The status of 'auxiliary verbs' in Thai[1]

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1. Introduction

This paper looks into the syntactic category of words such as *cà?* 'will, *khəəy* 'ever', and *khɔ̂nkhâaŋ* 'rather' which are referred to as preverbs by Kullavanijaya (1968), as modals by Noss (1964) and Sriphen (1982), and as auxiliaries in Panupong (1970), Ekniyom (1981) and Savetamalya (1987). The list of 'auxiliary' words to be tested here includes only those which precede verbs, and thus exclude words such as *yùu* which occur in a postverb position.
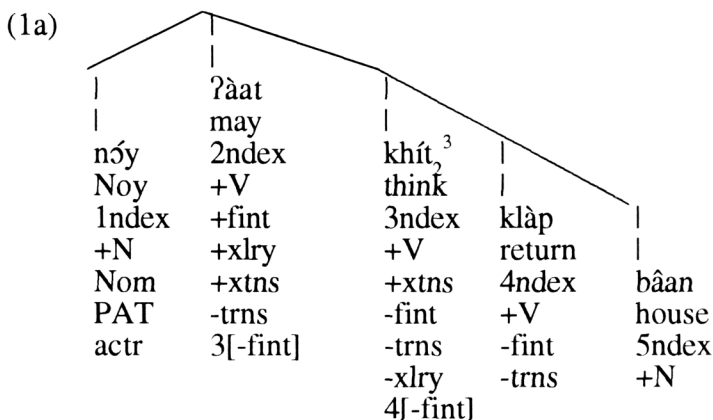
Working within the lexicase dependency framework, Savetamalya (1987) proposes a dependency analysis of auxiliaries as main verbs, in which the regent verb is the head of the construction (cf. Starosta 1977:73; 1988). In this paper, I point out certain characteristics of these 'auxiliaries' which are not accounted for in Savetamalya (1987) and test the syntactic status of these words. I then propose a more limited set of auxiliary verbs in Thai.

This paper is divided into six sections. The first section provides an introduction. The second section discusses phenomena not accounted for by Savetamalya (1987). The third section discusses the test used to identify the syntactic category of 'auxiliary verbs'. The fourth section presents the results. The fifth section discusses possible solutions to the problem raised. The final section presents a conclusion.
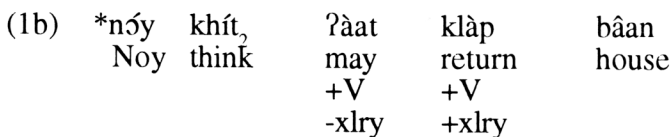
2. Problems

Savetamalya (1987:21), who works within the lexicase dependency grammar, identifies auxiliary verbs as words signifying the meanings of mood, aspect, intention, and obligation. She analyzes auxiliary verbs as extension intransitive verbs expecting a non-finite verb complement.

intransitive verbs expecting a non-finite verb complement. However, they differ from other verbs of this class both in their semantic limitations and in their ability to command any non-auxiliary verbs within the same finite domain.[2] For example, the auxiliary intransitive verb *ʔàat* 'may' precedes and commands the non-auxiliary intransitive verb *khít₂* 'to think', as in (1a), but not vice versa, as in (1b). The requirement that the auxiliary verb *ʔàat* requires a non-finite verb dependent is shown by the implied contextual feature [4[-fint]] in the lexical matrix of *ʔàat*.

(1a)

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              ʔàat
              may
  nɔ́y        2ndex          khít₂³
  Noy         +V             think
  1ndex       +fint          3ndex        klàp
  +N          +xlry          +V           return
  Nom         +xtns          +xtns        4ndex        bâan
  PAT         -trns          -fint        +V           house
  actr        3[-fint]       -trns        -fint        5ndex
                             -xlry        -trns        +N
                             4[-fint]
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'Noy may consider returning home.'

(1b) *nɔ́y khít₂   ʔàat   klàp   bâan
       Noy   think   may   return house
                     +V   +V
                     -xlry +xlry

'Noy thinks (she) may return home.'

Even though Savetamalya's analysis provides a nice account of the dependency relationship between auxiliary verbs and other verbs in Thai, the verb dependency analysis encounters the following problems. First of all, some of these words (e.g. *khɔ̂nkhâaŋ* 'rather') may also precede sentence-final adverbs, for example, the frequency adverb *bɔ̀y* 'often' in (2a) and the resultative adverb *dii* 'good' in (3a). By the definition of auxiliary verbs, they should cooccur with a non-finite verb

dependent, rather than an adverb dependent. In these examples, the requirement for a non-finite verb complement is not satisfied and yet these sentences are acceptable.

(2a)

kháw	pay	thîi	nân	khɔ̂nkhâaŋ
he	go	at	there	rather
1ndex	2ndex	3ndex	4ndex	5ndex
+N	+V			+V
Nom	+fint			+xlry
PAT	-xlry			+xtns
actr	-trns			-trns
				?([+V])[4]
				?[-fint]

bɔ̀y
often
6ndex
+Adv
+dgre

'He went there rather often.'

(3a)

kháw	phûut	khɔ̂y	dii	khîn
he	speak	rather	good	up
1ndex	2ndex	3ndex	4ndex	5ndex
+N	+V	+V	+Adv	+Adv
Nom	+fint	+xlry	+rslt	+path
PAT	-trns	+xtns		+slnt
actr	-xlry	-trns		
		?([+V])		
		?[-fint]		

'He gradually spoke better.'

Moreover, examples (2a) and (3a) above and (4a) and (5a) below also illustrate the fact that non-auxiliary intransitive verbs such as *pay*₃ 'to go', *phûut* 'to speak', *phayayaam* 'to try' and *tàtsĭncay* 'to decide' may precede the supposed non-finite auxiliary verbs *khɔ̂nkhâaŋ* 'rather', *khɔ̂y* 'gradually', *càʔ* 'will' and *tɔ̂ŋ* 'must' within the same finite domain. This fact violates the requirement that auxiliary verbs precede and command other non-finite verbs, rather than vice versa (cf. Savetamalya 1987:21) and raises a question about the status of auxiliary verbs in Thai.

(4a)

kɔ̂y	phayayaam	cà?	khǎay
Koy	try	will	sell
1ndex	2ndex	3ndex	4ndex
+N	+V	+V	+V
Nom	+fint	+xlry	+trns
PAT	+xtns	+xtns	-fint
actr	-trns	-fint	
	-xlry	-trns	
	3[-fint]	4[-fint]	

càkkayaan
bicycle
5ndex
+N

'Koy tried to sell her bicycle.'

(5a)

nát	tàtsĭncay$_1$	tɔ̂ŋ	klàp$_4$	bâan
Nat	decide	must	return	house
1ndex	2ndex	3ndex	4ndex	5ndex
+N	+V	+V	+V	+N
Nom	+fint	+xlry	+lctn	
PAT	+xtns	+xtns	-fint	
actr	-trns	-fint	-trns	
	-xlry	-trns		
	3[-fint]	4[-fint]		

'Nat decided that she must return home.'

Having discussed problems in the verbal analysis of auxiliaries, I will attempt to reexamine the syntactic categories of these 'auxiliary verbs' by testing the position in which the negation adverb *mây* 'not' occupies with relation to these putative 'auxiliary verbs' in a root predicate clause. Specifically, when these words occur after a subject, as opposed to at the end of a clause, do they precede or follow the negation word *mây*?

3. The Root Predicate with Negation Word *mây*

In Thai, the negation adverb *mây* 'not' may precede a verb or a sentence-final adverb. Even though *mây* may not differentiate verbs from adverbs when they occur after another verb, as shown in (6) and (7), this adverb *mây* may distinguish

verbs from adverbs when it precedes the forms in question in a root predicate clause. A root predicate clause refers to a simple clause which contains only one predicate.

Mây before an adverb occurring sentence-finally:

(6) | kháw | pay | thîi | nân | mây | bɔ̀y |
| he | go | at | there | NEG | often |
| | +V | | | | +Adv |

'He does not go there often.'

Mây before an embedded verb:

(7) | kháw | kradòot | mây | khâam | rúa |
| he | jump | NEG | cross | fence |
| | +V | | +V | |

'He jumped but did not make it over the fence.'

In a root predicate clause, only a verb may occur in construction with the negation adverb *mây,* as shown in (8a), (8b), and (8c). Both root predicate nouns and root predicate prepositions occur in construction with *mâychây* 'not true', rather than with *mây* 'not'. An adverb, on the other hand, may not occur at all as a root predicate in a sentence, as shown in (8d) and cannot occur with the negation word *mây* in (8e).

Negation in root clauses:

(8a) | kháw | mây/*mâychây | pay |
he	NEG	go
		+V
		-trns

'He is not going.'

(8b) | náŋsɨ̌ɨ | níi | *mây/mâychây | khɔ̌ɔŋ | thəə |
book	this	NEG	POSS	you
			+N	
			+prdc	

'This book is not yours.'

(8c)   náŋsɨ̆   níi   *mây/mâychây   sămràp   thəə
           book   this   NEG   for   you
                                                +P
                                              +prdc
        'This book is not for you.'

(8d)   *kháw   wáy   náŋsɨ̆   thîi   nîi[5]
           he   lying   book   at   here
                  +Adv
                  -prdc
        'He left a book lying here.'

(8e)   *kháw   mây/mâychây   wáy   náŋsɨ̆
           he   NEG   lying   book
                                    +Adv
                                    -prdc

        thîi   nîi
        at   here
        'He did not leave a book here.'

Thus, in a root clause containing a subject, if these 'auxiliary verbs' may follow the negation word *mây*, they are identified as verbs, at least when occurring in that environment. This conclusion is based on the fact that every verb may be preceded by the negation word *mây*.[6]

If these 'auxiliary verbs' can only precede but never follow *mây*, they are analyzed as adverbs.[7] Since these adverbs may occur with any verb subject to pragmatic considerations, they are not subcategorized by verbs and hence are adjuncts.

4. Results

Figure 1 shows that words which can only precede but never follow *mây* in the post-subject position are regarded as adverbs. Eight words which may follow *mây*, namely ?àat 'may', hɛ̆ncà? 'to seem', khɔ̂y 'gradually', khəəy 'ever', khuan 'should', nâa 'likely', mua 'to be absorbed in' and tɔ̂ŋ 'must' are shown to be verbs by this negation test.

words	before *mây*	After mây	Result
ʔàat 'may'	+	+	V
càʔ 'will'	+	-	Adv
chák 'begin to'	+	-	Adv
cuan 'almost'	+	-	Adv
hɛ̌ncàʔ 'seem'	+	+	V
kamlaŋ 'in progress'	+	-	Adv
kəət 'happen'	+	-	Adv
khəəy 'ever'	+	+	V
khoŋ 'may'	+	-	Adv
khɔ̌nkhâaŋ 'rather'	+	-	Adv
khɔ̂y 'gradually'	-	+	V
khuan 'should'	+	+	V
kìap 'almost'	+	-	Adv
kɔ̂ɔ 'also'	+	-	Adv
mák 'often'	+	-	Adv
mua 'be absorbed in'	-	+	V
nâa 'likely'	-	+	V
phə̂ŋ 'just'	+	-	Adv
thêɛp 'almost'	+	-	Adv
tɔ̂ŋ 'must'	+	+	V
yaŋ 'still'	+	-	Adv
yɔ̂m 'apt to'	+	-	Adv

Figure 1: Application of the Position of Negation Test
to putative 'Auxiliary Verbs' in the Post-subject Position

However, concluding that words which may follow *mây* are verbs leaves unresolved problems with the forms *khɔ̂y* 'gradually' and *tɔ̂ŋ* 'must', as shown earlier in (3a) and (5a). That is, both of them may be preceded and commanded by the non-auxiliary verbs *phûut* 'to speak' and *tàtsǐncay* 'to decide,' respectively. Moreover, the form *khɔ̂y* in (3a) is followed by an adverb rather than a non-finite verb, as it should be if it were an auxiliary verb. The following section presents possible solutions.

5. Possible Solutions and Discussion

Two possible solutions to account for the forms *khɔ̂y* 'gradually' and *tɔ̂ŋ* 'must' in (3a) and (5a) are: 1) *khɔ̂y* and *tɔ̂ŋ* might be treated as adverbs like *càʔ* 'will' and *khɔ̂nkhâaŋ* 'rather', so that they may follow any non-auxiliary verbs and so that *khɔ̂y* may precede an adverb without any violation of constraints on the distribution of auxiliary verbs, or; 2) the forms *khɔ̂y* and *tɔ̂ŋ* might be analyzed as belonging to two distinct lexical entries: *khɔ̂y₁* 'gradually' and *tɔ̂ŋ₁* 'must' would then be auxiliary verbs while *khɔ̂y₂* 'gradually' and *tɔ̂ŋ₂* 'must' would be adverbs.

The first alternative would contradict the test result shown in figure 1, which suggests that they are verbs since they may follow the negation word *mây*. Morever, by considering these two words to be adverbs, one would lose the important and otherwise absolute generalization about verbs. That is, not only verbs but also adverbs would be able to occur as a predicate in a root clause.

In the second alternative, because there would be two separate lexical items for each of the forms *khɔ̂y* and *tɔ̂ŋ*, there would be no contradiction in the result of the negation test. Moreover, one could then explain why examples (3a) and (5a) are acceptable. That is, there exist the verbs *tɔ̂ŋ₁* and *khɔ̂y₁*, which may follow *mây* in a post-subject position and there are adverbs *tɔ̂ŋ₂* and *khɔ̂y₂* which modify the following verbs or adverbs. Hence these adverbs *tɔ̂ŋ₂* and *khɔ̂y₂* may follow non-auxiliary verbs and precede both verbs and adverbs which they modify, as exemplified in (3a) and (5a).

This study favors this second possibility based on evidence from the following 'grammatically significant environment criterion' in lexicase. The grammatically significant environment criterion plays an important role in separating a form which occurs in separate syntactic environments into distinct lexical items and syntactic subclasses. While the form *khɔ̂y* may occur in both environments a and b, the form *khɔɔy* can occur only in the environment a. Hence, the form *khɔ̂y* in the two environments must belong to two lexical items and syntactic subclasses.

(9a)   kháw   khɔ̂y₁   phûut   dii   khîn

            he   gradually   speak   good   up

                    +V   +V

                    +xlry   -fint

'He gradually spoke better.'

(9b)   kháw   phûut   khɔ̂y₂   dii   khîn

            he   speak   gradually   good   up

                    +V   +Adv

'He spoke gradually better.'

(10a)   kháw   khəəy   phûut   dii   kwàa   níi

           he   ever   speak   good   than   this

                    +V   +V

                    +xlry   -fint

'He once spoke better than this.'

(10b)   *kháw phûut   khəəy   dii   kwàa   níi

           he   speak   ever   good   than   this

                    +V   +V

                         +xlry

'He spoke ever better than this.'

Considering some of the words expressing mood and aspect to be adverbs, rather than auxiliary verbs as in Savetamalya's analysis, enables us to explain the following: 1) why forms such as *khɔ̂nkhâaŋ* 'rather' and *khɔ̂y₂* 'gradually' may precede frequency adverbs, as in (2b), and resultative adverbs, as in (3b); and 2) why *càʔ* 'will', which has long been a puzzle, and *tɔ̂ŋ₂* 'must' may directly follow and be commanded by non-auxiliary verbs, as in (4b) and (5b). In other words, analyzing these words as adverbs rather than auxiliary verbs solves the problem of their occurrence after a non-auxiliary verb and before an adverb. *Khɔ̂nkhâaŋ* 'rather', *khɔ̂y₂* 'gradually', *càʔ* 'will', and *tɔ̂ŋ₂* 'must' are adverbs, which precede verbs and adverbs over which they have semantic scope. Since they are not grammatically required by their regent, these adverbs are adjuct dependents of any words they precede and modify.

(2b)

kháw	pay	thîi	nân	khɔ̂nkhâaŋ
he	go	at	there	rather
1ndex	2ndex	3ndex	4ndex	5ndex
	+V			+Adv
	+fint			
	-trns			

bɔ̀y
often
6ndex
+Adv
+dgre
5([+Adv])

'He went there rather often.'

(3b)

kháw	phûut	khɔ̂y$_2$	dii	khîn
he	speak	rather	good	up
1ndex	*2ndex*	*3ndex*	*4ndex*	*5ndex*
+N	+V	+Adv	+Adv	+Adv
Nom	+fint		+rslt	+path
PAT	-trns		3([+Adv])	+slnt
actr				

'He gradually spoke better.'

(4b)

kɔ̂y	phayayaam	cà?	khăay	càkkayaan
Koy	try	will	sell	bicycle
1ndex	2ndex	3ndex	4ndex	5ndex
+N	+V	+Adv	+trns	+N
Nom	+fint		-fint	
PAT	+xtns		3([+Adv])	
actr	-trns			
	-xlry			
	4[-fint]			

'Koy tried to sell her bicycle.'

(5b)

nát	tàtsĭncay	tôŋ₂	klàp	bâan
Nat	decide	must	return	house
1ndex	2ndex	3ndex	4ndex	5ndex
+N	+V	+Adv	+lctn	+N
Nom	+fint		-fint	
PAT	+xtns		-trns	
actr	-trns		3([+Adv])	
	-xlry			
	4[-fint]			

'Nat decided that she must return home.'

Maintaining Savetamalya's (1987) dependency analysis of auxiliary verbs, I illustrate in example (11) with a lexicase stemma and lexical matrices how a true auxiliary verb precedes and commands other verbs, while an adverb is always subordinate to a following verb or adverb. I will also adopt Savetamalya's (1987) coocurrence restriction for true auxiliary verbs in Thai and for forms which are identified in this study as adverbs signifying mood and aspect.

(11)

	ʔàat			
	may		khít₂	
kháw	2ndex		think	
he	+V		4ndex	nǐi
1ndex	+prjc	càʔ	+V	escape
+N	+xlry	will	+prjc	5ndex
Nom	+xtns	3ndex	+xtns	+V
PAT	-fact	+Adv	-fint	-trns
	-mnnr		-mnnr	-xtns
	-trns		-mnpl	
	1([+Nom])		-trns	
	1[+PAT]		-xlry	
	1[+actr]		1[+actr]	
	4[-fint]		5[-fint]	
			3([+Adv])	
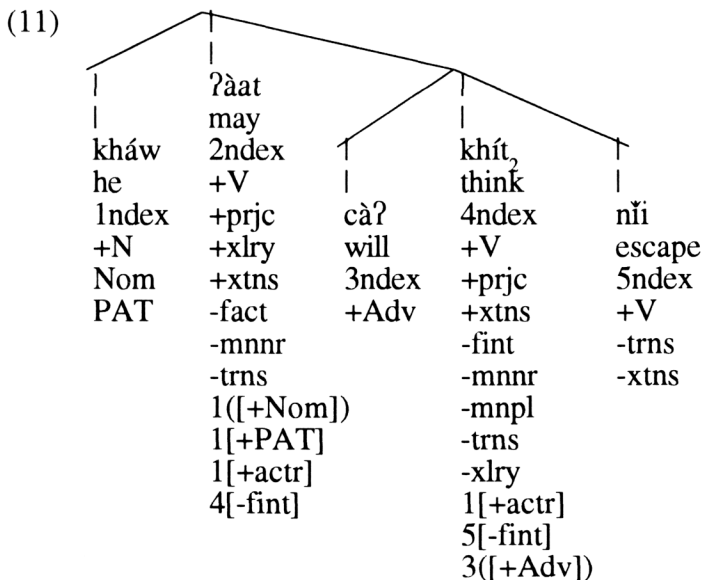
'He may consider escaping.'

In (11), the auxiliary verb *ʔàat* 'may' precedes and cap-commands the non-auxiliary verb *khít* 'to think'. Since the adverb *càʔ* 'will' may occur with any verb and has the following verb *khít* 'to think' in its scope, it is an adjunct dependent of *khít* 'to think'.

I will further claim that the following four auxiliary verbs are prime auxiliaries: *ʔàat* 'may', *hǎncàʔ* 'to seem', *khuan* 'should', and *nâa* 'likely'. That is, they are lexically finite (Starosta 1977:83; Pagotto 1987:482; Savetamalya 1987:26). Example (12a) shows that a prime auxiliary verb may precede and command another non-finite non-prime auxiliary verb. Examples (12b) and (12c) show that a prime auxiliary verb may not be preceded and commanded by other verbs. Moreover, both sentences are unacceptable because the requirement for a non-finite verb dependent is not satisfied.

(12a)

chán	ʔàat₁	càʔ	tôŋ₁	pay
I	may	will	must	go
1ndex	2ndex	3ndex	4ndex	5ndex
+N	+V	+Adv	+V	+V
Nom	+fint		+xlry	-fint
PAT	+prim		-prim	
actr	+xlry		-fint	
	4[-fint]		3([+Adv])	
			5[-fint]	

chiaŋmày
Chiangmai
6ndex
+N

'I may have to go to Chiangmai.'

(12b)

*chán	tôŋ₁	ʔàat₁	cà?	pay
I	must	may	will	go
1ndex	2ndex	3ndex	4ndex	5ndex
Nom	+V	+V	+Adv	+V
PAT	+fint	+fint		-fint
actr	+xlry	+prim		3([+Adv])
	-prim	+xlry		
	?[-fint]	5[-fint]		

chiaŋmày
Chiangmai
6ndex
+N

'I must may go to Chiangmai.'

(12c)

*chán	ʔàat₁	cà?	khuan₁	pay
I	may	will	should	go
1ndex	2ndex	3ndex	4ndex	5ndex
+N	+V	+Adv	+V	+V
Nom	+fint		+fint	-fint
PAT	+prim		+prim	
actr	+xlry		+xlry	
	?[-fint]		5[-fint]	
			3([+Adv])	

chiaŋmày
Chiangmai
6ndex
+N

'I may should go to Chiangmai tomorrow.'[8]

6. Summary

This study finds that words which are referred to as 'auxiliary verbs' in Thai are in fact belong to two syntactic category: adverbs and verbs. Those words which may precede an adverb and follow a non-auxiliary verb are adverbs. The others, which are limited in number, are true auxiliary verbs.

In summary, I support Savetamalya's dependency analysis of auxiliary verbs but limit the number of auxiliary verbs in Thai. There are eight auxiliary verbs, namely *ʔàat* 'may',

hɛ̌ncàʔ 'to seem', *khuan*₁ 'should', *nâa* 'likely', *khɔəy* 'ever' *khɔ̌y*₁ 'gradually', *mua* 'absorb in', and *tɔ̌ŋ*₁ 'must', the first four of which are prime auxiliary verbs. The following is the list of words in Savetamalya (1987) which have been reanalyzed as adverbs in this study.

càʔ	'will'	*kìap*	'almost'
chák '	begin to'	*kɔ̌ɔ*	'also'
cuan	'almost'	*mák*	'often'
kamlaŋ	'in progress'	*phɔ̌ŋ*	'just'
kəət	'happen'	*thɛ̂ɛp*	'almost'
khoŋ '	may'	*tɔʮ*	'must'
khɔ̌nkhâaŋ	'rather'	*yaŋ*	'still'
*khɔ̌ɔy*₂	'gradually'	*yɔ̌m*	'apt to'

Because the test employed in this study to identify the syntactic categories of these words is limited to the position of the negation word in a root clause, in conjunction with the grammatically significant environment cirteria, the conclusions presented here are tentativè and would benefit from supporting study.

NOTES

² Within the lexicase framework, the notion 'command' is defined as an indirect syntactic relationship between words. X commands Y iff:
    (a) X cap-commands Y, or
    (b) X cap-commands Z and Z commands Y.
Cap-command: X cap-commands Y if X is the regent of Y.

³ The number of subscript reflects the number of homophonous forms for forms which are found to belong to more than one lexical items.

⁴ Note the difference between the parentheses and brackets on a word class contextual feature and on other kinds of contextual features. The parentheses for a contextual feature referring to word classes, such as [ʔ([+V])], indicate simply that the word permits a verb as its dependent,

and say nothing about the dependent being an adjunct or a complement. The square brackets on a contextual feature such as [?[-fint]], on the other hand, indicate that the regent requires a non-finite complement, in contrast with the parentheses on [?([-fint])] which indicate that a non-finite verb is an adjunct, since it is allowed but not required.

[5] When I conducted the research for this paper, all of the Thais I have checked with agree that the sentence is totally unacceptable. However, to my surprise, at the SEALS IV conference, a small number of Thai liguists argued that this sentence is acceptable. They did not, however, provide the context within which acceptable usage may occur.

[6] The only exception to this claim is the copula verb *khɨɨ* 'to be' which may not occur with any negation words (cf. Warotamasikkhadit 1976:233).

[7] This hypothesis is based on the fact that all verbs except *khɨɨ* may follow the negation word *mây*.

[8] Note that the English translation is wrong for exactly the same reason.

ABBREVIATIONS

actr	actor	P	Preposition
Adv	Adverb	PAT	Patient
fact	fact	POSS	Possessive
fint	finite	prdc	predicate
mnnr	manner	prjc	projection
mnpl	manipulative	rslt	resultative
N	Noun	slnt	salient
ndex	index	trns	transitive
NEG	Negation	V	Verb
	Marker	xlry	auxiliary
Nom	Nominative	xtns	extension

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