khonŋa:n thúp tɨk nán sĭa

worker destroy building that PFTV (lose)

'The workers destroyed that building.'

(47) piti, tham ka:nbâ:n khâw

Piti, do homework IMPFV (enter)

'Piti, do homework more and more.'

(48) wana: kin khâ:w yù:

Wanna eat rice IMPFV (be located)

'Wanna was/is eating rice.'

(49) ma:li: kin khâ:w tɔ̀:

Mali eat rice continue

'Mali continued eating rice.'

Muansuwan (2002: 102) proposes the position of aspect morphemes in Thai according to their positions in the clause, which is AM_1 Base V AM_2 AM_3. The aspect morphemes in (40) – (49) are in the position of AM_2. The aspect morphemes that are in the position of AM_1 , AM_2, and AM_3 are follows:

AM_1: kamlaŋ (Progressive) 'PROG', cà? 'be about to', phŷŋ 'just start' (Post-inchoative), ɾŷ:m 'start' (Inchoative), khɤ:y 'experience', tôŋ 'must'.

AM_2: dâay 'get (permissive, ability)', khîn Semi-perfective-SPFV (lit. ascend), loŋ SPFV (lit. descend), khâw Imperfective-IMPFV (lit. enter), ʔɔ̀:k SPFV (lit. exit),

yù: IMPFV (lit. be located), tò: ‘continue’, sèd ‘finish’, còp ‘end’, pay IMPFV (lit. go), pay Perfective-PFTV (lit. go), sǐa PFTV (lit. lose, waste).

AM_3: ma: Perfect-PFCT (lit. come).

The aspect morpheme *ma:* ‘come’ in the position of AM_3 encodes perfect aspect as the example in (50).

(50) piti tham khwa:m-sà?à:d bâ:n ma:

Piti do cleanliness house come

‘Piti has cleaned the house.’

2.2.3.2 Adjoining construction in sequential SVCs

Muansuwan defines the sequential SVCs as a construction that consists of a sequence of verbs, which share at least one argument and encode eventualities that occur in sequence. And adjoining constructions (AJCs) are a subset of the sequential SVCs. The examples of AJCs are shown in (51) and (52).

(51) níkorn kin khâ:w ?ìm

Nikorn eat rice full

‘Nikorn ate rice (until he was) full.’

(52) níkorn kin khâ:w mòd

Nikorn eat rice be gone

'Nikorn ate rice (until it was) gone.'

Muansuwan argues that Thai AJCs and English resultative constructions differ in the resulting verbs and control relations the two constructions allow. First, the resulting verbs in Thai AJCs merely encode 'expected' results. Muansuwan shows that so-called resulting verb in Thai AJCs can be negated as in (53) and can complement the modal marker *tô:ŋ* 'must' as in (54).

(53) a. níkorn kin khâ:w mây ʔìm

Nikorn eat rice NEG full

'Nikorn ate rice, but he wasn't full.'

b. níkorn kin khâ:w mây mòd

Nikorn eat rice NEG be gone

'Nikorn ate rice, but it wasn't gone.'

(54) a. níkorn kin khâ:w tô:ŋ ʔìm

Nikorn eat rice must full

'Nikorn ate rice and he must have been full.'

b. níkorn kin khâ:w tô:ŋ mòd

Nikorn eat rice must be gone

'Nikorn ate rice but the rice must have been gone.'

From this evidence, she claims that the second verb cannot be said to result from or be caused by the first verb since the second verb can be negated or combines with *tô:ŋ* 'must'. So, the relation between the matrix and resulting verb is not strictly causal because the resulting verb can encode an event, which does not actually occur. The resulting verbs in Thai AJCs describe the expected or possible result typically associated with the event conveyed by the matrix verb.

Second, the phrase-structural configuration of AJCs does not determine the control relations they allow. Maunsuwan shows that both 'subject sharing' and 'object sharing' exist in Thai AJCs as in (55) and (56) respectively.

(55) mɛ̂: pô:n khâ:w lû:k mî:ay

mother feed rice child be tired

'The mother fed the child with the rice until the mother was tired.'

(56) níkorn hă: khŏ:ŋ-khwăn phóp

Nikorn seek present find

'Nikorn sought the present (and) found (it).'

Besides, she claims that there is a sentence as in (57) that the controller is ambiguous.

(57) wua khwìd khwa:y ta:y

ox butt buffalo die

(i) ‘The ox butted the buffalo (until the buffalo) died.’

(ii) ‘The ox butted the buffalo (until the ox) died.’

This sentence has two possible interpretations. So, Muansuwan claims that Thai AJCs allows the subject of the resulting verb *ta:y* ‘die’ to be controlled by either the subject or the object of the matrix verb.

Muansuwan argues further that the resulting verb in an Adjoining Construction behaves the same way as the complement(s) or inherent argument(s) of the matrix verb in that the resulting verb cannot be separated from the matrix verb and its argument(s) by an adverb. Besides, the resulting verbs must denote results typically associated with the events encoded by the matrix verbs. Muansuwan uses Head-Driven Phrase Structure Grammar (HPSG) as the theoretical basis for this analysis. She proposes to add an extended argument to the ARG-ST list, which is the non-semantic argument that behaves like complements, since she concludes that the resulting verb phrases in Thai AJCs are not semantic arguments of the matrix verbs. And she posits the hierarchy of the class of adjoining verbs, which are verbs that can occur as the matrix verb in AJCs, to have two subtypes: ordinary adjoining-verbs and object-sharing adjoining-verbs. Every adjoining verb shares a subject with resultative, which is a property inherited by both of its subtypes. So ordinary adjoining- verbs work just as adjoining verbs, while object-sharing

adjoining-verbs are adjoining verbs that additionally share their object with the resulting verb.

In sum, Thepkanjana (1986), Wilawan (1993), and Muansuwan (2002) have a different way of dividing types of SVCs in Thai. Thepkanjana has a very broad definition of SVCs in Thai, so her data include a wide range of constructions. Some of them such as passives and complements of modality verbs are not SVCs as I have discussed above. For Wilawan, she divides the SVCs in Thai based on the syntactic properties of the verbs in series, whether they are intransitive or transitive verbs. These kinds of criteria do not cover all SVCs in Thai such as causative serialization in which the second verb can be either intransitive or unaccusative. She also claims that some of the constructions that people consider as SVCs can be analyzed as conventional infinitival complement structures. For Muansuwan, only two types of SVCs, Directional SVCs and Adjoining construction in sequential SVCs, are studies in her dissertation. Unlike Thepkanjana, Muansuwan does not treat Aspectual construction in SVCs as a serial verb construction. She considers all verbs that appear after VP as post-VP aspect morphemes, which mark aspect in Thai.

In the next section, I propose to divide the SVCs in Thai into eight types with respect to the restriction of the limited set of verbs that occur in the series.

2.3 Types of SVCs in Thai

According to the restriction of the limited set of verbs that occur in the series, I propose to divide the SVCs in Thai into eight types, as follows:

2.3.1 Motion SVCs

There are two types of the motion SVCs regarding to the set of verbs that occur in the sequence: motion – deictic SVCs and motion – directional SVCs.

2.3.1.1 Motion – deictic SVCs

The set of the first verb in the motion- deictic SVCs is limited to the manner-of-motion verbs such as *dɤn* 'walk', *wîŋ* 'run', *khàpród* 'drive', and the set of its second verb is limited to the deictic verbs: *ma:* 'come' and *pay* 'go', as illustrated in (58) – (59). 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.

(58) ka:nda: wîŋ ma:

Kanda run come

'Kanda runs / ran towards the speaker.'

(59) ka:nda: dɤn pay

Kanda walk go

'Kanda walks / walked away from the speaker.'

The motion-deictic SVCs can be added more verb in the series. When the final verb denotes an intentional action such as *khɔ́:ʔ* 'knock' in (60) and *rɔ̂:ŋple:ŋ* 'sing' in (61), 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)).

(60) ka:nda: wîŋ ma: khɔ́: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)

(61) ka:nda: dɤn pay rɔ̂:ŋple:ŋ

Kanda walk go sing

(i) 'While Kanda was walking away from the speaker, she sang.' (overlapping)

(ii) 'Kanda walks / walked away from the speaker to sing (purposive).'

On the other hand, when the final verb does not denote the intentional action such as *cɤ:* 'find' in (62), the sentence has only one semantic interpretation, which is the overlapping temporal interpretation. I will discuss the semantic interpretation of Thai SVCs in detail in chapter 4.

(62) ka:nda: dɤn ma: cɤ: chăn

Kanda walk come find I

'While Kanda was walking towards the speaker, she found me.' (overlapping)

2.3.1.2 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 as in (63). This kind of serialization is the same as Thepkanjana (1986) and Muansuwan (2002)'s Directional serial verb construction. According to Muansuwan, there can be five directional verbs follow the motion verb as in (64).

(63) ka:nda: dɤn khâw ro:ŋrian pay

Kanda walk enter school go

'Kanda entered the school, walking away from the speaker.'

(64) ka:nda: wîŋ troŋ yó:n khâ:m sàpha:n ʔɔ:k pay

Kanda run go straight reverse cross bridge exit go

'Kanda ran straight back, crossing the bridge, out away from the speaker.'

Like the motion-deictic SVCs, when the final verb that denotes the intentional action such as *khó:ʔ* 'knock' in (65) and *rô:ŋple:ŋ* 'sing' in (66) occurs in the motion- deictic SVCs, 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)).

(65) 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)

(66) ka:nda: dɤn ʔɔ:k pay rô:ŋple:ŋ

Kanda walk exit go sing

(i) ‘While Kanda was walking out away from the speaker, she sang.’ (overlapping)

(ii) ‘Kanda walks / walked out away from the speaker to sing.’ (purposive)

On the other hand, when the final verb does not denote the intentional action such as *cɤ:* ‘find’ in (67), the sentence has only one semantic interpretation, which is the overlapping temporal interpretation.

(67) ka:nda: dɤn ʔɔ:k pay cɤ: chăn

Kanda walk exit go find I

‘While Kanda was walking out away from the speaker, she found me.’ (overlapping)

2.3.2 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 (68) and (69).

(68) ka:nda: yɨ:n khó:ʔ pràtu:

Kanda stand knock door

'Kanda knocked the door while standing.'

(69) ka:nda: nâŋ rô:ŋp|e:ŋ

Kanda sit sing

'Kanda sang while sitting.'

Even though the final verb denotes the intentional action such as *khó:ʔ* 'knock' in (68) and *rô:ŋple:ŋ* 'sing' in (69), 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 (70) shows that the posture SVCs cannot have the purposive verb phrase.

(70) * ka:nda: yɨ:n thɨ̌ŋ chánwa:ŋkhɔ̌:ŋ bonsùd

Kanda stand reach shelf top

(Intended meaning: Kanda stood in order to reach the top shelf.')

2.3.3 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. 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. The examples of the Take- SVCs are illustrated in (71) and (72).

(71) 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)

(72) ka:nda: ʔaw phâ: sày tàkrâ:

Kanda take cloth put basket

(i) 'Kanda took the cloth (and) put (it) into the basket.' (sequential)

(ii) 'Kanda takes / took the cloth to put (it) into the basket.' (purposive)

A verb *ʔaw* ‘take’ cannot occur without the second verb as in (73).

(73) a. * ka:nda: ʔaw mî:t

Kanda take knife

‘Kanda took a knife.’

b. * ka:nda: ʔaw phâ:

Kanda take cloth

‘Kanda took a cloth.’

It can be a main verb only when it has a specific meaning as in (74).

(74) ka:nda: cà ʔaw năŋsĭ: ˩êm nî: phrûŋní:

Kanda will take book CL this tomorrow

‘Kanda will need this book tomorrow.’

2.3.4 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. It has only one semantic interpretation, which is the sequential interpretation. The example of the Use-SVCs is illustrated in (75).

(75) ka:nda: cháy mî:t hàn kày

Kanda use knife cut chicken

‘Kanda cut the chicken with the knife.’

When the Use-SVCs is added more verb phrase, which is the verb that denotes the intentional action as in (76), it has either the sequential or purposive interpretation.

(76) 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)

Like a verb *ʔaw* ‘take’, a verb *cháy* ‘use’ cannot occur without the second verb as in (77), except when it has the specific meaning of ‘carry’, as in (78).

(77) * ka:nda: cháy mî:t

Kanda use knife

‘Kanda used a knife.’

(78) ka:nda: cháy kràpăw bay mày

Kanda use bag CL new

‘Kanda carried a new bag.’

The differences between the Take-SVCs and the Use-SVCs

At the first glance, it seems that the verb *ʔaw* 'take' and the verb *cháy* 'use' can occur interchangeably, as in (79).

(79) a. ka:nda: ʔaw mî:t hàn kày

Kanda take knife cut chicken

'Kanda took the knife to cut the chicken.'

b. ka:nda: cháy mî:t hàn kày

Kanda use knife cut chicken

'Kanda cut the chicken with a knife.'

However, there are some contexts that the verb *ʔaw* 'take' can occur, but the verb *cháy* 'use' cannot as in (80).

(80) a. ka:nda: ʔaw phâ: sày tàkrâ:

Kanda take cloth put basket

'Kanda put the cloth into the basket.'

b.* ka:nda: cháy phâ: sày tàkrâ:

Kanda use cloth put basket

If we want to use the verb *cháy* 'use' instead of the verb *ʔaw* 'take' in the context of (80), we need to reverse the order of the arguments as in (81).

(81) ka:nda: cháy tàkrâ: sày phâ:

Kanda use basket put cloth

'Kanda used a basket for containing cloth.'

The NP object of the verb *cháy* 'use' must function as an instrument in the event denoted by the second verb, here the verb *sày* 'put'.

One might argue that *tàkrâ: sày phâ:* 'a basket containing cloth' in (81) is an NP since it can occur in the subject position as in (82).

(82) tàkrâ: sày phâ: ʔù: bon tóʔ

basket put cloth is on table

'A basket containing cloth is on the table.'

If *tàkrâ: sày phâ:* 'a basket containing cloth' in (81) is considered as an NP, this sentence will be ungrammatical since it lacks a meaning of the purpose of using a basket. This sentence will be grammatical if we fill in another predicate as in (83).

(83) ka:nda: cháy tàkrâ: sày phâ: sày phŏn|amáy

Kanda use basket put cloth put fruit

'Kanda used a basket for containing cloth for putting fruits in.'

Given the above examples, a verb *ʔaw* 'take' selects either an instrument object (79a) or a theme object (80a) while a verb *cháy* 'use' strictly selects only an instrument object (79b and 81). The Use-SVCs then have more pure property of instrumental serialization than the Take-SVCs.

2.3.5 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 (84). They have two semantic interpretations, which are the sequential and purposive interpretations.

(84) ka:nda: hŭŋ 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 (85) – (87).

(85) *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.’)

(86) *ka:nda: chî: rî:ŋ phĭ: bɔ:k nô:ŋ

Kanda believe issue ghost tell sister

(Intended meaning: ‘Kanda believed in ghost and she told her sister about her belief.’)

(87) *ka:nda: chànáʔ ka:nkhè:ŋkhăn dicay

Kanda win race be glad

(Intended meaning: ‘Kanda won the race and she was glad about it.’)

2.3.6 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 (88), which is ‘give sister read’.

(88) ka:nda: sî: năŋsĭ: hây nô:ŋ ʔà: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 *ʔà:n* ‘read’ denotes the purpose of the first verb *hây* ‘give’.

hây ‘give’ has two occurrences in Thai sentences. First, it occurs in a simple sentence as in (89).

(89) ka:nda: hây khà?nŏm jŭm

Kanda give sweet Jum

‘Kanda gave Jum the sweets.’

Second, it occurs in a complex sentence as in (90).

(90) a. ka:nda: hây jŭm ?à:n năŋsĭ:

Kanda give Jum read book

‘Kanda let Jum read a book.’

b. ka:nda: bɔ:k hây jŭm ?à:n năŋsĭ:

Kanda tell give Jum read book

‘Kanda told Jum to read a book.’

c. ka:nda: sî: năŋsĭ: hây jŭm

Kanda buy book give Jum

‘Kanda bought a book and gave it to Jum.’

Pingkarawat (1989) proposes that *hây* ‘give’ in (90) a. and b. is a control verb, which assigns control of the embedded subject to its indirect object. For *hây* ‘give’ in

(89), Rungkupan (1997) proposes that it is a verb of possession transfer. She also proposes that *hây* 'give' in (90c) is a beneficiary marker. I will discuss only *hây* 'give' in (89) and (90c), which relate to the SVCs in Thai.

Rungkupan shows that *hây* in (89) is an achievement verb, which has the semantic representation of the verb of possession transfer while *hây* in (90c) has the semantic representation of beneficiary marker. And both of them co-occur with animate subject only.

1) *hây* as a verb of possession transfer.

As a verb of possession transfer, *hây* is followed by two arguments, a theme followed by a recipient, as in (91a). This order is fixed, and the other way around is ungrammatical, as in (91b).

(91) a. nuan hây khà?nŏm jŭm

Nuan give sweet Jum

'Nuan gave Jum the sweets.'

b. * nuan hây jŭm khà?nŏm

Nuan give Jum sweet

As for the subject, *hây* requires an animate subject. A sentence with an inanimate subject is not acceptable, as in (92).

(92) * fǒn hây ná:m raw

rain give water us

(Intended meaning: Rain gives us water.)

We cannot use sentence (92) to express *fǒn* 'rain' as having a semantic role of possessor who has intent to transfer the possession of *ná:m* 'water' to the receiver *raw* 'us'.

Base on the framework of Role and Reference Grammar (Van Valin 1993; Van Valin and LaPolla 1997), Rungkupan gives the semantic representation of *hây* in (93) as follows:

(93) [do' (x, ∅) CAUSE INGR have' (y,z)]

The logical structure in (93) is the semantic representation of the verb of the possession transfer *hây* 'give', which is an achievement verb, represented by the modifier INGR. The x argument is a participant who transfers the possession to the other participant, represented by the y argument, and the z argument is an object of transfer. As a causative

achievement verb, *hây* involves an unspecified action causing another state of affairs, namely, an achievement.

2) *hây* as a beneficiary marker

As a beneficiary marker, *hây* expresses two kinds of beneficiaries, namely, deputative beneficiaries and recipient. According to Van Valin and LaPolla (1997), a deputative beneficiary is the participant who receives benefit from the action without doing action. The example of the deputative beneficiary is in (94). The recipient that is marked by *hây* can be divided into two kinds: intermediate recipient, which refers to a participant that has a semantic role, as a goal as in (95) and ultimate recipient, which refers to a recipient to whom the possession is transferred, as in (96).

(94) nuan sák phâ hây lû:k sà?mɤ̌: lû:k lɤ:y

Nuan wash cloth give kid always kid thus

sák ʔeŋ mây pen

wash self NEG able

'Nuan always washes clothes for her kids, thus her kid does not know how to wash clothes her/himself.'

(95) nuan yìp năŋsĭ: khŏ:ŋ lò:n hây jŭm phró:

Nuan grab book POSS 3rdF give Jum because

jŭm khŏ: du:

Jum ask look

'Nuan grabbed her book and gave it to Jum because Jum asked to see it.'

(96) nuan sí: khé:k chín nán hây lû:k phró:

Nuan buy cake CL that give kid because

lû:k yà:k kin

kid want eat

'Nuan bought that cake for her kid because her kid wanted to eat it.'

Like the verb of the possession transfer *hây* in (89), *hây*, as a beneficiary, occurs only in a clause with the animate subject. The sentence that has *hây* occurs in a clause with the inanimate subject is unacceptable as in (97).

(97) * dɛ̀:d sò:ŋ hây raw

sunlight shine give us

(Intended meaning: the sunlight shines for us.)

Note also that *hây*, as a beneficiary marker, cannot be followed by an inanimate argument, as shown in (98).

(98) a. * nuan tha:sǐ: hây bâ:n

Nuan paint give house

(Intended meaning: Nuan painted for her house.)

b. * nuan ró:ŋple:ŋ hây kha:msànùksànă:n

Nuan sing a song give fun

(Intended meaning: Nuan sang a song for fun.)

Moreover, the beneficiary marker *hây* does not occur with state verbs or achievement verbs as in (99) and (100) respectively.

(99) * nuan di:cay hây jŭm

Nuan be glad give Jum

(Intended meaning: Nuan was glad for Jum.)

(100) * nuan cɤ: kràpăw thî hă:y pay hây jŭm

Nuan find purse that be lost go give Jum

(Intended meaning: Nuan found the lost purse for Jum.)

Given the unacceptable sentences in (99) and (100), a beneficiary marked by *hǎ:y* may co-occur only with an activity or accomplishment verb.

To sum up, Rungupan shows that *hǎ:y* in (89) is a verb of possession transfer and *hǎ:y* in (90c) is a beneficiary maker. Even though Rungkupan calls *hǎ:y* in (90c) as a marker, she shows that it has the same properties as a verb *hǎ:y* in (89), which is, hǎ:y in (90c) only occurs with animate subjects. So, *hǎ:y* in (90c) is also a verb.

Another piece of evidence showing that *hǎ:y* in (90c) is a verb rather than a preposition is that it does not have a property of preposition, but does have a property of verb. The *do so* test is traditionally considered a VP constituent test. The anaphoric VP *do so* replaces all of the constituents of a verb phrase and only those, as shown in (101).

(101) a. Mary ate pizza yesterday and I'll *do so* today.

b.* Mary ate pizza yesterday and I'll *do so* hamburger today.

A sentence (101b) is ungrammatical because *do so* does not include all constituents of its antecedent VP, but leaves out the object NP *pizza* in the antecedent and replaces it with *hamburger*.

Muansuwan (2002) also use the anaphoric VP *tham ʔà:ŋ diawkan* 'do the same' to test the constituent structures of some of the Thai verb complexes. The anaphoric VP *tham ʔà:ŋ diawkan* 'do the same' is similar to the English anaphoric

VP *do so*, and it can replace all of the constituents of a verb phrase in Thai as shown in (102).

(102) a. ka:nda: sí: nǎŋsǐ: mî:wa:nnî: lɛ́ʔ sùri:

Kanda buy book yesterday and Suri

càʔ tham ʔà:ŋ diawkan wannî:

FUT do the same today

'Kanda bought a book yesterday and Suri will do so today.'

b. * ka:nda: sí: nǎŋsǐ: mî:wa:nnî: lɛ́ʔ sùri:

Kanda buy book yesterday and Suri

càʔ tham ʔà:ŋ diawkan pà:kka: wannî:

FUT do the same pen today

A sentence (102b) is ungrammatical because the anaphoric VP *tham ʔà:ŋ diawkan* 'do the same' does not include all constituents of its antecedent VP, but leaves out the object NP *nǎŋsǐ:* 'book' in the antecedent and replaces it with *pà:kka:* 'pen'.

As indicated, the anaphoric VP *tham ʔà:ŋ diawkan* 'do the same' replaces all of the constituents of a verb phrase, when there is a prepositional phrase in the sentence, the prepositional phrase can be left out, as in (103). In contrast, the anaphoric VP *tham*

ʔàːŋ diawkan ‘do the same’ cannot replace the prepositional phrase, as the ungrammatical sentence in (104).

(103) ka:nda: sí: nǎŋsǐ: thî: roo:ŋrian lɛ́ʔ

Kanda buy book at school and

sùri: tham ʔà:ŋ diawkan thî: roo:ŋrian

Suri do the same at school

‘Kanda bought a book at school and Suri did so at school.’

(104) * ka:nda: sí: nǎŋsǐ: thî: roo:ŋrian lɛ́ʔ

Kanda buy book at school and

sùri: sí: nǎŋsǐ: tham ʔà:ŋ diawkan

Suri buy book do the same

(Intended meaning: Kanda bought a book at school and Suri bought a book at the same place’)

In (103) the anaphoric VP *tham ʔàːŋ diawkan* ‘do the same’ replaces all verb phrase *sí: nǎŋsǐ:* ‘buy book’ and leaves out the prepositional phrase *thî: roo:ŋrian* ‘at school’. This sentence is perfectly fine, showing that *sí: nǎŋsǐ:* ‘buy book’ is the verb phrase. In contrast, the prepositional phrase in (104) cannot be replaced by the anaphoric VP *tham ʔàːŋ diawkan* ‘do the same’. So, only the verb phrase, not the

prepositional phrase, can be replaced by the anaphoric VP *tham ʔà:ŋ diawkan* 'do the same'.

For the Give-SVCs, the anaphoric VP *tham ʔà:ŋ diawkan* 'do the same' can replaces the phrase *hây jŭm* 'give Jum', as in (105), and the sentence is good showing that the phrase *hây jŭm* 'give Jum' is the verb phrase, not the prepositional phrase.

(105). ka:nda: sî: năŋsĭ: hây jŭm lɛ́ʔ sùri:
Kanda buy book give Jum and Suri
sî: pa:kka: tham ʔà:ŋ diawkan
buy pen do the same
'Kanda bought a book and gave it to Jum and Suri bought a pen and did the same.'

Given the *do so* test, *hây* in (90c) is a verb, not a preposition.

The examples of the *hây* 'give' serialization are illustrated in (106) and (107).

(106) ka:nda: sí: năŋsĭ: hây nɔ́:ŋ ʔà:n
Kanda buy book give sister read
'Kanda bought a book to give (it) to her sister to read (it).'

(107) ka:nda: kèp ʔa:hă:n hây chăn

Kanda keep food give I

‘Kanda kept food for me.’

2.3.7 Causative SVCs

There are two verbs in series in the Causative SVCs. The first verb is restricted to the verb *tham* ‘make’. For the second verb, it belongs to the intransitive verb in the open class, as in (108), not the transitive verb, as the ungrammatical sentence in (109).

(108) a. ka:nda: tham dèk rô:ŋhâ:y

Kanda make child cry

‘Kanda made the child cry.’

b. ka:nda: tham kɛ̂:w tɛ:k

Kanda make glass break

‘Kanda made the glass break.’

(109) * ka:nda: tham dèk ʔà:n năŋsĭ:

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 *tham* 'make' has the causative meaning, making the agent to be a causer that made the theme changes state.

2.3.8 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 (110) – (112). The object of the first verb can be the subject of the result verb as in (110) and the subject of the first verb can be the subject of the result verb as in (111). Furthermore, in (112), either the subject or the object of the first verb can be the subject of the result verb.

(110) ka:nda: plùk wi:ra lóm

Kanda push Vira fall

'Kanda pushed Vira (so) Vira fell down.'

(111) ka:nda: kin khâ:w ʔìm

Kanda eat rice be full

"Kanda ate rice until she was full.'

(112) ka:nda: khì: mâ: nɨ̀: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

Types of serialization	**Class of verb**
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)

2.4.Conclusion

This chapter reviews the previous literature that studies the SVCs in Thai. I propose to divide the type of Thai SVCs with respect to the restriction of the class of verb that can occur in the SVC. According to the restriction on the class of the two verbs (or VPs) in the series, there are eight types of the SVCs in Thai, which are Motion SVCs, Posture SVCs, Take-SVCs, Use-SVCs, Open class SVCs, Give-SVCs, Causative SVCs, and Resultative SVCs.

CHAPTER 3
The Syntactic Structure of the SVCs in Thai

3.1 Introduction

It is proposed in the last chapter that there are eight types of the SVCs in Thai with respect to the limited set of verbs that occurs in the verb series, which are Motion SVCs, Posture SVCs, Take-SVCs, Use-SVCs, Open class SVCs, Give-SVCs, Causative SVCs, and Resultative SVCs. In the previous literature, Thai Linguists analyze the SVCs in Thai in different ways.

Thepkanjana (1986) studies five types of Thai SVCs, which are Motion-Directional SVCs, Posture SVCs, Take-SVCs, Use-SVCs, and Resultative SVCs. She claims that the whole verb phrase string of the SVCs in Thai is 'complex predicate'. The semantic interpretation is not merely the sum of the meanings of all the parts, but the meaning of the verb phrase as a whole.

Wilawan (1993) proposes that the SVCs in Thai can be analyzed as a complement structure. She analyzes the part of the sentence headed by the second verb as a subordinate construction. She shows that the first verb in the series occurs with the specific verb and the order of the verbs in the series cannot be reversed, showing that the first verb specifically selects the second verb as its complement.

Muansuwan (2002) studies two types of the SVCs in Thai, which are motion-directional SVCs (Muansuwan calls it as Directional SVCs) and Resultative SVCs (Muansuwan calls it as Adjoining construction in sequential SVCs). She proposes that verbs in motion-directional SVCs form a recursive VP-over-VP structure with an

extended complement structure. For Resultative SVCs, Muansuwan proposes that the resulting verb phrases behave like a syntactic complement even though it is not an inherent argument of the matrix verb since it cannot be separated from the matrix verbs by an adverb. Besides, the resulting verb phrases are not semantic arguments of the matrix verbs, which she calls the adjoining verb. She claims that Resultative SVCs in Thai allows the subject of the resulting verb to be controlled by either the subject or the object of the adjoining verb. Also, the adjoining verb shares a subject with its resulting VP.

In this chapter, I study the syntactic structure of all eight types of the SVCs in Thai. It addresses 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?

This chapter is organized as follows:

In section 2, I contrast the SVCs structures with the coordinate structures. I show that they are different with respect to the negation and coordinate structure constraint argued in Ross (1976). All eight types of the SVCs in Thai have the subordination structure.

In section 3, I discuss the argument sharing between verbs in the series. First, I review the four mechanisms for argument sharing in the literature. They are functional control, anaphoric control, thematic control, and predicate composition or one grammatical function domain structure. I show finally that all the SVCs in Thai have two

kinds of argument sharing mechanisms, which are functional control and thematic control.

In section 4, I conclude the finding in this chapter.

3.2 SVCs contrast with coordinate structures

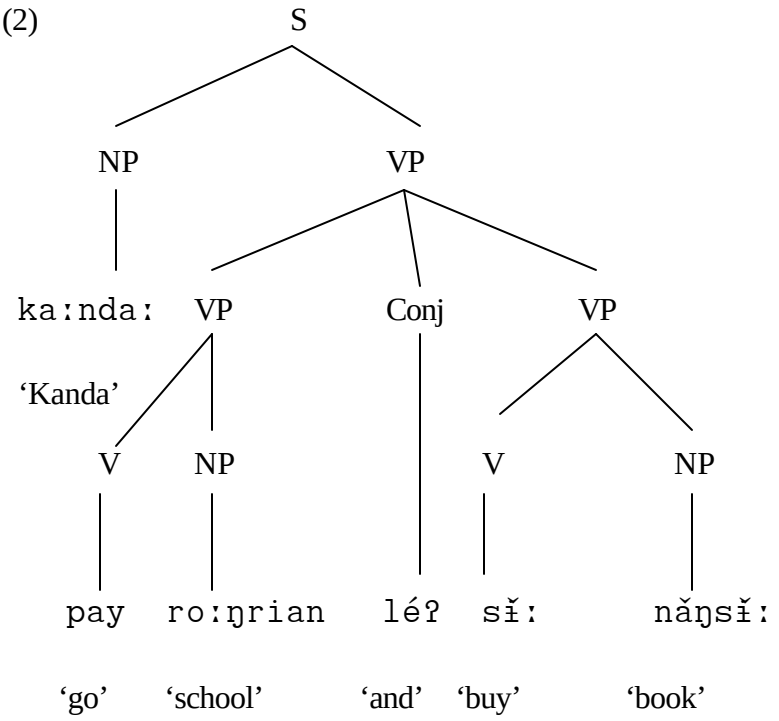
The coordinate structure is composed of two VPs conjoining with the conjunction. The example of the coordinate sentence in Thai is in (1), and its structure is shown in (2).

(1). ka:nda: pay ro:ŋrian lé? sǐ: nǎŋsǐ:

Kanda go school and buy book

'Kanda went to school and bought a book.'

(2)



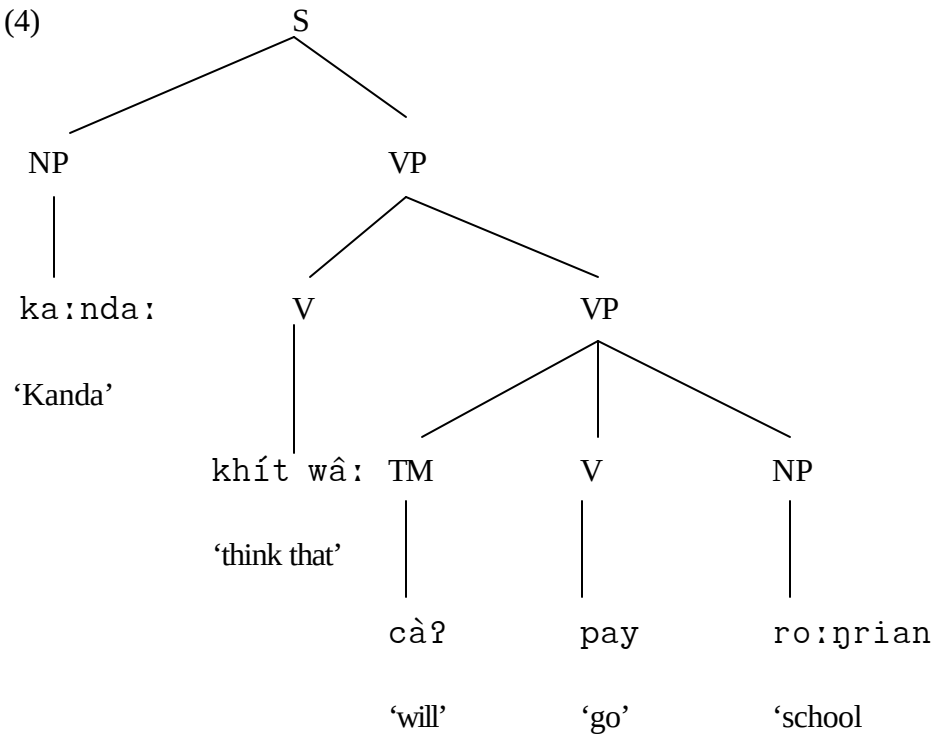
In the coordinate sentence (1), the VPs *pay ro:ŋrian* 'go school' and *sɨ̌: nǎŋsɨ̌:* 'buy book' are conjoined with the conjunction *lé?* 'and'. On the other hand, the subordinate structure is composed of the matrix verb as a head and a VP as its complement. The example of the subordinate sentence is in (3) and its structure is shown in (4).

(3) ka:nda: khít wâ: cà? pay ro:ŋrian

Kanda think that FUT go school

'Kanda thinks that she will go to school.'

(4)



In the subordinate sentence (3), the second VP *cà? pay ro:ŋrian* 'will go school' is the complement of the matrix verb *khít wâ:* 'think that'.

The SVCs in Thai have the different structures from the coordinated structures. Their structures are rather similar to the subordinate structure. The evidence comes from the distribution of the negative morpheme in the SVCs sentences.

3.2.1 The distribution of the negative morpheme

In the coordinated sentence, the negative item *mây* occurs in front of either verb, as in (5) and (6).

(5) 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.'

(6) 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 (7).

(7) a. ka:nda: mây dɤn 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: dɤn mây pay sǐ: nǎŋsǐ:

Kanda walk NEG go buy book

c. * ka:nda: dɤn pay mây sǐ: nǎŋsǐ:

Kanda walk go NEG buy book

In (7a), 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 (7b) and (7c). All eight types of Thai SVCs, except Resultative SVCs, share this property. The contrast examples between each type of SVCs (a) and the coordinate construction (b) are illustrated below:

(8) a. Motion - deictic SVCs:

ka:nda: **mây** dɤn pay rô:ŋple:ŋ

Kanda NEG walk go sing

(i) 'It is not the case that while Kanda was walking away from the speaker, she sang.' (overlapping)

(ii) 'It is not the case that Kanda walked away from the speaker to sing.' (purposive)

* ka:nda: dɤn **mây** pay rô:ŋple:ŋ

Kanda walk NEG go sing

(8) b. coordination:

ka:nda: **(mây)** dɤn lé? **(mây)** pay rô:ŋple:ŋ

Kanda (NEG) walk and (NEG) go sing

'Kanda did (not) walk and did (not) go away from the speaker to sing.'

(9) a. Motion – directional SVCs:

ka:nda: **mây** dɤn khâw ro:ŋrian pay

Kanda NEG walk enter school go

(i) 'It is not the case that while Kanda was walking away from the speaker, she enter the school.' (overlapping)

(ii) 'It is not the case that Kanda walked away from the speaker to enter the school.' (purposive)

* ka:nda: dɤn **mây** khâw ro:ŋrian pay

Kanda walk NEG enter school go

(9) b. coordination:

ka:nda: **(mây)** dɤn lé? **(mây)** khâw ro:ŋrian pay

Kanda (NEG) walk and (NEG) enter school go

'Kanda did (not) walk and did (not) enter the school, away from the speaker.'

(10) a. Posture SVCs:

ka:nda: **mây** yɨ:n rô:ŋp|e:ŋ

Kanda NEG stand sing

'Kanda did not stand while singing.'

* ka:nda: yɨ:n **mây** rô:ŋp|e:ŋ

Kanda stand NEG sing

(10) b. coordination:

ka:nda: **(mây)** yɨ:n lé? **(mây)** rô:ŋp|e:ŋ

Kanda (NEG) stand and (NEG) sing

'Kanda did (not) stand and did (not) sing.'

(11) a. Take-SVCs:

ka:nda: **mây** ʔaw mî:t hàn kày

Kanda NEG take knife cut chicken

(i) 'It is not the case that Kanda took the knife (and) cut the chicken.' (sequential)

(ii) 'It is not the case that Kanda took the knife to cut the chicken.' (purposive)

*ka:nda: ʔaw mî:t **mây** hàn kày

Kanda take knife NEG cut chicken

(11) b. coordination:

ka:nda: **(mây)** ʔaw mî:t lé? **(mây)** hàn kày

Kanda (NEG) take knife and (NEG) cut chicken

'Kanda did (not) take the knife and did (not) cut the chicken.'

(12) a. Use-SVCs:

ka:nda: **mây** cháy mî:t hàn kày

Kanda NEG use knife cut chicken

'Kanda did not cut the chicken.' (sequential)

*ka:nda: cháy mî:t **mây** hàn kày

Kanda use knife NEG cut chicken

(12) b. coordination:

ka:nda: **(mây)** cháy mî:t hàn kày lé? **(mây)**

Kanda (NEG) use knife cut chicken and (NEG)

cháy kankray tàt kràda:d

use scissors cut paper

'Kanda did (not) cut the chicken with the knife and did (not) cut a paper with scissors.'

(13) a. Open class SVCs:

ka:nda: **mây** hŭŋ khâ:w kin

Kanda NEG cook rice eat

(i) 'Kanda did not cook rice (and did not) eat (it).' (sequential)

(ii) 'Kanda does / did not cook rice to eat (it).' (purposive)

*ka:nda: hŭŋ khâ:w **mây** kin

Kanda cook rice NEG eat

(13) b. coordination:

ka:nda: **(mây)** hŭŋ khâ:w lé? **(mây)** kin (man)

Kanda (NEG) cook rice and (NEG) eat it

'Kanda did (not) cook rice and did (not) eat (it).'

(14) a. Give-SVCs:

ka:nda: **mây** sí: năŋsĭ: hây nó:ŋ

Kanda NEG buy book give sister

(i) 'Kanda did not buy a book (and did not) give (it) to her sister.' (sequential)

(ii) 'Kanda does / did not buy a book to give (it) to her sister.' (purposive)

*ka:nda: sí: năŋsĭ: **mây** hây nó:ŋ

Kanda buy book NEG give sister

(14) b. <u>coordination</u>:

ka:nda: **(mây)** sí: nǎŋsǐ: lé? **(mây)** hây (man kɛ̀:) nó:ŋ

Kanda (NEG) buy book and (NEG) give (it to) sister

'Kanda did (not) buy a book and did (not) give (it to her) sister.'

All sentences in (a) are SVCs. The negative item *mây* occurs only before the first verb and take scope over the whole sentence. In contrast, the negative item can occur before each verb in the coordinate sentences in (b).

For the Causative SVCs, there is no coordinated structure parallel to the SVC structure. However, the negative item *mây* just occurs before the first verb and it takes scope over both verbs in series as in (15a). The negative item *mây* cannot occur before both verbs in series as an ungrammatical sentence in (15b).

<u>Causative SVCs</u>:

(15) a. ka:nda: **mây** tham kɛ̂:w tɛ:k

Kanda NEG make glass break

'Kanda did not make the glass break.'

b. *ka:nda: **mây** tham kɛ̂:w **mây** tɛ:k

Kanda NEG make glass NEG break

The Resultative SVC is only the one that the negative item can appear in front of either the first or the second verb, as Muansuwan (2001) gives the following examples:

(16) a. níkorn **mây** kin khâ:w ʔìm

Nikorn NEG eat rice be full

'Nikorn did not eat rice (and) was not full.'

b. níkorn kin khâ:w **mây** ʔìm

Nikorn eat rice NEG be full

'Nikorn ate rice but he was not full.'

However, the negative item cannot appear in front of both verbs in the Resultative SVC at the same time, as in (17a), which contrasts with the coordinate construction, as in (17b).

(17) a. * ka:nda: **mây** kin khâ:w **mây** ʔìm

Kanda NEG eat rice NEG be full

(Intended meaning: 'Kanda did not eat rice (and) was not full.')

b. ka:nda: **mây** kin khâ:w léʔ thɤ: **mây** ʔìm

Kanda NEG eat rice and she NEG be full

'Kanda did not eat rice and she was not full.'

The Resultative SVC therefore does not have the same construction with the coordinate construction.

In sum, the SVCs are different from the coordinated structures in that the negative item ***mây*** can appear in front of each verb or either on the first or second verbs in the coordinated structure, and it takes the narrow scope over only the verb that immediately precedes it. In SVCs, it appears only in front of the first verb (except the Resultative SVCs).

3.2.2 Coordinate Structure Constraint

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 (18).

Coordination:

(18) a. ka:nda: dɤn lé? pay sí: nǎŋsǐ:

Kanda walk and go buy book

'Kanda walked and went to buy a book.'

b. * nǎŋsǐ:$_i$, ka:nda: dɤn lé? pay sí:____$_i$

book Kanda walk and go buy

c. * lé? pay sí: nǎŋsǐ:$_i$, ka:nda: dɤn _____$_i$

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 five types of Thai SVCs.

Motion-deictic SVCs:

(19) a. ka:nda: dɤn pay sí: 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: dɤn pay sí:_____$_i$

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 sí: nǎŋsǐ:$_i$, ka:nda: dɤn____$_i$

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)

Motion-directional SVCs:

(20) a. ka:nda: wîŋ troŋ ʔɔ:k pay sí: nǎŋsǐ:

Kanda run go straight exit go buy book

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

(ii) ‘Kanda runs / ran straight out, away from the speaker to buy a book.’ (purposive)

b. nǎŋsǐ:$_i$, ka:nda: wîŋ troŋ ʔɔ:k pay sí: ____$_i$

book Kanda run go straight out go buy

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

(ii) ‘As for the book, Kanda runs / ran straight out, away from the speaker to buy (it).’ (purposive)

c. ʔɔ:k pay sí: nǎŋsǐ:$_i$, ka:nda: wîŋ troŋ ____$_i$

out go buy book Kanda run go straight

(i) ‘Out, away from the speaker, Kanda bought a book while she was running straight.’ (overlapping)

(ii) ‘Out, away from the speaker to buy a book, Kanda runs / ran straight.’ (purposive)

d. troŋ ʔɔ:k pay sí: năŋsĭ:$_i$, ka:nda: wîŋ ____$_i$

go straight out go buy book Kanda run

(i) 'Went straight out, away from the speaker, Kanda bought a book while she was running.' (overlapping)

(ii) 'To go straight out, away from the speaker to buy a book, Kanda runs / ran.' (purposive)

Take-SVCs

(21) a. ka:nda: ʔaw mî:t hàn kày sày ca:n

Kanda take knife cut chicken put plate

(i) 'Kanda took the knife (and) cut the chicken (and) put (it) on the plate.' (sequential)

(ii) 'Kanda takes / took the knife to cut the chicken to put (it) on the plate.' (purposive)

b. mî:t$_i$, ka:nda: ʔaw ____$_i$ hàn kày sày ca:n

knife Kanda take cut chicken put plate

(i) 'As for the knife, Kanda took (it) (and) cut the chicken (and) put (it) on the plate.' (sequential)

(ii) 'As for the knife, Kanda takes / took to cut the chicken to put (it) on the plate.' (purposive)

b. kày$_i$, ka:nda: ʔaw mî:t hàn ____$_i$ sày ca:n

chicken Kanda take knife cut put plate

(i) 'As for the chicken, Kanda took the knife (and) cut (it) (and) put (it) on the plate.' (sequential)

(ii) ‘As for the chicken, Kanda takes / took the knife to cut (it) to put on the plate.’ (purposive)

d. ca:n$_i$, ka:nda: ʔaw mî:t hàn kày sày ____$_i$

plate Kanda take knife cut chicken put

(i) ‘As for the plate, Kanda took the knife (and) cut the chicken (and) put (it) on.’ (sequential)

(ii) ‘As for the plate, Kanda takes / took the knife to cut the chicken to put on.’ (purposive)

Open class SVCs:

(22) a. ka:nda: hŭŋ khâ:w kin

Kanda cook rice eat

(i) ‘Kanda cooked rice (and) ate (it).’ (sequential)

(ii) ‘Kanda cooks / cooked rice to eat (it).’ (purposive)

b. kin$_i$, ka:nda: hŭŋ khâ:w ____$_i$

eat Kanda cook rice

(i) ‘Ate (it), Kanda cooked rice.’ (sequential)

(ii) ‘To eat (it), Kanda cooks / cooked rice.’ (purposive)

c. khâ:w$_i$, ka:nda: hŭŋ ____$_i$ kin

rice Kanda cook eat

(i) ‘Rice, Kanda cooked (and) ate.’ (sequential)

(ii) ‘Rice, Kanda cooked to eat.’ (purposive)

Give-SVCs:

(23) a. ka:nda: sí: nǎŋsǐ: hây nó:ŋ

Kanda buy book give sister

(i) ‘Kanda bought a book (and) gave (it) to her sister.’ (sequential)

(ii) ‘Kanda buys / bought a book to give (it) to her sister.’ (purposive)

b. nǎŋsǐ:$_i$, ka:nda: sí: ____$_i$ hây nó:ŋ

book Kanda buy give sister

(i) ‘As for the book, Kanda bought (it) (and) gave (it) to her sister.” (sequential)

(ii) ‘As for the book, Kanda bought (it) to give (it) to her sister.’ (purposive)

c. nó:ŋ$_i$, ka:nda: sí: nǎŋsǐ: hây ____$_i$

sister Kanda buy book give

(i) ‘Her sister, Kanda bought a book (and) gave (it) to.’ (sequential)

(ii) ‘Her sister, Kanda buys / bought a book to give (it) to.’ (purposive)

d. hây nó:ŋ$_i$, ka:nda: sí: nǎŋsǐ: ____$_i$

give sister Kanda buy book

(i) ‘Gave (it) to her sister, Kanda bought a book.’ (sequential)

(ii) ‘To give (it) to her sister, Kanda bought a book.’ (purposive)

Resultative SVCs:

(24) a. ka:nda: kin khâ:w ʔìm

Kanda eat rice be full

‘Kanda ate rice (until she was) full.’

b. khâ:w$_i$, ka:nda: kin ____$_i$ ʔìm

rice Kanda eat be full

‘Rice, Kanda ate (until she was) full.’

To sum up, the object of either the first verb or the second verb in five types of Thai SVCs , which are Motion SVCs, take-SVCs, give-SVCs, and Resultative SVCs, can undergo topicalization, while it is not possible to have the topicalization in the coordinate structures. Hence, the SVCs are different from the coordinate structures. For the other three types of Thai SVCs, which are Posture SVCs, use-SVCs, and Causative SVCs, they cannot undergo the topicalization. However, the negation test in 2.2.1 showed that their structures are different from the coordinate structures. Below are the examples of Posture SVCs, Causative SVCs, and use-SVCs that cannot undergo topicalization.

Posture SVCs:

(25) a. ka:nda: yɨ:n ʔà:n nǎŋsǐ:

Kanda stand read book

‘Kanda read a book, while standing.’

b. * ʔà:n nǎŋsǐ:$_i$, ka:nda: yɨ:n ____$_i$

read book Kanda stand

Causative SVCs:

(26) a. ka:nda: tham kɛ̂:w tɛ:k

Kanda make glass break

'Kanda made the glass break.'

b. * kɛ̂:w$_i$, ka:nda: tham ____$_i$ tɛ:k

glass Kanda make break

Use-SVCs:

(27) a. ka:nda: cháy mî:t hàn kày sày ca:n

Kanda use knife cut chicken put plate

(i) 'Kanda cut the chicken with a knife (and) put (it) in the plate.' (sequential)

(ii) 'Kanda cut the chicken with a knife to put (it) in the plate.' (purposive)

b. * mî:t$_i$, ka:nda: cháy ____$_i$ hàn kày sày ca:n

knife Kanda use cut chicken put plate

(Intended meaning: 'Knife, Kanda cut the chicken with (and) put (the chicken) on the plate.')

c. * kày$_i$, ka:nda: cháy mî:t hàn ____$_i$ sày ca:n

chicken Kanda use knife cut put plate

(Intended meaning: 'Chicken, Kanda cut with the knife (and) put (it) on.')

d. ca:n$_i$, ka:nda: cháy mî:t hàn kày sày ____$_i$

plate Kanda use knife cut chicken put

(i) ‘The plate, Kanda cut the chicken with the knife (and) put (it) on.’ (sequential)

(ii) ‘The plate, Kanda cut the chicken with the knife to put on.’ (purposive)

It should note here that it is not possible to topicalize the object of either the first or the second verb phrase of the Use-SVCs as shown in (27b and c) since the meaning of the verb *cháy* ‘use’ includes the instrumental meaning of the verb *hàn* ‘cut’.

To sum up, the object of either the first verb or the second verb in Thai SVCs except the Posture SVCs, Causative SVCs, and the Use-SVCs can undergo topicalization, suggesting that the SVCs are different from the coordinate structures. For the other three types, which are the Posture SVCs, Causative SVCs, and Use-SVCs, the negation test showed that they have the different structures from the coordinate structures.

3.2.3 Subordination in Thai SVCs

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 (28) and (29.

(28) *ka:nda: ʔaw mî:t

Kanda take knife

(Intended meaning: ‘Kanda took a knife.)

(29) *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 (30a). The first verb *tham* ‘make’ cannot occur separately as the ungrammatical sentence (30b).

(30) a. ka:nda: tham kɛ̂:w tɛ:k

Kanda make glass break

‘Kanda made the glass break.’

b. *ka:nda: tham kɛ̂:w

Kanda make glass

The verb *tham* 'make' has to select the second VP as shown in (30a), 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 (31). It can also occur with the deictic verb as the second verb as in (32).

(31) ka:nda: dʏn

Kanda walk

'Kanda walked.'

(32) ka:nda: dʏn pay

Kanda walk go

'Kanda walked away.'

When the manner of the motion verb occurs separately as in (31), it is a simple sentence. When it selects the deictic verb as the second verb to occur with as in (32), this sentence is called serial verb construction. So, in the SVC sentence (32), 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 (33).

(33) ka:nda: dɤn pay sí: nǎŋsǐ:

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 *sí: nǎŋsǐ:* 'buy book' is optional. The sentence without this VP, as in (32), 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.

3.3 Explain and illustrate 'argument sharing' in Thai SVCs

In this section, I firstly introduce the theoretical overview of four mechanisms for argument sharing, which are functional control, anaphoric control, thematic control, and complex predicates or one grammatical function domain. Then I show that Thai SVCs have two kinds of argument sharing, which are functional control and thematic control.

3.3.1 Theoretical overview of four mechanisms for argument sharing

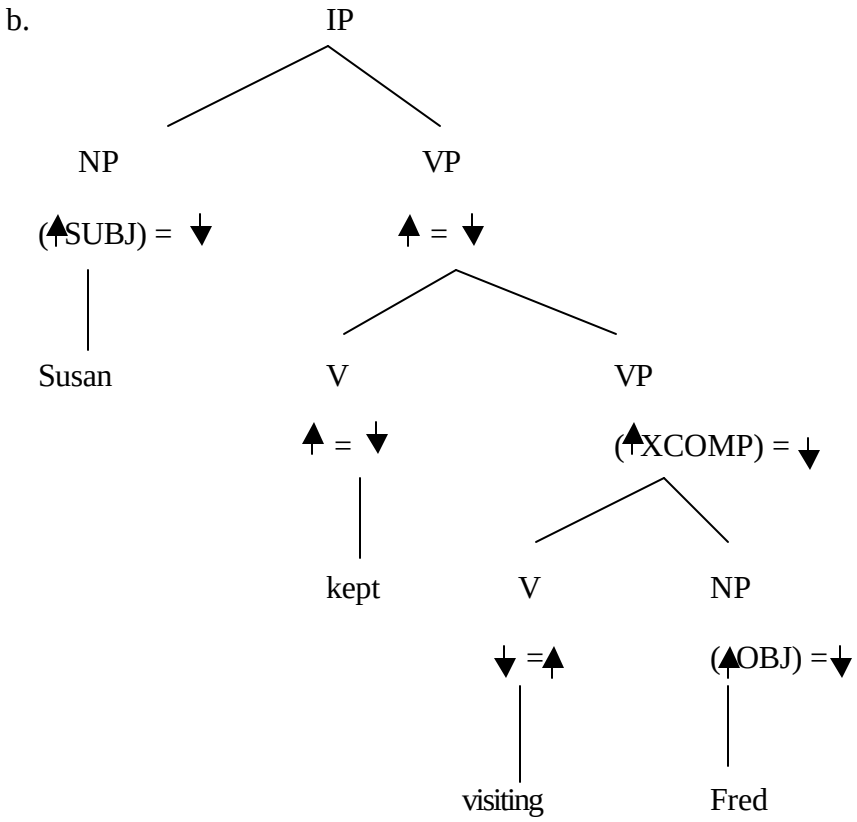
In order to deal with the argument sharing in the SVCs across languages, there are four possible ways of analyzes, which are functional control (analogous to big PRO), anaphoric control (analogous to null pronoun or small 'pro'), thematic control (as in Williams 1985), and complex predicate formation (Alsina 1997 and Bodomo 1997).

3.3.1.1 Functional control

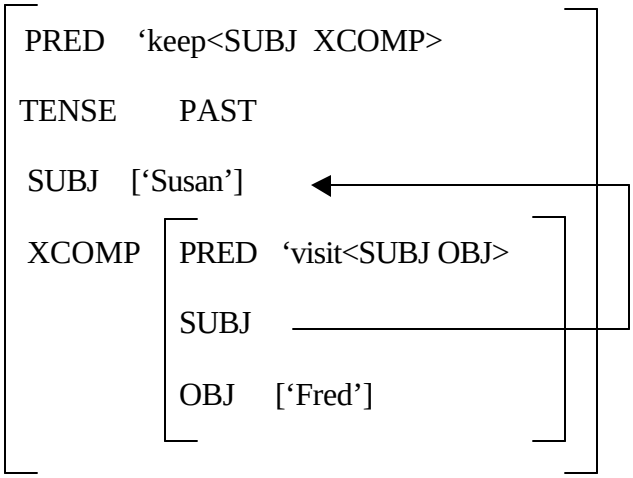
In the Lexical functional Grammar (LFG), the functional control is the control relation that defines on the grammatical functions. Bresnan (2001: 298) indicates that functional control identifies the f(unctional)-structures of the controller and the controlled. So, f-structure attributes for grammatical functions like CASE are expected to be shared between the controller and the controlled. The example of functional control is in (34a), its c-structure is in (34b) and its f-structure is in (34c).

(34) a. Susan kept visiting Fred.

b.



c.



In (34), the VP ‘visiting Fred’ is a participial VP, which is selected by the matrix verb ‘keep’. This kind of VP in the LFG notation is XCOMP, which can be any lexical category type X (X = V, N, A, or P). The XCOMP is incomplete, lacking an f-structure subject. It constitutes a second nucleus of predication within its clause. Its subject is identified by the subject of the matrix verb, here is ‘Susan’. The relation between this implicit subject and the matrix argument is called functional control. So, functional control shows argument - sharing mechanism in which the shared arguments are syntactically identical.

This control relation is analogous to big ‘PRO’ in Government and Binding Theory in that the embedded clause in (34) must have a subject, according to Extended Projection Principle (EPP). This subject is presumably a null category, which is PRO (big PRO), a label reflected the fact that it has certain properties in common with (overt) pronoun. (35) is the structural representation with PRO in the subject position of the embedded clause:

(35) Susan $_i$ tried [IP PRO $_i$ to yawn].

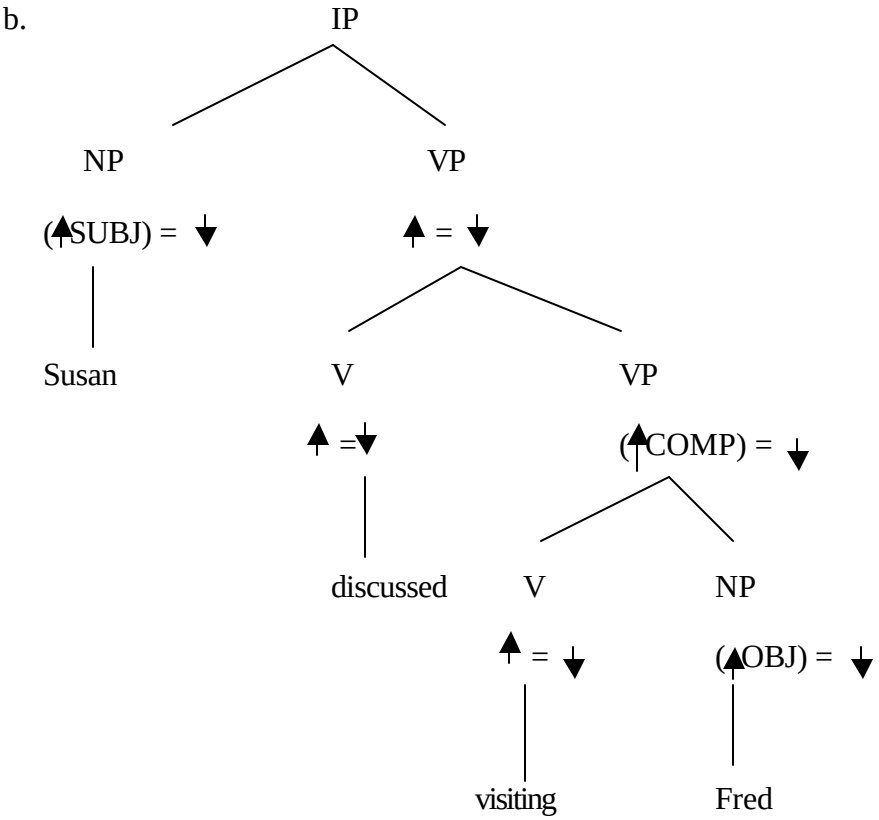
3.3.1.2 Anaphoric control

Anaphoric control contrasts with functional control in several interlinked ways. The subordinate complement in an anaphoric control construction is the closed function COMP, not the open function XCOMP. The relation in anaphoric control is semantically much closer to pronominal binding: only the referential index of the controller and

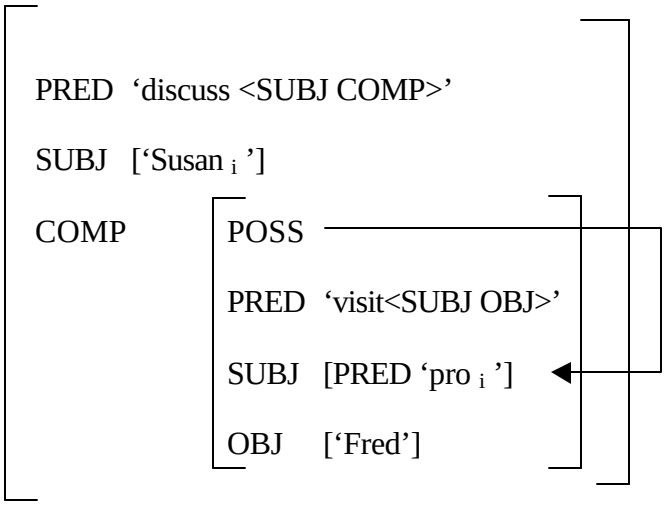
controlled are identified (Bresnan 2001:298). The example of anaphoric control is in (36a), its c-structure is in (36b) and its f-structure is in (36c).

(36) a. Susan discussed visiting Fred.

b.



c.



In (36), the SUBJ of the verb *discussed* anaphorically controls the SUBJ of the COMP. Collins (1997) analyzes the Ewe SVCs with a small pro. He shows that internal argument sharing in Ewe SVCs is mediated by empty categories. The example of Ewe SVC is in (37).

(37) Wo-a da fufu $_i$ du _____ $_i$

they-FUT cook fufu eat

'They will cook fufu and eat it.' (Collins 1997)

The empty category in the sentence (37) is the direct object of *du* 'eat'. Under any definition of government, the direct object of a verb is governed by the verb. Collins concludes that the empty category in the SVCs is governed and therefore cannot be PRO. The only remaining possibility is pro. So, he assumes that the empty category in SVCs is pro. And the identification requirement on pro in SVCs is satisfied by control.

3.3.1.3 Thematic control

Williams (1985) notes that different verbs select different thematic arguments. He shows that the noun *operation* has two semantic arguments, ACTOR (who operates) and PATIENT (who is operated on). As in (38), the main verb *perform* targets the ACTOR as its controllee, while in (39), the main verb *undergo* targets the PATIENT as its controllee.

(38) John $_i$ performed [an operation]

(Actor $_i$, Patient)

(39) John $_i$ underwent [an operation]

(Actor, Patient $_i$) (Williams 1985)

Choi and Wechsler (2002) show that there is the subject thematic control in Korean Light Verb Construction. The light verb *ha-ta* has the strict semantic selection in syntax, the *ha-ta* itself has semantic content and this content is relevant to this verb's selection of dependents. Choi and Wechsler assume that the light verb *ha-ta* assigns a generalized Actor proto-role to the subject because this light verb always targets the Actor proto-role of the main predicate for control while another light verb *toy-ta* targets the Patient proto-role as in (40) and (41).

(40) a. *kicha-uy tochak-i ciyen-(ul) ha-yess-ta

train-Gen Arrival-Nom delay-Acc do-Pst-Dc

'Arrival of the train was delayed.'

b. kicha-uy tochak-i ciyen-(i) toy-ess-ta

train-Gen Arrival-Nom delay-Acc toy-Pst-Dc

(41) a. * Hwanglyongsa-nun cencayng-ttay sosil-(ul) ha-yess-ta

Hwanglyong.temple-Top war-during burning.down-Acc do-Pst-Dc

'Hwanglyong temple was burnt down during a war.'

b. Hwanglyongsa-nun cencayng-ttay sosil-(i) toy-ess-ta

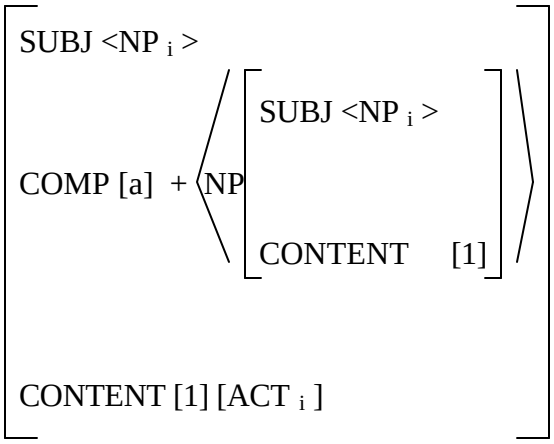
Hwanglyong.temple-Top war-during burning.down toy-Pat-Dc

(Choi and Wechsler 2002: 109)

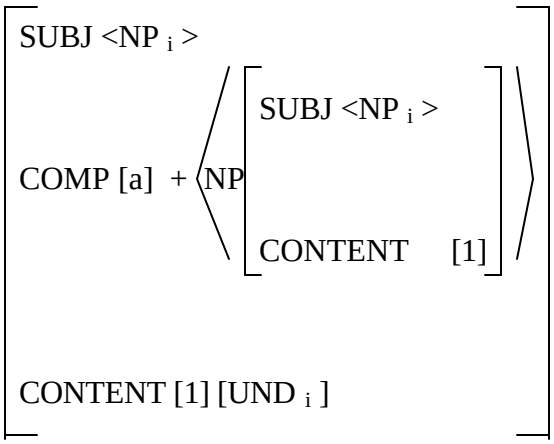
The main predicates in (40) and (41) have subjects with the UNDERGOER role. As a result, those main predicates combine with *toy-ta*, which targets the UNDERGOER role. Choi and Wechsler assume that the CONTENT value of the light verb unifies with that of its main predicate complement. This is shown in (42).

(42) The first draft of lexical sign of light verbs

a. ha-ta



b. toy-ta



Due to the thematic restriction between the light verb *ha-ta* and its subject, the control relation between the light verb *ha-ta* and its subject is a thematic control. The thematic restriction is also occurred with the object sharing in the Take-SVCs, Use-SVCs, Open class SVCs, and Give-SVCs. The control relation between the preceded verb and its argument in those constructions is a thematic control.

3.3.1.4 Complex predicates (one grammatical function domain)

3.3.1.4.1 Alsina (1997)

Alsina (1997) examines the syntax of causative constructions in Chiche a, a Bantu language, and in Catalan, a Romance language. Alsina shows that the causative constructions in these two languages are similar at the level of argument structure, but they differ at the level of phrase structure. That is, in Chiche a, the complex predicate of these constructions is represented by a single verb. But it is represented by two verb

forms in Catalan. And Alsina proposes that this difference can be explained by assuming that in Chiche a, the complex argument structure of causatives is formed in the lexicon, but in Catalan, it is formed in the syntax. I discuss only the causatives in Catalan since it is similar to the causative SVCs in Thai.

Alsina proposes that in Catalan, the causative verb *fer* 'make' is identical to the Chiche a causative morpheme *–its-a*. The logical subject of the predicate 'laugh' and 'write' in Catalan is expressed as a subject in the underived structure as in (43a) and (44a), but is expressed as an object in the causatives structure in (43b) and (44b).

(43) a. Les hienes riuen

'The hyenas are laughing.'

b. L'elefant fa riure les hienes.

The elephant make laugh the hyenas

'The elephant makes the hyenas laugh.'

(44) a. El follet escriu un poema.

'The elf is writing a poem.'

b. Els pagesos fan escriure un poema al follet

The farmers make write a poem to the elf

'The farmers are making the elf write a poem.'

However, when the causee of the causative construction in (43b) and (44b) are expressed by means of a pronominal object clitic, as shown in (45) and (46), the case of the causee of an intransitive base verb in (45) is different from the case of the causee of a

transitive base verb in (46). That is, the former is expressed as an accusative object (or direct object) by using the accusative object clitic *les* while the latter is expressed as a dative object (or indirect object) by using the dative object clitic *li*.

(45) L'elefant *les* fa riure.
'The elephant is making them laugh.'
(46) Els pagesos *li* fan escriure un poema
'The farmers are making him write a poem.'

So, this is the difference between Chiche a and Catalan, there is no distinctions base on morphological case in Chiche a, so all direct functions are morphologically unmarked for case. While in Catalan, subjects are not distinguished by means of case, but objects are. Some are datives and some are accusatives. Accusative is considered to be the unmarked case specification in contrast to dative, which is the marked value. So, Alsina considers the case system in Catalan to consist of a binary valued feature. A dative object is an object with the [DAT +] feature value and an accusative object is an object with the [DAT -] feature value.

Dative objects are usually found with three predicates as in (47a) and with two predicates as in (47b). The syntactic function that is marked with dative case is the one that maps onto the more prominent of the two internal arguments.

(47) a. Li han donat la versió official

him (dat.) have given the version official

'They gave him the official version.'

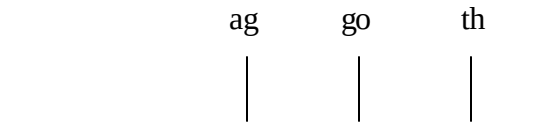
b. Li agrada la pluja.

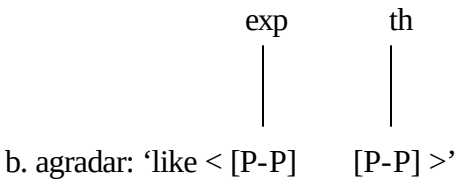
Him (dat.) likes the rain

'He likes the rain.'

As we can see in the a-structure of a verb 'give' in (48a) and of a verb 'like' in (48b), the dative object corresponds to the goal argument in (48a) and corresponds to the experiencer argument in (48b), which are more prominent direct function excluding the external argument.

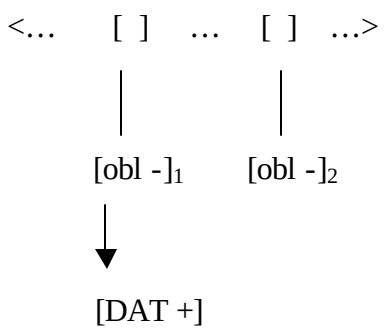
(48)





So, Alsina claims that the assignment of case feature value in Romance determined on the basis of the a-structure. The Dative Case Assignment Principle is shown in (49).

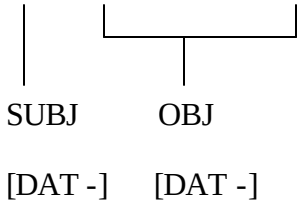
(49) The Dative Case Assignment Principle:



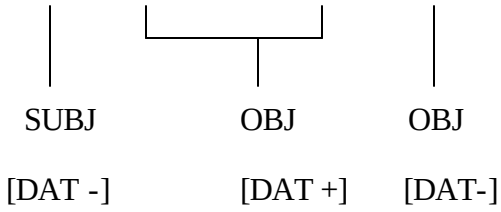
where GF_1 does not map onto an external argument.

The feature value [DAT +] is assigned to the thematically more prominent of two direct functions that does not map onto the external argument. The unmarked feature value [DAT-] is assigned as a default to all those direct functions that are not assigned dative by principle (49). The case pattern in causative construction follows from this principle is in (50) a. and b., which is the a-structure of causative examples (43b) and (44b).

(50) a. *fer riuere*: ‘CAUSE < [P-A] [P-P] laugh < [P-A] > >’



b. *fer escriure*: ‘CAUSE < [P-A] [P-P] write < [P-A] [P-P] > >’



These a-structures are identical with those a-structures of the causative predicate in Chiche a, except for the case features. In (50a), dative case cannot be assigned according to the Dative Case Assignment Principle because, although there are two direct functions, the thematically more prominent of the two direct functions already maps onto the external argument, which cannot be assigned dative case. Then they are assigned the default non-dative case. In (50b), dative case cannot be assigned to the function that maps onto the external argument, but it is assigned to the direct function that maps onto the causee because there is another direct function that maps onto an argument that is less prominent than the causee. The two direct functions that are assigned dative case are assigned the default non-dative case.

Since the causative complex predicate in Romance is made up of different verbs, the c-structure will contain two or more PRED values, one for each of the verbs that make up the complex predicate. However, a strict interpretation of the principles of LFG disallows anything like the formation of complex predicates in the syntax: That is, PRED values are assumed not to allow unification. Alsina proposes that it is possible to handle multiple PRED values through ‘composition’, not ‘unification’. So, he proposes ‘Predicate Composition’. Predicate composition is the operation by which a-structures are composed to yield complex a-structures. It operates in the same way in the lexicon and in

the syntax. In the lexicon, it operates by joining morphological constituents into larger ones, and in the syntax, it operates by joining syntactic constituents into larger ones. And to deal with the multiple PRED values in the syntax, Alsina reinterprets the status of the head of a phrase and posits the Incomplete Predicate Parameter.

In causative constructions in Romance, both the causative verb and the embedded verb contribute f-structure information to their mother node, that is, they contribute their PRED values, and compose them together to be the PRED value of their mother. So, the PRED value of their mother node is not identical to the PRED value of its daughters, even though they are both heads. So Alsina proposes the new head equation instead of only up equal down to signify the unifiable f-structure values such as the value of SUBJ or the value of agreement features of the mother. These features are identical to the features of its mother node, except for PRED. The PRED value of the mother is the function of the composition of the PRED value of that node with the PRED value of its head sister constituents. That is, the PRED value of the head composes with the PRED value of its head sister node, giving the PRED value of their mother node. The meaning of this annotation is defined as in (51).

(51) $\uparrow =_H \downarrow$ def $(\uparrow \backslash \text{PRED}) = (\downarrow \backslash \text{PRED})$

$(\uparrow \text{PRED}) = F\,((\downarrow \text{PRED}), (\rightarrow_H \text{PRED}))$

The restriction operator \ excludes the features following this symbol from the f-structure correspondence. So the $(\uparrow \backslash \text{PRED})$ refers to the f-structure of the mother node

excluding the PRED feature. The symbol $\rightarrow$ refers to a sister node with the head equation. And the composition operation F is defined in (52).

(52) a. F (x, Ø) = x

b. F ('P^1 <a>', '…P* <b>…') = '…P^1 <c>…'

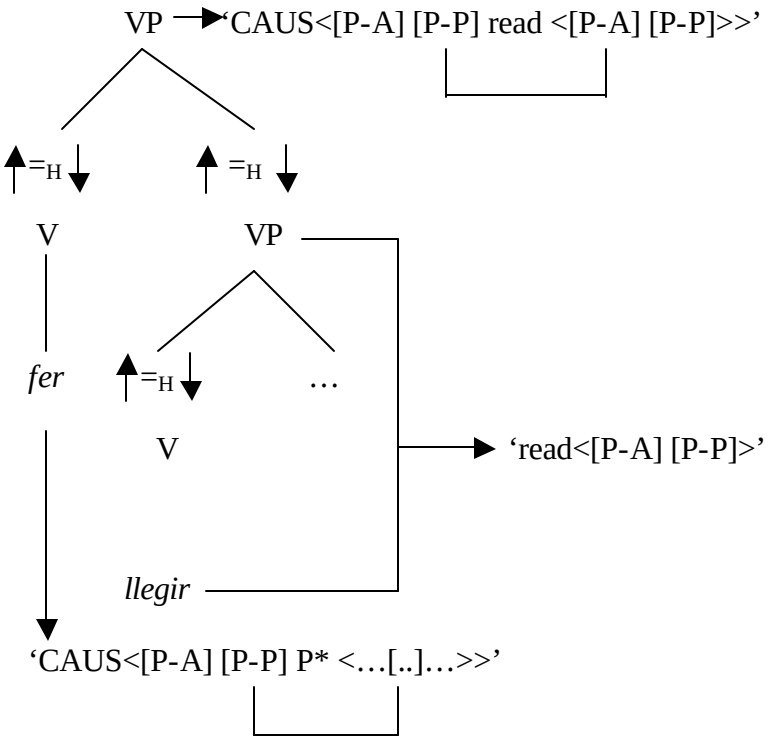
where "P*" is an unspecified predicator and "c" is the unification of "a" and "b"

c. elsewhere, the result is vacuous.

In the simple case in which a c-structure node has one single head, the PRED feature of the mother node will be identical to that of its head because it composes with nothing, as indicated in (52a). When the c-structure has two heads, the PRED values of the heads compose to yield the derived PRED value of their mother node. And the composition is possible only when one of the two PREDs must be an incomplete predicate, as indicated in (52b). Otherwise, composition fails and an inconsistency arises, as in (52c).

Incomplete predicates are defective verb because they do not have a complete a-structure. So, they must combine in the c-structure with a constituent with which it undergoes a-structure composition. The causative verb 'make' in Catalan is an example of incomplete predicate. (53) shows the way in which Predicate Composition in the Syntax works for the verb *fer llegir* 'make read' in Catalan.

(53) *fer llegir* ‘make read’



The arrows in (53) indicate the PRED values associated with each node in the c-structure. The embedded VP has a single head, so, it inherits the PRED value of its head unchanged. This VP, in turn, is the head of another VP, which also has the causative verb as its head. The PRED value of the highest VP is the results of composing the PRED value of its heads. This composition is possible because one of the PRED values, the causative verb, is an incomplete predicate.

3.3.1.4.2 Bodomo (1997)

Bodomo (1997) studies SVCs in Dagaare, a Gur language of West Africa, and other languages such as the Kwa language, Akan, the Romance language, French and the Germanic language, Norwegian. He proposes that SVCs in Dagaare such as in (54) are the type of complex predicate constructions in which they contain more than two verbal predicates.

(54) a. Bayuo da ngmE-O la a gan lOO-O

Bayuo PAST beat-PERF FACT. DEF. book caus+fall-perf

'Bayuo knocked the book down' (Bayuo knocks the book, he makes it falls)

b. o da de la a bie zegle bare

3.s PAST take FACT. DEF. Child seat leave

'S/he seated away the child.'

One test that Bodomo uses to determine the complex predicates is the negation test. He shows that it is not possible to negate one verb and not the other(s) in the Dagaare action-causation serialization. None of the verbs can be negated on its own without the other participating as in (55b).

(55) a. bayou da ba ngmE-o la Ayuo LOO-o

Bayuo PAST NEG beat-PERF FACT Ayuo caus+fall-PERF

'Bayuo did not knocked Ayuo down'

b.* bayou da ngmE-o la Ayuo ba LOO-o

Bayuo PAST beat-PERF FACT Ayuo NEG caus+fall-PERF

(Bodomo 1997)

Bodomo (1997) proposes that the SVCs in Dagaare such as in (54) have two or more verbs, each of which are semantically predicative of each other—none is subordinate to the other semantically; they are both in the same clause and function together, like one word, to express one event or, at least, a set of tightly-related event. He called this structure as a complex predicate in which Butt (1995) explain its structure as follows:

a. The argument structure is complex (two or more semantic heads contribute arguments).
b. The grammatical functional structure is that of a simple predicate: It is flat: there is only one single predicate (a nuclear PRED) and a single subject.
c. The phrase structure may be either simple or complex. It does not necessarily determine the status of the complex predicate.

Adopting Alsina's (1992) idea of causative complex predicates, Bodomo proposes that a complex predicate *ngmE-lOO* 'knock-fall' in (54a) has the a(rgument) –structure as in (56).

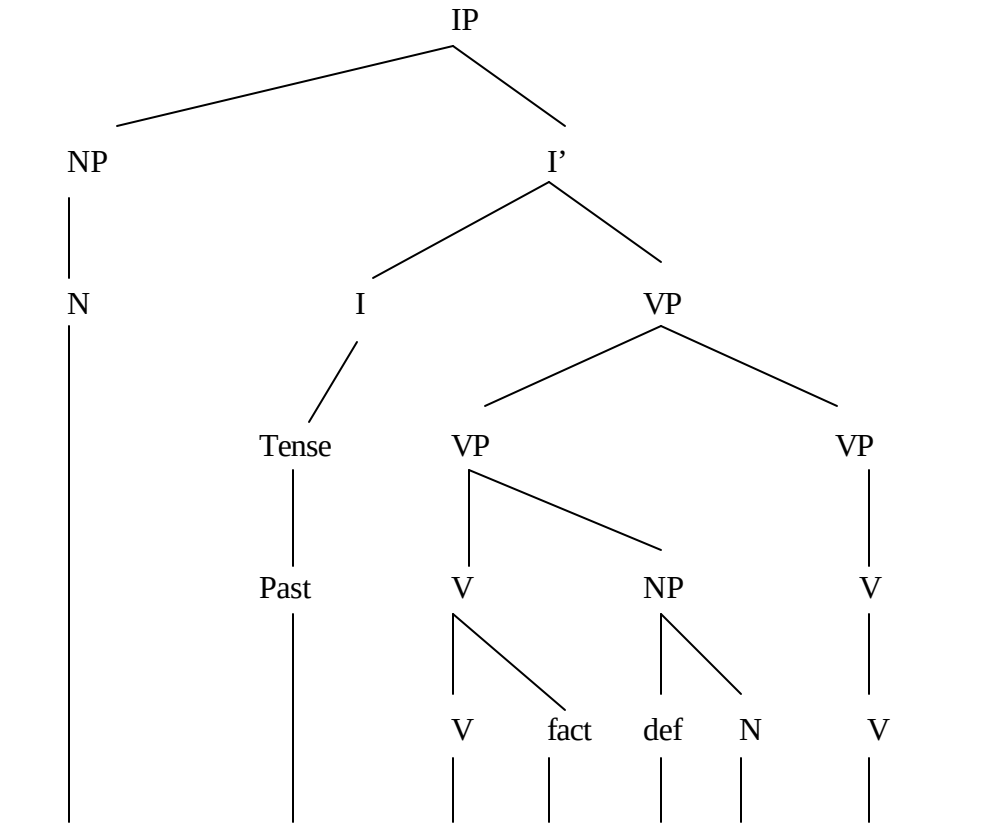
(56) a-structure: ngmE-lOO <Ag Pt>

[-o] [-r]

S O

Following the functional annotations found within the LFG formalism (Kaplan and Bresnan 1982), Bodomo proposes the c-structure of the SVC in (54a) as in (57a) and the f-structure as in (57b).

(57) a.



Bayuo	da	ngmE-O	la	a	gan	lOO-O
Bayuo	PAST	beat-PERF	FACT	DEF	book	caus+fall-perf

'Bayuo knocked the book down (Bayuo knocks the book, he makes it falls).'

b.

PREDCHAIN	'beat-fall <f1	f2>
TENSE	PAST	
ASPECT	PERF	
SUBJ f1	['Bayuo']	
OBJ f2	['book']	

The very important problem in this analysis is that there are the two discontinuous head at c-structure, which correspond to one-f-structure head, PREDCHAIN. According to Alsina (1992), the PRED values combine, not by unification, but by predicate composition. He proposes that two predicates compose when they are in a structure sisterhood relation and one of them is incomplete predicate. However, the verbs in Dagaare, unlike those in Chicheŵa, are full lexical verbs. None of the PREDs in the SVCs in Dagaare can be said to be incomplete in Alsina's sense. Bodomo (1997) then implements the representation SVCs based on the lexical semantic theory of complex predicates, which is predicate integration. The idea is that two or more verbal predicates forming a grammatical unit contribute and modify their individual semantics in such a way as to determine a unique defining semantic and morphosyntactic identity of the whole construction. That is the predicates integrate into one whole. In this theoretical

analysis, there are three interfaced grammatical levels, which are the prosodic level, the conceptual semantic level, and the morphosyntactic level.

To sum up, I provide the four mechanisms for argument sharing between verbs in the SVCs across languages, which are functional control, anaphoric control, thematic control, and complex predicates. In the next section, I show that all eight types of Thai SVCs involve two kinds of argument sharing mechanisms, namely, functional control and thematic control.

3.3.2 Thai SVCs involve functional and thematic control

3.3.2.1 Subject control in Thai SVCs involves functional control

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.

The evidence showing that the subject control in Thai SVCs is functional, not anaphoric control comes from the E-type pronoun test. Baker and Stewart (2002) give evidence for the empty category that follows the second verb in the consequential SVC in

Èdo´by showing that the E-type pronoun after the second verb refers to the quantified noun phrase, which is the indirect object of the first verb, but it is not bound by that noun phrase, as shown in (58).

(58) òzó dé èbé khéhré tîé

Ozo buy book little read

'Ozo bought (a) few books and read them.'

(Baker and Stewart 2002: 23)

The consequential SVC in (58) implies that Ozo bought only a few books in total, and that he read all of the books that he bought. Baker and Stewart indicate that the pattern of inferences found in the consequential SVC such as in (58) is familiar from the literature on E-type pronouns. The E-type pronouns have quantifier expressions as antecedents, but they are not bound by those quantifiers (Evans 1980: 338). With the E-type pronoun interpretation, Baker and Stewart claim that there is a null pronominal associated with the second verb in (58).

In contrast, there is no E-type pronoun interpretation in the Resultative SVCs in Èdó as shown in (59).

(59) òzó sùá èrhán khérhé dè-lé

Ozo push tree few fall-PL

'Ozo push (a) few trees down.'

(Baker and Stewart 2002: 23)

The Resultative SVC in (59) has a conjunctive reading: it means that there are few trees such that Ozo push them and they fell. So, there is no E-type pronoun reading for the Resultative SVC. Baker and Stewart conclude that there is no comparable empty category in the Resultative SVC such as in (59).

Like the Resultative SVCs in Èdó, there is no E-type pronoun reading in Thai SVCs. If we put the quantifier noun phrase as the subject of the Motion-deictic SVC as in (60a), it will have the bound variable reading, not the E-type pronoun reading, as in (90b).

(60) a. ka:nda: dʏn pay sí: 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. mi:phiaŋ sŏ:ŋ khon dɤn pay sí: nǎŋsĭ:

only two CL walk go buy book

(i) ‘While only two people was walking away from the speaker, (only two people) bought a book.’ (overlapping)

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

c. mi:phiaŋ sŏ:ŋ khon dɤn pay

only two CL walk go

‘Only two people walks / walked away from the speaker.’

phûak khăw sí: nǎŋsĭ:

They buy book

‘They bought a book.’

As Evans (1980: 339) suggests, there is the difference between the bound pronoun as in (61a) and the E-type pronoun in (61b).

(61) a. Few congressmen admire only the people they know.

b. Few congressmen admire Kennedy, and they are very junior.

In (61a), the pronoun is bound by the quantifier phrase, while in (61b), it cannot be. The pronoun in (61b) refers to the congressmen that admire Kennedy. The sentence (61b) entails that few congressmen admire Kennedy, period. And all the congressmen who

admire Kennedy are very junior. In contrast, the reference of the pronoun in (61a) cannot be fixed because it varies with the interpretation of the quantifier.

The interpretation of the SVC in (60b) is that there are only two people who walked away to buy a book. The interpretation of the subject noun phrase varies with the interpretation of the quantifier. In contrast, there are two sentences in (960c). The quantified noun phrase 'only two people' just takes scope over only the first sentence. The pronoun *phûak khăw* 'they' in the second sentence is not bound with it, but rather refers to it. The interpretation of the second sentence is that it is possible that all people who walked away bought a book.

The SVC in (60b) does not have the E-type pronoun reading while those two simple sentences in (60c) do have it. This evidence confirms that there is no null pronoun (pro) in Thai SVCs. So, the control relation between the subjects of each verb in series is not an anaphoric control. The interpretation of the subject varies with the interpretation of the quantifier of the subject of the SVC in (60b) shows the property of a functional control in the sense of Lexical Functional Grammar (LFG) in that the subject of each verb in series is syntactically identical.

3.3.2.2 Object control in Thai SVCs involves thematic control

One characteristic of Thai SVCs is that more verb phrases can be added in the sentences. For example, the motion-deictic SVC in (62a) can be added another verb phrase *sí: năŋsĭ:* 'buy book' as in (62b). And it is possible to add the give-SVC to a sentence (62b), as in (62c).

(62) a. ka:nda: dɤn pay

Kanda walk go

'Kanda walked away from the speaker.'

b. ka:nda: dɤn pay sí: nǎŋsǐ:

Kanda walk go buy book

(i) 'When 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)

c. ka:nda: dɤn pay sí: nǎŋsǐ: hây wi:ra

Kanda walk go buy book give Vira

(i) 'While Kanda was walking away from the speaker, she bought a book, she gave (it) to Vira.' (overlapping)

(ii) 'Kanda walks / walked away from the speaker to buy a book to give (it) to Vira.' (purposive)

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 (62a and b) also have this characteristic, that is, the subject *ka:nda:* 'Kanda' is shared by every verb in series. However, the subject in the SVC sentences will be switched to the indirect object of the verb *hây* 'give' whenever the Give-SVCs is added to that construction, as in (62c). The indirect object of the verb *hây* 'give' becomes the subject of the verbs after the verb *hây* 'give'. The

evidence showing that the indirect object of the verb *hây* 'give' becomes the subject of the verbs after it comes from the binding properties of the bare reflexive *tau?e:ŋ* 'self'. Sudmuk (2002) studies the binding phenomena of the reflexive anaphors in Thai and found that the bare reflexive *tau?e:ŋ* 'self' is always bound by the grammatical subject as in (63) and (64).

(63) ka:nda:$_i$ chô:p tau?e:ŋ$_i$

Kanda like self

'Kanda liked herself.'

(64) ka:nda:$_i$ cù:p wi:ra$_j$ [thî: bâ:n khŏ:ŋ tau?e:ŋ$_{i/*j}$]

Kanda kiss Vira at house of self

'Kanda kissed Vira at her house.'

The bare reflexive *tau?e:ŋ* 'self' is bound only by the subject *ka:nda:* 'Kanda' both in (63) and (64). It cannot be bound by the object *wi:ra* 'Vira' as in (64). Besides, in the bi-clausal sentence, the bare reflexive *tau?e:ŋ* 'self' can be bound by either the subject of the matrix clause *ka:nda:* 'Kanda', which is a long binding, or the subject of the embedded clause *wi:ra* 'Vira', which is a short binding, as in (65).

(65) ka:nda:$_{i}$ khít wâ: [wi:ra$_{j}$ chô:p tau?e:ŋ$_{i/j}$]

Kanda think that Vira like self

'Kanda thought that Vira liked herself / himself.'

The bare reflexive *tau?e:ŋ* 'self' exhibits both short and long binding in Thai SVCs. It is bound by the grammatical subject of the first verb as a long binding, and bound by the indirect object of the verb *hây* 'give' as a short binding, showing that the indirect object of the verb *hây* 'give' is the subject of the embedded clause within those SVCs construction. The examples are illustrated below:

(66) ka:nda:$_{i}$ sí: năŋsĭ: hây wi:ra$_{j}$ sòŋ hây

Kanda buy book give Vira send give

tau?e:ŋ$_{i/j}$

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 (66), 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 in chapter 2 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 *năŋsĭ:* '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 *năŋsĭ:* '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.

In sum, I propose that Thai SVCs involve two kinds of argument sharing mechanisms, which are functional control and thematic control. The evidence showing that the relation between the subject of the matrix verb and that of the second verb is functional control comes from the e-type pronoun test. Thai SVCs do not have the E-type pronoun reading showing that they do not have the null category (pro) as the subject of its embedded clause. The shared arguments are syntactically identical, namely subjects, which is the property of functional control. The relation between the object of the verb

sí: 'buy' and the verb *hây* 'give' involves thematic control since both verbs target the specific thematic argument.

3.4 Conclusion

I show in this chapter 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.

CHAPTER 4
The Semantic Structure of the SVCs in Thai

4.1 Introduction

This chapter deals with the semantic structure of the SVCs in Thai. As mentioned earlier in chapter 2, some types of Thai SVCs can have more than one semantic interpretation. I then discuss the semantic interpretation of all eight types of Thai SVCs. By applying the cancellation test, the time marker test, and the aspect marker test, I show that Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, have at least more than one event in the sentence while the Posture SVCs , Causative SVCs, Use-SVCs and Resultative SVCs have only one event in the sentence.

The organization of this chapter is follows:

In section 2, I discuss the semantic interpretation of all eight types of the SVCs in Thai.

In section 3, I show Andrews and Manning's split PRED-attribute idea, which I adopt for the analysis of the SVCs in Thai

In section 4, by using the cancellation test and the time marker test, I show that the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, have at least more than one event in the sentence while the Posture SVCs , Causative SVCs, Use-SVCs and Resultative SVCs have only one event in the sentence.

In section 5, I conclude the findings.

4.2 Temporal relations between the events in Thai SVCs

Motion SVCs

The motion SVC has two semantic interpretations, which are the temporal overlapping and the purposive interpretation. The temporal overlapping interpretation is 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. The purposive interpretation is the interpretation that the second event is the purpose of the first event. Both interpretations are illustrated in (1) and (2).

Motion-deictic SVC:

(1) ka:nda: dʏn pay sí: 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)

Motion-directional SVC:

(2) ka:nda: dʏn tɾoŋ ʔɔ:k pay sí: nǎŋsǐ:

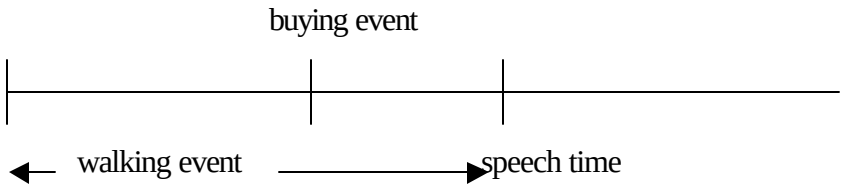
Kanda walk go straight exit go buy book

(i) 'While Kanda was walking straight out, away from the speaker, she bought a book.' (overlapping)

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

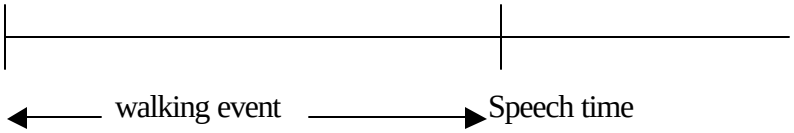
The motion-deictic SVC in (1) and the motion-directional SVC in (2) have two semantic interpretations. The meaning in (i) is the temporal overlapping interpretation in which the first event happened along with the second event. The first event is not terminated before the second event happened. The scenario of the temporal overlapping interpretation is shown in the figure in *(3a)*.

(3a) the temporal overlapping interpretation



The meaning in (ii) is the purposive interpretation in which the second event might not happen. The meaning in (ii) is that Kanda walks / walked with the intention to buy a book, but she might not buy a book. The second event is just the purpose. The scenario of the purposive interpretation is shown in *(3b)*.

(3b) the purposive interpretation



(with intention to buy)

It is remarkable that whenever the last verb in the series is the verb with intention, it allows the purposive meaning. If the last verb is not the verb with intention, it won't give us the purposive interpretation as shown in (4).

(4) a. ka:nda: dɤn pay cɤ: na:líka:

Kanda walk go find watch

'While Kanda was walking away from the speaker, she found the watch.' (overlapping)

b. ka:nda: dɤn pay thɨ̌ŋ cha:ydɛ:n

Kanda walk go reach border

'While Kanda was walking away from the speaker, she reached the border.' (overlapping).

The verb *cɤ:* 'find' in (4a) is not the intentional verb and the verb *thɨ̌ŋ* 'reach' in (4b) is inherently completive. So, there is no purposive interpretation, only the overlapping interpretation arises in both (4a) and (4b).

Take-SVCs:

The Take-SVCs have two semantic interpretations, which are the sequential interpretation and the purposive interpretation. The sequential interpretation is the interpretation that all verbs in series encode eventualities that occur in sequence. The first event is terminated before the second event happened. The meaning in (i) is the sequential meaning while the meaning in (ii) is the purposive interpretation.

(5) ka:nda: ʔaw mî:t hàn kày

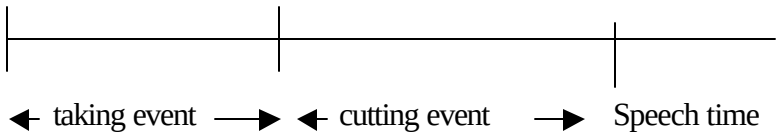
Kanda take knife cut chicken

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

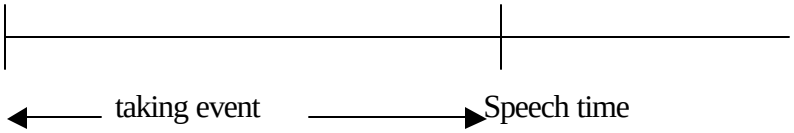
(ii) 'Kanda takes / took the knife to cut the chicken.' (purposive)

The Take-SVC in (5) has two semantic interpretations, First, the sequential interpretation in meaning (i): 'Kanda took knife and cut the chicken', as the scenario in *(6a)*; Second, the purposive interpretation in meaning (ii): 'Kanda takes or took the knife to cut the chicken', as the scenario in *(6b)*. In this interpretation, the second event might not happen.

(6a) the sequential interpretation



(6b) the purposive interpretation



(with intention to cut)

Use-SVCs:

The Use-SVCs have only one semantic interpretation, which is the simultaneous interpretation: 'Kanda cut the chicken with the knife', as in (7).

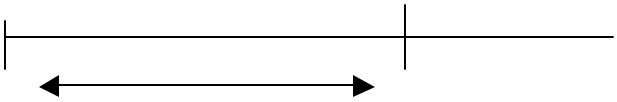
(7) ka:nda: cháy mî:t hàn kày

Kanda use knife cut chicken

'Kanda cut the chicken with the knife.' (simultaneous)

This is because the verb *cháy* 'use' in Thai means 'using an instrument to do something'. In this case, both the using event and the cutting event happened at the same time, but again, before the speech time. The scenario of the simultaneous interpretation of the Use-SVCs is shown in *(8)*.

(8) simultaneous interpretation



using event speech time

cutting event

Open class SVCs:

Like the Take-SVCs, the Open class SVC, as in (9), allows either the sequential interpretation, as in meaning (i), or purposive interpretation, as in meaning (ii).

(9) ka:nda: hŭŋ khâ:w kin

Kanda cook rice eat

(i) 'Kanda cooked rice (and) ate (it).' (sequential)

(ii) 'Kanda cooks / cooked rice to eat (it).' (purposive)

Give-SVCs:

The Give-SVC such as in (10) also allows for either sequential interpretation, as in meaning (i), or purposive interpretation, as in meaning (ii).

(10) ka:nda: sí: nǎŋsǐ: hây nó:ŋ ʔà:n

Kanda buy book give sister read

(i) ‘Kanda bought a book (and) gave (it) to her sister to read (it).’ (sequential)

(ii) ‘Kanda buys / bought a book to give (it) to her sister to read (it).’ (purposive)

Posture SVCs:

The Posture SVC consists of a posture verb, followed by a VP as in (11) and (12).

(11) ka:nda: yi:n khɔ́:ʔ pràtu:

Kanda stand knock door

‘Kanda knocked on the door while standing.’

(12) ka:nda: nâŋ rɔ̂:ŋp|e:ŋ

Kanda sit sing

‘Kanda sang while sitting.’

Even though the class of verb that has the intentional meaning such as *khɔ́:ʔ* ‘knock’ in (11) and *rɔ̂:ŋple:ŋ* ‘sing’ in (12) occurs with the posture serialization, it does not have the purposive interpretation. It has only simultaneous interpretation. The posture verb indicates the position of the body while the agent carries out the action, denoted by the following VP. Thepkanjana (1986: 239) calls this SVC a simultaneous SVC.

Causative SVCs:

There are two verbs in series in the Causative SVCs. The first verb is restricted to a verb *tham* 'make'. The second verb must be intransitive, as in (13).

(13) a. ka:nda: tham dèk rɔ̂:ŋhâ:y

Kanda make child cry

'Kanda made the child cry.'

b. ka:nda: tham kɛ̂:w tɛ:k

Kanda make glass break

'Kanda made the glass broke.'

c. *.ka:nda: tham dèk kin kày

Kanda make child eat chicken

(Intended meaning: 'Kanda made the child eat a chicken,')

The verb *tham* 'make' has the causative meaning, making the agent to be a causer of the event denoted by the following VP. For example, the verb *tɛ:k* 'break' in (13b) shows the change of state of the theme *kɛ̂:w* 'glass' from the state of unbroken glass to the state of broken glass.

Resultative SVCs:

The Resultative SVCs consist of two verbs in series, the first verb can be any verb in the open class, and the second verb is the result verb, as in (14) and (15).

(14) ka:nda: plùk wi:ra lóm

Kanda push Vira fall

'Kanda pushed Vira (so) Vira fell down.'

(15) ka:nda: kin khâ:w ʔìm

Kanda eat rice be full

"Kanda ate rice until she was full.'

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

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

Thai SVCs	Overlapping	Sequential	Purposive	Simultaneous	Causative	Result
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 SVCs	No	No	No	No	No	Yes

4.3 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. Andrews and Manning do not agree with the attempts to distinguish the SVCs from complex predicates since they can show that at least both Tariana and Miskitu SVCs having the same functions as Romance and Urdu complex predicates. So, their analyses cover both SVCs and complex predicates.

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.

In classic LFG, the content of the F-structures and the correspondence connecting its parts to the c-structure nodes are specified by local principles that are formulated as annotations to phrase-structure rules. These annotations state properties and relations between the correspondents of a node and its mother in terms of the arrow symbols ↑, referring to the f-structure correspondent of the mother, and ↑, referring to the f-structure correspondent of the node the annotation appears on. Hence the rule such in (16) says that the f-structure correspondent of the daughter NP should be the SUBJ-value of the f-structure correspondent of the S, and the f-structure correspondent of the daughter VP should be the same as that of the S (rendering VP the head of S, in terms of f-structural properties).

(16) S → NP VP
(↑SUBJ) = ↓ ↑ = ↓

Annotations are required to satisfy certain principles, such as Functional Locality, which are part of the substantive linguistic theory of LFG, and f-structures are required to satisfy certain conditions, such as Completeness and Coherence, for the sentence to be well formed. Andrews and Manning (1999) found that the complex expressions with

multiple predicates, and sometimes recursively nested phrase structures in the SVCs share a single array of grammatical relations, and in many case they share some certain grammatical relations. They then proposes to share a certain subset of the information in two structures, that is to say that '$f_p = g_p$', which means that the feature structure correspondents of two nodes share the same array of grammatical relations. They posit a special notation for just this operation, wherein '=' is followed by a set whose union is used as a restriction on both sides of the equality:

(17) Restricted Equality:

Where are sets of attributes (restricted projections),

f = { á, ê, …}g def f(á ê …) = g(á ê …)

This is read as 'f and g share (the same values for) their á, ê (and…) projections'. In addition, they use the shorthand = { á, ê, …} to mean that = { á, ê, …} . And they indicate the classes of the set of the grammatical relations that they find to be motivated by their analyses in (18).

(18) a. ê: X-bar categories like N, V, etc.

b. â: for the BAR attributes or equivalent in X-bar theory.

c. *p*: Grammatical Relations (SUBJ, OBJ, ADJUNCT,…)

d. á: Argument-structure related attributes such as PRED.

e. ì: Morphosyntactic features (GEND, NUM, TENSE, etc).

Another 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 (19).

(19) 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.

For the VP-serialization like in the Haitian Creole take-serialization in (20), it is the case being 'take-serialization' used to express the theme transfer verb such as 'give'. The semantic analysis of this kinds of construction has tended to assume some kind of merger of semantic structure whereby one verb expresses the theme and the other a recipient / goal.

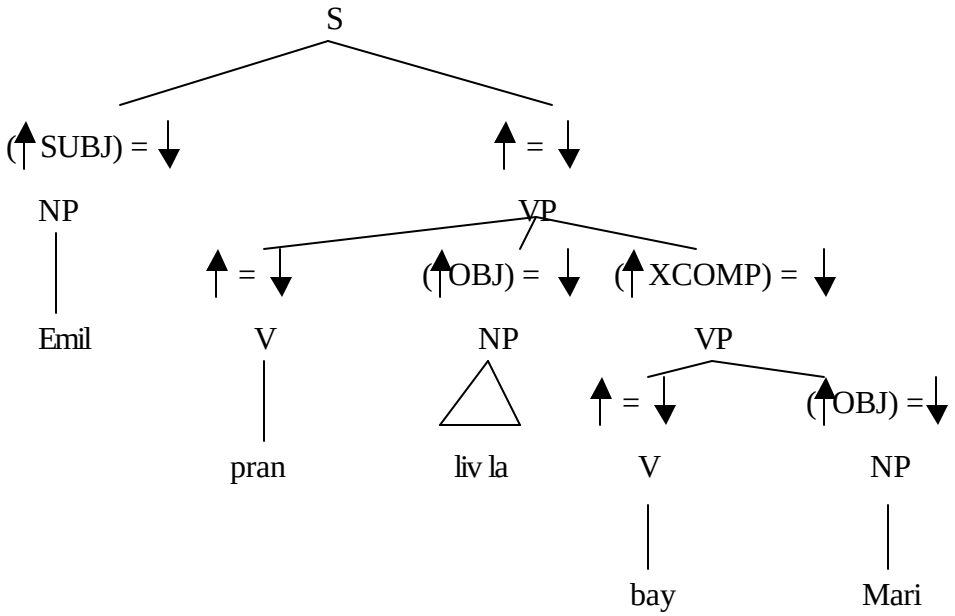
(20) Emil pran liv la bay Mari

Emil take book DET give Mary

'Emil gave the book to Mary.' (Déchaine 1988)

Andrews and Manning propose two kinds of analysis for this construction. The first analysis is in terms of grammatical relations and c-structural configuration. This take-serialization has the VP-complement structure with an anaphoric control of the subject, and each verb having its own object. The c-structure of (20) is shown in (21).

(21)



Essentially, they propose that the LCS values of the matrix verb *pran* 'take' and the verb in its XCOMP *bay* 'give' could be combined quite tightly. The LCS of the verbs *pran* 'take' and *bay* 'give' are shown in (22).

(22) *pran*: 'take'

LCS	Cause (X,Y,GO (Y,____))
TERMS	<X,Y>

bay:	LCS	Cause (X,___,GO (___,TO (Z)))
'give'	TERMS	<X,Z>

Andrews and Manning propose that each verb in this construction makes the overlapping claim about what the arguments are doing. The take-verb says that its subject causes the theme to go somewhere while the give-verb says that its subject causes something to go to its object without saying what. The linking theory will associate first and second positions on the TERMS-list with SUBJ and OBJ grammatical functions, respectively. The two LCS - values can be combined by having an equation such as (↑ LCS) = (↓ XCOMP LCS) in the lexical entry of the take-verb, so that the á-projection for the top S, VP and V of (20) would wind up like in (23).

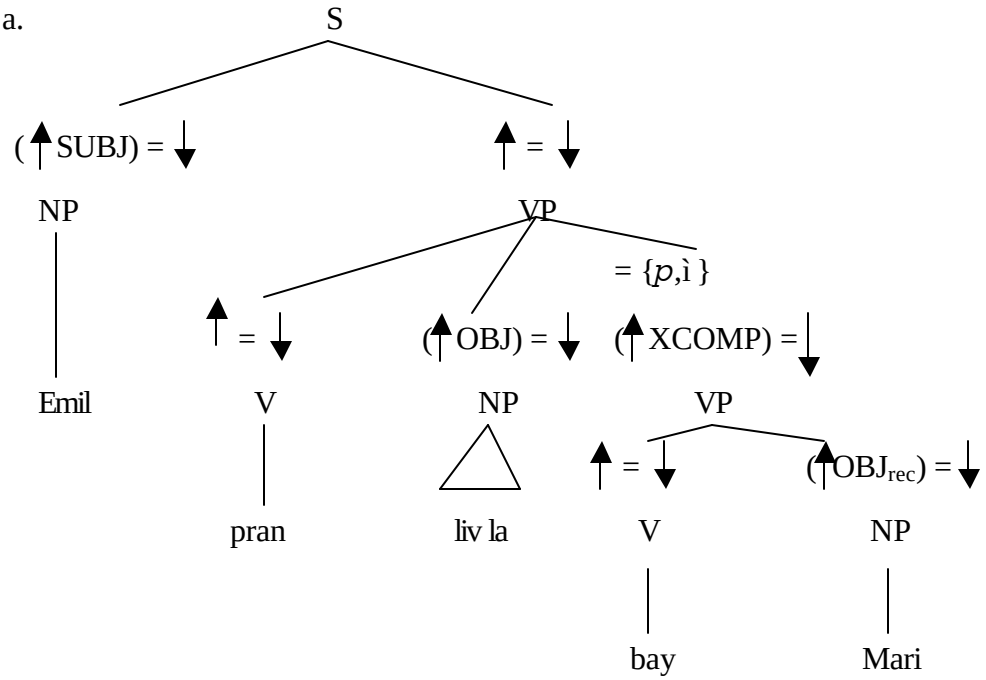
(23)

LCS	Cause (X,Y,GO (Y,TO (Z)))	
TERMS	<X,Y>	
XCOMP	LCS	
	TERMS	<X,Y>

The alternative analysis is that the VP-serialization is only one clause. The evidence for this is that (i) the whole SVC describes a single event, (ii) verbs after the first do not have an overt subject of their own, (iii) there is shared tense, aspect, and mood marking throughout the SVC, (iv) later verbs share objects as well as subject with

earlier verbs, and (v) over all array of arguments in an SVC resembles that of a single clause in other languages. Andrews and Manning suggest that while (i) and (ii) can be adequately explained under the first analysis (the XCOMP analysis), (iii – v) are more suggestive of there being sharing of grammatical relations via = { }. Under this analysis, the c-structure and á-projection would be roughly as in (24).

(24) a.



b.

LCS	Cause (X,Y,GO (Y,TO (Z))
TERMS	<X,Y,Z>

The verb *bay* 'give' here is analyzed as taking three arguments. Three of these arguments would be shared with arguments of the first verb, and so the complete merger of the

TERMS lists of the two verbs would yield a TERMS list of the clause, which also has three members.

The split PRED-attribute idea of Andrews and Manning can be efficiently applied to all eight types of Thai SVCs. Specifically, the VP-serialization analysis suits Thai SVCs' structures. They have the same properties as the take-serialization in Haitian Creole in (i) and (ii). That is, the whole SVC describes a single event, and verbs after the first do not have an overt subject of their own. By these two properties, the first analysis (the XCOMP analysis) is more appropriate for the analysis of Thai SVCs than the second analysis, which shows the grammatical relations sharing. Thus, I adopt the XCOMP analysis for all eight types of Thai SVCs. Since the equations, which represent lexical properties, will indicate the mapping between the argument structure roles and the grammatical functions in the f-structure, the TERM-list is not needed in the analysis of Thai SVCs

4.4 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 (25).

(25) ka:nda: ʔaw mî:t hàn kày

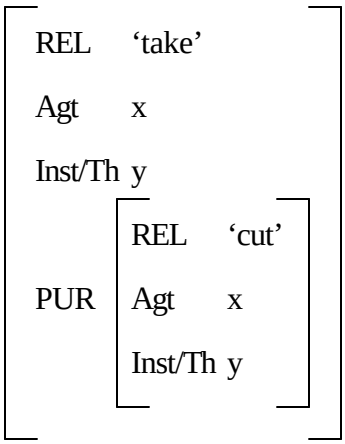
Kanda take knife cut chicken

(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 (26).

(26) *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 (27).

(27) 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 (27). 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 (28).

(28) *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.

4.4.1 The cancellation test

In the theory of meaning, entailment is the relation between two sentences under which one follows necessarily from the other by virtue of a certain semantic relation between them (Katz 1972: 6), for example the fact that the sentence 'I am a tall woman' entails 'I am a woman'. We can test the property of entailment by using the cancellation

test. If a sentence (29) entails a sentence (30), then the sentence '(29) but not (30)' will be contradiction. For example:

(29). I am a tall woman.
(30) I am a woman.
(31). # I am a tall woman, but I am not a woman.

The sentence (31) shows the contradiction, that is, there is no situation in which it could be true. We can apply these two tests to Thai SVCs in order to find out how many events are there in the SVCs, that is, if the cancellation test works with the second or third verb in the series, it means that there is more than one event encoded in that SVC. For example, in English, the mono-clausal sentence encodes one event, if we apply the cancellation test to it, it will be contradiction as in (32).

(32). I bought a book, but I did not buy a book.

In contrast, the sentence with a purposive clause encodes two events, so the cancellation test works as in (33).

(33). I went to the shopping mall in order to buy a dress, but I did not buy a dress.

For Thai SVCs, the cancellation test shows that the Motion SVCs, Take-SVCs, Open class SVCs, and Give SVCs, which I would like to call the first group, have at least two events since the purposive event(s) can be cancelled. The example in (33) is the Take-SVC.

(33) ka:nda: ʔaw mî:t hàn kày tɛ̀: mây

Kanda take knife cut chicken but NEG

hàn kày

cut chicken

'Kanda took a knife to cut a chicken but (she) did not cut the chicken.'

The 'cutting' event can be cancelled, showing that there are two events in the sentence, which are the 'taking' event and the 'cutting' event.

On the other hand, the Posture SVCs, Use-SVCs, Causative SVCs, and Resultative SVCs, which I would like to call the second group, have only one event since the second event cannot be cancelled out. The example in (34) is the Use-SVC.

(34)* ka:nda: chây mî:t hàn kày tɛ̀: mây

Kanda use knife cut chicken but NEG

hàn kày

cut chicken

This is because the verb *chây* 'use' in Thai includes the meaning of instrument, it means 'use with an instrument'. And the verb *hàn* 'cut' also involves the meaning of instrument, which is 'cut something with a tool', as in the example when this verb is a main verb in a simple sentence (35).

(35) ka:nda: hàn kày

Kanda cut chicken

'Kanda cut the chicken.'

In (35), even thought there is no instrumental argument appeared in the sentence, it still means 'Kanda cut the chicken with a tool'. The verb *hàn* 'cut' in Thai usually subcategories for three arguments: agent, theme, and instrumental, as in (36).

(36) ka:nda: hàn kày dûay mî:t
Kanda cut chicken with knife
'Kanda cut a chicken with a knife.'

The instrumental argument can be omitted as in (35) but the meaning of the instrument still remains. So we cannot separate the 'cutting' event from the 'using' event.

Next I will apply the cancellation test to the purposive interpretation of the other SVCs in the first group to show that they have at least two events in the sentence.

Motion SVCs:

Motion-deictic SVCs:

The motion-deictic SVC has three verbs in series, the motion verb, the deictic verb, and another VP, as in (37).

(37) ka:nda: dɤn pay sí: nǎŋsǐ:
Kanda walk go buy book
'Kanda walked away from the speaker to buy a book.' (purposive)

When we apply the cancellation test, it works with both the second verb as in (38a) and the third verb as in (38b).

(38) a. ka:nda: dʏn pay sí: nǎŋsǐ: tɛ̀: mây pay

Kanda walk go buy book but NEG go

sí: nǎŋsǐ:

buy book

'Kanda walked away from the speaker to buy a book, but (she) did not go away from the speaker to buy a book.'

b. ka:nda: dʏn pay sí: nǎŋsǐ: tɛ̀: mây sí: nǎŋsǐ:

Kanda walk go buy book but NEG buy book

'Kanda walked away from the speaker to buy a book, but (she) did not buy a book.'

Both the 'going' event and the 'buying' event can be cancelled showing that there are three events encoded in the sentences in (38), which are the 'walking' event, the 'going' event, and the 'buying' event.

Motion-directional SVCs:

The motion-directional SVC composes of at least one and at most six directional verbs before a deictic verb followed by the other VP. The example in (39) shows two directional verbs before a deictic verb.

(39) ka:nda: wîŋ ʔɔ̀:k pay sí: nǎŋsǐ:

Kanda run exit go buy book

‘Kanda ran out, away from the speaker, to buy a book.’ (purposive)

When we apply the cancellation test, it works with the directional verb as in (40a), with the deictic verb either as in (40b), and with the verb after the deictic verb as in (40c).

(40) a. ka:nda: wîŋ ʔɔ̀:k pay sí: nǎŋsǐ: tɛ̀: mây

Kanda run exit go buy book but NEG

ʔɔ̀:k pay sí: nǎŋsǐ:

exit go buy book

‘Kanda ran out to buy a book (away from the speaker’s viewpoint), but (she) did not go out to buy a book.’

b. ka:nda: wîŋ ʔɔ̀:k pay sí: nǎŋsǐ: tɛ̀: mây

Kanda run exit go buy book but NEG

pay sí: nǎŋsǐ:

go buy book

‘Kanda ran out to buy a book (away from the speaker’s viewpoint), but (she) did not go away from the speaker’s point of view to buy a book.’

c. ka:nda: wîŋ ʔɔ̀:k pay sí: nǎŋsǐ: tɛ̀: mây

Kanda run exit go buy book but NEG

sí: nǎŋsǐ:

buy book

‘Kanda ran out to buy a book (away from the speaker’s viewpoint) but (she) did not buy a book.’

The ‘exiting’ event, the ‘going’ event, and the ‘buying’ event can be cancelled showing that there are three events in the sentences in (39).

Open class SVCs:

The Open class SVC has two transitive verbs in the series as in (40).

(40) ka:nda: hŭŋ khâ:w kin
Kanda cook rice eat
‘Kanda cooked rice to eat.’

When we apply the cancellation test, it works with the second verb as in (41).

(41) ka:nda: hŭŋ khâ:w kin tɛ̀: mâydây kin
Kanda cook rice eat but NEG eat
‘Kanda cooked rice to eat but (she) did not eat (it).’

The ‘eating’ event can be cancelled showing that there are two events in the sentence (41), which are the ‘cooking’ event and the ‘eating’ event.

Give-SVCs:

The Give-SVCs have two verbs in series: the first verb is the verb *hây* ‘give’ and the second verb is any verb in the open class, such as the verb *ʔà:n* ‘read’ in (42). Usually, the Give-SVC occurs with the open class SVC as in (42).

(42) ka:nda: sí: nǎŋsǐ: hây nó:ŋ ʔà:n

Kanda buy book give sister read

'Kanda bought a book to give (it) to her sister to read (it).'

When we apply the cancellation test, it works with the second verb as in (43).

(43) ka:nda: sí: nǎŋsǐ: hây nó:ŋ ʔà:n tɛ̀: mâydây

Kanda buy book give sister read but NEG

hây nó:ŋ ʔà:n

give sister read

'Kanda bought a book to give (it) to her sister to read (it) but (she) did not give it to her sister to read (it).'

The 'giving' event can be cancelled showing that there are at least two events in the sentence (43), which are the 'buying' event and the 'giving' event.

Next I will apply the cancellation test to the purposive interpretation of the other SVCs in the second group, which are Posture SVCs, Causative SVCs, and Resultative SVCs, to show that they have only one event in the sentence.

Posture SVCs:

The posture SVC has two intransitive verbs in the series as in (44).

(44) ka:nda: yɨ:n ɾ̂ɔ:ŋple:ŋ

Kanda stand sing

‘Kanda sang, while standing.’

The sentence (44) entails that Kanda sang while standing. When we apply the cancellation test to this sentence, it does not work with second verb as in (45) showing that there is only one event in this sentence, that is, Kanda sang while she was standing.

(45) * ka:nda: yɨ:n ɾ̂ɔ:ŋple:ŋ tɛ̀: mâydây ɾ̂ɔ:ŋple:ŋ

Kanda stand sing but NEG sing

(Intended meaning: ‘Kanda sang, while standing, but she did not sing.’)

Causative SVCs:

The Causative SVC has two verbs in series, the first verb is the verb *tham* ‘make’, and the second verb has to be the change-of-state verb as in (46).

(46) ka:nda: tham kɛ̂:w tɛ:k

Kanda make glass break

‘Kanda made the glass break.’

The sentence (46) entails that Kanda broke the glass and the glass broke. When we apply the cancellation test to this sentence, it does not work with the second verb as in (47) showing that there is only one event in this sentence, that is, Kanda causes the glass break.

(47) *ka:nda: tham kɛ̂:w tɛ:k tɛ̀: kɛ̂:w mây tɛ:k

Kanda make glass break but glass NEG break

(Intended meaning: ‘Kanda made the glass break but the glass doe not break.’)

Resultative SVCs:

The Resultative SVC has two verbs in the series: they can be either transitive or intransitive verb as in (48).

(48) ka:nda: kin khâ:w ʔìm

Kanda eat rice full

‘Kanda ate rice until (she was) full.’

The sentence (48) entails that Kanda ate rice until (she was) full. When we apply the cancellation test to this sentence, it does not work with the second verb as in (49), showing that there is only one event in this sentence that is, Kanda ate rice until she was full.

(49) *ka:nda: kin khâ:w ʔìm tɛ̀: mây ʔìm

Kanda eat rice full but NEG full

(Intended meaning: ‘Kanda ate rice until (she was) full but she was not full.’)

Given the cancellation test, the purposive verb phrase in four types of SVCs, which are the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, can be cancelled, showing that there are more than one event in these sentences while the second

verb phrase of the other four types of Thai SVCs, which are the Posture SVCs, Use-SVCs, Causative SVCs, and Resultative SVCs cannot be cancelled, showing that there is only one event in these sentences.

Another piece of evidence showing the different event structures between the SVCs in the first and second groups is the time marker test. The events in the SVCs in the first group can occur in the different time while the events in the SVCs in the second group occur in one time only.

4.4.2 The time marker test

Sudmuk (2003) studies the temporal information in Thai and proposes that there are three linguistic forms that express the temporal information in Thai, which are

1) Time Phrases (TP): adverb of time (e.g. mîːwaːnnîː 'yesterday' indicates past time, phrûŋnîː 'tomorrow' indicates future time, wannîː 'today' indicates present time).

2) Time Markers (TM): there are five times markers:

2.1 dâːy 'able, get, receive, have an opportunity' indicates past time.

2.2 *khɤːy* 'experience, be accustomed to' indicates past time.

2.3 *wây* 'keep (for a certain purpose) indicates past time.

2.4 *phɤ̂ŋ* 'just' indicates recent past time.

2.5 *càʔ* 'presents potentiality, assertion, volition, or determination' indicates future time.

3) Aspect Markers (AM): there are five aspect marker types:

3.1 Imperfectives: indicates present time:

- *kamlaŋ* "is doing" indicates present progressive

- *yùː* 'be located' indicates present progressive

- *tòː* 'continue' indicates present time

- *khâw* 'enter' indicates present time'

3.2 Perfectives: indicates past time

- *maː* 'come'

- *pay* 'go'

- *sĭa* 'lose, waste'

3.3 Semi-Perfectives: indicates past time

- *khĭn* 'ascend'

- *loŋ* 'descend'

- *ʔoːk* 'exit'

-*léːw* 'already'

3.4 Completives: indicates past time

- *còp* 'end'

- *sèt* 'finish'

- *sămrèt* 'accomplish'

3.5 Generic: indicates present time or timeless

-- *yô:m* 'naturally'

The time marker usually occurs before the verb in the simple sentence as in (50b). It indicates the time when the event in that sentence occurs.

(50) a. ka:nda: sí: nǎŋsǐ:

Kanda buy book

'Kanda buys / is buying a book.'

b. ka:nda: **dây** sí: nǎŋsǐ:

Kanda PAST buy book

'Kanda bought a book.'

The time marker *dây* in (50b) indicates that the 'buying' event occurs in the past time. When we put the time marker *dây* in front of the first verb in the SVCs, the events in the SVCs such as the Take-SVCs, which is in the first group, can occur in the different time, that is, the first event occurs in the past time, but the second event can occur either in the past time or in the future time. In contrast, when we put the time marker in front of the first verb of the SVCs such as the Use-SVCs, which is in the second group, both events occur in one time only. This finding corresponds to the finding of the cancellation test in

4.1.1 in that it shows that there are more than one event in the SVCs of Group 1 and there is only one event in the SVCs in Group 2. The examples are illustrated below:

Take-SVC:

(51) ka:nda: dây ʔaw mî:t hàn kày

Kanda PAST take knife cut chicken

'Kanda took the knife to cut the chicken.' (purposive)

A sentence (51) means that Kanda took a knife to cut a chicken. The time marker *dây* is in front of the first verb, *ʔaw* 'take'. It indicates only the time of the verb *ʔaw* 'take', not the time of the verb *hàn* 'cut'. This sentence means that only the 'taking' event happened in the past time. But for the 'cutting' event, it can occur either in the past time or in the future time. So, these two events happened separately.

Use-SVC:

(52) ka:nda: dây cháy mî:t hàn kày

Kanda PAST use knife cut chicken

'Kanda cut the chicken with the knife.'

The difference between the Take and Use-SVCs is that the second verb phrase, the 'cutting' event in the Use-SVCs, occurred in the past time while that in the Take-SVC

might occur in the past time or in the future time. When we put the time marker *dây* in front of the first verb in the Use-SVC as in (52), it indicates the time for both verbs *cháy* 'use' and *hàn* 'cut'. It means that both the 'using' event and the 'cutting' event happened at the same time in the past. So, there is only one event in this sentence.

Here are the examples of the other types of Thai SVCs in Group 1 and 2.

Group 1: The events in the other types of Thai SVCs in the first group, which are the Motion SVCs, Open class SVCs, and Give-SVCs, can occur in the different time, showing that the SVCs in this group have more than one event. They are illustrated below:

Motion SVCs:

Motion-deictic SVCs:

The motion-deictic serialization has the motion verb *dɤn* 'walk' as the first verb followed by the deictic verb *pay* 'go' and the purposive phrase *sí: nǎŋsǐ:* 'buy book' as in (53a).

(53) a. ka:nda: dɤn pay sí: nǎŋsǐ:

Kanda walk go buy book

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

b.ka:nda: dây dɤn pay sí: năŋsĭ:

Kanda PAST walk go buy book

'Kanda walked away from the speaker to buy a book.' (purposive)

A sentence (53a) means that Kanda walked away to buy a book. When we put the time marker *dây* is in front of the first verb, *dɤn* 'walk', as in (53b), it indicates only the time of the verb, *dɤn* 'walk', but not the time of the verb *sí:* 'buy'. This sentence means that only the 'walking' event happened in the past time. But for the 'buying' event, it can occur either in the past time or in the future time. So, these two events happened separately.

Motion-directional SVCs:

The motion-directional SVC usually has the motion verb as the first verb and followed by the sequence of the directional verbs and the last verb in the series has to be a deictic verb. The directional verb that follows the motion verb can be at least one verb as in (54a) and at most five verbs as in (54b).

(54) a. ka:nda: dɤn khâw ro:ŋrian pay

Kanda walk enter school go

'Kanda enters / entered the school, walking away from the speaker.' (overlapping)

b. ka:nda: wîŋ tɾoŋ yó:n khâ:m sàpha:n ʔɔ:k pay

Kanda run go straight reverse cross bridge exit go

‘Kanda runs / ran straight back, crossing the bridge, out, away from the speaker.’

(overlapping)

It is possible to add the purposive clause such as *sí: nǎŋsǐ:* ‘buy book’ after the deictic verb as in (55).

(55) ka:nda: dɤn khâw ro:ŋrian pay sí: nǎŋsǐ:

Kanda walk enter school go buy book

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

(overlapping)

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

The time marker test in (56) also supports that the verb phrase *sí: nǎŋsǐ:* ‘buy book’ is the separate event because the ‘buying’ event occurs in the different time from the ‘walking’ event, the ‘entering’ event, and the ‘going’ event.

(56) ka:nda: dây dɤn khâw ro:ŋrian pay sí: nǎŋsǐ:

Kanda PAST walk enter school go buy book

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

A sentence (56) means that Kanda walked into the school to buy a book. When we put the time marker *dây* in front of the first verb, *dɤn* 'walk', it indicates the time of the first three verbs, which are the verb *dɤn* 'walk', *khâw* 'enter', and *pay* 'go'. The 'walking' event, the 'entering' event, and the 'going' event occurred in the past time. But for the 'buying' event, it can occur either in the past time or in the future time. So, there are at least two events in this sentence.

Open class SVCs:

The Open class SVCs have two verbs in series, both of them are transitive verb phrases as in (57).

(57) ka:nda: hŭŋ khâ:w kin

Kanda cook rice eat

(i) 'Kanda cooked rice (and) ate rice.' (sequential)

(ii) 'Kanda cooked rice to eat.' (purposive)

The time marker test in (58) shows that the 'eating' event is the separate event. It occurs in the different time from the 'cooking' event.

(58) ka:nda: dây hŭŋ khâ:w kin

Kanda PAST cook rice eat

'Kanda cooked rice to eat.' (purposive)

A sentence (58) means that Kanda cooked rice to eat. When we put the time marker *dây* in front of the first verb, *hŭŋ* 'cook', it indicates only the time of the first verb, *hŭŋ* 'cook', but not the time of the second verb, *kin* 'eat'. This sentence means that only the 'cooking' event occurred in the past time. But for the 'eating' event, it can occur either in the past time or in the future time. So, these two events occur separately.

Give-SVCs:

The Give-SVC has the verb *hây* 'give' as the first verb and the verb in the open class as the second verb. It usually occurs with the Open class SVC as in (59).

(59) ka:nda: sí: nămsĭ: hây wi:ra ʔà:n

Kanda buy book give Vira read

(i) 'Kanda bought a book (and) gave (it) to Vira to read (it).' (sequential)

(ii) 'Kanda buys / bought a book to give it to Vira to read (it).' (purposive)

The time marker test in (60) shows that the verb phrase *hây wi:ra* 'give Vira' is the separate verb phrase because the 'giving' event occurs in the different time from the 'buying' event.

(60) ka:nda: dây sí: nǎŋsǐ: hây wi:ra ʔà:n

Kanda PAST buy book give Vira read

'Kanda bought a book to give (it) to Vira to read (it).' (purposive)

A sentence (60) means that Kanda bought a book to give (it) to Vira to read (it). When we put the time marker *dây* in front of the first verb, *sí:* 'buy', it indicates only the time of the first verb, *sí:* 'buy', but not the time of the second verb, *hây* 'give'. This sentence means that only the 'buying' event occurred in the past time. But for the 'giving' event, it can occur either in the past time or in the future time. So, these two events occur separately.

Group 2: The events in the other types of Thai SVCs in the second group, which are the Posture SVCs, Causative SVCs, and Resultative SVCs, occur at the same time, showing that the SVCs in this group have only one event. They are illustrated below:

Posture SVCs:

The posture SVC has two intransitive verbs in the series as in (61). When we apply the time marker test, as in (62), it indicates the time of both two verbs *yɨːn* 'stand' and *r̂ɔːŋpleːŋ* 'sing'. It shows that both the 'standing' event and the 'singing' event occur in the past, showing that there is only one single event in the sentence.

(61) kaːndaː yɨːn r̂ɔːŋpleːŋ
Kanda stand sing
'Kanda sings, while standing.'

(62) kaːndaː dây yɨːn r̂ɔːŋpleːŋ
Kanda PAST stand sing
'Kanda sang, while standing.'

Causative SVCs:

The Causative SVC has two verbs in series, the first verb is the verb *tham* 'make', and the second verb has to be the intransitive verb as in (63). When we apply the time marker test, as in (64), it indicates the time of both two verbs *tham* 'make' and *tɛːk* 'break'. It shows that both the 'making' event and the 'breaking' event occur in the past, showing that there is only one single event in the sentence.

(63) kaːndaː tham kɛ̂ːw tɛːk
Kanda make glass break
'Kanda makes the glass break.'

(64) ka:nda: dây tham kɛ̂:w tɛ:k

Kanda TM make glass break

‘Kanda made the glass break.’

Resultative SVCs:

The Resultative SVC has two verbs in series: they can be either transitive or intransitive verb as in (65). When we apply the time marker test, as in (66), it indicates the time of both two verbs *kin* ‘eat’ and *ʔìm* ‘be full’. It shows that both the ‘eating’ event and the ‘being full’ event occur in the past, showing that there is only one single event in the sentence.

(65) ka:nda: kin khâ:w ʔìm

Kanda eat rice full

‘Kanda eats rice until (she is) full.’

(66) ka:nda: dây kin khâ:w ʔìm

Kanda PAST eat rice full

‘Kanda ate rice until (she was) full.’

Given the cancellation test and the time marker test, the SVCs in Group 1, which are the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, have at least two separate events in the sentence while the SVCs in Group 2, which are the Posture SVCs, Causative SVCs, Use-SVCs, and Resultative SVCs, have only one event in the sentence.

4.4.3 Two kinds of the LCS in Thai SVCs

As mentioned earlier, I posit two kinds of LCS for Thai SVCs, which are:

(i) **Complex LCS**: the LCS that has an embedded LCS inside the first verb's LCS. This kind of LCS allows the events occur in the different time.

(ii) **Simple LCS**: the LCS that has only one LCS in the sentence. This kind of LCS does not allow the events in the sentence occur in the different time. They have to occur simultaneously.

According to the findings of the cancellation test and the time marker test in 4.4.1 and 4.4.2 respectively, Thai SVCs in Group 1, which are the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, have the Complex LCS while Thai SVCs in Group 2, which are the Posture SVCs, Causative SVCs, Use-SVCs, and Resultative SVCs, have the Simple LCS. The example of those SVCs' LCS are illustrated below:

4.4.3.1 Complex LCS:

Motion SVCs:

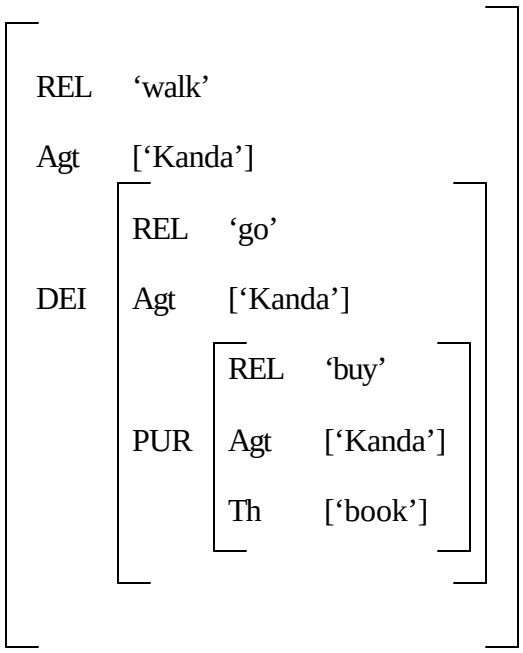
Motion-deictic SVCs:

(67) ka:nda: dʏn pay sí: nǎŋsǐ:

Kanda walk go buy book

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

dɤn ‘walk’ - *pay* ‘go’ - *sí:* ‘buy’



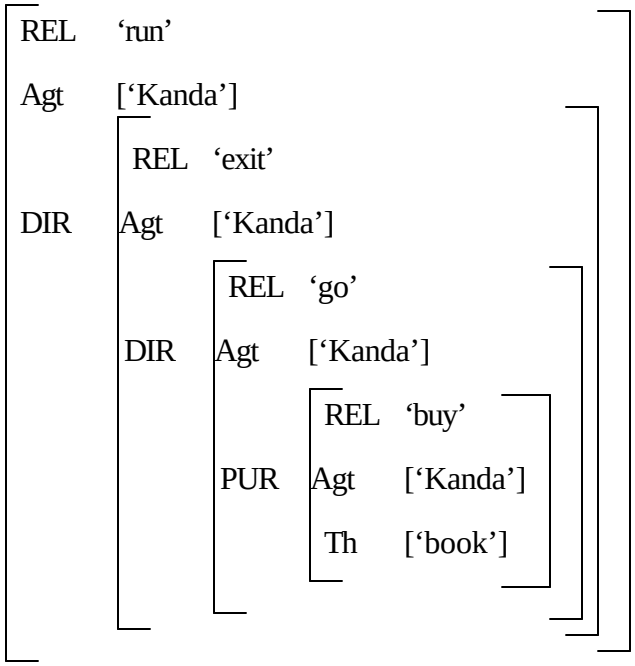
Motion-directional SVCs:

(68) ka:nda: wîŋ ʔò:k pay sí: nǎŋsǐ:

Kanda run exit go buy book

‘Kanda runs / ran out, away from the speaker, to buy a book.’ (purposive)

wîŋ ‘run’ - *ʔɔ̀:k* ‘exit’ - *pay* ‘go’ - *sɨ́:* ‘buy’



Take-SVCs:

(69) ka:nda: ʔaw mî:t hàn kày

Kanda take knife cut chicken

‘Kanda takes / took a knife to cut a chicken.’ (purposive)

ʔaw ‘take’ - *hàn* ‘cut’

REL	‘take’		
Agt	[‘Kanda’]		
Th	[‘knife’]		
PUR	REL	‘cut’	
	Agt	[‘Kanda’]	
	Inst	[‘knife’]	
	Th	[‘chicken’]	

Open class SVCs:

(70) ka:nda: hŭŋ khâ:w kin

Kanda cook rice eat

‘Kanda cooks / cooked rice to eat.’ (purposive)

hŭŋ ‘cook’ - *kin* ‘eat’

REL	‘cook’		
Agt	[‘Kanda’]		
Th	[‘rice’]		
PUR	REL	‘eat’	
	Agt	[‘Kanda’]	
	Th	[‘rice’]	

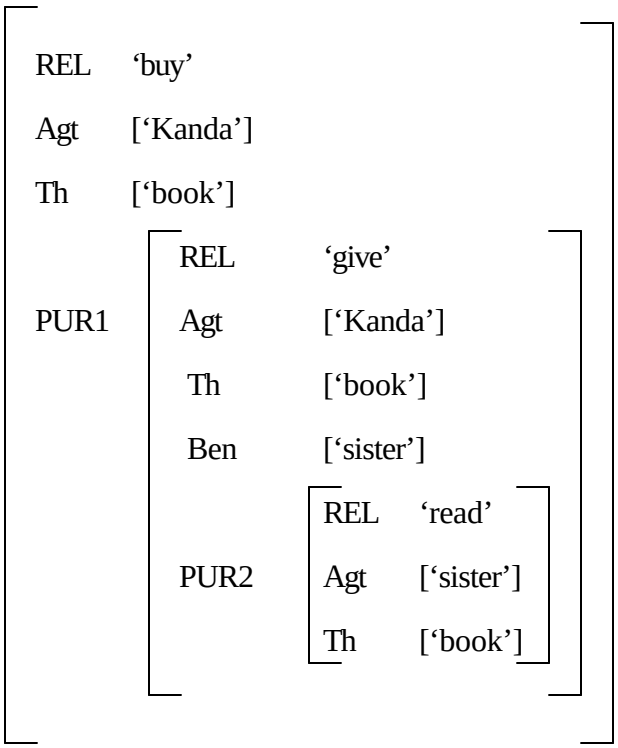
Give-SVCs:

(71) ka:nda: sí: nǎŋsǐ: hây nó:ŋ ʔà:n

Kanda buy book give sister read

‘Kanda buys / bought a book to give (it) to her sister to read (it).’ (purposive)

sí: ‘buy’ - *hây* ‘give’ - *ʔà:n* ‘read’



4.4.3.2 Simple LCS:

Posture SVCs:

(72) ka:nda: yi:n r̂o:ŋple:ŋ

Kanda stand sing

'Kanda sang, while standing.'

yi:n 'stand' - *r̂o:ŋple:ŋ* 'sing'

REL	'sing'
POSTURE	['stand']
Agt	['Kanda']

Causative SVCs:

(73) ka:nda: tham kɛ̂:w tɛ:k

Kanda make glass break

'Kanda made the glass break.'

tham 'make' - *tɛ:k* 'break'

REL	‘break’
CAUSER	[‘Kanda’]
Th	[‘glass’]

Use-SVCs:

(74) ka:nda: chây mî:t hàn kày

Kanda use knife cut chicken

‘Kanda cut a chicken with a knife.’

chây ‘use’ - *hàn* ‘cut’

REL	‘cut’
Agt	[‘Kanda’]
Inst	[‘knife’]
Th	[‘chicken’]

Resultative SVCs:

(75) ka:nda: kin khâ:w ʔìm

Kanda eat rice be full

‘Kanda ate rice until (she was) full.’

kin ‘eat’ - *ʔìm* ‘full’

REL	‘eat’
Agt	[‘Kanda’]
Th	[‘rice’]
RESULT	[‘be full’]

The full analysis in LFG framework of all eight types of Thai SVCs will be shown in chapter 5.

4.5 Conclusion

I discuss the semantic interpretation of all eight types of the SVCs in Thai. It turns out that when the second verb in the SVCs is the verb that has intentional meaning, it gives the purposive interpretation. By testing with two semantic tests, which are the cancellation test and the time marker test, it shows that the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, have at least more than one event in the sentence while the Posture SVCs, Causative SVCs, Use-SVCs, and Resultative SVCs, have only one event in the sentence.

In order to deal with the semantic interpretations of all eight types of Thai SVCs, I posit two kinds of LCS, which are Complex LCS (the LCS that has an embedded LCS inside the first verb’s LCS) and Simple LCS (the LCS that has only one LCS in the sentence). Given the cancellation test and the time marker test, the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, have the Complex LCS while the Posture SVCs, Causative SVCs, Use-SVCs, and Resultative SVCs, have the Simple LCS.

CHAPTER 5
The Analysis of the SVCs in Thai

5.1 Introduction

As I already showed in the last two chapters, all eight types of the SVCs in Thai have the subordinate structures. The verbs in series of four types of them, which are the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, express at least more than one separate event while the verbs in series of the other four types, which are the Posture SVCs, Causative SVCs, Use-SVCs, and Resultative SVCs, express one event in the sentence. In this chapter, I propose the analysis of all eight types of Thai SVCs in the LFG framework.

This chapter is organized as follows:

In section 2, I propose the analysis of all eight types of Thai SVCs in the LFG framework.

In section 3, I conclude the findings.

5.2 The analysis of Thai SVCs in the LFG framework

As Andrews and Manning (1999) point out, the LFG framework consists of two components: c-structure and f-structure. They present another approach to the analysis of complex predicate and serial verbs. Their approach is LFG- based but also is based on some ideas borrowed from Head-Driven Phrase Structure Grammar (HPSG). The proposal is to split the PRED attribute into two distinct components: the Lexical Conceptual Structure (LCS) and the argument-list (TERMS). For the analysis of Thai

SVCs, it is not necessary to have the argument-list since the equations, which represent lexical propertied, can map between the c-structures and the f-structures. There are two important well-formedness conditions on f-structures. These conditions are applied after the minimal f-structure has been constructed from the defining equations and any constraining equations have been satisfied. Completeness and coherence enforce an appropriate match-up, or linking, between the PRED feature and the surrounding syntactic functions of the f-structure. Completeness requires that every function designated by a PRED be present in the f-structure of that PRED. Coherence requires that every argument function in an f-structure be designated by a PRED (Bresnan 2001: 63).

In order for all argument functions specified in the value of the PRED feature to be presented in the f-structure in the analysis of Thai SVCs that I adopted from Andrews and Manning (1997), I propose the Principle of LCS Completeness as in (1).

(1) **Principle of LCS Completeness:**
Every LCS value must contain a REL feature.

The principle in (1) says that every LCS value in the f-structure has to have the RELATION feature, for example the verb *dɤn* 'walk' has to have the feature "(↑LCS REL) ='walk'" in the f-structure.

The equations in the lexicon of each verb in the sentence are the defining equation. They are the equations of the functional description define the model. Whatever f-structure elements are identified by an equation are made to exist in the f-structure model, for example, the defining equations that represent the properties of the verb *sɨ́:* 'buy', the noun *ka:nda:* 'Kanda', and the noun *nǎŋsɨ̌:* 'book' are shown in (2).

(2) a. *sí:* 'buy'

(↑LCS REL) = 'buy'

(↑LCS AGENT) = (↑SUBJ LCS)

(↑LCS THEME) = (↑OBJ LCS)

b. *ka:nda:* 'Kanda'

(↑LCS REL) = 'Kanda'

c. *nǎŋsǐ:* 'book'

(↑LCS REL) = 'book'

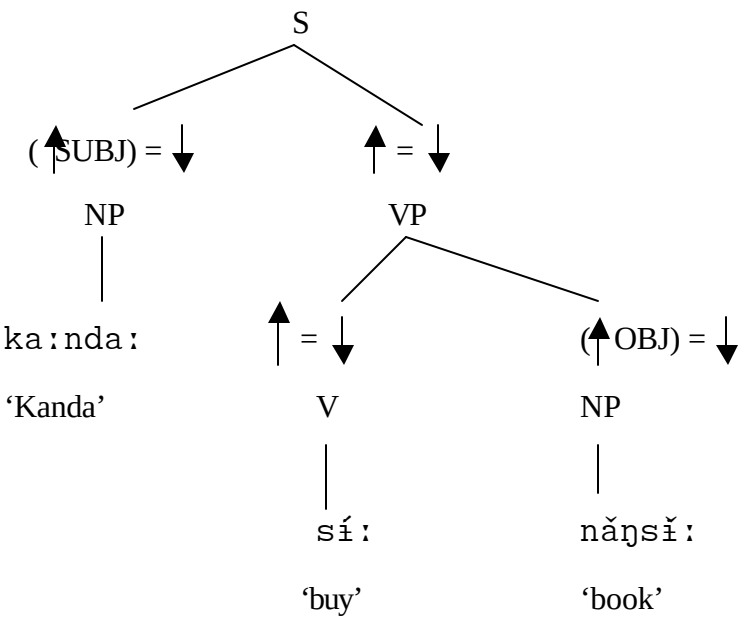
For the sentence in (3), which has the c-structure as in (4), would have the f-structure as in (5).

(3) ka:nda: sí: nǎŋsǐ:

Kanda buy book

'Kanda buys a book.'

(4) c-structure



(5) f-structure

$$\begin{bmatrix} \text{LCS} & \begin{bmatrix} \text{REL} & \text{'buy'} \\ \text{AGENT} & \underline{\quad}_i \\ \text{THEME} & \underline{\quad}_j \end{bmatrix} \\ \text{SUBJ} & [\text{LCS} \ [\text{REL} \ [\text{'Kanda'}]_i \ ] \\ \text{OBJ} & [\text{LCS} \ [\text{REL} \ [\text{'book'}]_j \ ] \end{bmatrix}$$

The defining equations (↑LCS AGENT) = (↑SUBJ LCS) and (↑LCS THEME) = (↑ OBJ LCS) in the lexical properties of the verb *sí:* 'buy' map the agent with the subject *ka:nda:* 'Kanda' and the theme with the object *nǎŋsǐ:* 'book'. This is shown by the indexation.

For the analysis of Thai SVCs, I propose the basic phrase structure rules for their subordinate structure as in (6).

(6) **Phrase Structure Rules:**

a. S → NP VP

(↑SUBJ) = ↓ ↑ = ↓

b. VP → V [(NP) (↑OBJ) = ↓] [(VP) (↑ XCOMP) = ↓]

The phrase structure rule in (a) generates Thai simple sentences that have only one verb while the phrase structure rule in (b) further generates the verb phrase of Thai SVCs that have an embedded VP complement or XCOMP. The examples of the analysis of all eight types of Thai SVCs are below:

Motion SVCs:

The motion-deictic SVC has two verbs in the series, the first verb is a manner of motion verb, and the second verb is a deictic verb, as in (7).

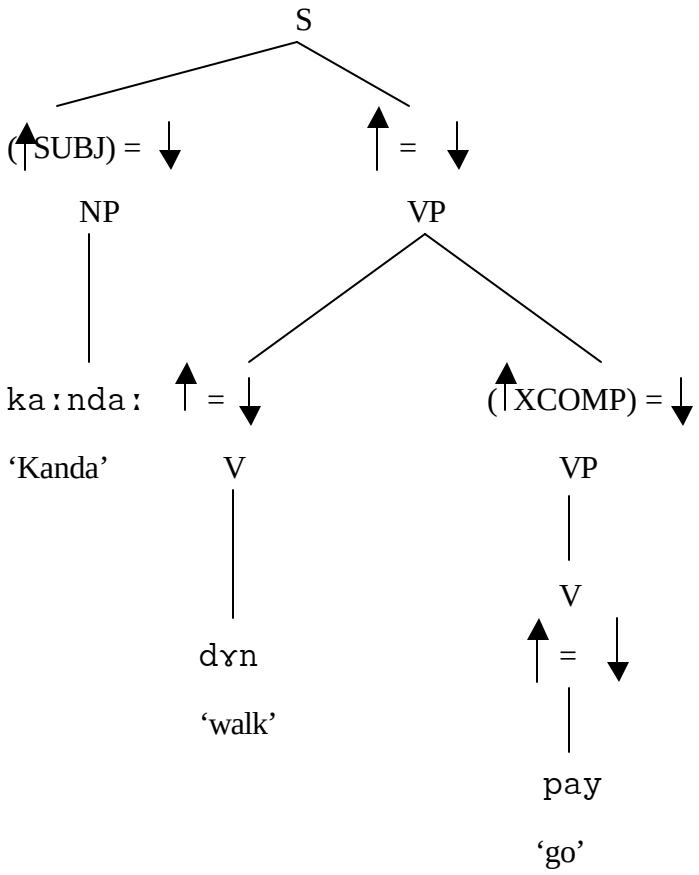
(7) ka:nda: dɤn pay

Kanda walk go

'Kanda walked away from the speaker.'

Its c-structure looks like in (8).

(8)



Due to the subordinate structure, the Motion-deictic SCVs involve control relation, which is the functional control between the subject of the matrix verb and the subjects of its XCOMP complements. The lexical entry of each verb in the series is shown in (9).

(9) a. *dɤn* 'walk'

(↑LCS REL) = 'walk'

(↑LCS AGENT) = (↑SUBJ LCS)

(↑LCS DEICTIC) = (↑XCOMP LCS)

(↑SUBJ) = (↑XCOMP SUBJ)

b. *pay* ‘go’

(↑LCS REL) = ‘go-away’

(↑LCS THEME) = (↑SUBJ LCS)

Its f-structure would be in (10).

(10)

$$\begin{bmatrix} \text{LCS} & \begin{bmatrix} \text{REL} & \text{‘walk’} \\ \text{AGENT} & \_\_\_\__{i} \\ \text{DEICTIC} & \_\_\_\__{j} \end{bmatrix} \\ \text{SUBJ} & [\ \text{LCS}\ [\text{REL} \quad \text{‘Kanda’}]_{i}\ ] \\ \text{XCOMP} & \begin{bmatrix} \text{LCS} & \begin{bmatrix} \text{REL} & \text{‘go-away’}_{j} \\ \text{THEME} & \_\_\__{i} \end{bmatrix} \\ \text{SUBJ} & [\ \text{LCS}\ [\ \_\_\_\_\ ]\ ]_{i} \end{bmatrix} \end{bmatrix}$$

In the lexical properties of the verb *dɤn* ‘walk’, the defining equation (↑LCS AGENT) = (↑SUBJ LCS) maps the agent with the subject *ka:nda:* ‘Kanda’. The equation (↑LCS DEICTIC) = (↑XCOMP LCS) indicates that the LCS of the deictic is the same as the LCS of the XCOMP, which is ‘go away’. The equation (↑SUBJ) = (↑XCOMP SUBJ) identifies the subject of the verb *dɤn* ‘walk’ with the subject of its XCOMP, which is *ka:nda:* ‘Kanda’. The equation (↑LCS THEME) = (↑SUBJ LCS) in the lexical

properties of the verb *pay* 'go' indicates that the theme's LCS is the same as the subject's LCS, which is *ka:nda:* 'Kanda'.

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 (11).

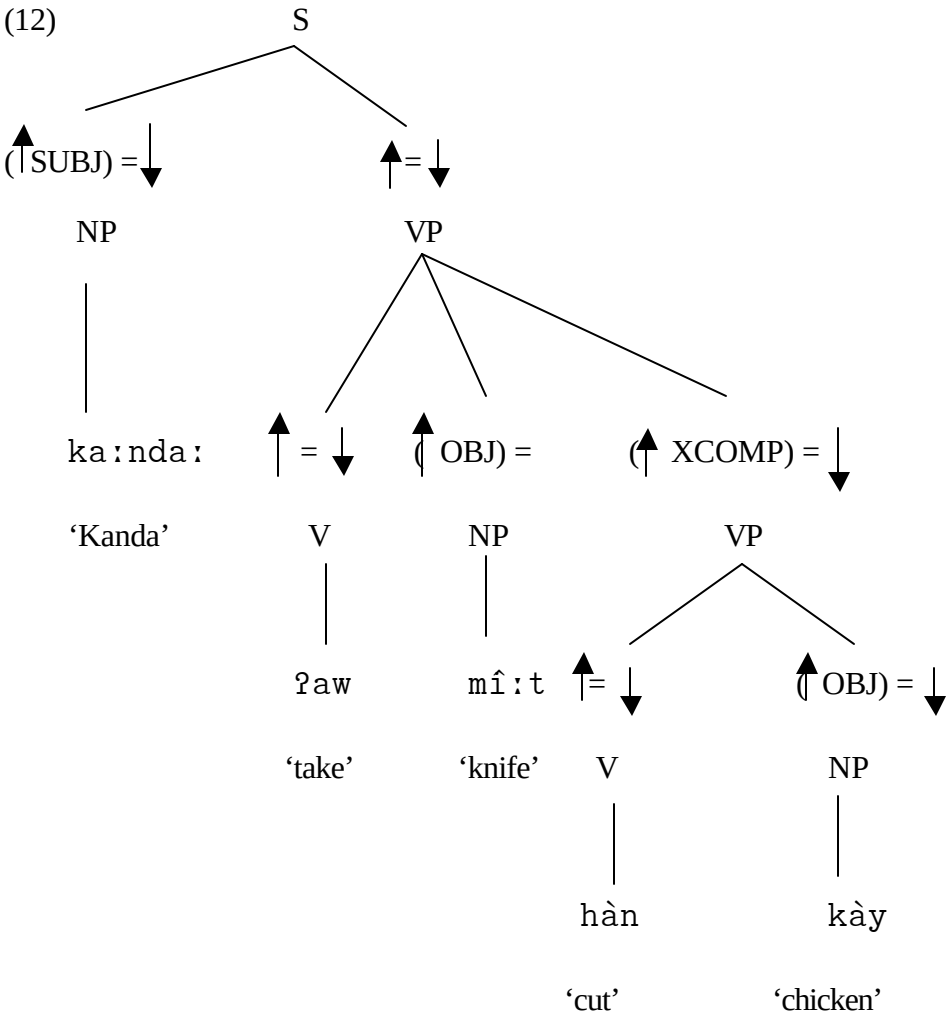
(11) ka:nda: ʔaw mî:t hàn kày

Kanda take knife cut chicken

'Kanda took a knife to cut the chicken.'

The c-structure of this sentence looks like that in (12).

(12)



Due to the subordinate structure, the Take-SVCs involve control relation, which is the functional control between the subject of the matrix verb and the subject of its XCOMP complement. The control relation between the theme argument of the matrix verb and the instrumental argument of its XCOMP predicate is a thematic control with respect to the thematic restriction of the matrix and embedded verbs. The lexical entry of each verb in the series is shown in (13).

(13) a. *ʔaw* ‘take’

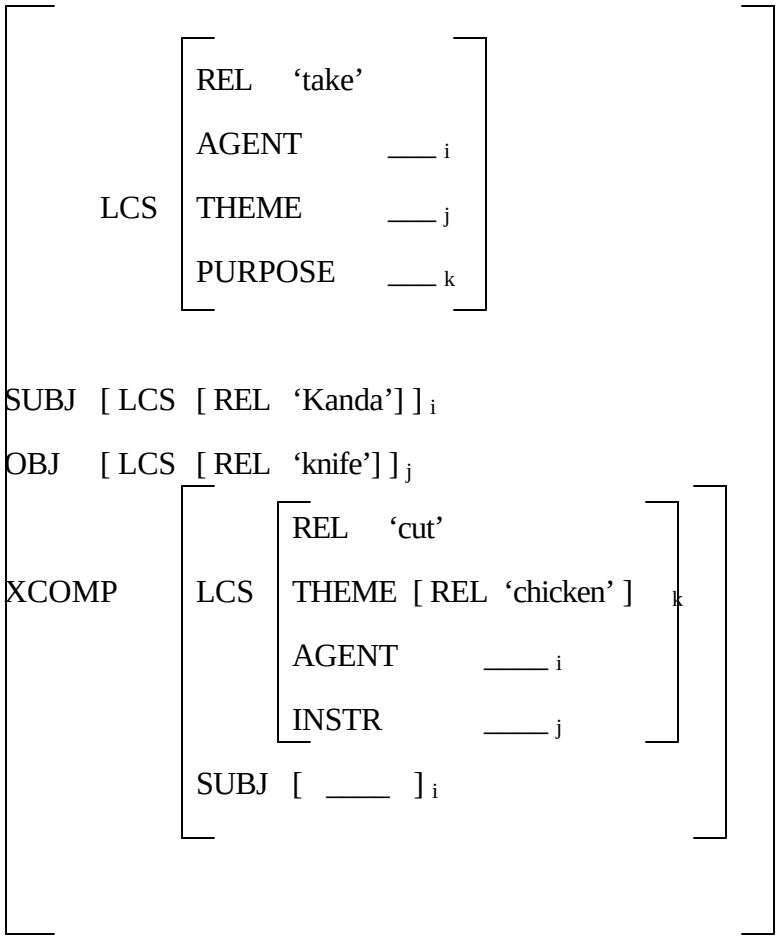
(↑LCS REL)	=	‘take’
(↑LCS AGENT)	=	(↑SUBJ LCS)
(↑LCS INSTR)	=	(↑OBJ LCS)
(↑LCS PURPOSE)	=	(↑XCOMP LCS)
(↑SUBJ)	=	(↑XCOMP SUBJ)
(↑LCS INSTR)	=	(↑XCOMP LCS INSTR)

b. *hàn* ‘cut’

(↑LCS REL)	=	‘cut’
(↑LCS AGENT)	=	(↑SUBJ LCS)
(↑LCS THEME)	=	(↑OBJ LCS)

Its f-structure is shown in (14).

(14)



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

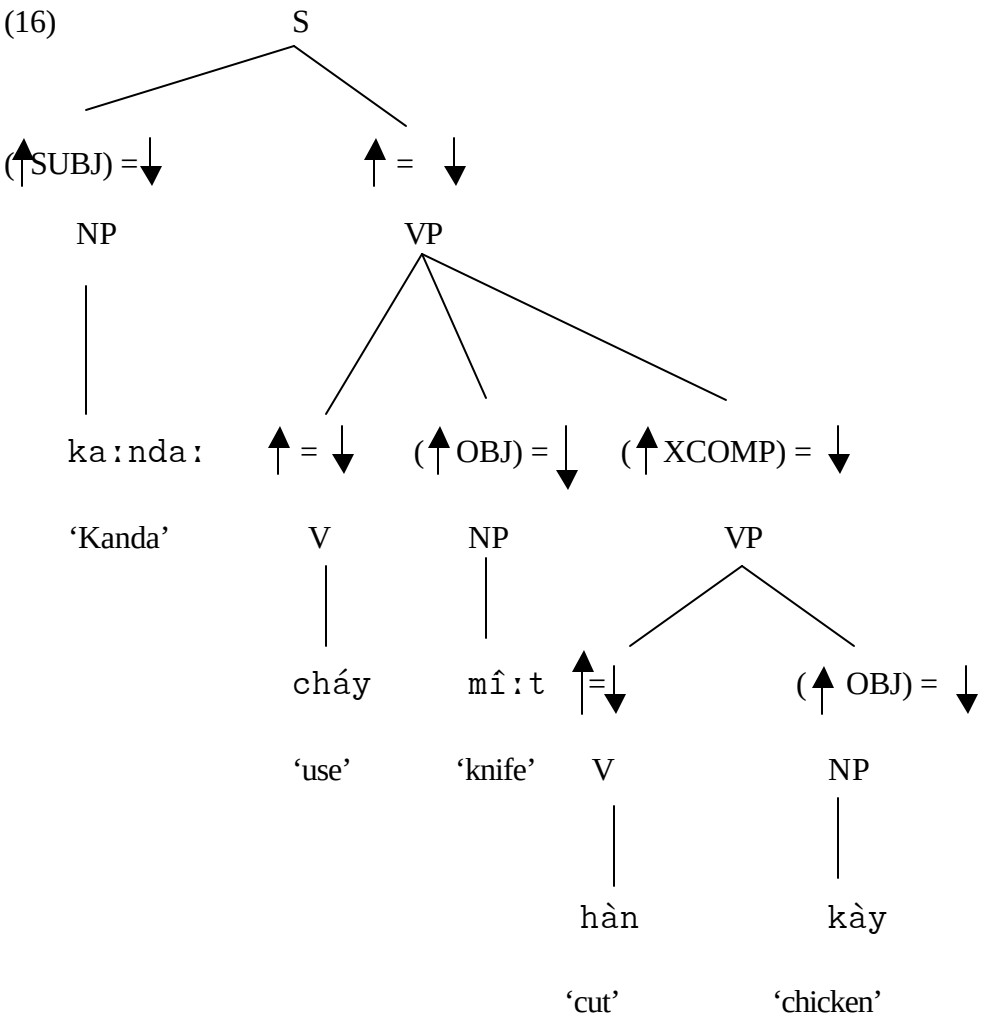
Use-SVCs:

The Use-SVC has two verbs in series, the first verb is the verb *cháy* 'use' and the second verb is a transitive verb as in (15).

(15) ka:nda: cháy mî:t hàn kày
Kanda use knife cut chicken
'Kanda cut a chicken with a knife.'

The c-structure of this sentence looks like that in (16).

(16)



Due to the subordinate structure, the Use-SVCs involve control relation, which is the functional control between the subject of the matrix verb and the subject of its XCOMP complement. The control relation between the theme argument of the matrix verb and the instrumental argument of its XCOMP predicate is a thematic control due to the thematic restriction of the matrix and embedded verbs. The lexical entry of each verb in the series is shown in (17).

(17) a. *cháy* ‘use’

(↑LCS) = (↑ XCOMP LCS)

(↑LCS AGENT) = (↑SUBJ LCS)

(↑LCS INSTR) = (↑OBJ LCS)

b. *hàn* ‘cut’

(↑LCS REL) = ‘cut’

(↑LCS AGENT) = (↑SUBJ LCS)

(↑LCS THEME) = (↑OBJ LCS)

Its f-structure is shown in (18).

(18)

$$\begin{bmatrix} \text{LCS} & \begin{bmatrix} \text{REL} & \text{‘cut’} \\ \text{AGENT} & \_\_\__i \\ \text{INSTR} & \_\_\__j \end{bmatrix}_k \\ \text{SUBJ} & [\ \text{LCS}\ [\text{REL} \quad \text{‘Kanda’}]\ ]_i \\ \text{OBJ} & [\ \text{LCS}\ [\text{REL} \quad \text{‘knife’}]\ ]_j \\ \text{XCOMP} & \begin{bmatrix} \text{LCS} & [\ \_\_\_\_\ ]\ ]_k \\ \text{SUBJ} & [\ \text{LCS}\ [\ \_\_\_]\ ]_i \\ \text{OBJ} & [\ \text{LCS}\ [\ \text{REL ‘chicken’}]\ ] \end{bmatrix} \end{bmatrix}$$

In the lexical properties of the verb *cháy* 'use', the equation (↑ LCS) = (↑XCOMP LCS) indicates that its LCS is the same as the LCS of its XCOMP. The defining equation (↑ LCS AGENT) = (↑SUBJ LCS) maps the agent of the verb *cháy* 'use' to the LCS of the subject, which is *ka:nda:* 'Kanda'. The equation (↑LCS INSTR) = (↑OBJ LCS) maps the LCS of the instrumental argument to the LCS of the object, which is *mî:t* 'knife'. And the equation (↑LCS AGENT) = (↑ 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 (↑ LCS THEME) = (↑OBJ LCS) maps the LCS of the theme to the LCS of its object, which is *kày* 'chicken'.

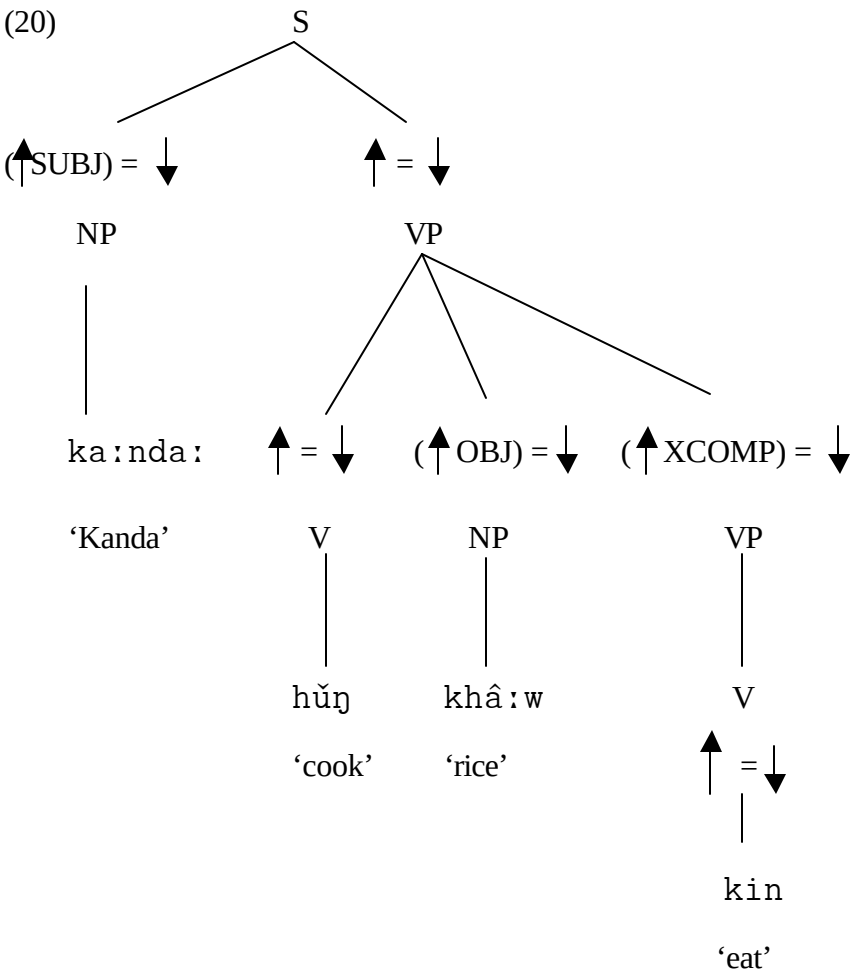
Open class SVCs:

The Open class SVC has two verbs in series; both of them are transitive verbs, as shown in (19).

(19) ka:nda: hǔŋ khâ:w kin
Kanda cook rice eat
'Kanda cooked rice to eat.'

The c-structure of this sentence looks like that in (20).

(20)



Due to the subordinate structure, the Open class SVCs involve control relation, which is the functional control between the subject of the matrix verb and the subject of its XCOMP complement. The control relation between the theme argument of the matrix verb and the theme argument of its XCOMP predicate is a thematic control due to the thematic restriction of the matrix and embedded verbs. The lexical entry of each verb in the series is shown in (21).

(21) a. *hǔŋ* ‘cook’

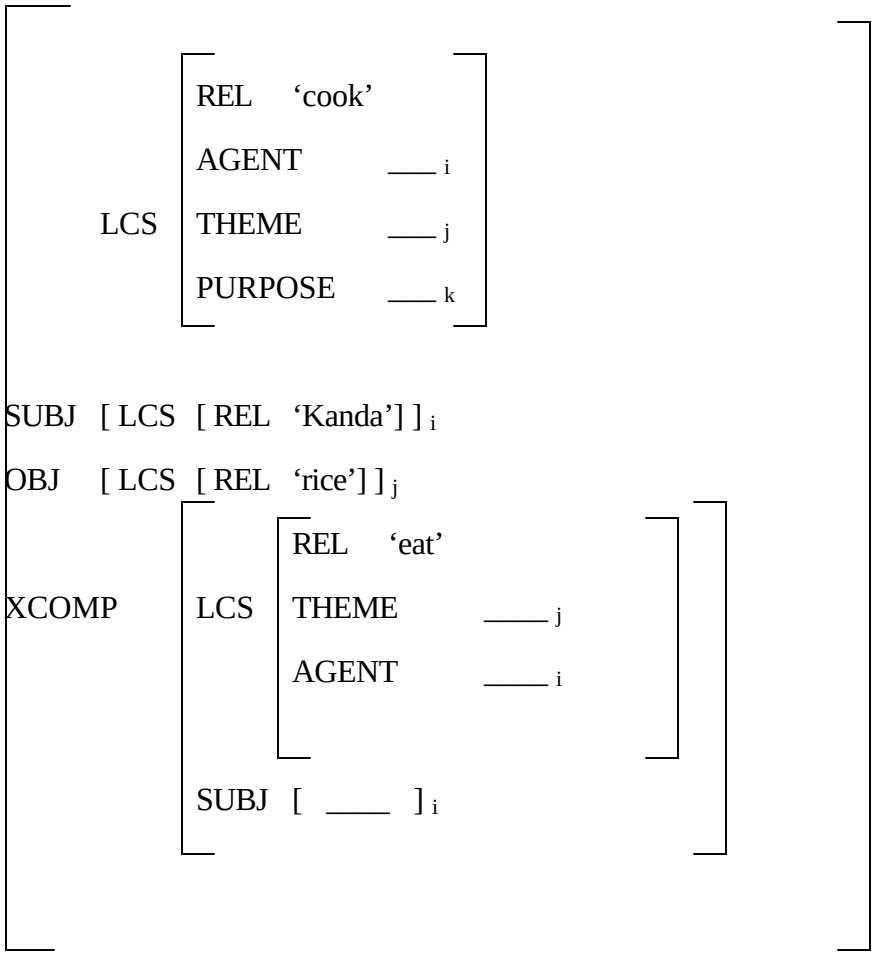
(↑LCS REL)	=	‘cook’
(↑LCS AGENT)	=	(↑SUBJ LCS)
(↑LCS THEME)	=	(↑OBJ LCS)
(↑LCS PURPOSE)	=	(↑XCOMP LCS)
(↑SUBJ)	=	(↑XCOMP SUBJ)
(↑LCS THEME)	=	(↑XCOMP LCS THEME)

b. *kin* ‘eat’

(↑LCS REL)	=	‘eat’
(↑LCS AGENT)	=	(↑SUBJ LCS)
(↑LCS THEME)	=	(↑OBJ LCS)

Its f-structure is shown in (22).

(22)



In the lexical properties of the verb *hŭŋ* ‘cook’, the defining equation (↑LCS AGENT) = (↑SUBJ LCS) maps the agent of the verb *hŭŋ* ‘cook’ to the LCS of the subject, which is *ka:nda:* ‘Kanda’. The equation (↑LCS THEME) = (↑OBJ LCS) maps the LCS of the theme argument to the LCS of the object, which is *khâ:w* ‘rice’. The equation (↑LCS PURPOSE) = (↑XCOMP LCS) indicates that the LCS of the purpose clause is the same as the LCS of its XCOMP. The equation (↑SUBJ) = (↑ XCOMP SUBJ) identifies the

subject with the XCOMP's subject, which is *ka:nda:* 'Kanda'. The equation (↑LCS THEME) = (↑XCOMP LCS THEME) indicates that the LCS of the theme argument is the same as the LCS of the theme argument of its XCOMP. And the equation (↑LCS AGENT) = (↑SUBJ LCS) in the lexical properties of the verb *kin* 'eat' maps the LCS of the agent of the verb *kin* 'eat' to the LCS of its subject, which is *ka:nda:* 'Kanda' while the equation (↑LCS THEME) = (↑OBJ LCS) maps the LCS of the theme to the LCS of its object, which is *khâ:w* 'rice'.

Give-SVCs:

The Give-SVC has two verbs in series; the first verb is a transitive verb and the second verb is the verb *hây* 'give', as in (23).

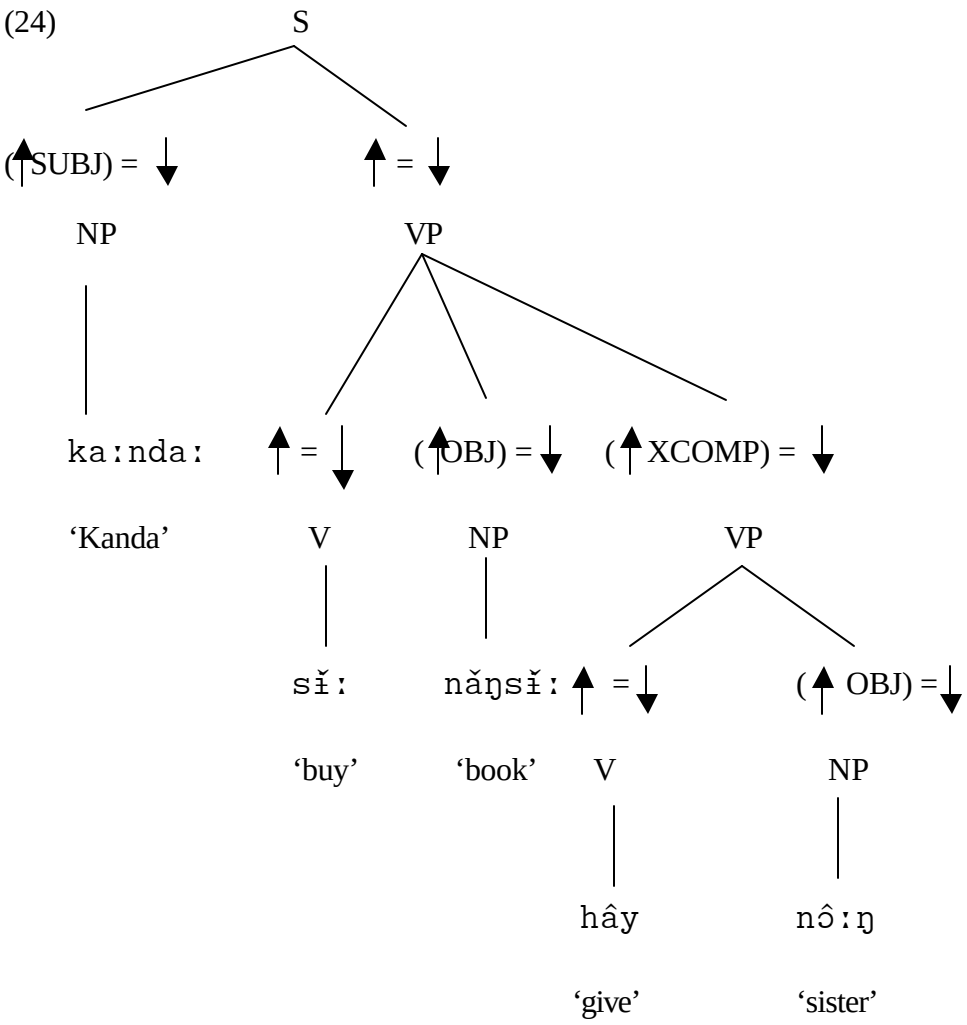
(23) ka:nda: sǐ: nǎŋsǐ: hây nô:ŋ

Kanda buy book give sister

'Kanda bought a book to give (it) to her sister.'

The c-structure of this sentence looks like that in (24).

(24)



Due to the subordinate structure, the Give-SVCs involve control relation, which is the functional control between the subject of the matrix verb and the subject of its XCOMP complement. The control relation between the theme argument of the matrix verb and the theme argument of its XCOMP predicate is a thematic control due to the thematic restriction of the matrix and embedded verbs. The lexical entry of each verb in the series is shown in (25).

(25) a. *sǐ:* ‘buy’

(↑LCS REL) = ‘buy’

(↑LCS AGENT) = (↑SUBJ LCS

(↑LCS GOAL) = (↑OBJ LCS)

b. *hây* ‘give’

(↑LCS REL) = ‘give’

(↑LCS AGENT) = (↑SUBJ LCS

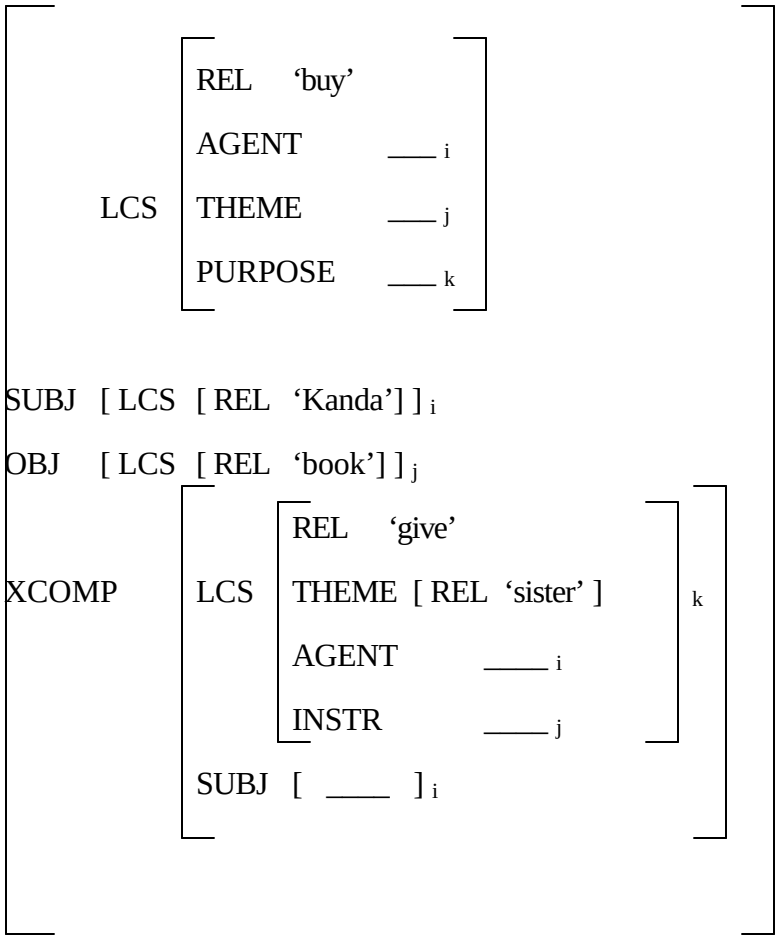
(↑LCS THEME) = (↑OBJ LCS)

(↑LCS PURPOSE) = (↑ XCOMP LCS)

(↑OBJ) = (↑XCOMP SUBJ)

Its f-structure is shown in (26).

(26)



In the lexical properties of the verb *sɨ́ː* 'buy', the defining equation (↑LCS AGENT) = (↑ SUBJ LCS) maps the agent of the verb *sɨ́ː* 'buy' to the LCS of the subject, which is *kaːndaː* 'Kanda'. The equation (↑ LCS GOAL) = (↑ OBJ LCS) maps the LCS of the goal argument to the LCS of the object, which is *nǎŋsɨ́ː* 'book'.

In the lexical properties of the verb *hây* 'give', the defining equation (↑LCS AGENT) = (↑ SUBJ LCS) maps the agent of the verb *hây* 'give' to the LCS of the subject, which is *kaːndaː* 'Kanda'. The equation (↑LCS THEME) = (↑ OBJ LCS) maps the LCS of the theme argument to the LCS of the object, which is *nǎŋsɨ́ː* 'book'.

The equation (↑ LCS PURPOSE) = (↑ XCOMP LCS) indicates that the LCS of the purpose clause is the same as the LCS of its XCOMP. The equation (↑ SUBJ) = (↑ XCOMP SUBJ) identifies the subject with the XCOMP's subject, which is *ka:nda:* 'Kanda'. The equation (↑ OBJ)= (↑ XCOMP SUBJ) identifies the object of the verb *sɨ̌:* 'buy' is the same as the subject of its XCOMP, which is *ka:nda:* 'Kanda'.

Posture SVCs:

The Posture SVC has two verbs in series; the first verb is a posture verb and the second verb can be either intransitive or transitive verb. The second verb in the example (27) is intransitive verb.

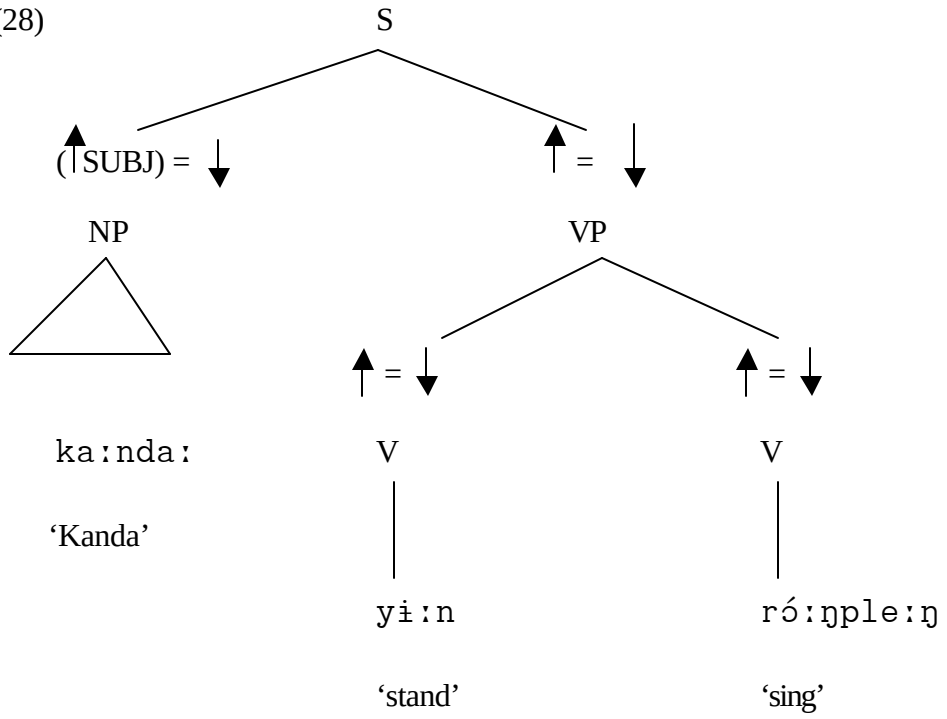
(27) ka:nda: yɨ:n rô:ŋple:ŋ

Kanda stand sing

'Kanda sang, while standing.'

The c-structure of this sentence looks like that in (28).

(28)



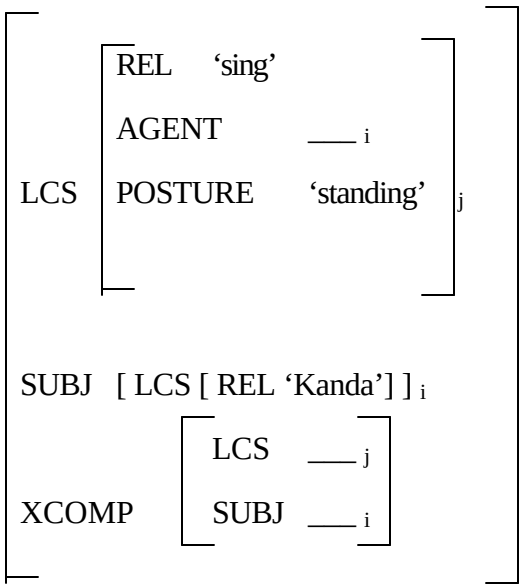
The lexical entry of two verbs in the series is shown in (29).

(29) yi:n - ró:ŋple:ŋ ‘sing, stand’

(↑LCS)	=	(↑XCOMP LCS)
(↑LCS AGENT)	=	(↑SUBJ LCS)
(↑LCS POSTURE)	=	‘standing’
(↑SUBJ)	=	(↑XCOMP SUBJ)

Its f-structure is shown in (30).

(30)



In the lexical properties of the verb *yi:n - ró:ŋple:ŋ* 'sing, stand', the equation (↑ LCS) = (↑ XCOMP LCS) indicates that its LCS is the same as the LCS of its XCOMP. The defining equation (↑ LCS AGENT) = (↑ SUBJ LCS) maps the agent of the verb *yi:n - ró:ŋple:ŋ* 'sing, stand' to the LCS of the subject, which is *ka:nda:* 'Kanda'. The equation (↑ LCS POSTURE) = 'standing' indicates that the LCS of the posture has the standing relation. The equation (↑ SUBJ)= (↑ XCOMP SUBJ) identifies the subject of the verb *yi:n - ró:ŋple:ŋ* 'sing, stand' is the same as the subject of its XCOMP, which is *ka:nda:* 'Kanda'.

Causative SVCs:

The Causative SVC has two verbs in series; the first verb is the verb *tham* 'make', and the second verb is a change-of-state verb, as in (31)

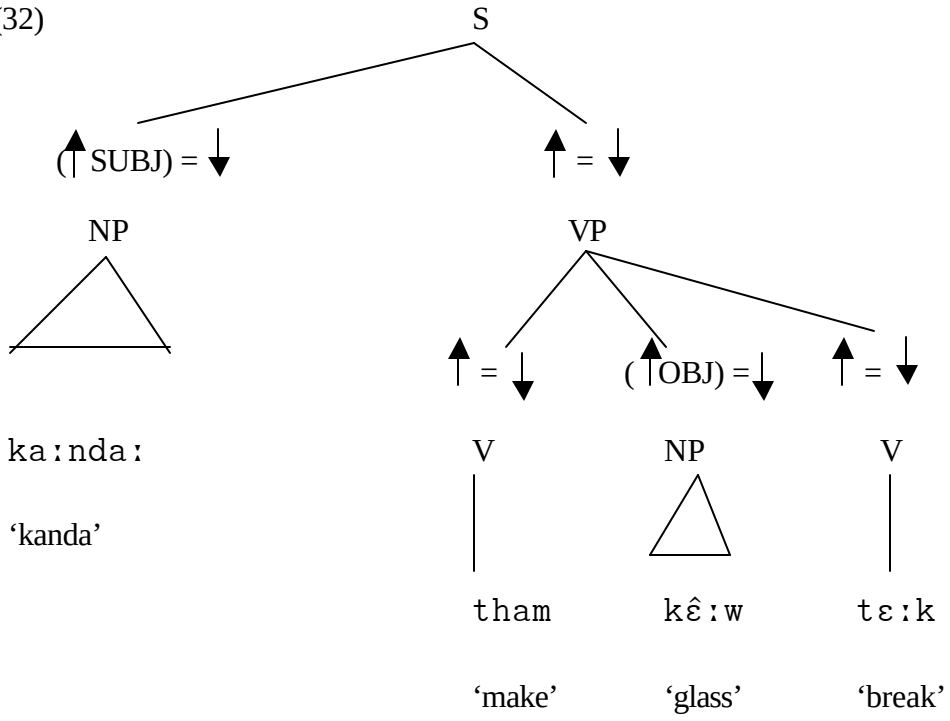
(31) ka:nda: tham kɛ̂:w tɛ:k

Kanda make glass break

'Kanda made the glass break.'

The c-structure of this sentence looks like that in (32).

(32)



The lexical entry of the two verbs in series is shown in (33).

(33) a. *tham* 'make'

(↑LCS AGENT) = (↑SUBJ LCS)

(↑LCS) = (↑XCOMP LCS)

(↑OBJ) = (↑XCOMP SUBJ)

b. *tɛːk* 'break'

(↑LCS REL) = 'break'

(↑LCS THEME) = (↑OBJ LCS)

Its f-structure is shown in (34).

(34)

$$\begin{bmatrix} \text{LCS} & \begin{bmatrix} \text{REL} & \text{'make'} \\ \text{AGENT} & [\ \text{REL 'Kanda'}\ ]_i \end{bmatrix}_k \\ \text{SUBJ} & \text{LCS} & [\ \underline{\quad}\ ]_i \\ \text{OBJ} & \text{LCS} & [\ \underline{\quad}\ ]_j \\ \text{XCOMP} & \begin{bmatrix} \text{LCS} & \begin{bmatrix} \text{REL} & \text{'break'} \\ \text{THEME} & [\ \text{REL 'glass'}\ ]_j \end{bmatrix}_k \\ \text{SUBJ} & \underline{\quad}_j \end{bmatrix} \end{bmatrix}$$

In the lexical properties of the verb *tham* 'make', the defining equation ($\uparrow$LCS AGENT) = ($\uparrow$ SUBJ LCS) maps the agent of the verb *tham* 'make' to the LCS of the subject, which is *ka:nda:* 'Kanda'. The equation ($\uparrow$LCS) = ($\uparrow$ XCOMP LCS) indicates that its LCS is the same as the LCS of its XCOMP. The equation ($\uparrow$ OBJ) = ($\uparrow$ XCOMP SUBJ) indicates that its object is the same as its XCOMP's subject.

In the lexical properties of the verb *tɛ:k* 'break', the defining equation ($\uparrow$ LCS THEME) = ($\uparrow$ OBJ LCS) maps the theme of the verb *tɛ:k* 'break' to the LCS of the object, which is *kɛ̂:w* 'glass'.

Resultative SVCs:

The Resultative SVC has two verbs in series, the first verb comes from the open class verb, and the second verb is the resulting verb, as in (35).

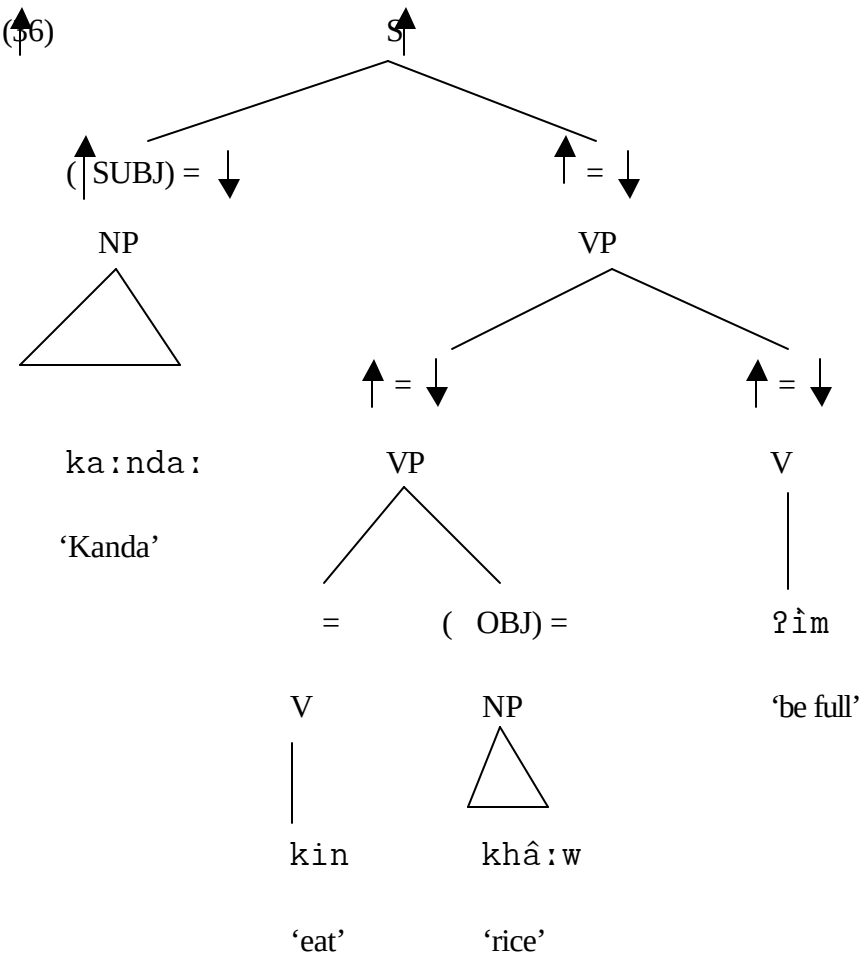
(35) ka:nda: kin khâ:w ʔìm

Kanda eat rice be full

'Kanda ate rice (until she was) full.'

It c-structure is shown in (36).

(36)



The lexical entry of each verb in the series is shown in (37).

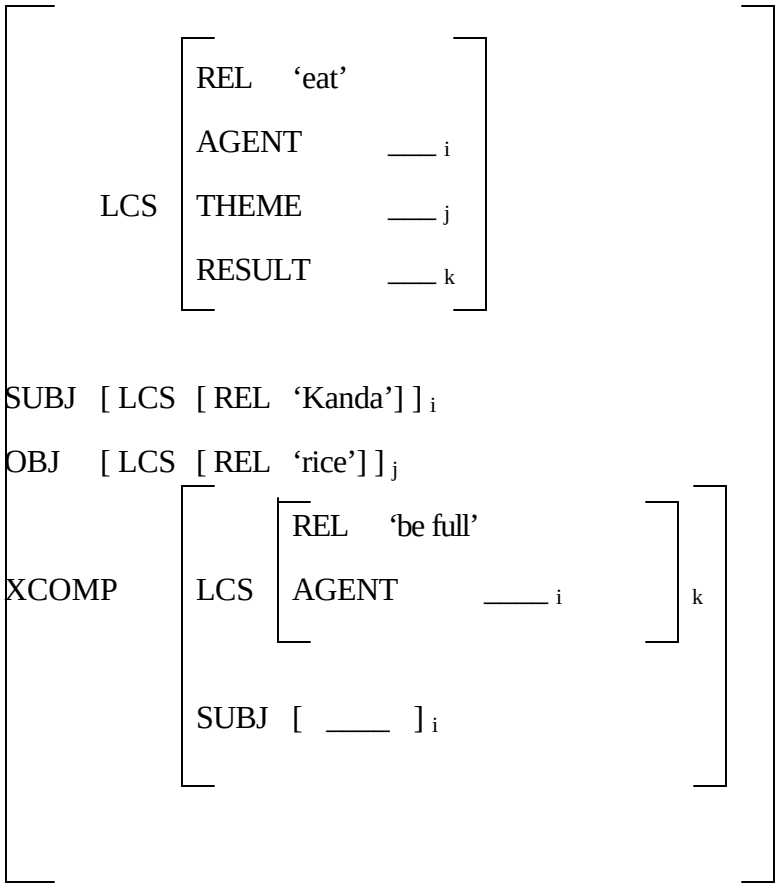
(37) a. *kin* ‘eat

(↑LCS REL)	=	‘eat’
(↑LCS AGENT)	=	(↑SUBJ LCS)
(↑LCS THEME)	=	(↑OBJ LCS)
(↑LCS RESULT)	=	(↑XCOMP SUBJ)
(↑GF)	=	(↑XCOMP SUBJ)

where GF = SUBJ or OBJ. ↑

Its f-structure is shown in (38).

(38)



In the lexical properties of the verb *kin* 'eat, the defining equation (↑LCS AGENT) = (↑SUBJ LCS) maps the agent of the verb *kin* 'eat to the LCS of the subject, which is *ka:nda:* 'Kanda'. The equation (↑LCS THEME) = (↑OBJ LCS) maps the LCS of the theme argument to the LCS of the object, which is *khâ:w* 'rice'. The equation (↑LCS

RESULT) = (↑XCOMP LCS) indicates that the LCS of the result clause is the same as the LCS of its XCOMP. The equation (↑GF) = (↑ XCOMP SUBJ) identifies the subject or the object with the XCOMP's subject. In this sentence, it identifies its subject with its XCOMP's subject, which is *ka:nda:* 'Kanda'.

5.3 Conclusion

In this chapter, I present the analysis of all eight types of Thai SVCs in the LFG framework. I propose the principle of LCS completeness to satisfy the well-formedness of Thai SVCs on the f-structures. The LCS analysis of Andrews and Manning (1997) is adopted. The defining equations in the lexical entry of each verb in the series map between the argument structure roles and the grammatical functions.

CHAPTER 6
Conclusion

6.1 The findings

This dissertation study both syntax and semantics of the SVCs in Thai. It is proposed in chapter 2 that there are eight types of the SVCs in Thai with respect to the restriction of the limited set of verbs that occurs in the verb sequence, which are the Motion SVCs, Take-SVCs, Use-SVCs, Open class SVCs, Give-SVCs, Posture SVCs, Causative SVCs, and Resultative SVCs. All eight types of the SVCs have the different syntactic structure from that of the coordinate structures in that the negative morpheme only occur before the first verb in the SVCs while it can occur in front of each verb in the coordinate structures. Besides, the SVCs allows for the extraction, which is not possible in the coordinate structures. So the SVCs have the subordinate structure, which is the XCOMP in the LFG sense. This construction involves two kinds of control relation. First, the control relation between the subject of the matrix verb and the subject of its VP complement is a function control. Second, the control relation between the object of the matrix verb and the object of its embedded VP's object involves a thematic control due to the thematic restriction between the verbs and their arguments.

The semantic interpretation of the SVCs in Thai is discussed in chapter 4. Given the cancellation test and the time marker test, the verbs in the Motion SVCs, Take-SVCs, Open class SVCs, and Give-SVCs, which I called Group 1, express at least two separate events in the sentence. In contrast, the verbs in the Posture SVCs, Use-SVCs, Causative SVCs, and Resultative SVCs express only one event in the sentence.

In order to show the analysis of all eight types of Thai SVCs, I adopt Andrews and Manning's split PRED attribute value in 1997. However, only the LCS is needed for the analysis since the defining equations, which represent the lexical properties, indicate the mapping between the argument structure roles and the grammatical functions.

6.2 Further Direction

The SVCs are widely found in languages of West Africa, Southeast Asia including Chinese, New Guinea, Oceania, and some Central American languages as well as in many Pidgins and Creoles. Many of them are studied separately or as a language groups for example Thepkanjana 1981 for Thai, Jayaseelan 1996 for Malayalam, Schiller 1991 for Khmer, Li and Thomson 1981 for Mandarin, Bodomo et al. 2001 for Cantonese, Kari 2003 for Degema, Nigeria, and Bodomo 1997, 1998 for Dagaare and Akan. There is only one comparative study of the semantics of the SVCs in Dagaare and Cantonese by Luke and Bodomo in 2001, which tries to set a first step towards the universal typology of the SVCs cross-linguistically. It would be very interesting if there are more comparative studies of both syntax and semantics of the SVCs in many languages to show both their similarities and differences. It will lead us to the universal typology of the SVCs across languages around the world.

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VITA

Cholthicha Sudmuk, the youngest daughter of Lieutenant Commander Chit and Mrs. Lamai Sudmuk, was born on October 19 th, 1962, in Bangkok, Thailand. She graduated from Wat Sungvej High School in 1979. In June 1980, She entered Silapakorn University at Nakhornpathom province in Thailand. She received a Bachelor of Arts with a major in English and a minor in History in 1984. She entered the Graduate Program in Linguistics at Thammasart University, Thailand, in 1990. She received the Master of Arts with a major in Linguistics in 1994. Her thesis won the excellent thesis award from Thammasart University in that year. During 1985-1986, she worked as the reporter at Prachachat Turakhit newspaper. Then, from 1987-1999, she worked as an academic researcher at the Royal Thai Institute. In August 1999, She entered the Doctoral Program in Linguistics at the University of Texas at Austin.

Permanent address: 42/3 Moo 4 Bangsrithong, Bangkruay, Nonthaburi, 11130, Thailand.