The So-called Serial Verb Constructions[1]

Supriya Wilawan
Ph.D. Student
Department of Linguistics
University of Hawaii, Honolulu, HI 96822, USA
supriya@uhunix.uhcc.hawaii.edu

1. Introduction. This paper presents an analysis within the lexicase theory of a number of constructions that have been labelled serial verbs. The constructions which are analyzed in this paper occur in many Asian languages. The data on which I base the analyses are taken from Thai, Mandarin Chinese, and Khmer. I focus on properties of serial verb constructions (SVCs) and propose that the so-called SVCs do not deserve the special label 'serial verb construction', if this is meant to refer to a marked construction, different from coordination and subordination. I argue that, to the contrary, most of the patterns which have been given the label SVC are in fact just one type of nonfinite subordination construction.

2. Overview of Serial Verb Constructions. Linguists disagree as to the definition of a serial verb. In order to limit the topic for the discussion, I will define SVCs as constructions with the following characteristics which I have extracted from discussions in the literature:

1. All verbs are lexical verbs not auxiliary verbs. That is, they are capable of appearing as the only verb in a single sentence.
2. There is no conjunction to separate the verbs in sequence.
3. Only the first verb takes a nominative NP as its subject.
4. All verbs are interpreted as referring to one event. They are interpreted as having the same tense or the same aspect. For example V1 cannot be interpreted as past while V2 is interpreted

as future.
5. Only the first verb in the series can be marked for negation.

Thus, this definition applies to the following sentences from Thai:

Manner verbs
1.   khaw   nang   duu   thiiwii
      he   sit   watch   television
      He sat watching television.

Purpose clause
2.   khaw   thOOt   kay   khay
      he   fry   chicken   sell
      He fried chicken and sold it.

Directional verbs
3.   khaw   wing   pay   baan
      he   run   go   home
      He ran home.

This definition distinguishes the SVCs from auxiliary verbs and some 'control' verbs, and it excludes sentences containing auxiliaries verbs such as the example below:
4.   khaw   khuan   pay   yuroop
      he   should   go   Europe
      He should go to Europe.

Sentence (4) is not considered to contain serial verbs because of property 1, since verb khuan 'should' cannot occur as a single verb in a sentence without any context[2]. Sentence example (5) is not considered to contain a serial verb because of property 4.
5.   khaw   chuan   nit   pay   yuroop
      he   persuade   Nit   go   Europe
      He persuaded Nit to go to Europe.

Sentences containing verbs such as chuan 'persuade' can take two different adverbs of time, while the sentences (1) - (3) cannot.

Consider an example in Thai:
6.   mIawaannii   khaw   chuan   chan   pay   ngaan
      yesterday   he   persuade   I   go   party
      piinaa
      next year

Yesterday he persuaded that I went to the party next year.

Sentence (7) is not considered as a serial verb construction since the second verb can be negated:
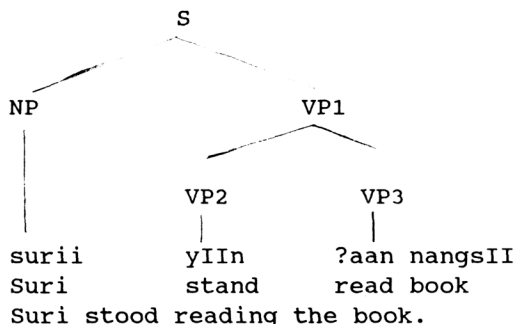
7. khaw   tii   nguu   tay
    he   beat   snake   die
    He beat the snake to death.

2.1. Previous Analyses of SVCs

This part of the paper consists of a brief review of previous work on SVCs in different syntactic theories, pointing out some problems with these analyses.

2.1.1. Thepkanjana (1986)

Working within the Government and Binding theory, Kingkarn Thepkanjana uses the term 'serial verbs' broadly to cover a number of different kinds of constructions in Thai. For constructions like example (3), she claims that they cannot have a multiclausal underlying structure but she argues for the following structure:

```
                        S
              /‾‾‾‾‾‾‾‾/      ‾‾‾
          NP                      VP1
          |                   /‾‾‾‾‾‾‾\
          |              VP2          VP3
          |               |            |
        surii           yIIn        ?aan nangsII
        Suri            stand       read book
        Suri stood reading the book.
```

This structure is proposed because the subject of each verb in SVC must have the same thematic role, V2 cannot be negated, and SVCs share same subject. One problem with this analysis is that the syntactic structure predicts that we should be able to reverse these two VPs, since they look like a coordinate construction. Nevertheless, the result of reversed VPs gives rise to ungrammaticality, as shown in example (8) below.

8. *surii ?aan   nangsII   yIIn
    Suri   read   book   stand
    Suri stood reading the book.

2.1.2. Schiller (1991)

Working within autolexical theory, Eric Schiller's 1991 study covers a wide range of languages including various Southeast Asian languages such as Thai and Khmer as well as some African languages. He divides serial verbs into three major types: subordinating serial verb constructions, coordinating serial constructions and deictic serial constructions. His study focuses on subordinating serial verb constructions, which have special properties such as:

a. A subordinating serial verb construction contains two or more V' nodes immediately dominated by a single V' node.

Thus, the following structure is proposed for the subordinating SVCs:

```
                    V''
            _____/ \
           /          |
        N''           V'
                     / \
                  V'1......V'n
```
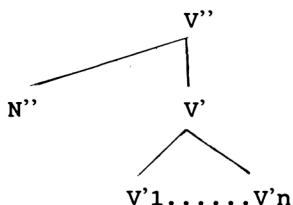
This structure is quite similar to that proposed by Thepkanjana (1986), since in Autolexical theory, V'' corresponds to S and V' is equivalent to VP in Chomskyan X-bar theory. The problem with this structure is that it does not look like a representation of a subordination construction since two V' nodes dominated by a single V' have the same status; and neither syntactically dominates the other. It seems to represent a coordination construction rather than a subordinating construction as Schiller claims. The problem with this analysis is thus similar to that of Thepkanjana's. This coordination syntactic representation predicts that these two VPs should be able to be reversed. However, the reversed VPs are not acceptable.

2.1.3. Liu (1990)

Following Baker (1989), Cai-Xia Liu provides an explicit analysis of the serial verb construction proper in Mandarin. The term 'serial verb construction proper' refers to a structure similar to (3). Liu also proposes that SVCs in Mandarin fall into four groups (1990:14):

a. Consecutive

    wo   chuan-shang   da-yi   zou   chu   gu

    I   put   on   overcoat walk exit go

    I put on my overcoat and went out.

b. Purpose

    wo   shang   jie   mai   dongxi

    I   ascend street buy thing

    I go out to buy things.

c. Circumstance

    tamen yong   shou   chi fan

    they   use   hand   eat meal

    They eat with their hand.

d. *Serial verb construction proper*

    tamen tian-tian zhu jiao-zi   chi

    they   day-day   make dumpling eat

    Everyday they make dumplings and eat them/to eat.

Liu concludes that SVCs are different from other syntactic constructions, such as coordination, subordination, and pivotal construction, even though they may exhibit the same sequence NP V1 (NP) V2 (NP). However, Liu considers only the finite subordinating construction, as the following example shows:

    wo xiang ni gai   zou   le

    I   think you should leave LE

    I think it is time for you to leave.

She fails to recognize another important construction, the nonfinite subordinating construction such as the following sentence:

    wo   yao   xiao

    I   want laugh

    I wanted to laugh.

Liu's own analysis, using a Government and Binding theory, attempts to account for the serial verb construction proper in terms of the Projection Principle and a modified theta criterion. Thus, object sharing SVCs involve both V1 and V2 assigning theta roles, leading to

double marking on the object. In the remainder of this paper, I will show that the previous analyses of SVCs are empirically inadequate and theoretically too powerful, and that a lexicase solution is available that does not require postulating additional formal apparatus.

3. The Syntactic Properties of the SVCs. In this section, the focus will be on the syntactic properties of SVCs. Most analysis of SVCs claim that the SVCs have the special property of allowing more than one verb to occur in a single clause.   This property distinguishes SVCs from other double-verb constructions, which are analyzed as ordinary biclausal constructions. To justify this conclusion, we should be able to show that SVCs are neither coordination nor subordination constructions.   So coordination and subordination constructions will be examined here and compared to SVCs, since it might be argued alternatively that serial verb constructions are coordination structures or subordination structures with overt conjunctions suppressed. Only if they are found to be neither coordinate nor subordinate construction can double verb expressions be analyzed as SVCs.

3.1. The Coordination Structure

Since the SVCs allow only one nominative noun phrase, I will consider only the following properties of conjoined VPs with an overt conjunction.

a. Even though conjoined VPs are subject to pragmatic ordering, the order may be reversed without making the sentence ungrammatical.
b. Conjoined VPs share a subject NP.
c. Conjoined VPs can contain a direct object.
d. Conjoined VPs are subject to Ross's coordinate construction constraint, which states that no element can be moved out of coordinate structure.

Consider the table below for the application of these properties to the SVCs in Thai, Mandarin Chinese, and Khmer.

	rev.VPs	shared subj	allowed object	co. cons[3]
Con VPs	+	+	+	+
SVCs:				
manner	-	+	+	-
direct.	-	+	+	-
purpose	-	+	-	N/P

What does this table suggest for the structure of SVCs in general? We can clearly see that the SVCs behave differently from coordination constructions. Thus, they cannot be regarded as coordination constructions with an overt conjunction suppressed.

3.2. The Subordination Structures

I will consider the properties of two types of subordination sentences, namely both finite and nonfinite sentences. The term 'finite' and 'nonfinite' are defined in terms of the exclusion of an overt clausemate subject (Starosta 1988:68). For example:

Finite subordination constructions are clauses such as:

Thai:

a.   khaw bOOk nit waa   nat klap   baan
       he   tell Nit that Nat return home
       He told Nit that Nat returned home.

Khmer:

b.   kO@t prap nit thaa   kOat s?ap   nit
       he   tell Nit that he   hate   Nit
       He told Nit that he hated Nit.

Mandarin:

c.   wo xiang ni gai   zou   le
       I   think you should leave LE
       I think it is time for you to leave.

Nonfinite subordination constructions are sentences such as:

Thai:
a.   nit   catkaan   /*khaw   sOOm   rot   lEEW
        Nit   manage   he   fix   car   Asp.
        Nit managed to fix the car.
Khmer:
b.   kO@t   lOO   /*kO@t   kOmnOt   laan
        he   try   he   fix   car
        He tried to fix the car.
Mandarin:
c.   ta   yao   /*ta   xiao
        he   want   he   laugh
        He wanted to laugh.

The main concern is whether the second NP in the subordinate sentence can be extracted. The following observations are based on the data from the Thai, Khmer, and Mandarin languages:

a. The object NP in both finite and nonfinite subordinate sentences can be extracted. It can be clefted and topicalized in Mandarin and Thai. It can be clefted in Khmer.

b. The second NP in both finite and nonfinite subordinate clauses can be questioned using WH question forms.

c. Finite subordinate sentence can take different adverbs of time while nonfinite subordinate sentences cannot[4].

d. All verbs in finite subordinate sentences in three languages can be negated. In Mandarin and Thai, in some cases only V1 in nonfinite subordinate sentences can be negated. That is, sometimes V2 cannot be negated. V2 in nonfinite sentences in Khmer, on the other hand, cannot be negated[5].

Consider the table below for the summary and the application to the serial verbs in Thai, Mandarin, and Khmer.

	Top.	cleft.	WH ques.	dif. adv	V2 negated
finite sub	+	+	+	+	+
nonfinite	+	+	+	-	+
serial verb	+	+	+	-	-

This table indicates that the SVCs should be considered as nonfinite subordinate constructions, since they share many similarities.

4. Lexicase Analysis. This part of paper will focus on a lexicase analysis of the constructions labelled 'serial verbs' and will demonstrate that the second verb can be analyzed as a type of nonfinite subordinated clause. That is, the second of a pair of verbs in sequence in these so-called SVCs is the head of a sentential complement or adjunct of the first verb.

4.1. Overview of Lexicase Grammar

Lexicase theory was developed by Stanley Starosta at the beginning in the early 1970s. Lexicase is a type of dependency grammar. Syntax is a description of the pairwise dependencies obtaining between words in phrases. The theory is a monostratral theory. That is, there is only one level of representation. There are eight possible syntactic categories namely, noun, verb, adjective, adverb, determiner, preposition, conjunction and sentence particle. Nonlexical functional categories such as INFL and null categories such as PRO are absent. The category VP is abandoned and the finite verb is taken as the head of a main clause. All noun phrases not in preposition phrases are treated as sisters of the finite verb, and noun phrases can be subcategorized by it.

The lexicon carries all of the structural information in a grammar. The information is carried by features. The syntactic and semantic properties of words are characterized in terms of contextual or noncontextual features of their lexical entries, and rules of grammar are implicational statements about relations between features (redundancy and subcategorization rules). Coindexing rules assign the index of one word as the value of a contextual feature in the matrix of a grammatically related word (linking and

chaining rules).
4.2. Serial Verbs as Sentential Complements

Example (1), with a manner verb, is a sentence containing a sentential complement. In the Khmer and Thai languages, some intransitive verbs can indicate the manner of actions. They are homophonous with nonmanner intransitive verbs. Consider the Thai examples below:

9.   khaw   nang1
        he   sit
        He sat.

10.   khaw   nang2   rOOng   phleeng
        he   sit   sing   song
        He sat singing a song.

ROOng phleeng 'sing a song' in example (10) is considered as a complement of a head of the construction, namely, nang 'sit'. One of the distinctions between a complement and an adjunct is that a complement is required by the head of the construction while an adjunct is optional. If a verb appears without its complement, the result will be an ungrammatical sentence or the verb will be interpreted as a member of another grammatical class. Without the complement verb 'sing a song' sentence (9) has a different meaning from sentence (10). In (9) nang 'sit' is interpreted as simply describing physical position, whereas in (10), nang 'sit' describes the manner (sitting) in which an action (singing) is carried out. In addition, there is other property which indicates that rOOng phleeng 'sing a song' is a complement. The head of the construction, nang 'sit' imposes the restriction on the choice of V2s. That is rOOng phleeng 'sing a song' cannot cooccur with any intransitive verbs. Thus, rOOng phleeng 'sing a song' is considered to be a complement of verb 'sit'. I propose that nang 'sit' in example (10) is a manner intransitive verb, which takes a nonfinite sentential complement rOOng phleeng 'sing a song'.

A sentential complement is considered a nonfinite sentence, since no nominative noun phrase or subject is allowed. Consider the following examples from Thai and Khmer:

Thai:
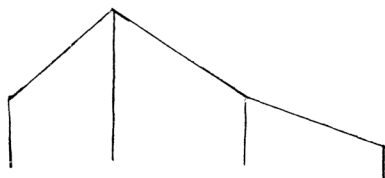
11.   *khaw   nang   khaw   rOOng   phleeng
        he   sit   he   sing   song

He sat singing a song.

Khmer:

12.　　*khO@t　?Ongkuy　khO@t　cu@k　baarai
　　　　he　　　sit　　　he　　　smoke cigarette
　　　He sat smoking cigarettes.

The lexicase tree structure for sentence (10) is represented below:

10.　　khaw　　nang2　　rOOng　　phleeng
　　　he　　　sit　　　sing　　　song
　　　1ndex　2ndex　　3ndex　　4ndex
　　　+N　　　+V　　　+V　　　+N
　　　+Nom　　-trns　　+trns　　+Acc
　　　　　　+fint　　-fint
　　　　　　+mnnr　　-mnnr
　　　　　　3[-fint] 1[+AGT]
　　　　　　1[+PAT] 1[+actr]
　　　　　　1[+actr] 4[+PAT]
　　　He sat singing a song.

Feature 3[-fint] on verb nang2 'sit' indicates that verb 'to sit' expects a nonfinite sentential complement and that the expectation is satisfied by rOOng 'sing'. The missing nominative subject of V2 is recovered by an actor chaining rule required for any nonfinite sentential complement. This actor chaining rule below states that a patient in a higher clause, in this clause khaw 'he', is coindexed with an actor in a lower nonfinite complement clause.

a.　　Actor chaining rule (Complement)
　　　|?[+actr]|　-->　[m[+actr]]\|m[+PAT] |
　　　|-fint　　|　　　　　　　　|n[-fint]|
　　　|nndex　　|

4.3.　Serial Verbs as Sentential Adjuncts

The purpose clause in example (2) is considered to be

a sentential adjunct. In fact, any purpose clause is considered as an adjunct. In a dependency analysis, an adjunct is defined as an optional element. In addition, there is no cooccurrence restriction on the verbs the purpose clause is associated with in the structure. Consider these examples from Thai:

13.   khaw   sII   khaw kin
       he   buy   rice eat
       He bought some rice and ate it.

14. a. khaw haa   khaw kin
       he   look for rice eat
       He looked for rice to eat.

      b. khaw hung khaw kin
       he   cook rice eat
       He cooked rice to eat.

      c. khaww khwaang khaw kin
       he   throw   rice eat
       He threw rice to eat.

The last sentence may sound awkward but the awkwardness is not due to ungrammaticality. If the speaker can imagine a situation in which someone throws something and eats, this sentence is acceptable.

It should be pointed out here that the lexical restriction of V2 in this construction varies significantly from language to language. For example, in English the constructions such as that one in (13) occur with transitive verbs. (The difference between English and these languages is that there is a nonfinite marker 'to' to indicate V2 in English while there is no such marker in Thai, Khmer, and Mandarin). However, in languages covered in this paper, only certain transitive verbs can occur in the second position. To make sentences acceptable, an additional lexical form has to be inserted. The verbs maa 'come', or lai 'come' are the forms in Thai and Mandarin respectively. Consider the examples from Thai below:

15.   *khaw sII tukkataa phaw
       he   buy doll   burn
       He bought a doll to burn.

16.   khaw sII tukkataa maa phaw
       he   buy doll   come burn
       He bought a doll to burn.

A detailed analysis of structures like (16) will not be

proposed here. It is likely that maa 'come' is a derived adverb rather than a verb, an adverb which functions as a marker to separate the second lexical item from the preceding noun phrase in order to make the sentence less ambiguous (p.c. Stanley Starosta). Sentence (15) is acceptable if it is translated as 'he bought a ceramic doll', because tukkataa phaw means 'ceramic doll'.

Since I consider kin 'to eat' in sentence (13) a sentential adjunct, the syntactic structure is as represented below:
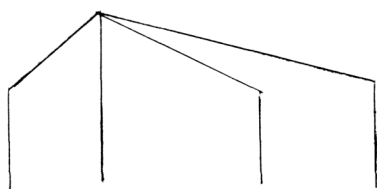
```
13.    khaw    sII        khaw    kin
       he      buy        rice    eat
       1ndex   2ndex      3ndex   4ndex
       +N      +V         +N      +V
       +Nom    +fint      +Acc    -fint
               +trns              +trns
               4([-fint])         1[+AGT]
               1[+AGT]            1[+actr]
               1[+actr]           3[+PAT]
               3[+PAT]
```

He bought some rice and ate it.

Feature 4([-fint]) in verb sII 'buy' indicates that verb 'buy' expects a nonfinite sentential adjunct and the expectation is satisfied by kin 'eat'. The missing nominative subject of verb kin 'to eat' is recovered by an actor chaining rule required for any sentential adjunct. The actor chaining rule states that an actor or an agent in a higher clause is the most likely antecedent of a missing actor in the lower clause. That is, it is khaw 'he' who does the action of eating. The object of verb kin 'to eat' is an accusative noun khaw 'rice' and is recovered by an object chaining rule.

The object sharing property of this construction has been recognized by many linguists (Baker 1989, Liu 1990,

Sebba 1987). The fact that the transitive V2 needs an argument to assign a theme role in this construction is taken seriously by the Government and Binding analysis, so the theory has to be modified in order to account for this phenomenon. This can be accounted for in the lexicase analysis by the object chaining rule without any need to modify the theory since it is needed independently. For example, it is required for the 'tough movement constructions' in English. The object chaining rule allows us to recover the object of the V2 without violating any principles in the theory.

5. Conclusion. In this paper three syntactic constructions, namely, coordination, subordination, and the SVCs in three different languages, have been compared. The results show some similarities between nonfinite subordination and the SVCs. I have therefore argued that the SVCs should be analyzed as subordination constructions similarly to ordinary nonfinite subordination constructions rather than as a third kind of construction.

Notes

1. For valuable advice and insightful criticism of earlier versions of this paper, I am very much indebted to Prof. Stanley Starosta. Special thanks also go to Prof. Roderick Jacobs and Prof. William O'Grady for comments. Naturally, I remain responsible for any mistakes still present.

I would also like to thank my Mandarin Chinese informants, Yoke Nyen Wong, Cathy Wong and Lin Zhang, as well as my Khmer informant, Chhany Sak-Humphry for the data.

2. The following example is not acceptable without any context.

> *khaw   khuan
> he   should
> He should.

3. In these languages, I consider topicalization and cleft sentences as examples for extracting the element from the coordinate structure.

4. Consider the following examples from Thai:

Non-finite sentence:

a.   *piithiilEEw   khaw   tatsinchay   khay
         last year   he   decide   sell
         baan   piinii
         house   this year
         Last year he decided to sell his house this
         year.

Finite sentence:

b.   mIawaannii   khaw   bOOk   nit   waa   khaw   kliat
         yesterday   he   tell   Nit   that he   hate
         nat   piithiilEEw
         Nat   last year
         Yesterday, he told Nit that he hated Nat last
         year.

5. Consider, for example, the contrast between (a) and (b) below:

Thai:

a.   *khaw   catkaan may sOOm rot
          he   manage   not fix car
         He managed not to fix the car.

b.   khaw   phayaayaam may rOOnghay
         he   try   not cry
         He tried not to cry.

Mandarin:

a.   *ta yao   bu xiao
         he   want not laugh
         He wanted not to laugh.

b.   ta   xiang   bu lai
         he   would like not come
         He would like not to come.

Khmer:

a.   *kO@t lOO m@n kOmnOt laan
         he   try not fix   car
         He tried not to fix the car.

b.   *kO@t coulcet m@n cu@k   baarai
         he   like   not smoke cigarette
         He did not like to smoke cigarettes.

References

Baker, M. (1989) 'Object Sharing and Projection in Serial Verb Constructions.' **Linguistic Inquiry** vol 20, 513-153.

Liu, C. (1990) **The Chinese Serial Verb Construction Proper.** Master Thesis. University of Calgary.

Sebba, M. (1987) **The Syntax of Serial Verbs.** John Benjamins Publishing Company.

Schiller, E. (1991) **Serial Verbs: Autolexical Analysis.** Ph.D. dissertation. University of Chicago.

Starosta, S. (1988) **The Case for Lexicase.** Pinter Publishers.

Thepkanjana, K. (1986) **Serial Verb Constructions in Thai.** Ph.D. dissertation. University of Michigan.