VERBAL RELATIVE CLAUSES AS ADNOMINAL MODIFIERS IN THAI

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1. Introduction

The purpose of this paper is to examine some of the relative clause structures which appear as the modifer of a noun in Thai. Apart from having different types of modifiers such as determiners, adjectives, prepositional phrases, complement clauses, and classifier constructions, nouns in Thai also allow relative clauses to appear as modifiers. The kind of relative clause which has usually been described in the literature consists of the relative noun *thîi* 'that' followed by a verbal complement, but there are in addition verbal relative clauses without *thîi* which can also modify nouns. The objective of this paper is to examine the different types of verbal relative clause and to explain their syntactic characteristics within the constraints of the lexicase framework. It will be shown that some structures which appear to be verbal relative clauses are in fact not, but they are either constituent parts of a compound noun or are themselves pseudo-compound verbs.
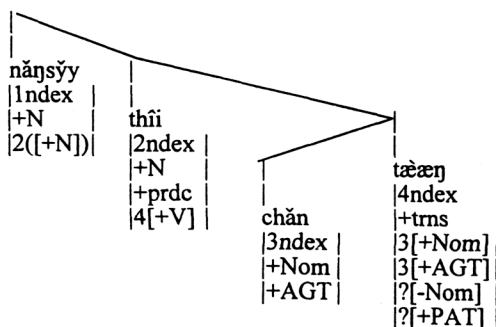
2. Relative clauses as adnominal modifiers

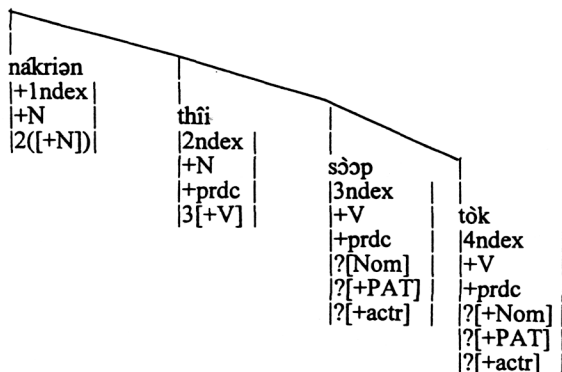### 2.1. Nominal relative clauses

In Thai, there are two types of relative clause that can appear as adjuncts to modify regent nouns. These constructions differ because of the syntactic category to which the head of the relative clause belongs (Savetamalya 1989:120). The main distinguishing characteristic of these two constructions is that the head of the first construction is a nominal headed by the relative noun *thîi* (1-2), whereas the head of the second construction is a verb (3).

1. năŋsɣ̌y   thîi   chăn   tæ̀æŋ
    book   that   I   write
    'the book that I wrote'

2. nákriən   thîi   sɔ̌ɔp   tòk
    student   that   take an exam   fail
    'the student who failed the exam'

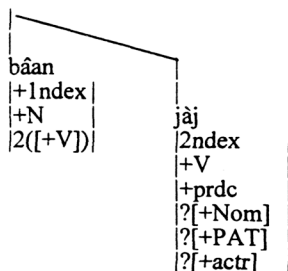3. bâan   jàj
    house   big
    'house which is big'

In (1), the noun phrase consists of the head noun *nǎŋsy̌y* 'book' and it is modified by an adjunct *thîi chǎn tæ̀æŋ* 'that I wrote', which is a nominal relative clause headed by *thîi*. The structure of this noun phrase is shown below:

```
|
|
nǎŋsy̌y        |
|1ndex  |     |
|+N     |  thîi
|2([+N])|  |2ndex |
           |+N    |              tæ̀æŋ
           |+prdc |              |4ndex    |
           |4[+V] |      chǎn    |+trns    |
                          |3ndex |  |3[+Nom] |
                          |+Nom |   |3[+AGT] |
                          |+AGT |   |?[-Nom] |
                                    |?[+PAT] |
```

In (2), the noun phrase consists of the head noun *nákriən* 'student' and it is modified by an adjunct *thîi sɔ̀ɔp tòk* 'who failed the exam', which is a nominal relative clause headed by *thîi*. The structure of this noun phrase is shown below:

```
|
|
nákriən        |
|+1ndex|       |
|+N    |    thîi
|2([+N])|   |2ndex |
            |+N    |   sɔ̀ɔp
            |+prdc |   |3ndex |
            |3[+V] |   |+V    |    tòk
                       |+prdc |    |4ndex    |
                       |?[Nom] |   |+V       |
                       |?[+PAT]|   |+prdc    |
                       |?[+actr]|  |?[+Nom] |
                                   |?[+PAT] |
                                   |?[+actr] |
```
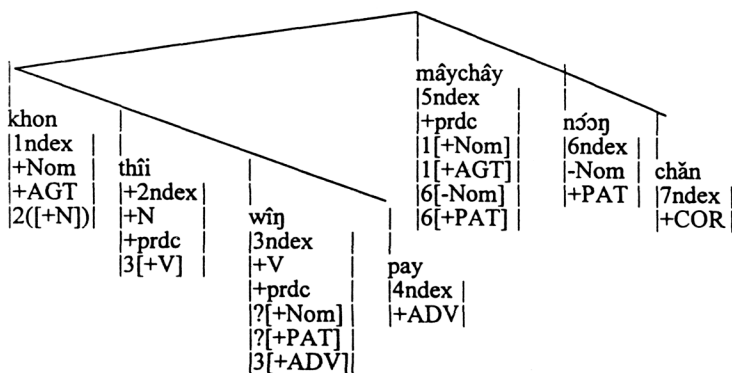
In (3), the noun phrase consists of the head noun *bâan* 'house' and it is modified by an adjunct *jàj* 'big', which is a verbal predicate clause. The structure of this noun phrase is shown below:

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾
|
bâan              ‾|
|+1ndex |          |
|+N     |      jàj
|2([+V])|      |2ndex    |
               |+V       |
               |+prdc    |
               |?[+Nom]  |
               |?[+PAT]  |
               |?[+actr] |
```
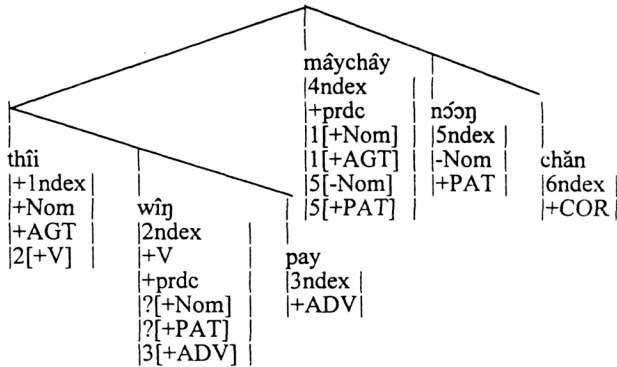
The nominal relative construction illustrated in (1-2) is the type of construction which in traditional descriptions of Thai grammar has been called a relative clause. A structure headed by *thîi* 'something (that)' however may be either a relative clause, that is, an adjunct of a head noun, or it may be a complement of a verb. As a relative clause, *thîi* is a nominal predicate as in (4), but when *thîi* is the head of a nominal complement in a sentence, it is assigned case by the verb that is the head of that sentence as in (5).

4.   khon   thîi   wîŋ   pay   mâychây   nɔ́ɔŋ   chǎn
     person that   run   go   not   brother   I
     'The person who has just run away is not my brother.'

5.   thîi   wîŋ   pay mâychây   nɔ́ɔŋ   chǎn
     someone   run   go not   brother   I
     'The one who has just run away is not my brother.'

The structures of the sentences (4-5) are shown below:

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|                              mâychây        |
|‾‾‾‾‾‾‾‾‾‾‾                    |5ndex    |    |
|                              |+prdc    |    nɔ́ɔŋ         ‾|
khon          |                |1[+Nom]  |    |6ndex  | |
|1ndex  |     thîi             |1[+AGT]  |    |-Nom   | chǎn
|+Nom   |     |+2ndex|         |6[-Nom]  |    |+PAT   | |7ndex  |
|+AGT   |     |+N    |   wîŋ    |6[+PAT]  |               |+COR  |
|2([+N])|     |+prdc |   |3ndex    | |
              |3[+V] |   |+V       | |
                        |+prdc    |    pay
                        |?[+Nom]  |    |4ndex |
                        |?[+PAT]  |    |+ADV|
                        |3[+ADV]|
```
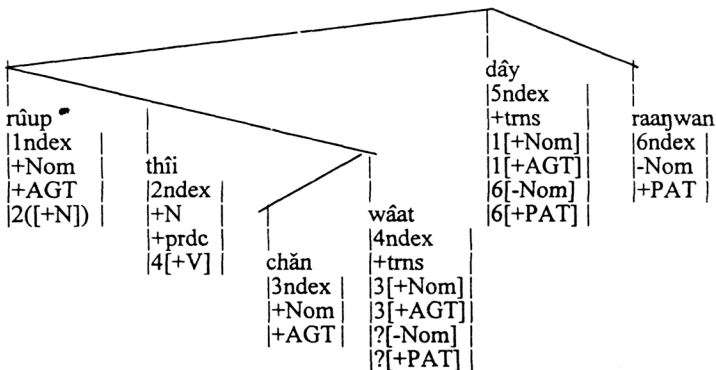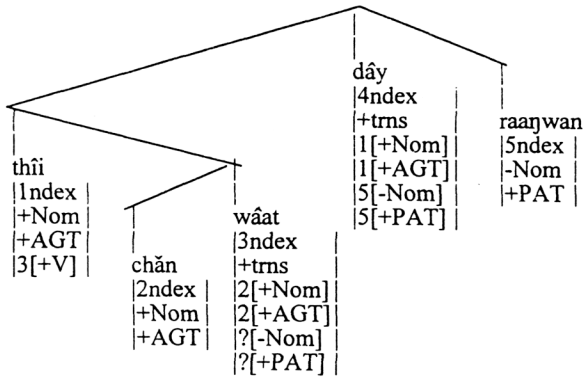
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[1] Other forms of relative nouns in Thai, *sŷŋ*, or *an* meaning 'that' are also found. In this paper, only the relative noun *thîi* will be discussed.

```
                                        |
                                    mâychây
                                    |4ndex  | |
                                    |+prdc  | |nɔ́ɔŋ  |
                                    |1[+Nom]| |5ndex |
    thîi                            |1[+AGT]| |-Nom  |
    |+1ndex|                        |5[-Nom]| |+PAT  | chăn
    |+Nom  |        wîŋ          ⌐  |5[+PAT]| |      |6ndex |
    |+AGT  |        |2ndex  | |                       |+COR|
    |2[+V] |        |+V     | |    pay
                    |+prdc  |     |3ndex |
                    |?[+Nom]|     |+ADV|
                    |?[+PAT]|
                    |3[+ADV]|
```

When *thîi* appears as the head of a nominal relative clause or as a complement of a verb, it requires either an intransitive (as in 4-5) or a transitive verbal sister (as in 6-7).

6. rûup   thîi   chăn wâat   dây raaŋwan
    picture that   I   paint get prize
    'The picture that I painted won the prize.'

7. thîi   chăn wâat   dây raaŋwan
    something   I   paint get prize
    'Something I painted won the prize.'

```
                                            |
                                          dây
                                          |5ndex  | |
    rûup *                                |+trns  | |
    |1ndex |                              |1[+Nom]| raaŋwan
    |+Nom  |         thîi                 |1[+AGT]| |6ndex |
    |+AGT  |         |2ndex |             |6[-Nom]| |-Nom  |
    |2([+N])|        |+N    |             |6[+PAT]| |+PAT  |
                     |+prdc |      wâat
                     |4[+V] |      |4ndex  |
                              chăn  |+trns  |
                              |3ndex | |3[+Nom]|
                              |+Nom  | |3[+AGT]|
                              |+AGT  | |?[-Nom]|
                                      |?[+PAT]|
```

thîi
|1ndex |
|+Nom |
|+AGT |
|3[+V] |

chăn
|2ndex |
|+Nom |
|+AGT |

wâat
|3ndex |
|+trns |
|2[+Nom] |
|2[+AGT] |
|?[-Nom] |
|?[+PAT] |

dây
|4ndex |
|+trns |
|1[+Nom] |
|1[+AGT] |
|5[-Nom] |
|5[+PAT] |

raaŋwan
|5ndex |
|-Nom |
|+PAT |

In a relative clause (either nominal or verbal), one noun phrase is always missing. In a nominal relative clause, the missing argument is the subject of the predicate *thîi*, and is interpreted as coreferential with its regent noun.

N
|1ndex |
|+Nom |
|+PAT |

thîi
|2ndex |
|+N |
|+prdc |
|+rltv |
|1[+Nom] |
|1[+PAT] |
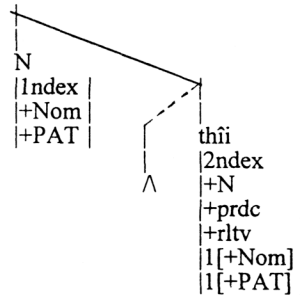
As indicated above, *thîi* whether functioning as the head of a noun phrase or as the predicate head of a relative clause requires a verbal sister which can be either intransitive as in (8) or transitive as in (9). The verbal dependent sister of *thîi*, is always missing one noun phrase. The fully specified feature matrix of *thîi* which functions as its head of a relative clause can be stated as follows:

thîi
|+N |
|+rltv |
|+prdc |
|?[+V] |
|?[+Nom] |
|?[+PAT] |

8. khon   thîi   wîŋ   pay   mâychây   nɔ́ɔŋ   chăn
          |+N | |+V |
          |+rltv| |-trns|
   person that   run   go   not   brother I

'The person who has just run away is not my brother.'

9. rûup   thîi   chăn   wâat   dây   raaŋwan
           |+N | |+V |
           |+rltv| |+trns|
   picture that   I   paint   get   prize

'The picture that I painted won the prize.'

The structures of (8-9) are illustrated below:

```
                                                   |
                                                   dây
                                                   |5ndex       |
rûup                    |                          |+trns        |    raaŋwan
|1ndex  |                                          |1[+Nom]|         |6ndex |
|+Nom  |               thîi                        |1[+AGT]|         |-Nom  |
|+AGT  |               |2ndex  |                    |6[-Nom] |        |+PAT |
|2([+N])|              |+N     |        |  wâat      |6[+PAT]|
                       |+prdc  |        |  |4ndex  |
                       |4[+V]  |  chăn  |+prdc  |
                       |1[+Nom]| |3ndex |  |+trns  |
                       |1[+PAT]| |+Nom |  |3[+Nom]|
                                |+AGT |  |3[+AGT]|
                                          |2[-Nom]  |
                                          |2[+PAT] |
```
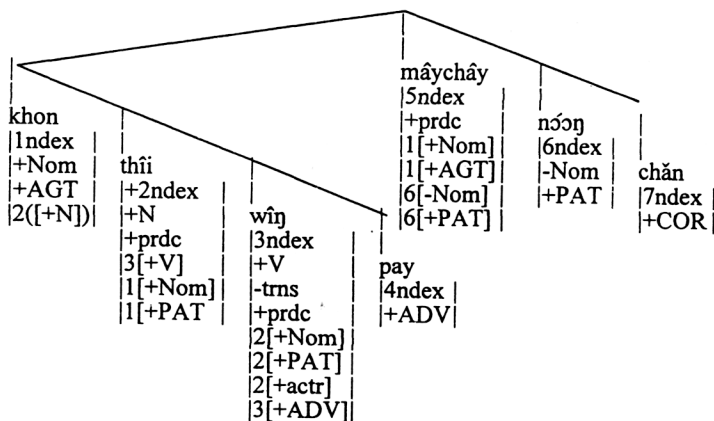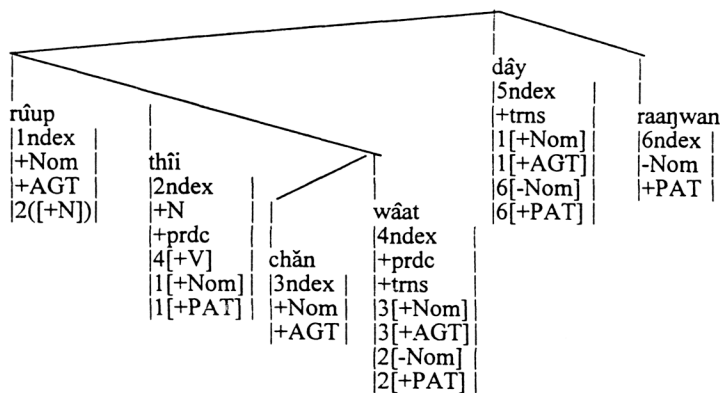
The noun phrase that is missing in the verbal sister of a nominal relative clause can be a subject (as in 8) or an object (as in 9). The strategy of subject omission is the primary relativization pattern in Thai, in accordance with Keenan and Comrie's relativization hierarchy (Keenan and Comrie 1977:8). The missing argument is coreferential with its regent noun. Thus, the missing noun phrases in (8-9) are coreferential with *thîi*, and *thîi* in turn is coreferential with its regent nouns *khon* 'person' and *rûup* 'picture', respectively.

In the examples (1-2) repeated here as (10-11), the missing argument is coreferential with the regent noun *thîi* and *thîi* in turn is coreferential with its regent nouns *năŋsўy* 'book' and *nakriən* 'student', respectively.

10. năŋsўy   thîi   chăn   tæ̀æŋ
     book   that   I   write
     'book that I wrote'

11. nakriən   thîi   sɔ̀ɔp   tòk
     student   that   take an exam   fail
     'student who failed the exam'

2.2. Verbal relative clauses

The second type of relative clause that can modify a regent noun is a verbal relative clause. A verbal relative clause has the same structure as the verbal dependent sister of a nominal relative clause headed by *thîi* 'that', in that both clauses are dependent on a noun and both are missing a noun phrase. The difference between the two structures is that the one headed by *thîi* is a verbal complement, and is therefore not itself a relative clause, whereas the other is an adjunct and therefore is a relative clause. The example of a noun phrase consisting of a noun and a verbal relative clause in (3) is repeated here as (12).

12. bâan   jàj
     house   big
     'house which is big'

The structure is shown below:

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾
|
bâan          |
|+1ndex|      |
|+N    |      jàj
|2([+V])|     |2ndex    |
              |+V       |
              |+prdc    |
              |+rltv    |
              |1[+Nom]  |
              |1[+PAT]  |
              |1[+actr] |
```
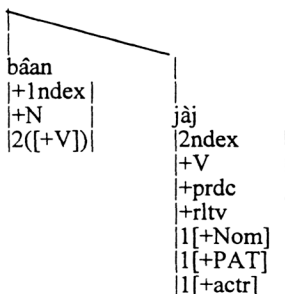
In (10), jàj 'big' is a verbal relative clause and it appears as an adjunct of the regent noun *bâan* 'house'. There is a missing noun phrase in the verbal relative clause. The interpretation of the missing noun phrase is coreferential with its regent noun *bâan* 'house'.

There are two types of construction which appear to be verbal relative clauses in Thai. They differ depending on the semanticity of their head verbs: stative or non-stative. Stative verbs have been commonly described in the literature as descriptive adjectives, as in *(13-15)*. Structures having non-stative verbs as their heads also follow nouns, as in *(16-18)*, but it will be shown below that these structures are not relative clauses.

13. phâa   sŭəy
     cloth   beautiful
     'cloth which is beautiful'

14. tỳk   sŭŋ
     building   tall
     'building which is tall'

15. sĭnkháa   dii
     goods   good
     'goods which have good quality'

16. khon   rák   rót
     person   love   vehicles
     'person who loves cars'

17. khon   khăay   aahăan
     child   sell   food
     'person who sells food'

18. khon   tham   aahăan
     person   make   food
     'person who makes food'

The internal structure of the noun phrase with a stative verbal relative clause in (13) is as follows:

```
┌─────────────────
│        ╲
│         ╲
phâa       ╲
|+1ndex|    |
|+N    |    |
|2([+N])|   sŭəy
            |2ndex  |
            |+V     |
            |+prdc  |
            |+rltv  |
            |+sttv  |
            |1[+Nom]|
            |1[+PAT]|
            |1[+actr]|
```
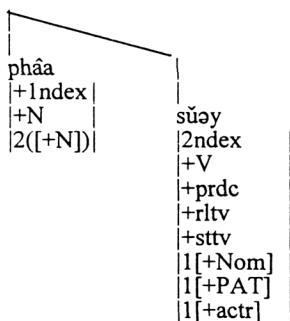
In (13), the verbal relative clause is headed by the verb *sŭəy* 'beautiful' and functions to modify the regent noun *phâa* 'cloth'. The missing argument of the verbal relative clause is coreferential with its regent noun *phâa* 'cloth'.

Stative verbs that appear in relative clauses have been characterized as descriptive adjectives (Uppakitsilpasan 1953:87). But I have shown elsewhere (Savetamalya 1989:76) that setting up a separate adjective (Adj) word class for the group of stative verbs is unnecessary and would miss the generalization that they function in the same way as other intransitive verbs in verbal relative clauses. This kind of analysis matches the analysis which has been done by Panupong, in which she called this class of words "intransitive adjectival verbs" (Panupong 1970:125).

The question arises as to whether structures such as those illustrated in (13-18) are sequences of a noun plus a verbal relative clause, or whether they form a nominal compound. If they are compounds, they form a single syntactic unit with their regent nouns; whereas if they are verbal predicates, they are considered as separate syntactic units from their regent nouns. In the previous discussion, I have shown some examples of noun phrases having a noun and a verbal relative clause as a separate syntactic unit, not a compound. The following section will discuss the possibility that some nouns with a following stative verb are compound nouns, not nouns followed by a relative clause.

3. Nouns with stative verbal relative clauses versus compound nouns

Consider the following examples:

19. phâa   sǔəj
    cloth   beautiful
    'cloth which is beautiful'

20. bâan   sa?àat
    house   clean
    'the house which is cleaned'

21. aahǎan   dii
    food   good
    'food which is good'

22. phâa   kàw
    cloth   old
    'cloth which is old'

The noun phrases in (19-22) have the same structure, that is, each of the noun phrases consists of a head noun followed by a stative verbal relative clause. However, examples (21-22) are ambiguous. Example (21) has the second meaning of 'luxurious food', while example (22) has the second meaning of 'a rag' as in (23-24).

23. aahǎan-dii
    'luxurious food'

24. phâa-kàw
    'a rag'

I will, therefore, claim that the expressions in (23-24) are structurally different from their respectively homophonous expressions in (21-22). Examples (23-24) are not noun phrases but compound nouns. I shall now present a set of syntactic and semantic criteria to distinguish nouns with a stative verbal relative clause from compound nouns. Some of these criteria were first proposed by Kuno and Wongkhomthong (1981:196).

The characteristics which distinguish nouns followed by a verbal relative clause from compound nouns are directly the result of the fact that the latter are lexically nouns, they have none of the syntactic characteristics of verbs. The "verbal component" of the compound noun is inseparable from the "nominal component". It cannot itself occur as the predicate of a free clause, e.g.,

25. phâa   kàw
   cloth   old
    'cloth which is old'

26.   phâa   chǐn   nǎy   kàw
        cloth   clsf   which old
                              |+V |
                              |+prdc |
        'Which piece of cloth is old?
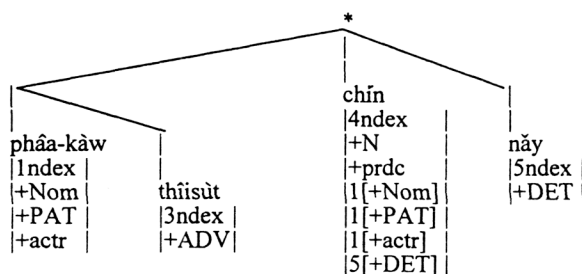
27.   phâa-kàw
        'a rag'

28.   *phâa-   chǐn   nǎy   -kàw

        Similarly, a modifier, such as an adverb, can occur following the verb in a relative clause as in (29), but the "verbal component" in a compound noun cannot be modified in this way (30).

29.   phâa   kàw   thîisùt   chǐn   nǎy
                |+V | [+ADV]
                |+prdc|
        cloth   old   most   clsf   which
        'Which is the oldest piece of cloth? `
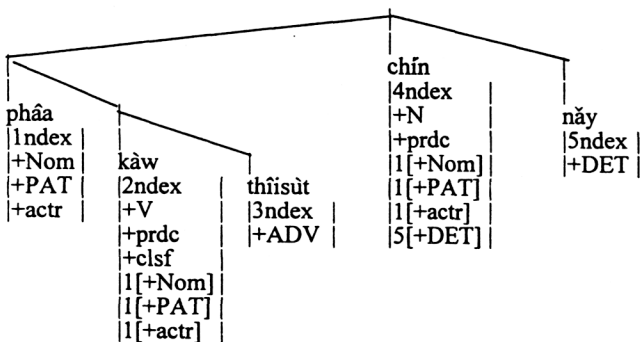
30.   *phâa-kàw thîisùt   chǐn   nǎy
                  [+ADV]
          rag   most   clsf   which

```
                                    *
                                    |
                                    |
          _____    chín    _____
         |                   |  |4ndex  |           |
         |                   |  |+N     |           |
 phâa-kàw                    |  |+prdc  |        nǎy
 |1ndex  |                   |  |1[+Nom]|        |5ndex  |
 |+Nom |     thîisùt         |  |1[+PAT]|        |+DET  |
 |+PAT |     |3ndex  |          |1[+actr]|
 |+actr  |   |+ADV|            |5[+DET] |
```

In (29), *kàw* 'old' as the head of a verbal relative clause can be modified by *thîisùt* 'most', whereas in (30) *phâa-kàw* cannot be modified by an adverb.

In noun phrases, a verbal relative clause can be conjoined, as in (31), but the "verbal component" in a compound noun cannot be conjoined, as in (32).

31. phâa   kàw   lǽ   thùuk
     cloth   old   and   be cheap
     'cloth which is old and cheap'

32. *phâa-kàw   lǽ   thùuk
     rag   and   be cheap

In (31), the noun *phâa* 'cloth' can be modified by two verbal relative clauses *kàw lǽ thùuk*, 'old and cheap', whereas in (32) the compound noun *phâa-kàw* 'rag' cannot conjoin with *thùuk* 'cheap'.

Typically, noun compounding is not a productive process. One of the word formation strategies in languages in general is compounding. For example, a set of compound nouns in Thai can be formed by combining a free morpheme *mǽæ* 'mother' with other nouns, such as,

33. mǽæ-khruə
     mother-kitchen
     'a cook'

34. mǽæ-bâan
     mother-house
     'a housewife'

35. mǽæ-phim
     mother-mold
     'a teacher'

However, combinations of this sort are not productive. It is not possible to freely combine *mæ̂æ* 'mother' with any noun to form a compound. Similarly, although *phâa-kàw* is an acceptable compound, **phâa-dii* 'luxurious cloth' is not acceptable. The latter can only mean 'cloth which is good'.

The property of compositionality can be used to support the compound analysis here. The semantic structure of a noun phrase having a noun followed by a verbal relative clause is compositional; whereas that of a compound noun is not compositional. That is, the meaning of a compound is sometimes not predictable from the original meaning. For example, *phâa-kàw* is formed from two free morphemes *phâa* 'cloth' and *kàw* 'old'. By looking at the original meaning of these two morphemes, there is no way to predict whether *phâa kàw* is a kind of old cloth that people do not want to use, or a kind of used cloth that people use as a rag.

There is another set of words that can also be analyzed as stative relative clauses and which function to modify their regent nouns in Thai. This set of words has traditionally been called color adjectives, e.g.,

36. dinsɔ̌ɔ   dam
     pencil   black
     'pencil which is black'

37. mǎa   dam
     dog   black
     'dog which is black'

38. lǎŋkhaa   dæ̀æŋ
     roof   red
     'roof which is red'

These structures are clearly identical to those described above, and are nouns modified by dependent verbal relative clauses. However, each of these structures also has a homophonous form, the meaning of which is non-compositional, and which cannot take any internal modifiers. They are also compound nouns, e.g.,
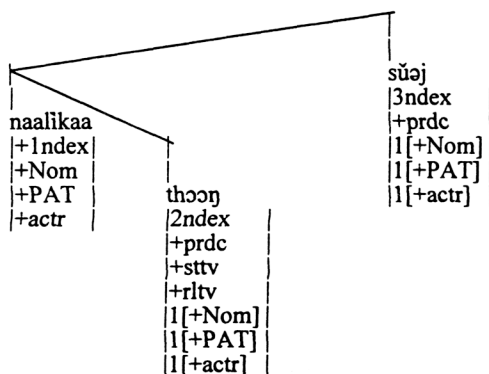
39. dinsɔ̌ɔ-dam
     'black-lead-pencil'

40. mǎa-dam
     'dirty-dog'

41. lǎŋkhaa-dæ̀æŋ
     'mental-hospital'

4. Nouns with pseudo-compound verbs

In some cases, a noun may appear to be followed by a sequence of two different stative verbs. Such a sequence in Thai does not constitute a single noun phrase as in (42).

42. naalìkaa   thɔɔŋ   sŭəj
    watch   gold   beautiful
    'A gold watch is beautiful.'

It can only be analyzed as a free clause in which the second verb is the predicate of the clause, not an adjunct of a regent noun. *Sŭəj* 'beautiful' is a main verb which governs the subject noun *naalìka* 'watch'. The structure can only mean 'A gold watch which is beautiful'. The structure assigned to this analysis is illustrated below:

```
                                        ┌──────────────
        ┌─────────────────────┐         │
        ┌──────                          │   sŭəj
        │                                │   |3ndex    |
        naalìkaa                         │   |+prdc     |
        |+1ndex|                         │   |1[+Nom]|  |
        |+Nom  |            ┌            │   |1[+PAT]|  |
        |+PAT  |            │            │   |1[+actr]  |
        |+actr |            thɔɔŋ
                           |2ndex     |
                           |+prdc     |
                           |+sttv     |
                           |+rltv     |
                           |1[+Nom]|  |
                           |1[+PAT]|  |
                           |1[+actr]  |
```

Although a noun may not be modified by a sequence of two verbal relative clauses, a number of noun phrases appear to contain just such a sequence, as in (43-46). This group of words has been treated as "expressive elaboration" by Nacaskul (1970:873-89).

43. nâataa   sa?àat   mòtchòt
    face   clean   clean
    'a very clean face'

44. mŭu   ?ûən   phii
    pig   fat   fat
    'a very fat pig'

45. ?aayú   kæ̀æ   thâw
    age   old   old
    'very old age'

46. phâapkhiən   wíchìt   bancoŋ
     painting   neat   neat
     'a very neat painting'

The second form must be semantically identical to the first, and it must result in an intensive meaning. In this case, the verbal sequences look like they are compounds, because not all stative verbal clauses can occur freely in this position and some of their characteristics are like those of compounds. They are not permutable, as in (47-50), nor do they allow an intervening coordinating conjunction (51-52). Most of them cannot appear as the predicates of free clauses, and neither can they take inner modifiers (53-56):

47. *nâataa   mòtchòt   sa?àat
     face   clean   clean

48. *mǔu   phii   ?ûən
     pig   fat   fat

49. *?aayú   thâw   kæ̀æ
     age   old   old

50. *phâapkhiən   bancoŋ   wíchìt
     painting   neat   neat

51. *nâataa   mòtchòt   lǽ   sa?àat
     face   clean   and   clean

52. *mǔu   phii   lǽ   ?ûən
     pig   fat   and   fat

53. *nâataa   sa?àat   mòtchòt   caŋ
                |+V | [+ADV]
                |+prdc|
          face   clean   clean   indeed

54. *mǔu   ?ûən   phii   caŋ
             |+V | [+ADV]
             |+prdc|
          pig   fat   fat   indeed

55. *?aayú   kæ̀æ   thâw   caŋ
               |+V | [+ADV]
               |+prdc|
          age   old   old   indeed

56. *phâapkhiən   wíchìt   bancoŋ   caŋ
                     |+V | [+ADV]
                     |+prdc|
          painting   neat   neat   indeed

A further characteristic of these expressions is that the final "verbal component" can only occur in these expressions, they never occur as the modifier of a noun nor as the predicate of a free clause (57-60). They are restricted to appearing as the "intensifier" of the stative verbs that they follow.

57. *nâataa   mòtchòt
    face   clean

58. *mǔu   phii
    pig   fat

59. *ʔaayú   thâw
    age   old

60. *phâapkhiən   bancoŋ
    painting   neat

As a result, sequences of this sort which modify nouns are considered to be single syntactic units. They are treated in this study as pseudo-compound verbs (Starosta 1988:205-206), not iterated relative clauses, and function like intensive reduplicative forms in other languages. They are pseudo-compound in that although they carry some of the characteristics of a compound, their semantic interpretation is compositional.

In summary, an apparent sequence of a noun and a single stative verb may be either a noun followed a relative clause, or they may consitute a compound noun. An apparent sequence of a noun and two stative verbs is either a full sentence whose subject noun is modified by a relative clause, or it is a noun phrase containing a pseudo-compound verb as a relative clause. In the following section, I will discuss structure which contains a noun and an apparent non-stative relative clause, to see whether this set of noun phrases behaves in the same way as the set of noun phrases consisting of a noun and a stative verbal relative clauses or not.

5. The status of non-stative verbal relative clauses

A sequence which appears to be non-stative verbal relative clause appears in Thai following the free morpheme *khon* 'person' (as in 61-63):

61. khon   khǎay   nǎŋšy
    person   sell   book
    'a person who sells books'

62. khon   thriam   aahǎan
    person   prepare   food
    'a person who prepares food'

63. khon   khàp   rót
     person   drive   car
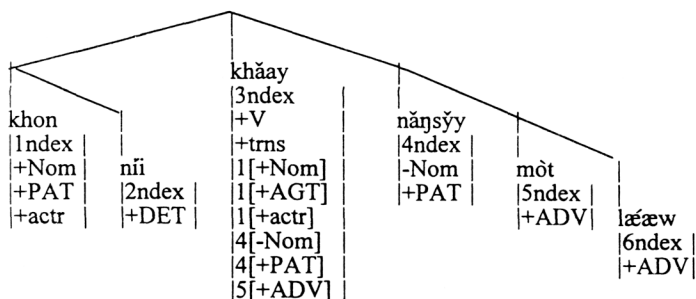   'a person who drives a car'

Structures of this sort are clearly compositional, and behave like stative verbal relative clauses in that they can also occur as the predicates of free clauses as in (64-66):

64. khon   nɨi   khǎay   nǎŋsy̌y   mòt   lǽæw
     AGT |+V | PAT
                       |+prdc|
     person   this   sell   book   finish already
     'This person has already sold the books.'

65. khon   nɨi   thriam   aahǎan wáy   lǽæw
     AGT |+V | PAT
                       |+prdc| ˎ
     person   this   prepare food   get   already
     'This person has already prepared some food.'

66. khon   nɨi   khàp   rot   kèŋ   mâak
     AGT |+V | PAT
                       |+prdc|
     person   this   drive   car   very good much
     'This person drives well.'

The structure of example (64) having a non-stative verb as the predicate of a free clause is shown below:


```
                                    khǎay
                                    |3ndex  |      |
              khon        |         |+V     |      nǎŋsy̌y
              |1ndex |    |         |+trns  |      |4ndex |      |
              |+Nom |    nɨi        |1[+Nom]|      |-Nom  |      mòt
              |+PAT |   |2ndex |    |1[+AGT]|      |+PAT  |     |5ndex |      |
              |+actr |  |+DET  |    |1[+actr]|                  |+ADV |     lǽæw
                                    |4[-Nom]|                                |6ndex |
                                    |4[+PAT]|                                |+ADV|
                                    |5[+ADV]|
```

However, it is not possible to freely combine non-stative verbs with *khon* as its relative clause. Thus *khon khǎay nǎŋsy̌y* 'person who sells books' is possible, but **khon khǎay bæ̀æp* 'person who designs clothes' is not.

The fact that the possible head noun of such sequences is highly restricted (it can only be *khon*), and that the sequences do not appear to be productive suggests that they are not noun phrases at all but compound nouns. This is further supported by applying some of the other tests used above to check the status of noun plus stative verb sequences that are actually compounds. Non-stative verbs following *khon* cannot carry an adverbial modifier as in (67-69), neither can such verbs be conjoined, as in (70-72).

67. *khon   khǎay   nǎŋsÿy   thúkwan   mây   sabaay   lǽæw
       |+V | [+ADV]
       |+prdc|
       person   sell   books   everyday   not   be good   already
       'The person who sells books everyday already got sick.'

68. *khon   thriam   aahǎan   thúkwan   mây   sabaay   lǽæw
       |+V | [+ADV]
       |+prdc|
       person   prepare   food   everyday   not   be good   already
       'The person who prepares food everyday already got sick.'

69. *khon   khàp   rót   thúkwan   mây   sabaay   lǽæw
       |+V | [+ADV]
       |+prdc|
       person   drive   car   everyday   not   be good   already
       'The person who drives a car everyday already got sick.'

70. *khon   khǎay   nǎŋsÿy   lǽ   khuy   kàp   lûukkháa
                        [+cnjc]
       person   sell   book   and   talk   to   customer

71. *khon   thriam   aahǎan   lǽ   tham   khanǒm
                        [+cnjc]
       person   prepare   food   and   make   dessert

72. *khon   khàp   rót   lǽ   faŋ   pheŋ
                  [+cnjc]
       person   drive   car   and   listen   song

These characteristics suggest that sequences of *khon* plus non-stative verbal clause are not noun plus relative clauses but occupational compound nouns, e.g.,

73. khon-   khǎay-   nǎŋsÿy
       person   sell   book
       'book-selling-person'

74. khon-   thriam-   aahǎan
    person prepare food
    'food-preparing-person'

75. khon-   khàp-   rót
    person drive   car
    'car-driving-person'

6. Conclusion

This paper illustrates the advantage of using lexicase theory as a highly constrained theory in explaining the syntactic phenomena of verbal relative clauses as adnominal modifiers in Thai. The final result is a clearer picture of how such structures behave. We have seen that the typical relative clause in Thai is a nominal predication, consisting of the relative noun *thîi* 'that' followed by a verbal complement. Nouns may also be followed directly be a verbal relative clause when the verb is a descriptive,or a color term of the type usually characterized as adjectives. Some sequences of noun plus stative relative clause I have shown to be compound nouns because of their syntactic characteristics.

Typically, a noun can be modified by only one verbal relative clause. This can be either a simple stative verb, or a pseudo-compound, intensified verb. Finally, an examination of apparent non-stative relative clauses following the noun *khon* 'person' suggests that although they carry some of the syntactic and semantic characteristics of relative clauses, the sequences probably also constitute a set of compound nouns.

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