

'SERIAL' AND 'COMPLETIVE' VERBS IN KHMER?'¹

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1. GOALS AND OBJECTIVES

The purpose of this investigation is to consider the question of whether the terms 'serial verb' (SV) and 'completive verb' or 'resultative verbs' (CV) can be used appropriately for any classes of constructions in Khmer syntax. In order to do this, I will: (1) briefly state a definition of serial verbs (SV) and resultative verbs (RV); (2) match Khmer data against these definitions of SV and RV; and (3) reexamine the Khmer constructions that are found to fit these definitions within the framework of lexicase dependency grammar in order to determine whether the same data can be described using dependency grammar notions of binary dependency relations, complements versus adjuncts, missing complement subject and object in finite and non-finite subordinate clauses, and/or coordination. This preliminary survey does not attempt to explain the entire structure of Khmer verbs, but only looks at a small representative set of data to serve as a point from which future study can begin.

2. PREVIOUS ANALYSIS

A number of linguists have tried to define serial verb constructions of mainland Southeast Asian languages in various forms through their particular theoretical frameworks on a set of data. Huffman (1967), in a structuralist analysis, called the SV 'attributive verb sequences' and CV 'completive verbs'. According to Huffman, CV occur in post-posed constructions, express completion, and expect results or the achievement verbs which initiate an action. In addition, in negativization, negative markers follow the initial verbs, as opposed to the coordinate or attributive verb sequences in which the negative precedes the first verb of the sequence (Huffman 1967:171). Thus, the negativization pattern of the completive verb is different from the one in coordination or attributive verb sequences. Thepkanjana (1986), in a transformational analysis of Thai, defined a serial verb as a verb that acts as a complement to the preceding verb. She noted that verbs in a string do not have to share the same subject or object as in causative verbs (with *hay* construction), passive verbs (*thuuk* construction), or resultative

verbs (*tham* construction). According to her, the resultative verb complement stated the change in the status or the coming into existence of a certain condition of an entity as the result of an action denoted by the preceding verb (Thepkanjana 1986:95). However, she does not mention the syntactic relation of the verb in the negation. Schiller (1991), in an autolexical monostratal theory, agreed with others in terms of the requirement to have no overt conjunction in the SV. Clark (1992) stated that serial verbs are in coordination, not subordination. Wilawan (1992), a lexicase dependency analyst (currently writing her dissertation on this SV topic), indicated (at this stage of her analysis) that, particularly for Thai and Khmer languages, these SV are in subordination, not coordination.

Does Khmer have serial verbs? In answering this question, I consider the following questions: (a) Are serial verbs complements of the higher clause? (b) Can serial verbs have the 'same subject or switch subject' as the higher clause? (c) Can the V₂ in serial verb constructions be negated? (d) In serial verbs construction, can the V₂ and its following words be topicalized, (e) Can NP (except subject) be topicalized, and (f) Are complete constructions verbs serial verb constructions?

3. MATCHING DATA WITH DEFINITION AND APPLYING A LEXICASE ANALYSIS

In this analysis, I group the data into: (1) intransitive verbs followed by non-finite intransitive verbs (2) intransitive verbs followed by non-finite transitive verbs (3) transitive verbs followed by non-finite intransitive verb and (4) transitive verbs followed by non-finite transitive verbs.

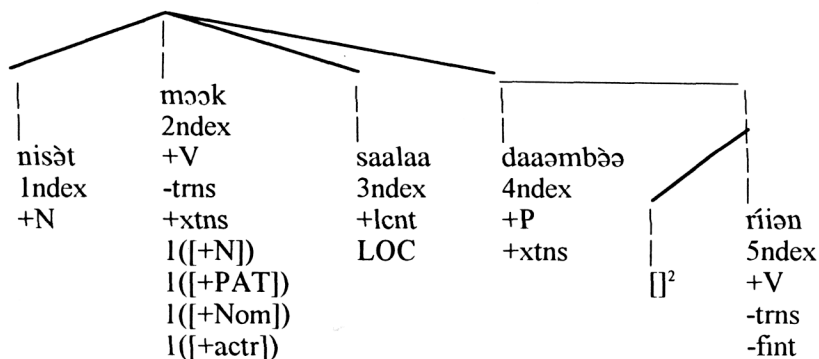
To see if there are any constructions in Khmer that fit the patterns in all of these four groupings, I consider (a) the presence of an overt subject with the second verb of a two-verb series and, if possible, a three-verb series (b) the negation test (c) NP topicalizing and (d) the clefting test.

3.1 INTRANSITIVE VERB FOLLOWED BY A NON-FINITE INTRANSITIVE

3.1.1 Overtly Marked Coordination and Subordinations

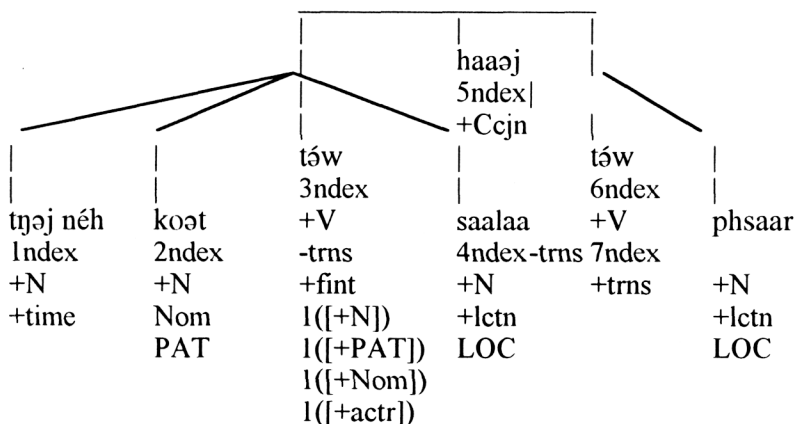
By the definition of SV, overtly marked coordinate and subordinate sentences in Khmer are serial verb sentences; however, I propose that they are not serial constructions.

1. *nisət* *məək* *saalaa* *daaəmbəə* *ríiən*
 student come school in order study
 'He comes to school in order to study'.



In example 1, the main or higher clause *nisət məək saalaa* is followed by a subordinate or lower clause *daaəmbəə ríiən*. The preposition *daaəmbəə* is in the exocentric construction with *ríiən*. The implied subject of *ríiən* is *koət*.

2. *thəj néh* *koət* *təw* *saalaa* *haaəj* *təw* *phsaar*
 today he go school and go market
 'Today, he goes to school and goes to the market'.



Example 2 shows a coordination clause construction marked by the coordinate conjunction *haaəj*. The implied subject *koət* can be inserted, and thus we have two separated sentences. Therefore, it is not a serial construction because the *V₂* is a finite verb. In addition, without an overtly marked

conjunction, as in sentences 1 and 2, subordination and conjunction clauses in Khmer can be determined by context or by intonation or a slight pause which can denote the clause boundary.

3.1.2 Same Subject

According to previous analysis, the term 'same subject' is used when the subject of the first verb is the same as the missing subject of the second verb. This type of construction is illustrated in the following examples.

- 3.
- | | | | | | |
|-------------|-------------|---------------|-------------|------------|-------------|
| <i>koət</i> | <i>mɔək</i> | <i>phteəh</i> | <i>lɔəŋ</i> | <i>nýŋ</i> | <i>kòon</i> |
| he | come | house | visit | with | child |
| +N | +V | +N | +V | +P | +N |
| Nom | -trns | LOC | -trns | LOC | |
| PAT | +fint | | -fint | | |
| actr | | | | | |
- 'He comes home to visit with the child'.

In example 3, the noun *koət* is the subject of the verb *mɔək* and is also the implied subject of the intransitive verb *lɔəŋ*. This example has no overt coordination nor subordinate markers. Based on a lexicase analysis, in the subordinate clause construction, the missing actr 'actor' NP in an infinitival complement clause³ is coreferential with the PAT of the regent (transitive or intransitive) verb. Thus, the second clause *lɔəŋ nýŋ kòon* is an infinitival complement⁴ to the main verb *mɔək*, because *koət* cannot be inserted in front of the verb *lɔəŋ*. If it is, we have two separate sentences. Thus, the criterion is still relevant; if an overt subject cannot be inserted, then the V_2 is a non-finite verb.

- 4.
- | | | | | |
|------------|---------------|------------|---------------|-------------------|
| <i>viə</i> | <i>qəŋkuj</i> | <i>yum</i> | <i>kraaom</i> | <i>daaəməcháo</i> |
| she | sit | cry | under | tree |
| +N | +V | +V | +N | +N |
| Nom | -trns | -trns | +lctn | LOC |
| PAT | +fint | -fint | +rltr | |
| actr | | | | |
- 'She sits crying under the tree'.

In example 4, the verbs *qəŋkuj* and *yum* are both intransitive verbs. The overt subject *viə* in the main clause is coreferential with the missing subject in the lower subordinate clause *yum kraaom daaəməcháo*, with *yum* as its non-finite verb.⁵ It is non-finite if we cannot add the subject in the second

position and still have a single sentence. This clause is the complement to the main verb *qan̄kuj* because it cannot be topicalized. The clause also provides an additional manner for how 'she cries under the tree'.

5. koət **təw** Waikiki roəm cíamúaj jəəŋ
 he go Waikiki dance with us
 'He goes to Waikiki to dance with us'.

Example 5 has the pronoun *koət* as the subject of the *directional intransitive verb təw*, and *koət* is also the implied subject of the following intransitive verb 'to dance' *roəm*. The subordinate clause *roəm cíamúaj jəəŋ* has verb *roəm* as regent and the prepositional phrase *cíamúaj jəəŋ* as its adjunct. This subordinate clause is a complement, not an adjunct, because it cannot be topicalized.

3.1.3 Negation test

Some negation adverb markers of Modern Khmer (MK) are *qat*, *pum*, *kom* or *min*. They are placed before the verbs they are modified. The negation adverb marker *tée* is used mostly with *min*, or *pum*, and placed at the end of the sentences, but it is optional in colloquial speech.

In a negative clause construction, the adverbs *min*, or *qat* is placed in front the verb, and *tée* is placed at the end of a clause or sentence (as illustrated in the following examples). There is no syntactic difference between these negation markers; however, the semantic differences are not discussed in this study. In addition, for the convenience of the reader, this paper mostly uses *min* or *qat*.

- 3a. koət min mək phteəh ləəŋ nýŋ kòon tée
 he neg. come house visit with child neg.
 'He does not come to the house, to visit with the child'.
- 4a. viə min qan̄kuj yum kraaom daaəməcháo tée
 she neg sit cry under tree neg.
 'She does not sit crying under the tree'.
- 5a. koət qat **təw** Waikiki roəm cíamúaj jəəŋ tée
 he neg. go Waikiki dance with us neg.
 'He does not go to Waikiki to dance with us'.

These negative sentence constructions exhibit the distribution of negation adverb markers *min* (*qat*)...*tée*. The

adverb marker *min* or *qat* precedes the main verb of the higher clause, and the negation adverb marker *tée* is optionally located at the end of the sentence, as shown in examples 3a, 4a, and 5a. This negation adverb marker *tée* is unique in the sense that it can be used to mark the boundary of a clause or a sentence.

3a'. *koət **mɔək** phteəh min **lɔəŋ** nýŋ kòon tée
 he come house neg. visit with child neg.

4a'. *koət **qan̄kuj** min **yum** kraaom daaəməchəə tée
 she sit neg cry under tree neg.

5a'. *koət **lɔw** Waikiki qat **rɔəm** cíəməúəj jəəŋ tée
 he go Waikiki neg. dance with us neg.

The constructions 3a', 4a' and 5a' are unacceptable, implying that the verbs in the lower clauses cannot be negated. In conclusion, negation is applicable to the main verb or to the finite clause. The order is such that negation adverb marker *min* or *qat* preceded the verb of the higher clause [-trns], and the negative adverb marker *tée* marked the end of the sentence.

1.4 Topicalizing Test

The purpose of this section is to use the topicalizing test to justify that the words following V_1 and V_2 can be topicalized and are nouns. These nouns are the non-final complements for their required regents verbs.⁶ There are three factors which show that they are non-final complements to the main verb V_1 or the non-finite verbs V_2 because (1) some people in the SV literature mentioned that SV are a series of verbs without NP complements following them, (2) another group of people questioned the syntactic status of the V_2 , that they are adverbs rather a non-finite verbs, (3) or that V_1 and V_2 are compound verbs.

In a Khmer construction, in order to be a topicalized NP, an NP has to be definite. Thus, the insertion of a definite determiner is necessary for common nouns.

3c. phteəh néh koət **mɔək** **lɔəŋ** nýŋ kòon
 house this he come visit with child
 'To this house, he comes to visit the child'.

Example 3c shows that the NP 'house' *phteəh* [LOC] can be topicalized..

- 4c. kraaom daaəməchǎə néh viə qəŋkuj yum
 under tree this she sit cry
 'Under this tree, she sits crying'.

In example 4c, we can topicalize the non-final locus complement NP 'under the tree' *kraaom daaəməchǎə* from the complement of the second clause, but not from the clausal complement *yum kraaom daaəməchǎə* itself.

- 5c. Waikiki (náh) koət tǎw roəm cíəməúəj jǎəŋ
 Waikiki this he go dance with us
 'At Waikiki, he goes dancing with us'.

Example 5c shows that the NP Waikiki can be topicalized. This proper noun Waikiki is a non-final locus complement to the intransitive verb *tǎw* in the higher clause.

Thus, we could say that the non-subject NP of the intransitive verb in the higher clause; the NP of the non-finite intransitive verb in the lower clause can be topicalized; and they are the non-final complements of the V₁, and V₂ in the higher, and lower clauses.

3.1.5 Clefting Test on NP

This test is used to affirm that the words which were topicalized previously are nouns and are heads of their own noun phrases.

- 3d. kyy phteəh néh daaəl koət məək lǎəŋ nýŋ kdon
 is house this which he come visit with child
 'It is this house to which he comes visiting the child'.
- 4d. kyy kraaom daaəməchǎə néh daaəl koət qəŋkuj yum
 is under tree this where she sit cry
 'It is under this tree where she sits crying'.
- 5d. kyy Waikiki daaəl koət tǎw roəm cíəməúəj jǎəŋ
 is Waikiki which he go dance with us
 'It is Waikiki where he goes dancing with us'.

Based on this observation (example 3d-5d), noun-phrase clefting is possible in the intransitive verb followed by a non-finite intransitive, and these words, *phteəh*, *kraaom*, and *Waikiki*, are nouns and heads of their own NP because they can be the dependents of the copula verb *kyy*.

3.2 INTRANSITIVE VERB FOLLOWED BY A NON-FINITE TRANSITIVE

In the following sentences, the first verbs are intransitive, and the second verbs are non-finite transitive.

3.2.1 Same Subject

6.	<i>kmèej</i>	<i>mɔɔk</i>	<i>phsaar</i>	<i>tij</i>	<i>siiəwpháw</i>	
	child	come	market	buy	book	
	+N	+V	+N	+V		+N
	Nom	-trns	+lctn	+trns	PAT	
	PAT	+fint	LOC	-fint		Acc
	actr					

'The child comes to the market to buy books'.

7.	<i>kmèej</i>	<i>mɔɔk</i>	<i>tij</i>	<i>siiəwpháw</i>	<i>pii</i>	<i>phsaar</i>
	child	come	buy	book	from	market

'The child comes to buy books from the market'.

8.	<i>koət</i>	<i>táw</i>	<i>pɛet</i>	<i>máɔl</i>	<i>neək</i>	<i>cumjýy</i>
	he	go	hospital	see	patient	

'He goes to the hospital to see the patient'.

9.	<i>koət</i>	<i>táw</i>	<i>máɔl</i>	<i>neək cumjýy</i>	<i>náw</i>	<i>pɛet</i>
	he	go	see	patient	at	hospital

'He goes to see the patient at the hospital'.

In examples 6 to 9, the NPs *kmèej* and *koət* are both actors [+Nom, PAT, actr] of the intransitive verbs in the higher clauses and are both coreferential with the implied [AGT, Nom, actr] agents of the non-finite transitive verbs in the lower clauses. The second verbs in these sentences are complements rather than adjuncts because their regent verbs, *mɔɔk* and *táw*, require non-finite verbs as their dependents, and we cannot topicalize these second clauses: *tij siiəwpháw*, *tij siiəwpháw pii phsaar*, *máɔl neək cumjýy*, and *máɔl neək cumjýy náw pɛet* respectively.

10.	<i>kməj</i>	<i>chɔɔr</i>	<i>tij</i>	<i>cèek</i>	<i>ɲam</i>
	child	stand	buy	banana	eat
	+N	+V	+V	+N	+V
	Nom	-trns	+trns	PAT	+trns
	PAT	+fint	-fint	Acc	-fint
	actr				

'The child stands up to buy bananas to eat'.

Example 10 has three verbs. The subject *kməŋ* of the main verb *chəw* [-trns] is coreferential with the subject of the verb *tɨŋ* [+trns] in the lower clause, and this missing subject is in turn coreferential with the subject of its own subordinate clause. The object *cèek* of the subordinate clause is coreferential with the missing object of its own subordinate clause *ɲam*. The regent verb *chəw* requires non-finite the clausal complement *tɨŋ cèek ɲam* where the non-finite verb *tɨŋ* functions as its head.

3.2.2 Negation test

In the following examples, I make negative sentences by trying to place the adverb markers *min* (or *qat*).....(*tée*) in different positions within these sentences for the purpose of establishing a negativization pattern in these complement clauses.

- 6a. kməŋ min mək phsaar tɨŋ šiəwphəw (tée)
 child neg. come market buy book neg.
 'The child does not come to the market to buy books'.
- 6a'. *kməŋ mək phsaar min tɨŋ šiəwphəw
 child come market neg. buy book
- 7a. kməŋ qat mək tɨŋ šiəwphəw pii phsaar (tée)
 child neg. come buy book from market neg.
 'The child does not come to buy books from the market'.
- 7a'. *kməŋ mək qat tɨŋ šiəwphəw pii phsaar tée
 child come neg. buy book from market neg.
- 8a. koət qat təw pɛt məəl neək cumŋýy (tée)
 he neg. go hospital see patient neg.
 'He does not go to the hospital to see the patient'.
- 8a'. *koət təw pɛt qat məəl neəkcumŋýy tée
 he go hospital neg. see patient neg.
- 9a. koət min təw məəl neək cumŋýy nəw pɛt tée
 he neg. go see patient at hospital neg.
 'He does not go to see the patient at the hospital'.
- 9a'. *koət təw min məəl neək cumŋýy nəw pɛt tée
 he go neg. see patient at hospital neg.

- 10a. kòon min chǎw tɨn cèek ɲam tée
 child neg. stand buy banana eat neg.
 'The child does not stand to buy banana to eat'.
- 10a'. *kòon khnom chǎw min tɨn cèek ɲam tée
 child I stand neg. buy banana eat neg.

As a result, the finite verbs V_1 in the higher clauses can be negated (examples 6a-10a), but V_2 or the non-finite verbs in the lower clauses cannot be negated (examples 6a'-10a'). Again this is the pattern of negation in these sentences with the adverb marker min or qat always preceding the verbs in the higher clauses, but not the non-finite verbs, and the negative adverb marker tée is placed at the end of the lower clauses or is used to mark the boundary of the sentences.

3.2.3 Topicalizing Test

In the following examples, I topicalize the words following the V_1 and the V_2 in the above examples to show that the V_2 are non-finite verbs, not prepositions or adverbs, and that these words are nouns.

- 6b. phsaar néh kmèen mǎk tɨn šiəwpháw
 market this child come buy book
 '(At) this market, the child comes to to buy books'.
- 6b'. šiəwpháw néh kmèen mǎk phsaar tɨn
 book this child come market buy
 'These books, the child comes to the market to buy'.
- 7b. šiəwpháw néh kmèen mǎk tɨn pii phsaar
 book this child come buy from market
 'This book, the child comes to buy from the market'.
- 8b. pɛet néh koət tǎw mǎl neək cumɲýy
 hospital this he go see patient
 '(At) this hospital, he goes to see the patient'.
- 8b'. neək cumɲýy néh koət tǎw pɛet mǎl
 patient this he go hospital see
 'This patient, he goes to the hospital to see'.
- 9b. neək cumɲýy néh koət tǎw mǎl nǎw pɛet
 patient this he go see at hospital
 'This patient, he goes to see at the hospital'.

- 10b. cèek nêh kòon chòor tɨn ɲam
 banana this child stand buy eat
 'This banana, the child stands up to buy'.

Examples 6b to 10b, 6b' and 8b' are acceptable. This implies that these words *phsaar*, *siiəwpháw*, *pɛet*, *neək cumɲýy* and *cèek* are NPs in the higher clauses with the intransitive verbs and NP in the lower clauses with non-transitive finite verbs.

Here, I am using the omission test on implied object NP *siiəwpháw*, *neək cumɲýy* and *cèek* in examples 6b', 8b', and 10b to confirm that the stranded V_2 words are non-transitive verbs, not adverbs.

- 6b'': *kmèenɲ mɔɔk phsaar tɨn
 book this child come market buy
- 8b'': *koat tɔw pɛet mɔɔl
 patient this he go hospital see
- 10b': *kòon chòor tɨn ɲam
 child stand buy eat

As a result, the constructions are unacceptable, implying that the words *tɨn*, *mɔɔl*, and *ɲam* are non-finite transitive verbs because they are looking for their implied object NPs that were missing and unrecovered.

3.2.4 Clefting Test

- 6c. kýy phsaar daaɛl kmèenɲ mɔɔk tɨn siiəwpháw
 is market which child come buy book
 'It is the market to which the child comes to to buy books'.
- 6c'. kýy siiəwpháw daaɛl kmèenɲ mɔɔk phsaar tɨn
 is book which child come market buy
 'It is the books that the child comes to the market to buy'.
- 7c. kýy siiəwpháw daaɛl kmèenɲ mɔɔk tɨn pii phsaar
 is book which child come buy from market
 'It is the books that the child comes to buy from the market'.

- 8c. kýy pɛɛt daaɛl koət tɔw mɔəl neək cumɲýy
 is hospital which he go see patient
 'It is to the hospital that he goes to to see the patient'.
- 8c'. kýy neək cumɲýy daaɛl koət tɔw pɛɛt mɔəl
 is patient which he go hospital see
 'It is the patient that he goes to the hospital to see'.
- 9c. kýy neək cumɲýy daaɛl koət tɔw mɔəl nɔw pɛɛt
 is patient which he go see at hospital
 It is the patient whom he goes to see at the hospital'.
- 10c. kýy cèek néh daaɛl koət chɔɔr ɲam
 is banana this which he stand eat
 'It is the banana that he stands eating'.

As shown in examples 6c to 10c and, 6c' and 8c', clefting the same words as in the topicalizing test support that they are nouns and heads of their own NP.

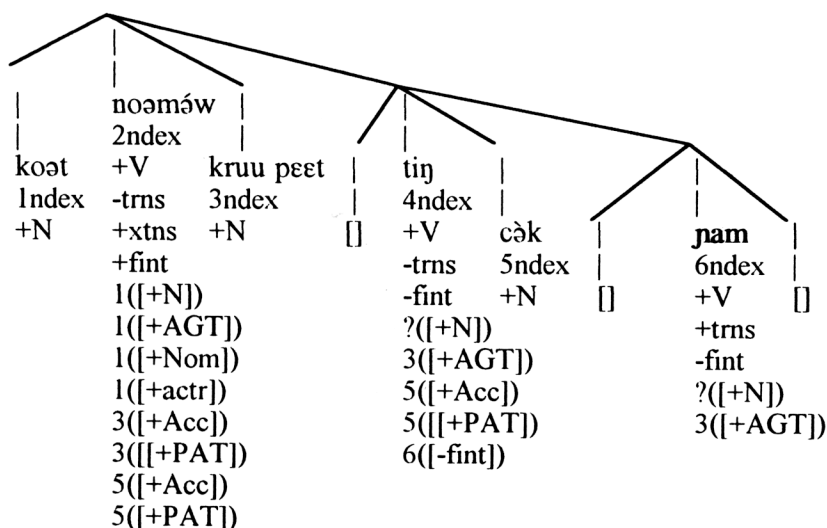
In conclusion, the characteristics of intransitive verb V_1 when followed by a V_2 non-finite intransitive or transitive, and serial verbs can be summarized as followed. (1) The notion of the 'same subject' in SV and non-finite subordinate clauses are similar in that the actors [+Nom, PAT, actr] of the intransitive verbs in the higher clauses are both coreferential with the implied [PAT, Nom, actr] patient of the non-finite intransitive or [AGT, Nom, actr] agents of the non-finite transitive verbs in the lower clauses. (2) Only main verbs or finite verbs V_1 can be negated. (3) V_2 or the non-finitive verbs cannot be negated. (4) Words which follow the main verbs V_1 and the second verbs V_2 are non-final complements and thus can be topicalized (topicalizing test) and are heads of their own noun phrases (clefting test). (5) The V_2 are verbs not adverbs. (6) The V_1 and V_2 are not compound verbs.

3.3 TRANSITIVE VERB FOLLOWED BY A NON-FINITE TRANSITIVE

3.3.1 Switch Subject

The 'switch subject' (in SV) means that the object of a verb is interpreted as the subject of the following verb. By this definition, *kruupeet* in sentence 11 is the switch subject. This implies that the object noun phrase *kruupeet* of the main verb *noəm* is interpreted as the subject of the following verbs *tip* and *ɲam* in this sentence.

11. koət **noəm** kruu pɛət **tɪj** cèek **ɲam**
 he take doctor buy banana eat
 +N +V +N +V +N +V
 Nom +trns Acc +trns PAT +trns
 AGT +fint PAT -fint Acc -fint
 actr
 'He takes the doctor to buy bananas to eat'.



In example 11, *noəm* [+trns] is the regent of the entire clause. Since this verb is a three-argument verb, the subordinate clause *tɪj cèek ɲam* is a complement rather than an adjunct. The accusative patient *kruupɛət* is the implied subject of the transitive verb *tɪj* and of the second verb *ɲam*.

12. koət **yɔək** kandíəw **kaat** sróow
 he take sickle cut rice plant
 'He takes the sickle to cut the rice plant'.

In example 12, *kaat sróow*, 'to cut the rice plant' is the complement of the verb *yɔək*. The missing subject of *kaat* gets its index [1] from the agent of the higher verb.

3.3.2 Negation Test

- 11a. koət min **noəm** kruuupɛət tɪj cèek **ɲam** tée
 he neg. take doctor buy banana eat neg.
 'He did not take the doctor to buy bananas to eat'.

- 11a'. *koət **noəm** kruuupɛɛt qat tɨn cɛ̀ɛk ɲam
 he take doctor neg. buy banana eat
- 12a. koət min yɔ̀ɔk kandiiəw kaat sróow tée
 he neg take sickle cut rice plant neg.
 'He does not take the sickle to cut the rice plant'.
- 12a'. *koət yɔ̀ɔk kandiiəw min kaat sróow tée
 he take sickle neg cut unhusked rice neg.

Sentences 11a, and 12a show the normal pattern of the negation of sentential complements. Examples 11a', and 12a' are unacceptable. This implies that we cannot negate the second non-finite verbs in these constructions.

3.3.3 Topicalizing Test

- 11a. kruuɛɛt néh koət **noəm** tɨn cɛ̀ɛk ɲam
 doctor this he take buy banana eat
 'This doctor, he takes to buy banana [and] to eat'.
- 11a'. cɛ̀ɛk néh koət **noəm** kruu pɛɛt tɨn ɲam
 banana neh he take doctor buy eat
 'This banana, he takes the doctor to buy and to eat'.
- 12a. kandiiəw néh koət yɔ̀ɔk kaat sróow
 sickle this he take cut rice plant
 'This sickle, he takes to cut the unhusked rice'.
- 12a'. sróow néh koət yɔ̀ɔk kandiiəw kaat
 rice plant this he take sickle cut
 'This rice plant, he takes the sickle to cut'.

Sentences 11a, 12a, 11a' and 12a' show that we can topicalized the words that followed the V_1 and V_2 . These words are the non-final complements of the V_1 and V_2 .

3.3.4 Clefting Test

- 11c. kyy kruu pɛɛt daael koət **noəm** tɨn cɛ̀ɛk ɲam
 is doctor who he take buy banana eat
 'It is this doctor who he takes to buy bananas to eat'.
- 11c'. kyy cɛ̀ɛk daael koət **noəm** kruu pɛɛt tɨn ɲam
 is banana that he take doctor buy eat
 'It is the bananas that he takes the doctor to buy [and] eat'.

- 12c. *kýy* *kandíiəw* *daael* *koət* *yɔək* *kaat* *sróow*
 is sickle which he take cut rice plant
 'It is the sickle which he takes to cut the rice plant'.

Again as in topicalizing section, the words *kruu pæet*, *cèek*, and *kandíiəw* in the lower and the higher clauses can be clefted. Thus, they are nouns, heads of their own NP.

3.4 TRANSITIVE VERB FOLLOWED BY A NON-FINITE INTRANSITIVE

In the following section, we examine the constructions that have the transitive verbs as regents and are followed by non-finite intransitive dependents.

3.4.1 Switch Subject

13. *khɲom* *víiəj* *kòon* *jum*
 I beat child cry
 +N +V +N +V
 +Nom +trns +PAT -trns
 +AGT +fint +Acc -fint
 actr
 'I beat the child, (she) cries'.

- 14 *wíiə* *noəm* *kmèeŋkmèeŋ* *rut* *lǎə* *phnum*
 he take? children run top mountain
 'He takes the children running on the mountain'.

In these two examples, 13 and 14, the transitive verbs *víiəj*, and *noəm* have their subjects *khɲom*, and *wíiə* [Nom, AGT, actr] respectively. The NP *kòon*, and *kmèeŋkmèeŋ*, are their direct objects, and the intransitive non-finite verbs, *jum* and *rut*, as their subordinate clauses respectively. The implied subjects, Nom/PAT, of these two non-finite verbs, *jum* and *rut* are coreferential with the direct objects *kòon* and *kmèeŋkmèeŋ*, [Acc, PAT] of the main verbs *víiəj*, and *noəm*, in accordance with the standard lexicase rule for missing actors in infinitival complements. The missing lower actor is coreferential with the regent clause's PAT.

The subordinate clauses *jum*, and *rut lǎə phnum* are complements to their regent verbs *víiəj* and *noəm* respectively.

3.4.2 Negation test

- 13a. **khɲom* *min* *víiəj* *kòon* *jum* (*tée*)
 I neg. beat child cry neg.
 'I did not beat the child to cry'.

- 13a'. khnom min viiəj kdon qaaoj jum (téé)
 I neg. beat child give cry neg.
 'I did not beat the child to cry'.
- 13a''. khnom viiəj kdon min jum (téé)
 I beat child neg. cry neg.
 'I cannot beat the child to cry'.

- 14a. wíiə min noəm kmèenkmèen rut láə phnum (téé)
 he neg. take children run up mountain neg.
 'He did not take the children running on the mountain'.

- 14a'. *wíiə noəm kmèenkmèen min rut láə phnum téé
 he take children neg. run up mountain neg.

As shown in sections 1.3, 2.2, and 3.2, the adverb negation marker is normally marked on the main verbs or the finite verbs, but not the non-finite verbs. In examples 13a, the regent verb *viiəj* in negative pattern cannot take the non-finite subordinate clause *jum* as its immediate dependent. The structure requires the word *qaaoj* 'to give, or to cause to' as its immediate dependent, as shown in example 13a'.

In example 13a'', the V_2 *jum* can be negated, the construction is acceptable (as shown). This implies that the V_2 *jum* could be either a finite verb or an adverb. Similar patterns are shown in the completive verbs section.

Examples 14a and 14a' show that only the finite verbs can be negated, but not the non-finite verbs.

3.4.3 Topicalizing Test

- 13b. kdon néh khnom viiəj jum
 child this I beat cry
 'This child, I beat [him] to cry'.
- 13b'. kdon néh khnom min viiəj qaaoj jum (téé)
 child this I neg. beat give cry neg.
 'This child, I didnot beat [him] to cry'.
- 13b''. kdon néh khnom viiəj min jum (téé)
 child this I beat neg. cry neg.
 'This child, I cannot beat [him] to cry'.

- 14b. kmèenkmèen néh wíiə nɔəm rut láə phnum
 children this he take run up mountain
 'These children, he took [them] running on the mountain'.
- 14b'. láə phnum néh wíiə nɔəm kmèenkmèen rut
 up mountain this he take children run
 'On this mountain, he took the children running'.

Examples 13b, 13b', and 13b'' show that we can topicalize the non-final complements of V_1 . Examples 14b and 14b' show the words that follows the V_1 and the V_2 can be topicalized.

3.4.4 Clefting Test

In these type of constructions, clefting on NP can be done as illustrated in these following examples.

- 13c. kýy kòon néh daaɛl khpom víiəj jum
 is child this who I beat cry
 'It is this child who I beat [him] to cry'.
- 14c. kýy kmèenkmèen néh daaɛl wíiə
 is children this who he
 nɔəm daaər láə phnum
 take walk up mountain
 'It is these children whom he took running on the mountain'.

This clefting test supports the claim that the words which following the V_1 and the V_2 are nouns because they are the dependents of the copula verb *kýy*.

In conclusion, the constructions that have the transitive verbs regents and are followed by non-finite transitive or intransitive dependents can have the following characteristics. (1) They can have a 'switched subject' as in SV constructions, (2) In general, adverbs markers in these constructions negate only the finite or main verbs but not the non-finite verbs. (3) The words which follow the V_1 and the V_2 can be topicalized; thus, they are the non-final complements of their regent verbs, (4) Since they can also be clefted, then they are nouns and heads of their own NP.

3.5 COMPLETIVE VERBS

One of the grammatical criteria that has been proposed as an identifying property of completive verbs is that the V_2 may not be negated. However, some constructions in modern Khmer⁷ which would otherwise satisfy the definition of completion verbs DO allow the second verb to be negated. The following section focuses on these types of constructions.

3.5.1 Same Subject and Switch Subject

15. *khnom* **təw** *saalaa* *koət* **baan**²
 I go school her can
 'I go to her school, I can'.
 'I can go to her school'.

In this construction, the subject *khnom* of the intransitive verb *təw* could be semantically interpreted as the implied missing subject of the non-finite second verb *baan*.

16. *nisət* **təw** **toən** *kapal haoh*
 student go be on time air plane
 'The student goes, [he] is on time for the airplane'.
 'The student catches the airplane on time'.

In example 16, the noun *nisət* is the Nom-PAT of the verb *təw* and is interpreted as the implied missing subject of the non-finite transitive verb *toən*.

17. *kméey* **rək** *moən* **khəəy**
 kid look for chicken see
 'The kid looks for chicken, [kid] sees [it]'.
 'The kid found the chicken'.

In this example, the noun *kméey* functions as the Nom-AGT of the transitive verb *rək*, and it could also be interpreted as the implied subject of the non-finite transitive verb *khəəy*. The noun 'chicken' *moən* is the Acc-PAT of the verb *rək* and could function as the implied missing object of the non-finite second verb *khəəy*.

18. *khpom* **kit** *camnaot* *nóh* **khos**
 I think problem that wrong
 'I think of that problem [I] am wrong'.
 'I am wrong about solving that problem'.

In example 18, the pronoun *khpom* functions as the Nom-PAT of the transitive verb *kit* and could be interpreted as the implied subject of the non-finite intransitive verb *khos*.

19. *viiə* *məəl* *kun* *néh* *cap*
 he read movie this be ended
 'He watches this movie, [it] is ended'.
 'He watching the movie toward its ended'.

In example 19, the noun *kun*⁹ functions as the Acc-PAT of the verb *məəl* and could be the implied missing subject of the non-finite intransitive verb *cap* in the second clause.

In conclusion, the notions of 'same subject' and 'switch subject' are applicable to these types of constructions as to the serial verbs constructions.

However, there is a group of directional verbs *V*₂ such as *cóol* and *cèep*¹¹ that some time lexically cannot directly be translated into English as verbs and syntactically may either be interpreted as deverbal adverbs or verbs. The problem that we are facing in here is to find a semantically acceptable implied missing subject for these constructions.

The following examples will illustrate this problem.

20. *khpom* *jam* *baaj* *còol*
 I eat dinner go in
 'I eat dinner, [it] goes in'.
 'I really can eat'.

In this example, the verb *jam* has the nouns *khpom* 'I' as its Nom-AGT and *baaj* 'rice' as its Acc-PAT. The word *còol*¹² could be interpreted as either (a) a verb if the object *baaj* of the *V*₁ could be interpreted as its implied missing subject, or (b) a deverbal adverb that functions as the dependent of the verb *jam*.

21. *koət* *luk* *phteəh* *néh* *cèep*
 she sell house this to move outward
 'She sells this house, [it] moves outward'.
 'She is selling this house out'.

In example 21, the transitive verb *luk* has the pronoun *koət* as its Nom-AGT and *phteəh* as its Acc-PAT. The word *cèep* could either be interpreted (a) as a verb if *phteəh* could be interpreted as its implied missing subject, or (b) as a deverbal adverb and dependent of the verb *luk*.

22. khnom kit camnaaot nóch cèej
 I think problem that go out
 'I think of that problem, [it] goes out'.
 'I can really solve that problem'.

Example 22 has the verb *kit* as the regent of the Nom-AGT *khnom* (similar to 'I am wrong about solving that problem' in example 18). The word *cèej* could be interpreted as either a verb or a deverbal adverb.

3.5.2 Negation Test

When negated these constructions pose another problem¹² because, as stated before, the negation of these types of constructions are grammatically unacceptable on the first verbs, but acceptable on the second verbs, as illustrated below:

- 15a. khnom tów saalaa koət min baan tée
 I go school her neg. able neg.
 'Today, I am unable to go to her school'.

- 16a. khnom tów min toən kapal haoh (té)
 I go neg. be on time air plane neg.
 'I fail to catch the airplane on time'.

- 17a. kméej rók moən min khóej (té)
 kid look for chicken neg. see neg.
 'The kid cannot find the chicken'.

- 18a. khnom kit camnaaot nóch qaat khos (té)
 I think problem that neg. wrong neg.
 'I am not wrong about solving that problem'.

- 19a. víiə mál kun néh qaat cap (té)
 he watch movie this neg. be ended neg.
 'He did not finish watching the movie'.

20. khnom jam baaj min còl (té)
 I eat dinner neg. go in neg.
 'I could not eat dinner'.

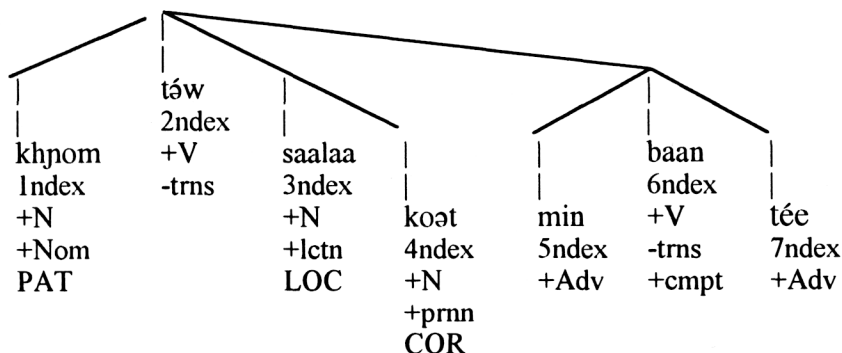
- 21a. koət luk phteəh néh qaat cèej (té)
 she self house this neg. to move outward neg.
 'She is unsuccessful selling this house'.

- 22a. khnom kit camnaaot nóh qaat cèep (tée)
 I think problem that neg. go out neg.
 'I cannot really solve that problem'.

In all of the constructions, when the adverb negation marker *min* or *qaat* are placed or preceded the second verbs V_2 , the sentences are grammatically correct. The problem we face here is to determine what are the main verbs of these completive verbs constructions. Are they marked or defined by their positions (as first verbs V_1) in those constructions? Or are they based on their negation (that they can take adverb negation markers as dependents)? Are the second verbs V_2 verbs or deverbal adverbs? If the main verbs of these constructions are based on their positions as first verbs V_1 , then see alternative (1). If the main verbs of these constructions are determined based on the negation, then see alternative (2)

In alternative (1), I propose that the first verb V_1 as the main verb or regent of the second clause. If so, the second verb V_2 could have any of these properties: (a) V_2 belongs to a group of completive verbs that allows to take the negation adverb markers as their dependents (b) V_2 belongs to a group of impersonal verbs which doesn't require a subject or (c) V_2 is an adverb but not a verb (see diagrams). In alternative (2), I propose that the second verb V_2 as the main verb or regent of the sentence. V_2 is an impersonal completive verb, and has the entire first clause as its subject surrogate¹³ (see the diagrams below).

Alternative 1a:

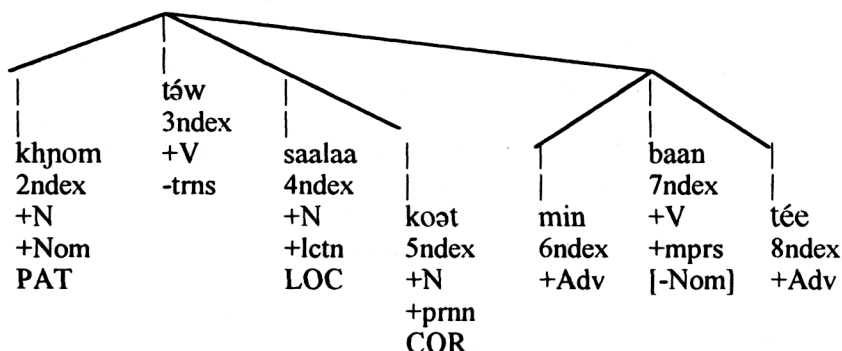


For example 15, the alternative 1a is to propose that the verb *táw* is the regent of the clausal constituent *baan*. This implies that the verb *baan* might belong to a 'completive verbs

group' [+cmpt] that is allowed to take negation markers *min...tee* as its dependents.

With this alternative 1a, we have the negation marked not on the main verb V_1 but instead on the second verb V_2 in the lower clause, and this verb V_2 belongs to a subclass of verbs, 'completive verbs'.

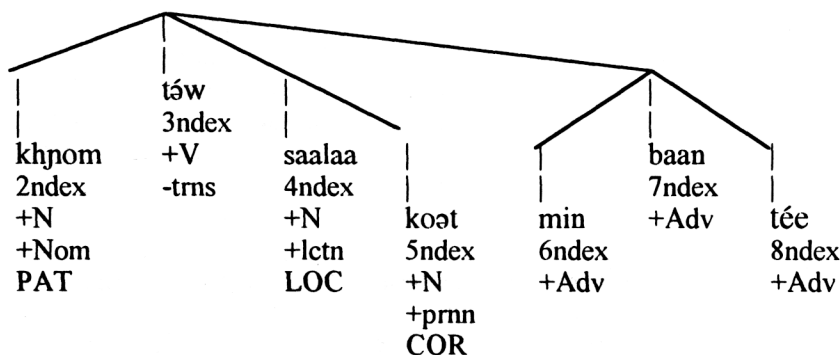
Alternative 1b:



In alternative 1b, the V_1 is the verb *taw*, the regent of the clausal constituent *baan*. This implied that the verb V_2 *baan* could be an impersonal verb.¹⁴ Since some of these constructions have problems with the implied missing subject of V_2 , this alternative 1b helps to resolve this issue because, in lexicae, the impersonal verb cannot have subject.

Thus, with this scenario, we must justify that V_2 is an impersonal verb and is allowed to be negated, which conflicts with the general norms that 'only the main verb V_1 can be negated'.

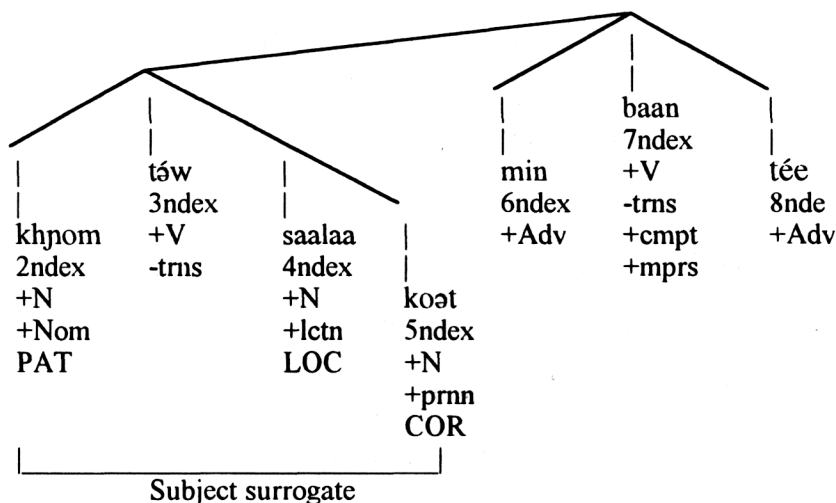
Alternative 1c:



Based on the proposed alternative 1c, the V_1 *táw* as the main verb has *khpom* as its Nom-AGT, the location noun *saalaa* as its LOC complement and the deverbal adverb *baan* as its dependent. This implies that the V_2 *baan* is not a verb, but a deverbal adverb, and can take adverb negation marker *min...tee* as its dependents.

In alternative 1c, we have one problem to justify, that the ' V_2 ' is not a verb, but an adverb, and can take other adverbs such as negation adverb markers as its dependents. With this alternative, we will have no 'completive verbs constructions', because we will have only one sole verb in both the affirmative and negative patterns and ,thus, one clausal sentence.

Alternative 2:



Alternative 2 suggests that the second verb V_2 *baan* belongs to the CV completive verbs series as main verb or regent of the entire sentence.

3.5.3 Topicalizing Test

Topicalization of noun phrases in examples (15-22) are all acceptable in both the affirmative and negative patterns as illustrated in some of these sentences.

- 15b. *saalaa* *koät* *néh* *khpom* *táw* *baan*
 school her this I go able
 'To her school, I can go'.

- 15b' saalaa koət néh khpom **tów** min **baan** tée
 today school her this I go able neg.
 'To her school, I am unable to go'.
- 16b' kapal haoh néh khpom **tów** min **toən** tée
 air plane this I go neg. be on time neg.
 'This airplane, I fail to catch on time'.
- 17b' moən néh kméen **rək** min **khəp** tée
 chicken this kid look for neg. see neg.
 'This chicken, the kid cannot find [it]'
- 18b. camnaaot nóh khpom **kit** **khos**
 problem that I think wrong
 'That problem, I am wrong about solving [it]'.
- 19b. kun néh víiə **mól** **cap**
 movie this he watch be ended
 'This movie, he did not finish watching [it]'.
- 20b' baaj néh khpom **jam** min **còol** tée
 dinner this I eat neg. go in neg.
 'This dinner, I could not eat [it]'.
- 21b. phteəh néh koət **luk** **cèp**
 house this she sell to move outward
 'She is unsuccessful selling this house'.
- 22b' camnaaot nóh khpom **kit** min **cèp** tée
 problem that I think neg. go out neg.
 'That problem, I cannot really solve [it]'.

The NP that followed the V₁ and V₂ in the completive verbs constructions can be topicalized.

5.4 Clefting test

All NP in the completive verbs constructions can be clefted in both affirmative and negative patterns as shown in some of these examples:

- 15c. kýy saalaa koət daael khpom **tów** **baan**
 is school her which I go able
 'It is her school to which I can go'.

- 16c. kýy kapal haoh daaɛl khpom tɔw toən
 is air plane which I go be on time
 'It is the airplane which I fail to catch on time'.
- 17c. kýy moən daaɛl kméen rɔk min kháəŋ (tée)
 is chicken who kid look for neg. see neg
 'It is the chicken which the kid cannot find'.
- 18c. kýy camnaaot daaɛl khpom kit khos
 is problem who I think wrong
 'It is the problem that I solve [it] wrong'.
- 19c. kýy kun daaɛl víiə máəl cap
 is movie that he watch be ended
 'It is the movie that he did finish watching'.
- 20c'. kýy baaj daaɛl khpom ɲam min còol (tée)
 is dinner that I eat neg. go in neg.
 'It is dinner that I could not eat'.
- 21c. kýy phteəh daaɛl koət luk cèəŋ
 is house that she sell to move outward
 'It is the house that she is successfully selling'.
- 22b'. kýy camnaaot daaɛl khpom kit min cèəŋ (tée)
 is problem that I think neg. go out neg.

Clefting of noun phrases in the higher or lower clauses in the 'completive constructions' is acceptable and similar to the 'serial verbs constructions' or the non-finite subordinate constructions.

4. CONCLUSION

This paper enables me to examine the relationships between the head of the construction and its dependents in a sentence that has more than two verbs with no coordination or subordination marker (including the completive constructions) which were called by others as serial verbs constructions. Thus, there is no difference between the serial verb construction and the non-finite subordination construction. This implies that the serial verb V_2 is the non-finite subordinate verb and is the complement of the higher clause. The notions of 'same subject or switch subject' are applicable to serial verb constructions, non-finite subordinate constructions, and completive constructions. The V_2 and its following words cannot be

topicalized, but the noun phrases NPs following the V_1 and V_2 can be topicalized and clefted. Thus, it indirectly supports the idea that V_1 and V_2 are not compound verbs, and that one is in subordination of the clausal. The missing constituents (subject and object) in the finite and non-finite clauses can be accounted for and justified through the application of the Inflectional Rules and the Linking and Chaining Rules in lexibase general grammar rules.

On the issue of the negation, in term of its generality, the main verb of a construction can be negated with the adverb negation markers. Thus, this seems to distinguish the negative completive verbs constructions from the negative regular non-finite subordinate constructions. As stated again, the problem that we are facing here is to determine the main verb of these completive verbs constructions in both affirmative and negative patterns. Are they marked or defined by their positions (as first verb V_1) or by the negation adverb markers (then V_2 is the main verb), or do we consider that V_2 is a deverbal adverb (then V_2 is not a verb)? In this paper, I have proposed some alternative ways to examine these questions. However, I leave the principled choice among these alternatives to future study.

Notes

1. I am very grateful to Professor Stanley Starosta for his valuable criticism and comments on this paper. Errors and omissions are of course my own.
2. The square brackets in the tree diagram are used as a convenient way of indicating the implied dependent of the word.
3. The application of Control rules is not discussed in this analysis.
4. This clause cannot be topicalized, and it describes 'his intent of coming to school'. The regent verb *məək* requires an infinitival complement.
5. *oət qəŋkuj koət yum kraaom daaəmchǎə*. These are two separate sentences. Each one has its own overt subject *koət*.
6. In Modern Khmer a clause final locus complement cannot be topicalized
7. All V_1 and V_2 can occur as the only single verb in a sentence.
8. Some of these constructions in Modern Khmer have been referred to as 'completive verb constructions' by Huffman (1986:171-175).

9. This word *baan* has different semantic and syntactic function then the auxillary verb *baan* in this example:

khnom	baan	tɔw	saalaa	koət
I		school	her	can

'I have gone to her school'.

10. In this context, it is the noun 'movie' that 'is ended' and not the person who watch it, because we can substitute this word with other nouns such as *lkaaon* 'play', *siiəwphəw* 'book' or *kaaseet* 'newspaper'

11. However, the root predicate test with inanimate objects tells us that they are rather deverbal homophonous adverbs, and suggests that the negation test be revised to allow *min... tee* to negate directional adverbs, which would result in a more consistent analysis. Further investigation will shed more light on this issue.

baaj	còol	phós	luj	còol	krəpaw
rice	go in	stomach	money	enter into	pocket pocket

'The rice goes into the stomach'.
'The money goes into the pocket'.

13. Other subordinate constructions negations are not marked on the finite main verbs, but on the non-finite verb as shown below:

sokha	chaa	spáj	dak	sac	craaen
Sokha	fry	cabbage	put	meat	alot

'Sokha fries the cabbage, [she] puts lots of meat'.
'Sokha fries the cabbage, putting lots of meat'.

sokhaa	chaa	spáj	min	dak	sac	craaen	tée
Sokha	fry	cabbage		neg.	put	meat	alot

'Sokha fries the cabbage, not putting lots of meat'.

In this example, Sokha, the Nom-AGT of the transitive verb *chaa* functions as the implied missing subject of the non-finite transitive verb *dak*. This construction does not belong to the 'completive verbs constructions', and it does not have 'subject surrogate' either. The word *dak* is not an adverb because it has the noun *sac* as its Acc-PAT.

14. According to Pagotto, impersonal verbs appear with phrasal constituents in the preverbal position. She referred to such a phrases as 'subject surrogate'.

According to Pagotto (1985), there is a class of verbs in English called impersonal ([+mprs]) verbs which do not allow a [+Nom] argument.

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