The syntax of yes-no questions and answers in Thai

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Abstract

This thesis shows a close syntactic relation between yes-no questions (YNQs) and answers (also called yes-no replies, YNRs) in Thai, based on the theory of questions and answers in Holmberg (2010, to appear). To show this correspondence, the semantics and syntax of YNQ particles in Thai are analysed. It is assumed that every YNQ particle in Thai necessarily includes either overt or covert *rʉ̌ʉ* 'Q/ or', a disjunctive particle. As part of a question particle, *rʉ̌ʉ* 'Q/ or' is argued to have the features [Alt(ernative)] and [uFoc]. The [Alt] feature restricts *rʉ̌ʉ* 'Q/ or' to conjoining (or 'disjoining') two polarity phrases (PolPs) with identical content but opposite polarity, affirmative or negative. The Pol head of PolP can only merge with verbal categories; therefore, *rʉ̌ʉ* 'Q/ or' conjoins verbal categories only. The [uFoc] feature makes *rʉ̌ʉ* 'Q/ or' the question focus, distinguishing it from a declarative disjunctive sentence with *rʉ̌ʉ* 'or'. With these features, YNQs in Thai are seen as disjunctive constructions where *rʉ̌ʉ* 'Q/ or' conjoins two PolPs to form a question of which the second conjunct is deleted at PF.

Based on the syntax of the question they mark, YNQ particles are classified into two types. However, particles in both types are derived by the incorporation of the Pol head (and an Adv in certain cases) with the conjunction *rʉ̌ʉ* 'Q/ or', followed by PolP-ellipsis.

YNRs in Thai take many different forms and are categorised into primary and secondary answers. Primary YNRs are based on a verb or verb complex from the YNQ (Type-1 questions) or on the question particle itself (Type-2 questions). Secondary YNRs are made up of externally merged materials, typically a particle or particle complex. Following the theory of questions and answers in Holmberg (2010, to appear), these YNRs are assumed to be the carriers of the focused polarity. YNQs have, as an essential component, a variable, which is the polarity, unvalued in the question, and restricted to two possible values: affirmative or negative. This variable is focused in the question. Direct questions ask the addressee to provide a value for this focused, unvalued polarity such that it yields a true proposition.

Even minimal YNRs consisting of just one word are full sentential expressions, with an IP which is identical to that of the question, except for the value of the polarity variable, and

which is therefore typically not spelled out. To derive primary YNRs to Type-1 questions, the Pol head at Spec, FocP copies the values of the Pol head of one PolP conjunct. This includes a copy of the [V] feature inherited from the verbal complement of the Pol head. The consequence is the elimination of the other conjunct, followed by the spell-out of the copied Pol head at Spec, FocP and deletion of the IP. All that is spelled out, therefore, is a verb or verbal complex ultimately derived from the question, or a negated verb/ verbal complex. This derivation is also applicable to Type-2 questions with the exception that the copied Pol head derives from the question particle itself.

Regarding the secondary YNRs, they do not differentiate between two types since they derive from external materials. They are derived by merging a Pol head with an inherent polarity value at Spec, FocP. It can be spelled out as, for example, an honorific particle, an exclamation, a negative word or a polarity particle.

Dedication

For my mother and late father, who has waited for me until his last breath: without them, I would have never got this far.

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For any inadequacies and errors that may remain in this work, of course, the responsibility is solely my own.

Table of Contents

Page

Page

Page

Page

List of Tables

Page

List of Abbreviations and Notations

*	ungrammatical
|	clause boundaries
¦	boundaries within a clause
±	affirmative or negative
1M	first-person male pronoun
1SG	first-person singular pronoun
2	second-person pronoun
3	third-person pronoun
3SG	third-person singular pronoun
A	answer/ adjective
Adv	adverb
AdvP	adverb phrase
Aff	affirmative
AgrS	subject-agreement
AgrS’	subject-agreement-bar
AgrSP	subject-agreement phrase
Alt	alternative
AP	adjective phrase
ASP	aspect marker
Asp	aspect
Asp’	aspect-bar
AspP	aspect phrase
CAUS	causative
CLS/ CL	classifier
CM	challengeable marker
COMP	complementizer
Conj	conjunction
Conj’	conjunction-bar
ConjP	conjunction phrase
COP	copula
CP	complementizer phrase
CSC	Coordinate Structure Constraint
Decl	declarative
DeP	*de* phrase
DM	discourse marker
DP	determiner phrase
e	ellipsis
EPP	Extended Projection Principle
EXC	exclamation
EXP	experiential
F	fragment
Fin	finite
FinP	finite phrase
Foc	focus
Foc’	focus-bar
FocP	focus phrase
ForceP	force phrase
FUT	future
HDG	hedge
HES	hesitation
HON	honorific
I	inflection
I’	inflection-bar
IMPF	imperfective
IP	inflection phrase
LF	logical form

LINK	linker
LP	linking particle
Mod	modal
Mod’	modal-bar
ModP	modal phrase
Neg	negative
NEG	negative marker, negation
Neg’	negative-bar
NegP	negative phrase
NP	noun phrase
Obj	object
OS	older sibling
p	proposition
PASS	passive auxiliary
PF	phonetic form
Pol	polarity
Pol’	polarity-bar
PolP	polarity phrase
POT	potential
PP	pragmatic particle/ prepositional phrase
PRF	perfect
pro	pronoun
PROG	progressive
PRT	particle
pt	particle
Q	question marker
QWQ	question-word question
REC	reciprocal
Σ	sigma
Σ’	sigma-bar
SBR	subordinator
SLP	speech level particle
ΣP	sigma phrase
Spec	specifier
SPR	superlative
SVC	serial verb construction
SVO	subject-verb-object (language)
T	tense
t	trace
TL	title prefix
Top	topic
Top’	topic-bar
TopP	topic phrase
TP	tense phrase
TQ	tag question
uAff	unvalued affirmative
uFoc	unvalued focus
uNeg	unvalued negative
uPol	unvalued polarity
uV	unvalued verbal
v	light verb
V	verb/ verbal (feature)
v’	light verb-bar
V’	verb-bar
*v*P	light verb phrase
VP	verb phrase
YNQ	yes-no question
YNR	yes-no reply

Chapter 1. Introduction to yes-no questions in Thai

Introduction

This chapter starts with some background information about the study. This is followed by a preliminary review of other studies of Thai yes-no question particles, also called polar question particles, which will help to place questions in Thai within a typology. The main focus is on yes-no questions and question particles. Consequently, the literature reviewed is used as a groundwork, guiding the data collection representing the different forms of replies to yes-no questions in Thai.

In the following I will use the abbreviations YNQ for *yes-no question* and YNR for *yes-no reply*, the reply to a YNQ, typically meaning either 'yes' or 'no'.

1.1 Background information

Given that we hear someone say *sɯ́ɯ* 'buy' in Thai, we could understand its semantics if we speak and know basic Thai. However, we have no access to the illocutionary force of this word in communication i.e. we do not know the communicative purpose of this utterance. That means *sɯ́ɯ* 'buy', when spelled out without the context, encodes no message, except for its lexical meaning. That is definitely distinct from the example below.

(1a) Q: nát cà sɯ́ɯ nǎŋ-sɯ̌u rɯ̌ɯ
Nath will buy book Q/ or
'Will Nath buy a book?'

A: sɯ́ɯ
buy
'Yes.'

Being a YNR, *sɯ́ɯ* 'buy' projects not only its lexical meaning, but also a proposition with the illocutionary force of assertion, interpreted as *nát cà sɯ́ɯ nǎŋ-sɯ̌u* 'Nath will buy a book'. This may suggest that one word can represent or signal the presence of a

complex structure which is not overtly expressed, but must be present for us to perceive the assertion. It is hypothesised in this work that YNRs as in (1a) are derived by the ellipsis of a sentential constituent under identity with the sentential structure and content of the question. However, that is not the whole story when we take how to reply to YNQs in Thai into consideration.

To form a YNQ in Thai, one of the required question particles is simply attached to what looks like a declarative statement sentence-finally. However, things get more complicated when we reply to it. This is due to the fact that there are a number of forms used as YNRs as shown below.

(1b) Q: nát cà ~~súu~~ nǎŋ-~~sǔu~~ ~~rǔu~~
Nath will buy book Q/ or
'Will Nath buy a book?'

A1: ~~súu~~/ khâ/ khráp/ chây/ ~~uu~~-~~hú~~/ ~~uum~~
buy/ HON/ HON/ right/ EXC/ EXC
'Yes.'

A2: mây ~~súu~~/ mây khâ/ mây khráp/ mây chây/ plàaw/ mây
NEG buy/ NEG HON/ NEG HON/ NEG right/ NEG/ NEG
'No.'

These YNRs look superficially dissimilar in form, but in fact they are observed to have something in common. They all have the same meaning. A1 means 'Nath will buy a book' and A2 means 'Nath will not buy a book.' Furthermore, they have the same meaning because they answer the same question, either affirmatively or negatively. This supports the basic, yet crucial hypothesis that the interpretation of YNRs depends on the YNQ. A minimal YNR, although it consists of just one pronounced word, conveys semantically and syntactically the whole proposition of its corresponding YNQ. However, whereas the question leaves it open whether this proposition is true or false, the YNR provides this information. I have just proposed, as one of the main hypotheses in this work, that the YNR in (1) is derived by sentential ellipsis. The question is whether the other YNR forms are also derived by ellipsis. I will argue that they are. Consequently, the primary job of this study is to find evidence to argue for the hypothesis above. This requires detailed formal description of the structure of YNQs such that the various YNRs can be derived from it, by the rules of syntax.

Only a small number of detailed studies on the syntax of Thai YNQs and YNRs currently exist. Furthermore, there is little work on YNRs in languages generally, for example the studies of Martins (1994) on Portuguese YNRs, Holmberg (2001) on Finnish YNRs, Jones (1999) on the Welsh answering system and Kramer and Rawlins (2009) on English polarity particles. It is therefore important to conduct this study to reach a better understanding of the syntactic structure of YNQs and YNRs in Thai, and it also forms a contribution to the study of the syntax and semantics of YNQs and YNRs in Universal Grammar.

1.2 Iwasaki and Ingkaphirom (2009)

According to Iwasaki and Ingkaphirom (2009), Thai questions can be divided into three types; namely, yes-no questions, tag questions (TQs) and question-word questions (QWQs). QWQs will not be discussed here. In this thesis, I will assume that TQs are a sub-type of YNQs.

1.2.1 Yes-no questions

To form YNQs, four questions particles are used. They are in the following written forms of which phonological variations commonly occur in actual speech data. In brackets are phonological variants.

(2) a. mǎy (máy)
b. rǔu-plàaw (rú-plàaw, lú-plàaw etc.)
c. rǔu-yaŋ (rú-yaŋ, lú-yaŋ etc.)
d. rǔu (rú, rə̌, lú, lə̌)

The following sections detail the use of these particles, following Iwasaki and Ingkaphirom. The phonetic transcription and gloss of each example strictly follow those in Iwasaki and Ingkaphirom. However, some glosses have been adjusted where appropriate to comply with the gloss system used throughout this work.

1.2.1.1. *máy* question

The use of this particle is restricted in two respects. First, it is syntactically restricted in that normally a nominal predicate or a negative predicate are not allowed in a *máy* question. Consequently, questions corresponding to *'Is he a student?'* and *'Aren't you*

going?' are not possible with this particle. According to Noss (1964: 205), this question particle is not allowed to occur in a clause containing a negative word due to their morphological interrelation, while according to Peyasantiwong (1981: 66-67), this is possibly due to the incompatibility between the bias resulting from the negation and the neutrality resulting from the question particle.

Second, this type of question also has a pragmatic restriction in that it is used to explore information within what is called 'addressee's territory of information' by Kamio (1997). This implies that the question is exclusively about the addressee's personal concerns such as emotion, sensation, perceptions and desires.

(3) dii-cay máy
glad Q/ NEG[1]
'Are/ Were you glad?'

(4) yàak cà khuy tɔ̀ɔ máy
want NCM[2] talk continue Q/ NEG
'Do you want to continue talking?'

(5) cèp máy
hurt Q/ NEG
'Does/ Did it hurt?'

It can also be used to ask about the addressee's possessions, abilities and permission.

(6) mii yaa sày phěɛ máy kháp
have medicine put wound Q/ NEG SLP
(The security guard said,) 'Do you have some medicine for cuts?'

[1] To be consistent with the gloss in the rest of my study, this particle is also glossed as NEG since it is assumed to be originally from the negation. This is discussed in the chapters to follow.

[2] In the original text (Iwasaki and Ingkaphirom 2009: 280), *cà* is glossed as 'NCM' without any description. I assume that it is supposed to be glossed as CM or challengeable marker. According to Iwasaki and Ingkaphirom (2009: 123), *cà* 'CM' indicates the challengeability of the proposition in the sentence. ''If a proposition refers to something that a speaker can safely assume that the hearer is willing to accept as a fact, it is non-challengeable ('I was born in April'). If, on the other hand, it refers to something that a speaker suspects that the hearer may have difficulty accepting as a fact, it is challengeable ('John will go to Vietnam next year').''

(7) nŭu klàp bâan eeŋ dây máy cá
mouse.2[3] return home oneself POT Q/ NEG SLP
'Can you go home by yourself?'

(8) lîak phîi dii máy khá
call OS good Q/ NEG SLP
'Shall I call you (elder) sister?'

The question particle *máy* is also used with an affirmative verbal predicate in the future time frame to ask about the addressee's personal concerns like intention and/ or desire for an action.

(9) pay duu năŋ kan máy
go look movie REC Q/ NEG
'Do (you want to) go to see the movies tonight?'

The question particle *máy* 'Q/ NEG' will not be appropriate when verbal predicates are in the past time frame, except when it is used with a sentence which has certain adverbs like *bɔ̀y* 'often', *mâak* 'a lot' and *yə́* 'a lot' or certain aspectual auxiliaries like *khəəy* (experiential) and *dây* (change-of-state). These adverbs and aspect markers reveal 'the speaker's evaluation (speaker's territory) for an event in a statement' (Iwasaki and Ingkaphirom 2009: 281).

(10) *mûa-waan-níi pay duu năŋ máy
yesterday go look movie Q/ NEG
'Did you see a movie yesterday?'

(11) khəəy pay tàŋ-prathêet máy há
ASP go foreign.country Q/ NEG SLP
'Have you been abroad?'

A question with *máy* 'Q/ NEG' can be asked without such adverbs and aspect markers as long as the information is considered to belong to the addressee.

[3] This is from the original text. *nŭu* literally means 'mouse'. In Thai, this word can be used as a second-person pronoun to indicate the inferior social status of the addressee in an informal setting or the intimacy between the interlocutors. It is used as an endearment term/ pronoun. Sometimes, it is used as a first-person pronoun as well.

(12) lian laam còp máy há
study (school name) finish Q/ NEG SLP
'Did you graduate from Ramkhamhaeng University?'

(13) tòk-loŋ-wâa pay éksree máy |[4] pay duu nîw
in.the.end go X-ray Q/ NEG | go see gallstone
máy nîa
Q/ NEG PP
'So in the end, did you go to have the x-ray? Did you go to see (if you have) a gallstone?'

1.2.1.2 *rú̶-plàaw* question

This question particle literally means 'or not' because it is composed of the conjunction *rú̶* 'or' and *plàaw* 'empty, blank, void', which is used as a negative morpheme 'not'. According to Iwasaki and Ingkaphirom, with this question particle, the question is considered to be more public by the speaker. This is in contrast with the *máy* 'Q/ NEG' question, which asks for information that belongs undividedly to the addressee. The difference between the two question particles is illustrated by (14) and (15), where (14) asks about the addressee's desire (part of the addressee's territory) while (15) asks the addressee 'to make a choice between 'going' and 'not going''.

(14) pay dûay-kan máy
go together Q/ NEG
'Do you want to go with me?'

(15) pay dûay-kan rú̶-plàaw
go together Q/ or-NEG[5]
'Do you want to go with me, or not?'

Unlike *máy* 'Q/ NEG', this question particle can be used with a nominal predicate.

(16) kháw pen fɛɛn khun-àphíchâat rú̶-plàaw
3 COP girlfriend TL-(name) Q/ or-NEG
'Is she Mr. Apichart's girlfriend?'

[4] This is Iwasaki and Ingkaphirom's notation, a solid vertical line. It 'indicates clause boundaries, roughly corresponding to a comma or period in English' (Iwasaki and Ingkaphirom 2009: xviii).
[5] This is my own gloss.

This question particle can be used with a verbal predicate in the past time frame when the fact is 'in principle accessible to anyone'.

(17) mû̠a-waan pay kin khâaw kàp níramon rú̠-plàaw
yesterday go eat rice with (name) Q/ or-NEG
'Did you go to have dinner with Niramon yesterday?'

A question particle *rú̠-plàaw* 'Q/ or-NEG' can be used in a negative question even if the information is in the territory of the addressee.

(18) mây sabaay rú̠-plàaw
NEG comfortable Q/ or-NEG
'You are not feeling well, right?'

(19) mây mii ŋən rú̠-plàaw
NEG have money Q/ or-NEG
'You don't have any money, right?'

(20) mây dây bɔ̀ɔk kháw rú̠-plàaw | kháw thŭ̠ŋ mây
NEG get/ ASP tell 3 Q/ or-NEG | 3 LINK NEG
rúu rû̠aŋ ləəy
know story PP
'You don't tell him? No wonder he didn't know (about it) at all'

1.2.1.3 *rú̠-yaŋ (lέεw-rú̠-yaŋ, yaŋ)* question

This question particle is a perfect/ anterior counterpart of *rú̠-plàaw* 'Q/ or-NEG', presenting two alternative selections, roughly speaking 'have done' or 'have not done'.

(21) kìt pay duu lû̠aŋ nán lú̠-yaŋ
(name)2 go look story that Q/ or-yet[6]
'Have you (=Kit) seen that movie, or not?'

(22) law lian còp lú̠-yaŋ | law mii ŋaan tham
2 study finish/ ASP Q/ or-yet | 2 have work do
lú̠-yaŋ
Q/ or-yet
(I asked her,) 'Have you finished your studies? Have you found a job, or not?'

[6] This is my own gloss.

rú-yaŋ ‘Q/ or-yet’ can also express the immediate future instead of the perfect/ anterior quality. Therefore, both translations of (23) are appropriate.

(23) kin lú-yaŋ
eat Q/ or-yet
‘Have you eaten yet?/ Are you ready to eat now?’

However, to indicate the immediate future clearly, *cà* ‘CM/ will’ can also be added.

(24) cà kin rŭu-yaŋ
CM eat Q/ or-yet
‘Are you going to eat now, or not?’

1.2.1.4 *rú* question

Although this particle has the written form *rŭu* ‘Q/ or’, it has several phonological variants which can be found in actual speech such as *rú, rə, lú* or *lə*. This question particle is usually used to show that the speaker has a strong desire to know or understand more about the information he/ she has at hand. For example, in the following examples the speaker is surprised when he/ she learns that the addressee lived on the fifth floor during the earthquake and that this was the first experience of an earthquake by the addressee.

(25) ôo chán hâa ləy lə̌
EXC floor five PP Q/ or[7]
‘Oh, the fifth floor?’

(26) nîi kháŋ lɛ̂ɛk lə̌
this time first Q/ or
‘Is this your first time (experience of an earthquake)?’

In the following example, the speaker shows curiosity about media law in Thailand and the United States, using this particle.

(27) kòtmăay thîi-nîi kà mŭaŋ-thay mŭan-kan lə̌
law here and Thailand same Q/ or
‘Is the law here and in Thailand the same?’

[7] This is my own gloss.

In order to form a question pattern like 'You mean X?', this question particle is added after a noun phrase in a question.

(28) Q: lɛ́w khɔ̌ŋ khun ¦[8] èek alay khá
LINK of 2 ¦ major what SLP
'And what is your major?'

A: phǒm **lɜ̌** há | ɛ̀ɛ khɔmphiwtôɜ sayɛ̂n
1M Q/ or SLP | HES computer science
'Me? Uhm. Computer Science'

1.2.2 Tag questions

According to Iwasaki and Ingkaphirom (2009: 287), there are three types of tag questions in Thai: *chây-mǎy* 'Q/ right-NEG[9]', *chây-rǔ̌ɯ-plàaw* 'Q/ right-or-NEG' and *mây-chây-rǔ̌ɯ* 'Q/ NEG-right-or'. *rǔ̌ɯ* 'Q/ or' and *mǎy* 'Q/ NEG' also have alternative phonological variants as described in previous sections.

1.2.2.1 *chây-mǎy* and *chây-rǔ̌ɯ-plàaw* questions

A *chây-mǎy* tag question is exploited when a speaker has 'a reasonably high confidence towards the proposition' and also requires confirmation from the addressee. When the speaker's confidence is even stronger, a *chây-rǔ̌ɯ-plàaw* tag question is used.

(29) tɛ̀ɛ kháŋ-thîi-lɛ́ɛw kin sǐi-khǐaw ¦ dii khɯ́n
but last.time eat colour green ¦ good ascend/ ASP
chây-máy
Q/ right-NEG
'But, the last time, you took the green (medicine), and you got better, right?'

(30) kìt pay duu lûaŋ nán lɯ́-yaŋ | duu lɛ́ɛw chây-pà[10]
Kit go look story that Q/ or-yet| see ASP Q/right-NEG
'Have you (=Kit) seen that movie, or not? You've seen it, right?'

Commonly, these tag question particles are used to get the addressee to engage in the reciprocal communication as in the following example (31) in which a speaker supplies

[8] This is Iwasaki and Ingkaphirom's notation (2009: xviii), a broken vertical line, used to indicate boundaries within a clause. It 'often separates a topic noun phrase from the rest of the sentence, or a phrase with a quoting verb from the rest'.
[9] This and the others in this group are my own glosses.
[10] *chây-pà* 'Q/ right-NEG' is a phonologically reduced form of *chây-rǔ̌ɯ-plàaw* 'Q/ right-or-NEG'.

the information and asks the addressee to confirm the information. Thus, the tag question particle functions like the tag 'right?' in English.

(31) nîi phɔɔ maa pii sǎam nîa ¦
DM as.soon.as come year three PP ¦
'When you become a third year (student),'

pen wíchaa phasǎa aŋkrìt tháŋ-mòt chây-máy
COP subject language English all Q/right-NEG
há
SLP
'all the subjects are in English, right?'[11]

1.2.2.2 *mây-chây-rǔ̌u̶* question

This type of question is similar to English negative questions such as 'Isn't he an American?' or 'Didn't he tell you?' with an even stronger tone of surprise.

(32) kháw pen khon ameerikan mây-chây-rú̶
3 COP person American Q/ NEG-right-or[12]
'Isn't he an American?'

(33) kháw bɔ̀ɔk mây-chây-rǔ̌u̶
he tell Q/ NEG-right-or
'Didn't he tell you?'

1.3 Phothisorn (1986)

Phothisorn (1986) conducted a comparative study[13] of Thai yes-no questions in Bangkok Thai and the Udonthani dialect of Thai in terms of their semantics and syntax. Only the syntactic dimension is relevant and reviewed here. With regard to the syntax,

[11]This translation is from the original text (Iwasaki and Ingkaphirom 2009: 288) to be in line with the explanation of the use as the English tag 'right?' above. It can also be translated as *'Aren't all the subjects in English ?',* which as a biased question indicates the speaker's expectation over a particular open answer.
[12] This is my own gloss.
[13] In the original study which is written in Thai, the examples are provided, but the gloss and translation are not. Therefore, the gloss and translation are my own, in line with the gloss system used in the whole thesis.

he divides yes-no questions into three types according to the structure of a question particle added to the declarative sentence sentence-finally.

1.3.1 A question with a one-element question particle

In Phothisorn (1986), a 'one-element question particle' is a one-syllable word which is used as a question particle added at the end of a sentence. There are two question particles in this question type: (a) a question particle *măy* 'Q' whose form is somewhat similar to the negative particle *mây* 'NEG' and (b) a question particle *rŭu* 'Q' whose form is similar to a conjunction. *măy* 'Q' has some variant pronunciations like *máy* while rŭu 'Q' also has alternative pronunciations like *rə̌*, *lə̌*, *rə́* and *lə́*.

(34) khun cà pay rooŋ-rian măy/ máy
you will go school Q/ NEG
'Will you go to school?'

(35) khun pay ta-làat rŭu/ rə̌/ rə́
you go market Q/ or
'Do/ Did you go to the market?'

1.3.2 A question with a two-element question particle

A two-element question particle is composed of two words which are attached to the end of the sentence, transforming that sentence into a yes-no question. There are two question particles in this question type as follows.

1.3.2.1 A question particle consisting of a conjunction + a negative word

One particle is formed by combining the conjunction *rŭu* 'or' with the negative word, either *mây* 'NEG' or *plàaw* 'NEG', as in the following examples.

(36) thân hĕn-dûay rŭu-mây
you agree Q/ or-NEG
'Do you agree (with me)?'

(37) khun hĕn-dûay rŭu-plàaw
you agree Q/ or-NEG
'Do you agree (with me)?'

1.3.2.2 A question particle consisting of a verb + a one-element question particle

According to Phothisorn (1986: 32), the verb here is restricted to a particular group of four verbs which can be used in place of one another, subject to the speaker's intention in communication. These four verbs[14] are *chây* 'right', *thùuk*[15] 'true/ correct', *ciŋ* 'real' and *nêɛ* 'sure', which encode agreement, truth or accuracy, reality and certainty, respectively. The two one-element question particles are *măy* 'Q/ NEG' and *rŭ̌u* 'Q/ or' as described earlier.

(38) pàak-kaa nîi dâam la sǎam baat chây-măy
pen this CLS each three Thai currency Q/ right-NEG
'Is the pen three baht each?'

(39) thîi kháw lu̶u̶ kan nà ciŋ-rə̌
COMP they spread the rumour REC PP Q/ real-or
'Is the rumour they spread true?'

(40) khun pay ta-làat nêɛ-máy
you go market Q/ sure-NEG
'Are you sure to go to the market?'

1.3.3 A question with a three-element question particle

A question particle can be composed of three lexical items. There are two question particles in this question type as follows.

1.3.3.1 A question particle consisting of a verb + a conjunction + a negative word

A verb here refers to the same group of four verbs as described above and a negative word can be either *mây* 'NEG' or *plàaw* 'NEG'. The conjunction *rŭ̌u* 'or' has several phonological variants. The following examples show the examples of *chây* 'right', which is found the most in this group, as the representative of the four verbs.

(41) thân dây-rap ŋən lɛ́ɛw chây-rŭ̌u-mây/ chây-rŭ̌u-plàaw
you receive money already Q/ right-or-NEG/ Q/ right-or-NEG
'You have already received money, right?'

[14] These lexical items can act as verbs in Thai, subject to their position in the sentence. They are translated as adjectives in English, but they are adjectival verbs in Thai.
[15] Also, *thùuk-tôŋ* 'true' can be used as a variant.

1.3.3.2 A question particle consisting of a negative word + a verb + a conjunction

Again, the verb is one of the four verbs mentioned, and the conjunction *rŭu* 'or' can have several alternative pronunciations or variations as described. However, in this particle, the negative word is *mây* 'NEG' only, excluding *plàaw* 'NEG'.

(42) thân àan cot-măay lέεw mây-chây-rŭu/ mây-chây-rə̆/ mây-chây-rə́
you read letter already Q/ NEG-right-or
'You have read a letter already; was it not right?'

1.4 Data collection and scope of the question-contexts set

In order to find a representative set of YNR data for this thesis, the two studies in the previous sections are firstly analysed, and they are correspondingly made a frame of reference for classifying YNQ particles used in the formation of YNQs in this thesis. This will yield a set of questions which elicit the possible replies in different question contexts.

As shown by Iwasaki and Ingkaphirom (2009), the question particle distinguishes Thai YNQs from question-word questions (i.e. wh-questions). YNQs employ a sentence-final question particle while QWQs contain no question particle. The only marker of question force in question-word questions is a wh-word or phrase in situ. One difference between the description in Iwasaki and Ingkaphirom (2009) and Phothisorn (1986) is that Iwasaki and Ingkaphirom recognise two individual question types, YNQs and TQs while Phothisorn (1986) bands them together as YNQs.

Iwasaki and Ingkaphirom do not provide any clear formal criteria for their question classification, but only the use is explained. This is also the case in Photisorn, some of whose question particles are argued to be TQ particles by Iwasaki and Ingkaphirom. These question particles are *chây-măy* 'Q/ right-NEG', *chây-rŭu-plàaw* 'Q/ right-or-NEG' and *mây-chây-rŭu* 'Q/ NEG-right-or' as shown below.

(43) Q1: thəə cà sú̆u năŋ-sŭu chây-măy
you will buy book Q/ right-NEG
'Will you buy a book?/ You will buy a book, right?'

Q2:	thəə	cà	sú~~u~~	nǎŋ-sŭu	chây-rŭu-plàaw
	you	will	buy	book	Q/ right-or-NEG
	'You will buy a book, right?'				
Q3:	thəə	cà	sú~~u~~	nǎŋ-sŭu	mây-chây-rŭ~~u~~
	you	will	buy	book	Q/ NEG-right-or
	'You will buy a book, won't you?'				
A:	chây/	mây	chây		
	right/	NEG	right		
	'Yes/	No.'			

The answers to these questions provide a value for the polarity which is left open in the question, just as in the case of other YNQs. In general, the syntactic analysis that will be conducted in this thesis of YNQs and their corresponding answers does not provide any grounds for distinguishing a special class of TQs in Thai (unlike the situation in English, for example). In this respect the present thesis agrees with Photisorn (1986). What Iwasaki and Ingkaphirom classify as TQs is a sub-type of YNQs.[16]

All the question particles as well as their possible alternative pronunciations (taken from both studies) are listed in table 1. Consequently, this set of particles is implemented as a framework to ascertain possible YNRs as being representative of the data. These particles are presented in the table as follows.

[16] Note that Quirk et al (1985: 810) interpret TQs as a sub-type of YNQs in English. However, in English TQs are syntactically clearly distinct from regular YNQs, which, as will be shown in section 2.4, is not the case in Thai.

Table 1: Question particles from Iwasaki and Ingkaphirom (2009) and Phothisorn (1986)

Entries of question particles (phonological variations)	Iwasaki and Ingkaphirom's YNQ particles	Iwasaki and Ingkaphirom's TQ particles	Phothisorn's YNQ particles
1. mǎy (máy)	✓		✓
2. rǔu (rú, rə̌, lú, lə̌, rə́, lə́)	✓		✓
3. rǔu-mây			✓
4. rǔu-plàaw	✓		✓
5. chây-mǎy		✓	✓
6. thùuk-mǎy (thùuk-tôŋ-mǎy)			✓
7. ciŋ-mǎy			✓
8. nêɛ- mǎy			✓
9. chây-rǔu			✓
10. thùuk-rǔu (thùuk-tôŋ-rǔu)			✓
11. ciŋ-rǔu			✓
12. nêɛ-rǔu			✓
13. chây-rǔu-mây (chây-rǔu-mây-chây)			✓
14.thùuk-rǔu-mây (thùuk-rǔu-mây-thùuk, thùuk-tôŋ-rǔu-mây, thùuk-tôŋ-rǔu-mây-thùuk-tôŋ)			✓
15.ciŋ-rǔu-mây (ciŋ-rǔu-mây-ciŋ)			✓
16. nêɛ-rǔu-mây (nêɛ-rǔu-mây-nêɛ)			✓
17.chây-rǔu-plàaw		✓	✓
18.thùuk-rǔu-plàaw (thùuk-tôŋ-rǔu-plàaw)			✓
19. ciŋ-rǔu-plàaw			✓
20. nêɛ-rǔu-plàaw			✓
21. mây-chây-rǔu		✓	✓
22.mây-thùuk-rǔu (mây-thùuk-tôŋ-rǔu)			✓
23. mây-ciŋ-rǔu			✓
24. mây-nêɛ-rǔu			✓
25. rǔu-yaŋ (léɛw-rǔu-yaŋ, yaŋ)	✓		

Table 1 shows all the question particles from Iwasaki and Ingkaphirom (2009) and Phothisorn (1986). There are in total 25 particles, excluding their variations in parentheses. Having enumerated the set of question particles in Thai, the next step is to define the type of questions and answers that will be investigated in this thesis.

Huddleston and Pullum (2002) discuss several different ways of classifying questions. One of them is based on how the question defines the set of required answers. From this perspective, questions can be divided into three classes: polar questions, alternative questions and variable questions[17]. What they call variable questions is those calling for an open range of answers, that is wh-questions ('Who is that man?' 'Where are we going?'). Alternative questions, on the other hand, are questions typically requiring one of two or more choices explicitly given in the question ('Do you want tea or coffee?'). Polar questions are what this thesis is concerned with. A polar question calls for a choice between two polarity values: affirmative or negative. Therefore, the answers to the question 'Is it ready?' can be either 'It is ready' or 'It is not ready', equivalently 'Yes' or 'No'. Consequently, the alternative name *yes-no question* (here abbreviated YNQ) is also widely used for this type of question.

What all the three question types have in common, though, is that they contain a variable with the value left open, to be filled in by the answer (therefore Huddleston and Pullum's (2002) term 'variable question' for a particular type of question is actually misleading). In wh-questions the variable is a particular constituent (subject, object, or adverbial). In alternative questions the variable is also a constituent, but the alternative values are explicitly provided. In polar questions (YNQs) the variable is the polarity which has two possible values, affirmative or negative.

According to Huddleston and Pullum (2002: 865-867), the terminology 'question' is usually referred to at both semantic and pragmatic levels. At the former level, a question is differentiated in accordance with how it 'defines a set of logically possible answers'. For example, the question 'Have you seen it?' can be answered by 'Yes' or 'I have' or 'Yes, I have' or 'Yes, I have seen it' etc. Although these answers are dissimilar in form, they can be regarded as the same affirmative answer, and conversely in the case of negative answers. This type of question thus semantically defines a closed set of

[17] Quirk et al (1985) also classify questions into three groups, using 'wh-questions' instead of 'variable questions'. In addition, according to Huddleston and Pullum (2002: 873), other terms found in the literature as equivalent to the term 'variable questions' include 'x-question', 'wh-question', 'specific question', 'partial question' and 'information question'.

answers. At the pragmatic level, a question is 'an illocutionary category'; a question is an inquiry. An inquiry seeks information by questioning the addressee with the expectation of gaining the answer.

In this thesis, this conceptual distinction is considered to be syntactic in nature. There are two syntactic components which differentiate questions from declaratives; one is the variable, whose syntactic category determines what type of answer is called for, and in that way determines the type of question. The other component is question force, which will be analysed as a syntactic feature (following Haegeman 2004, Holmberg 2010). An important distinction is between direct and indirect (or embedded) questions ('Is he coming?' vs. 'I wonder [if he is coming]'). Only direct questions call for an answer, 'yes' or 'no', from the addressee. That is to say, only direct questions have illocutionary question force. Since this thesis is concerned with answers to YNQs, it will focus on direct questions.

According to Huddleston and Pullum, an answer is different from a response, which is a pragmatic concept. To answer the question 'Have you seen it?', there can be answers as the following.

(44) a. No/ I have.
b. I'm not sure/ I can't remember/ Possibly/ Does it matter?
c. I've already told you that I have/ It's on your desk/ I saw it yesterday.

The responses in (a) are considered 'answers' while the rest are not. The responses in (b) are used to avoid giving an answer for whatever reason and those in (c) imply and encode the answer 'Yes' though they are not logically analogous to 'Yes' answers. The responses in (c) are not answers, but simply contain extra information not requested in the question. From these possible responses to the same question, it appears that the addressee can respond to the question in many different ways, using either direct answers or providing implied information. In addition, it seems that according to Huddleston and Pullum, (a) is an answer since it directly answers the question while (b) and (c) are simply responses as they indirectly answer the question by providing implied information. Consequently, in this thesis, YNRs refer primarily to any information that is used intentionally as a direct answer as in (a) while the responses in (b) and (c) will not be considered as appropriate data for this study, with the exception of certain indirect responses such as 'Possibly' in (b), which appear to have syntactic properties

similar to the direct answers ‘Yes’ and ‘No’. I will return briefly to these at the end of chapter 5.

A distinction which will be important in this thesis is between *open questions* and *confirmation questions*. The formation of open or confirmation questions depends upon the particles used. Open questions in this context simply mean the YNQs where the speaker is not predisposed towards an affirmative or a negative answer, so the question is neutral. Confirmation questions, as the name suggests, are questions where the speaker is more or less strongly biased towards either an affirmative or a negative answer, and the question asks for confirmation that the favoured proposition is true. Negative YNQs are typically biased, either towards a negative or an affirmative answer, depending on other contextual and syntactic factors. That is to say, negative questions are typically confirmation questions.

YNRs are a feature of spoken language much more than written language. The data for this thesis is correspondingly of a contemporary spoken-discourse type which is collected mainly by introspection and partly literature. However, there are situations where the data are controversial, or my intuition is uncertain. For this reason, I have engaged five informants, who are all native speakers of Thai, to make judgements on the grammaticality or naturalness of the given data, where indicated. This is always followed by discussion.

Conclusion

This chapter introduces the research background and provides a literature review of YNQs and particles in Thai, as well as suggesting a question typology. These particles are used to form both positive and negative YNQs to elicit a variety of YNR patterns to be discussed in the chapters to follow.

Chapter 2. The syntax and semantics of yes-no question particles

Introduction

This chapter is dedicated to the syntax and semantics of the question particles listed in table 1 in chapter 1. As mentioned, in Thai there are various overt forms of replies, and we want to know what their properties are, what they have in common and how they differ from one another. The strategy that will be followed is to base the classification and analysis of answers on the syntax and semantics of question particles. By hypothesis, at least the most precise YNRs should have a syntactic relation with the questions. That is to say, a comparison of the different forms of questions with different forms of answers will shed light not only on the meaning of the answer, but also on their (underlying) syntactic structure, given the assumption that the syntax of answers is 'parasitic' on the syntax of questions. The following analysis is produced under that assumption. This chapter will provide a preliminary, rough analysis of YNQs and YNRs in Thai. This will provide a basis for the detailed descriptive account of types of YNRs in chapter 3, and for the more detailed, formal analysis of YNQs and YNRs in chapters 4 and 5.

2.1 The syntax and semantics of *mǎy*

Although as seen in the last chapter there are some restrictions on the use of *mǎy* 'Q/ NEG', these limitations will not be explored here again. Instead, some aspects pertaining to the syntax and semantics of *mǎy* 'Q/ NEG' will be observed and discussed in order to explain some related restrictions.

In table 1, there are 25 entries of yes-no question particles from the two studies of Iwasaki and Ingkaphirom (2009) and Phothisorn (1986). However, most of these particles are combined with either one of the two question particles *mǎy* 'Q/ NEG' and *rʉ̌ʉ* 'Q/ or'. Therefore, *mǎy* 'Q/ NEG' and *rʉ̌ʉ* 'Q/ or' are treated as basic question particles in Thai in Peyasantiwong (1981: 53). *mǎy* 'Q/ NEG' marks open questions, as

noted by Santaputra (1980) and Peyasantiwong (1981), as this particle is used when the speaker is not biased towards an affirmative or a negative answer.

(1) nát khàp rót mǎy/ máy
Nath drive car Q/ NEG
'Does Nath drive?'

Certain restrictions on the use of this particle were referred to in chapter 1, but there is one restriction which is significantly related to the syntax and semantics which I will discuss here. It cannot occur with a negative question.

(2) *nát mây khàp rót mǎy/ máy
Nath NEG drive car Q/ NEG

Several linguists have noted that *mǎy* 'Q/ NEG' cannot be used in the clause containing the negation *mây* 'NEG' (Noss 1964, Peyasantiwong 1981 and Iwasaki and Ingkaphirom 2009), backing it up with semantic and morphological evidence. Noss (1964: 205) points out the morphological connection between the particle *mǎy* 'Q/ NEG' and *mây* 'NEG', but does not discuss its consequences.[18] Peyasantiwong (1981: 66-67, 72) proposes a semantic explanation for this constraint. The negative constraint would be due to "an incompatability between the presupposition in the negative verb structure and presuppositions of /máy/, i.e. /máy/ sounds neutral while the presupposition with a negative verb structure is not neutral." An alternative explanation of the strong constraint against the combination of *mǎy* 'Q/ NEG' and *mây* 'NEG' in a question is that they are in a sense the same item. More precisely, it will be argued here that *mây* 'NEG' forms part of the the question particle *mǎy/ máy*.

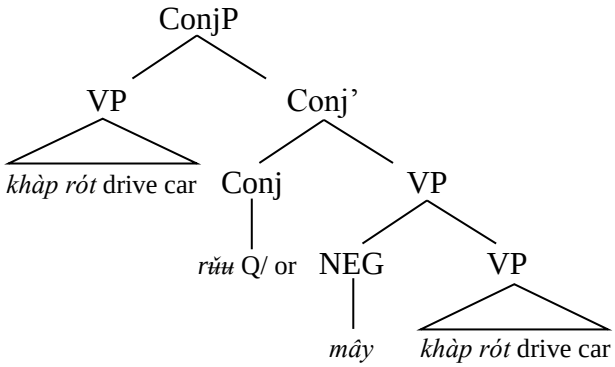
The analysis of YNQs in Thai, with their various sentence final question particles, that I will postulate in this thesis is that the various question particles always contain a conjunction meaning 'or', as one component, and basically conjoin a positive constituent with a negative one. The question (1), therefore, has basically the same underlying structure as the disjunction (3).

[18] Noss (1964: 205) simply says ''Morphologically speaking, it is related to the negative /mâj/, and does not occur in clauses containing any /mâj/-class modal'', without further explanation. Here, 'it' refers to the question particle *mǎy/ máy* and any /mâj/-class modal ''consists of the negative /mâj/ and its replacements, most of which are lexemes containing the morth /mâj/ as first constituent'' (Noss 1964: 138).

(3) nát khàp rót rŭu mây khàp rót
Nath drive car or NEG drive car
'Nath drives or doesn't drive.'

In this case, the question particle/ conjunction conjoins (or 'disjoins') two VPs. As will be discussed below, it can conjoin with certain other constituents: AspPs (aspect phrases), ModPs (modal phrases) and VPs. What they have in common is that they can be merged with the negation. As will be discussed, they share the formal property of being verbal (The manner adverb *rew* 'fast' is a verbal category in Thai, as words translated into English as adjectives are generally analysed as verbs). The underlying structure of the disjunction part in (1), which is also the structure of (3), is basically (4):

(4)



I assume that *rŭu* 'Q/ or' in (4) (and generally, when it occurs as part of a complex question particle) is the conjunction 'or', but with an additional feature, which I will call [Alt], which means that it specifically conjoins (or 'disjoins') an affirmative and a negative alternative of the same constituent. The two constituents joined by *rŭu* 'Q/ or' will be referred to as *polarity carriers* (for reasons that will become clear in due course). The derivation of the question (1) crucially involves deletion of the second conjunct, according to rules that will be discussed in more detail in chapter 4. The Q-particle *măy/ máy* is an alternative spell-out of the conjunction and the stranded negation of the second conjunct. The morphological rule is (5):

(5) rŭu + mây → măy/ máy

The reason why (2), where the negation *mây* is combined with the Q-particle *măy/ máy*, is ungrammatical is accordingly that it fails to conjoin a positive alternative with a negative alternative. The underlying structure is basically that of (6), a tautology, not interpretable as a question.

(6) nát mây khàp rót rŭu mây khàp rót
Nath NEG drive car or NEG drive car

The analysis in (4), which will be articulated in more detail in chapter 4, is basically the same as in Ruangjaroon (2005: 76).

The standard answer to a *măy* question such as (1), repeated here in (7), is repeating or echoing the verb of the question in the affirmative case, and the verb preceded by the sentential negation *mây* in the negative case.

(7) Q: nát khàp rót măy
Nath drive car Q/ NEG
'Does Nath drive?'

A: khàp
drive
'Yes.'

A: mây khàp
NEG drive
'No.'

We can now analyse this as, basically, selection of one of the conjuncts that the question is made up of. The conjuncts name the two alternatives that the YNQ poses (Nath drives and Nath doesn't drive), and which, in a direct question, the addressee is expected to choose between, and say which of them (he/she believes) is true. In the affirmative answer, the verb represents choice of the positive conjunct, as it were, while in the negative answer, the negation plus the verb represent choice of the negative conjunct. This is, in very general terms, the semantic and syntactic analysis of answers that will be articulated in chapter 5. The hard question is exactly how these highly reduced expressions are derived.

2.2 A-not-A questions

According to the analysis proposed above, *mǎy* questions are similar to A-not-A questions, familiar from Chinese. (8) exemplifies an A-not-A question and the standard answers to it.

(8) Q: Zhangsan mai shu bu mai?
Zhangsan buy book not buy
'Does Zhangsan buy books or not buy [them]?'

A: mai
buy
'Yes.'

A: bu mai
NEG buy
'No.'

Huang, Li and Li (2009: 245)[19]

The question explicitly presents two alternatives, an affirmative and a negative one, and asks which alternative (the addressee believes) is true, and the answer selects one of them as the true alternative. The hypothesis in this thesis is that *mǎy* questions in Thai are essentially like this. In the next paragraphs, I will give a brief sketch of the A-not-A construction in Chinese, comparing it with the corresponding Thai construction, and with *mǎy* questions.

According to Huang, Li and Li (2009: 244-246), the Chinese A-not-A question is a disjunctive question involving two alternatives, A and B, where A is the positive alternative, and B the negative alternative, and the two are conjoined with either an overt or a covert conjunction *haishi* 'or'. According to Huang, Li and Li (2009), the underlying structure of an A-not-A question is basically as in (9).

(9) [$_{IP}$ ta [$_{VP}$ xihuan zhe-ben shu] [(haishi) [$_{VP}$ bu xihuan zhe-ben shu]]]
he like this-CL book (or) not like this-CL book

[19] Huang, Li and Li (2009) do not provide the answers to this question. The answers here are minimal answers provided by my informants, Hofa Wu and Li Man. Thanks to them for the answers.

There is more to the analysis than this. In particular the C-domain is involved as well. I will ignore this for the time being, returning to it in chapter 4. The question structure (9) enters into a reduction process as shown in the examples below.

(10) a. ta xihuan bu xihuan zhe-ben shu?
he like not like this-CL book
'Does he like or not like this book?'

b. ta xihuan zhe-ben shu bu xihuan?
he like this-CL book not like
'Does he like this book or not like [it]?'

From these examples, we see that there are two subtypes of A-not-A questions with regard to the syntax, the V-not-VP type in (10a) and the VP-not-V type in (10b). In the V-not-VP type the object is missing from the VP preceding 'not' while in the VP-not-V type the object is missing from the second VP. How these examples have undergone a reduction process is not a central concern here, but it is interesting to consider what elements can be conjoined by 'or'. Huang, Li and Li do not discuss specifically what elements can be conjoined by 'or' in the A-not-A question in Chinese, but from the examples they provide it appears that Chinese will typically join verbs to form an A-not-A question.

Although there is no detailed study on the A-not-A construction in Thai, according to my observations Thai has a similar construction, also with two alternatives (10a) 'V+NEG+V+object' and (10b) 'V+object+NEG+V'. However, in Thai we can also find the A-not-A construction applied to a modal verb in (11a), an adverb in (11b), an aspect marker in (11c) and a finite verb in (11d); these all belong to the class of polarity carriers, as mentioned above.

(11) a. nát khuan-mây-khuan khàp rót
Nath should-NEG-should drive car

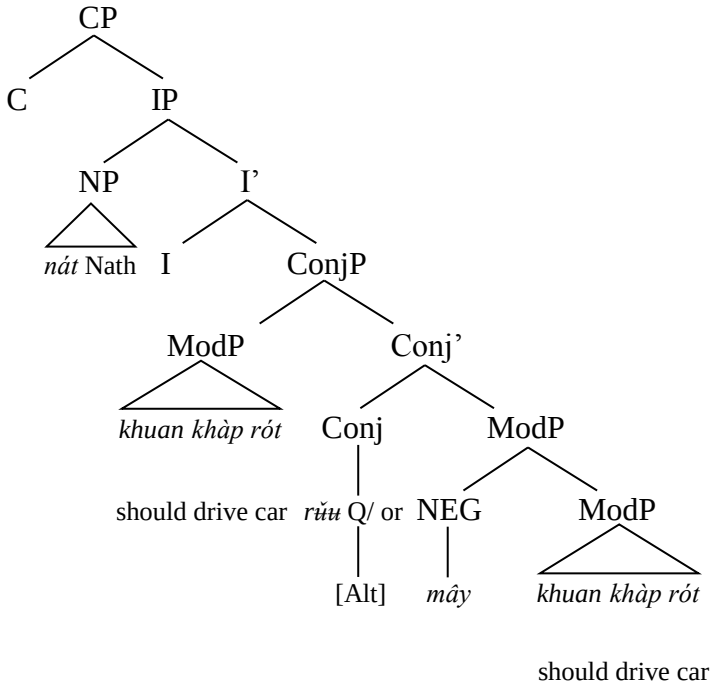
b. nát khàp rót rew-mây-rew
Nath drive car fast-NEG-fast

c. nát khəəy-mây-khəəy khàp rót
Nath EXP-NEG-EXP drive car

d. nát khàp-mây-khàp rót
Nath drive-NEG-drive car

I will not deal with A-not-A questions in any detail in this thesis. However, in the absence of evidence to the contrary, I assume that they have basically the same analysis as in Chinese. The underlying structure of for example (11a) is basically (12).

(12)



The spelled-out structure (11a) is consequently the result of ellipsis applied to the first conjunct, deleting the VP in this case.

A hypothesis that will be substantiated throughout this thesis is that *măy* questions such as (1), and as we shall see, all other YNQs with final question particles are also derived by ellipsis applied to a disjunctive structure with a positive and a negative constituent, typically deleting the second disjunct. In the case of *măy* questions, the deletion leaves the negation *mây* stranded, next to the [Alt]-marked conjunction *rŭu* 'or'. Together, they are spelled out as *măy* or *máy*.

2.3 The syntax and semantics of *rŭu*

According to Peyasantiwong (1981: 53), *rŭu* 'Q/ or' and its derivatives are basic question particles; a particle is 'basic' if it can occur alone after a clause to form a YNQ. Moreover, *rŭu* 'Q/ or' is also used in combination with certain lexical items to form

other question particles like *rŭu-mây* ‘Q/ or-NEG’, *rŭu-plàaw* ‘Q/ or-NEG’, *chây-rŭu* ‘Q/ right-or’, *thùuk-rŭu* ‘Q/ true-or’, *ciŋ-rŭu* ‘Q/ real-or’, *nêɛ-rŭu* ‘Q/ sure-or’, *chây-rŭu-mây* ‘Q/ right-or-NEG’, *thùuk-rŭu-mây* ‘Q/ true-or-NEG’, *ciŋ-rŭu-mây* ‘Q/ real-or-NEG’, *nêɛ-rŭu-mây* ‘Q/ sure-or-NEG’, *chây-rŭu-plàaw* ‘Q/ right-or-NEG’, *thùuk-rŭu-plàaw* ‘Q/ true-or-NEG’, *ciŋ-rŭu-plàaw* ‘Q/ real-or-NEG’, *nêɛ-rŭu-plàaw* ‘Q/ sure-or-NEG’, *mây-chây-rŭu* ‘Q/ NEG-right-or’, *mây-thùuk-rŭu* ‘Q/ NEG-true-or’, *mây-ciŋ-rŭu* ‘Q/ NEG-real-or’ and *mây-nêɛ-rŭu* ‘Q/ NEG-sure-or’. These combined question particles or compound question markers in Peyasantiwong (1981: 53) or particle constructions in Boslego (1983: 70) will be discussed to show how they semantically and syntactically are related to the basic particle *rŭu* ‘Q/ or’.

rŭu ‘Q/ or’ is considered to be a confirmation question particle used when the speaker has a particular expected answer in mind (Peyasantiwong 1981: 55, 63, 66 and Phothisorn 1986: 55). According to Noss (1964: 208), the meaning of *rŭu* ‘Q/ or’ is ‘‘confirm my assumption or confirm my understanding of what you just said”.

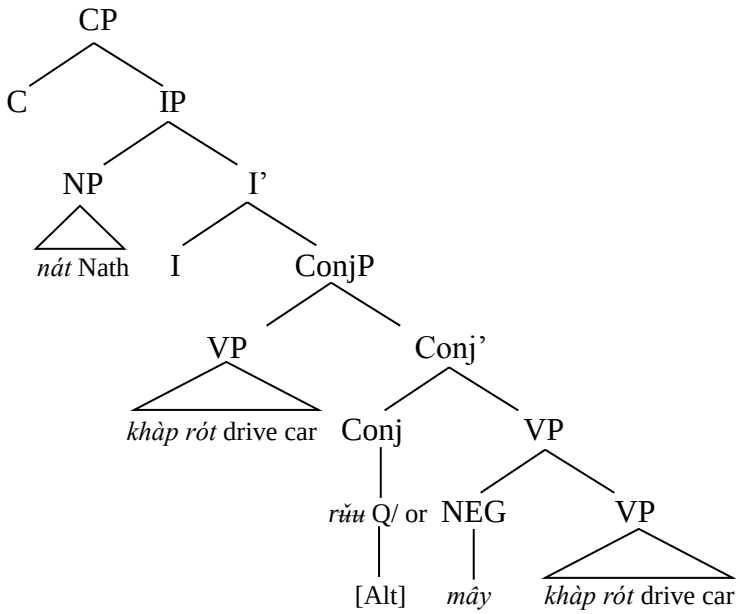
rŭu is also used as an ordinary conjunction ‘or’, corresponding to English *or* in ‘He wants to talk to Nath or Pat’ and ‘He wants to eat rice or noodles.’ As mentioned above in section 2.1, I take *rŭu* as (part of) a question particle to be the conjunction ‘or’, but with an additional feature [Alt], meaning that it specifically conjoins an affirmative and a negative alternative of the same constituent.

This can be illustrated by the following sentence.

(13) nát khàp rót rŭu
Nath drive car Q/ or
‘Does Nath drive?/ Nath drives, right?/ Nath drives, or not?’

According to Noss (1964: 207-208), *rŭu* ‘Q/ or’ is treated as a true sentence particle in the sense that it does ‘not have reference to specific syntactic construction, but to the sentence as a whole’. My interpretation of this is that *rŭu* ‘Q/ or’ in (13) functions as a conjunction connecting one affirmative conjunct *khàp rót* ‘drive car’ and one unpronounced negative conjunct *mây khàp rót* ‘NEG drive car’. The structure of (13) is (14).

(14)



This is the same structure as above in (4), the case of the question particle *măy*. The difference is that in (13), the negation of the second conjunct is deleted along with the conjunct. The presence of the two conjuncts is reflected in the answers to the question, which are (15):

(15) khàp/ mây khàp
drive/ NEG drive
'Yes/ No.'

The answer selects one of the alternatives as the one which yields a true proposition (or rather, it selects a 'representative' of one of the alternatives, according to rules which will be articulated in chapter 5).

This question type can accommodate a negation in the question.

(16) nát mây khàp rót rŭu
Nath NEG drive car Q/ or
'Does Nath not drive?/ Nath doesn't drive, right?

In this case a negative polarity carrier is conjoined with a positive one, in that order.

About the variant *rŭu-mây* 'Q/ or-NEG', Phothisorn (1986: 57, 73) says that it can be an open question particle so that the question need not convey any bias on the part of the speaker. I propose (following Ruangjaroon (2005) to be discussed in chapter 4) that the question marked by this complex question particle has exactly the same structure as the

question marked by *mǎy*. The only difference is that the morphological rule (5) has not applied. As predicted, *rǔu-mây* cannot mark a negative question.

Another variant is *rǔu plàaw*. Iwasaki and Ingkaphirom (2009: 283) analyse this question particle as a combination of the conjunction *rǔu* 'or' and *plàaw* 'empty, blank, void'. *plàaw* is used here as a negation; literally, *rǔu-plàaw* means 'or not'. I agree with this analysis. I assume the question has the same structure as (13) above. *rǔu-plàaw* 'Q/ or-NEG' predictably can occur under the same circumstances and with the same pragmatic effect as *rǔu-mây* 'Q/ or-NEG'; *rǔu-plàaw* 'Q/ or-NEG' is exploited when the speaker does not presuppose any truth or falsehood concerning the information in the sentence to which this combined particle is attached (Santaputra 1980 and Peyasantiwong 1981). The answer echoes the verb of the question (an adjectival verb in this case).

(17) Q: sabaay rú-plàaw
comfortable Q/ or-NEG
'Are you feeling well?'

A: sabaay
comfortable
'Yes.'

A: mây sabaay
NEG comfortable
'No.'

Although *rǔu-plàaw* 'Q/ or-NEG' and *rǔu-mây* 'Q/ or-NEG' have the same meaning, they are different in one respect. This problematic issue concerns the use in a negative clause. As mentioned, *rǔu-mây* 'Q/ or-NEG' never occurs in a negative clause at all, which is explained by its syntax. The negation element of the question particle is the negation of the second, deleted conjunct which cannot be combined with a negative conjunct. This is not straightforwardly true of *rǔu-plàaw* 'Q/ or-NEG'. This question particle can sometimes occur in a clause containing a negative form of 'stative or generic predication when the speaker's expectations have been called into doubt'; this use is 'not common' (Peyasantiwong 1981: 67-70). This is also supported by Iwasaki and Ingkaphirom (2009: 283-284) who show that *rǔu-plàaw* 'Q/ or-NEG' can occur in a

negative clause in place of *mǎy* ‘Q/ NEG’ (which cannot be used in a negative clause at all).

(18) mây sabaay rú́-plàaw
NEG comfortable Q/ or-NEG
‘You are not feeling well, right?’

(19) mây dây bɔ̀ɔk kháw rú́-plàaw | kháw thŭŋ mây
NEG get/ ASP tell 3 Q/ or-NEG | 3 LINK NEG
rúu rûaŋ ləəy
know story PP
‘You didn’t tell him? No wonder he didn’t know (about it) at all.’

(20) bɔ̀ɔk kháw rú́-plàaw
tell 3 Q/ or-NEG
‘You told him?/ Did you tell him?’

The negative examples (18) and (19) are from Iwasaki and Ingkaphirom while the affirmative counterparts (17) and (20) are my own. Although Iwasaki and Ingkaphirom do not present a detailed argument for the negative use of *rŭ́u-plàaw* ‘Q/ or-NEG’, it can be inferred from the examples that *rŭ́u-plàaw* ‘Q/ or-NEG’ is allowed in a negative clause, yet with a subtle change in semantics. In (17), *sabaay rú́-plàaw* ‘Are you feeling well?’ represents an open question when the speaker has no particular preferred answer in mind. On the other hand in (18), *mây sabaay rú́-plàaw* ‘You are not feeling well, right?’ is biased when the speaker uses it to confirm his/ her assumption that the addressee is not feeling well, based on possible evidence e.g. the addressee looks very tired and pale. It is more obvious in (19) where the speaker pronounces the reason overtly for the negative use of *rú́-plàaw* ‘Q/ or-NEG’. The speaker uses *rú́-plàaw* ‘Q/ or-NEG’ to confirm his/ her assumption that the third person does not know/ realise about something at all. This evidence prompts the confirmation to have been called into doubt. A similar analysis is proposed by Peyasantiwong. However, this still does not explain what makes *rú́-plàaw* different from *rú́u-mây*, which cannot have this meaning, if substituted for *rú́-plàaw* in the examples above. It is just ungrammatical.

I will not here discuss this issue at length. Interesting discussion can be found in Peyasantiwong (1981: 69-72). One idea which I will not try to develop here is that the questions (18) and (19) have a double negation in the second, deleted conjunct, which is

thereby affirmative, contrasting with the first, negative conjunct. In (18), for example, the underlying structure would be roughly [$_{IP}$ (you) [$_{VP}$ *mây sabaay*] [*rú~~ú~~* [$_{VP}$ *plàaw mây sabaay*]]] literally 'Are you not comfortable or not not comfortable?', where the portion *mây sabaay* of the second conjunct is always deleted. Why this construction would employ the negation word *plaaw* is not obvious, though, as *plaaw* is not otherwise combined with the negation *mây* to form double negation.

There are a few interesting discussions on the grammaticality and ungrammaticality in the use of *rŭ~~ŭ~~-plàaw* 'Q/ or-NEG' in a negative clause. Peyasantiwong (1981: 69-72) supports the negative use of *rŭ~~ŭ~~-plàaw* 'Q/ or-NEG' via the grammatical example below. The example is from Peyasantiwong.

(21) khun mây chôɔp phèt /rŭ~~ŭ~~ plàaw/
you not like hot pt
'Do you not like hot food?'

rŭ~~ŭ~~-plàaw 'Q/ or-NEG' is used with a negative stative/ generic predication to show that the speaker's expectation is in doubt. The speaker has prepared hot food, but been worried if the guests would enjoy it. This causes the speaker to ask the question. In this case, according to Peyasantiwong (1981) whether affirmative or negative, a stative or generic predication provides the addressee with two alternatives; like or dislike hot food. Each of the alternatives either agrees or disagrees with the expectation of the speaker, leading to an unproblematic double negation. However, this seems to be opposite to (22) which is also provided without translation by Peyasantiwong. The translation is my own.

(22) khun mây pay duu năŋ /rŭ~~ŭ~~ plàaw/
you NEG go see movie pt
'Aren't you going to the movies?/ You aren't going to the movies, are you?'

rŭ~~ŭ~~-plàaw 'Q/ or-NEG' is formed with a negative active predication, focusing more on the reason for the doubt of the speaker, not mutual alternatives. The speaker uses this question to ask for 'an explanation for what seems to be contradictory behaviour which cannot be put into an either/ or format'. The possible reply if it were asked could be 'Yes, I'm going,' when the speaker needs to hear 'I'm going, but not until later and that's why I haven't moved yet' (Peyasantiwong 1981: 71). Peyasantiwong also

assumes that this particle with the 'either/ or connotation cannot encompass the options needed to cover the situation adequately' (Peyasantiwong 1981: 71).

However, according to Peyasantiwong, there can be a reason why (22) should be grammatical, but with a change in semantics from the earlier example. (22) is repeated as (23).

(23) (pen phrɔ́-wâa) khun mây pay duu năŋ /rŭ̆u plàaw/
be because you not go see movie pt
'Is it because you are not going to the movies?/ Is it not because of that?'

In this example, the speaker asks the addressee when the speaker learns that the other friend is angry at the addressee. This question asks for the reason for the cause of anger. Therefore, there seems to be a prevalent utterance in brackets which is omitted, meaning 'Is it because you are not going to the movies, or is it not because of that?' (Peyasantiwong 1981: 72). The omitted utterance can be perceived from the setting regardless of overt or covert form. The particle *rŭ̆u-plàaw* 'Q/ or-NEG' as Peyasantiwong's assumption applies to the phrase *pen phrɔ́-wâa* 'to be because of' which is the verb of the main clause of the sentence. This analysis is exactly the same as the one of Iwasaki and Ingkaphirom in (19). Therefore, for the sake of the data in this study, *rŭ̆u-plàaw* 'Q/ or-NEG' can co-occur with a negative clause following those analyses. Moreover, in this thesis *plàaw* 'NEG' in the combined question particle *rŭ̆u-plàaw* 'Q/ or-NEG' is assumed to be the negation *mây* 'NEG' as in *rŭ̆u-mây* 'Q/ or-NEG'. They correspondingly share the same syntax, leading to the same primary reply shown in table 2 in chapter 3. Given that *rŭ̆u-plàaw* 'Q/ or-NEG' has the same syntax, semantics and primary replies as *rŭ̆u-mây* 'Q/ or-NEG', the analysis of the syntax and semantics of *rŭ̆u-mây* 'Q/ or-NEG' in the previous section can be referred to. No further syntactic and semantic analysis of the question particle *rŭ̆u-plàaw* 'Q/ or-NEG' will be given here.

2.4 The syntax and semantics of *chây-măy*

chây-măy 'Q/ right-NEG'*, thùuk-măy* 'Q/ true-NEG'*, ciŋ-măy* 'Q/ real-NEG' and *nêɛ-măy* 'Q/ sure-NEG' are considered confirmation question particles, used when the speaker has some pertinent information and, hence, a prior belief about the answer, and asks for confirmation of this belief (Peyasantiwong 1981 and Phothisorn 1986). These question particles are the combination of the verb *chây* 'right', *thùuk* 'true, correct', *ciŋ* 'real' and *nêɛ* 'sure' and a question particle *măy* 'Q/ NEG'. *măy* 'Q/ NEG' is assumed to have the covert conjunction *rŭu* 'or' as *(rŭu)măy* '(or)NEG'. According to Phothisorn (1986), these verbs can be used interchangeably. Furthermore, to the best of my knowledge, these combined question particles have the same syntax and similar meanings, so they can be used under the same constraints. In the following *chây-măy* 'Q/ right-NEG' is regarded as a representative of this group of question particles, being the most common one.

A striking difference between questions formed with this (type of) particle and those formed with just the question particle *măy* is that the former can contain a negation.

(24) Q: nát mây khàp rót chây-măy
Nath NEG drive car Q/ NEG
'Does Nath not drive?'/ 'Nath doesn't drive, does he?'

Another difference is that normally they are not answered with the verb[20] of the question, as in the case of *măy* questions.

(25) Q: nát khàp rót chây-măy
Nath drive car Q/ right-NEG

A: ?khàp
drive
Intended: 'Yes.'

[20] This can be arguable, though. According to my intuition, the verb of the question is not used primarily to answer this question although some of my informants suggest the verb can also be used occasionally as an alternative YNR. There is no study to confirm whether this is correct. I need to take this into account. Consequently, I put '?' in the answers in (25), and treat them as possible secondary (alternative) YNRs. However, all my informants and I agree that the answers in (26) are the most natural replies to the question in (25). The discussion and analysis of these questions and their answers in subsequent chapters is based on this intuition.

A: ʔmây khàp
NEG drive
Intended: ‘No’.

Instead they are typically answered as in (26).

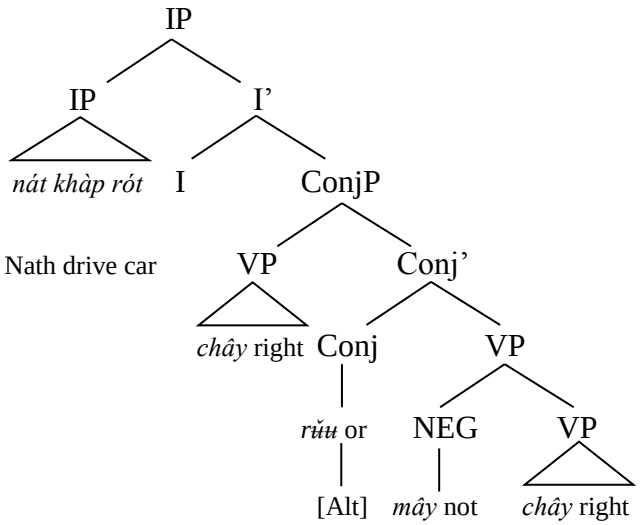
(26) A: chây
right
‘Yes.’

A: mây chây
NEG right
‘No.’

This is what I refer to as the primary answer. There are other ways that the question can be answered, conveying basically the same affirmative or negative meaning. This will be discussed in detail in chapter 3.

The explanation is the following: these particles are not conjunctions conjoining two alternative propositions, one positive and one negative. Instead, they name an evaluative predicate meaning ‘right’ or ‘true’ or ‘sure’, etc., which is conjoined with its negative counterpart, and apply it to a proposition. The question (25) literally asks ‘Is the proposition ‘Nath drives’ right or not right?’. The syntactic analysis is basically (27); the proposition meaning ‘Nath drives’ is the subject of a sentence where the conjunction phrase making up the complex question particle is the predicate. That is to say, the polarity carriers in this form of question are the VPs *chây* and *mây chây.*

(27)



This is the underlying structure. The morphological rule (5) applies, spelling out *rứu* + *mây* as *măy*, and the second conjunct is deleted under identity with the first. The result is spelled out as the question in (25). Note that this is a rough analysis, to be articulated further in chapter 4.

There is no syntactic or semantic constraint against including a negation in the IP making up the subject of the question. You can ask whether a negative proposition is true just as well as a positive one. Since the question posits a choice between the two alternatives *chây* 'right' and *mây chây* 'NEG right' (applied to the proposition 'Nath drives', in this case), this is what the answer does. It picks one of them as the true answer. It does not posit a choice between 'Nath drives' and 'Nath doesn't drive', so the answers in (25) are not appropriate. This indicates that there is a close connection between the syntax of the question and the syntax of the answer; this insight is central in this thesis, and will be articulated further in later chapters.

It is important, though, to note that (27) is not the structure of a statement (a declarative clause), combined with a question asking whether this statement is true. This is plausibly the analysis of a tag question such as (28).

(28) Nath drives, doesn't he?

chây-măy questions are not tag questions. This is shown by the fact that they can be embedded; it is something that tag questions can never be.

(29) a. chăn tôŋ-kaan rúu wâa nát khàp rót chây-măy
I want know COMP Nath drive car Q/right-NEG
I want to know whether it is right that Nath drives.

b. *I don't know whether Nath drives, doesn't he.

2.5 The syntax and semantics of *chây-rǔu-mây* and *chây-rǔu-plàaw*

In this section, the complex particle *chây-rǔu-mây* 'Q/ right-or-NEG' represents a class of particles including *thùuk-rǔu-mây* 'Q/ true-or-NEG', *ciŋ-rǔu-mây* 'Q/ real-or-NEG' and *nêɛ-rǔu-mây* 'Q/ sure-or-NEG' due to the observation that it is the most common one, and because they all share the same syntax. Similarly, *chây-rǔu-plàaw* 'Q/ right-or-NEG' represents *thùuk-rǔu-plàaw* 'Q/ true-or-NEG', *ciŋ-rǔu-plàaw* 'Q/ real-or-NEG' and *nêɛ-rǔu-plàaw* 'Q/ sure-or-NEG'. The particles *chây-rǔu-mây* 'Q/ right-or-NEG' and *chây-rǔu-plàaw* 'Q/ right-or-NEG' are discussed together since *plàaw* 'NEG' and *mây* 'NEG' are both negations; see Iwasaki and Ingkaphirom (2009: 283). The questions indicate the speaker's belief regarding the propositional content in the question (Phothisorn 1986: 55). This makes them confirmation question particles.

These combined particles are analysed into three components; namely, *chây* 'right' which is the polarity carrier (see section 2.4 on *chây-măy*), *rǔu* 'Q/ or' which is assumed to be the Alt-marked conjunction 'or' as well as *mây* 'NEG' and *plàaw* 'NEG' which are negative words.

Basically we expect these question particles to have the same properties as the *chây-măy* type. Recall that the latter was analysed as being, as it were, underlyingly *châ-rǔu-mây*, with the structure (27), which only gets spelled out as *chây-măy*. If this is right, *chây-rǔu-mây* is accordingly the overt version of the same complex particle and the same question structure. Just like *chây-măy*, *chây-rǔu-mây* would be a predicate taking a proposition as a subject, asking whether this proposition is true or not. It is therefore equally compatible with a negative as a positive proposition.

(30) nát khàp rót chây-rǔu-mây
Nath drive car Q/ right-or-NEG
'Does Nath drive?'/ Nath drives; is that right, or not?'

(31) nát mây khàp rót chây-rŭu-mây
Nath NEG drive car Q/ right-or-NEG
'Does Nath not drive?'/ Nath doesn't drive; is that right, or not?'

And just as in the case of *chây-măy* questions, the answer does not echo the verb of the proposition, but echoes one of the alternative polarity carriers in the predicate. (32) contains the answers to both (30) and (31).

(32) A: chây
right
'Yes.'

A: mây chây
NEG right
'No.'

Recall from section 2.3 that *rŭu-mây* 'Q/ or-NEG' and *rŭu-plàaw* 'Q/ or-NEG' have similar meanings, yet behave differently in relation to negative questions. This is not a problem when *rŭu-mây* 'Q/ or-NEG' and *rŭu-plàaw* 'Q/ or-NEG' are combined with *chây* 'right' as in *chây-rŭu-mây* 'Q/ right-or-NEG' and *chây-rŭu-plàaw* 'Q/ right-or-NEG'. This can be explained by the assumption that the polarity carrier of these particles is *chây* 'right'. The structure is (33), where 'p' stands for a proposition, negative or positive, syntactically a subject of the ConjP.

(33) [p [$_{Conj}$ [$_{VP}$ chây] [$_{Conj'}$ rŭu [$_{VP}$ plàaw chây]]]]
right or NEG right

The second conjunct will always be 'NEG+ *chây* 'right', with no room for ambiguity.

2.6 The syntax and semantics of *chây-rŭu* and *mây-chây-rŭu*

chây-rŭu 'Q/ right-or' and *mây-chây-rŭu* 'Q/ NEG-right-or' are selected to represent other particles i.e. *thùuk-rŭu* 'Q/ true-or', *ciŋ-rŭu* 'Q/ real-or' and *nêɛ-rŭu* 'Q/ sure-or' as well as *mây-thùuk-rŭu* 'Q/ NEG-true-or', *mây-ciŋ-rŭu* 'Q/ NEG-real-or' and *mây-nêɛ-rŭu* 'Q/ NEG-sure-or'. That is because they are found more often than any of the other combined particles in the same structure. Thus, they will be analysed together under the assumption that they are counterparts and in complementary distribution. This

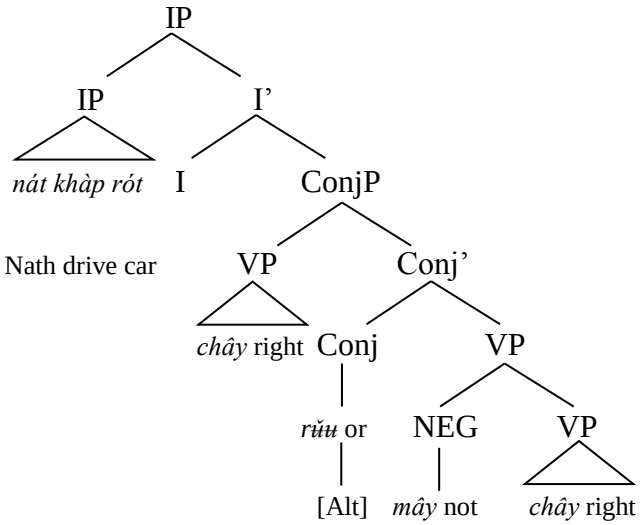
leads to the conclusion that these two combined particles share the same underlying forms although they appear in different overt forms.

(34) nát khàp rót chây-rǔu
Nath drive car Q/ right-or
'Is it right that Nath drives?'

(35) nát khàp rót mây-chây-rǔu
Nath drive car Q/ NEG-right-or
'Isn't it right that Nath drives?/ Nath drives, doesn't he?'

chây-rǔu 'Q/ right-or' and *mây-chây-rǔu* 'Q/ NEG-right-or' belong in the same family as *chây-măy* and *chây-rǔu-mây*, shown by the fact that they are standardly answered, not by echoing the verb of the proposition of the question, but by *chây* or *mây chây*. This is because the structure is (36), the same structure as (27).

(36)



This is the underlying structure of (34). (35) has the same structure, but the two conjoined VPs are in reverse order. The difference between the derivation of the question particles in this case, and the case with *chây-măy* and *chây-rǔu-mây* is that the entire second conjunct is deleted.

Under the analytical semantics of the particles *chây-rǔu* 'Q/ right-or' and *mây-chây-rǔu* 'Q/ NEG-right-or' alone (not added to a sentence yet), they have the same meaning in the sense that they both have the same components: *chây* 'right' and *mây chây* 'NEG right'. However, once they are attached to the same base sentence, the two questions are slightly different in meaning as illustrated in (34) and (35) repeated below.

(34) nát khàp rót chây-rŭ̆u
Nath drive car Q/ right-or
'Is it right that Nath drives?'

(35) nát khàp rót mây-chây-rŭ̆u
Nath drive car Q/ NEG-right-or
'Isn't it right that Nath drives?/ Nath drives, doesn't he?'

In (34), *chây* 'right' modifies the IP *nát khàp rót* 'Nath drives a car' and combines with *rŭ̆u* 'Q/ or' to ask if it is right that Nath drives. The question implies the speaker believes that Nath does not drive. In (35), *mây-chây* 'NEG-right' modifies the IP *nát khàp rót* 'Nath drives a car' and combines with *rŭ̆u* 'Q/ or' to ask if it is not right that Nath drives a car. This implies the speaker believes that Nath drives. Now, compare the negative questions.

(37) nát mây khàp rót chây-rŭ̆u
Nath NEG drive car Q/ right-or
'Nath doesn't drive, is that right?'

(38) nát mây khàp rót mây-chây-rŭ̆u
Nath NEG drive car Q/ NEG-right-or
'Nath doesn't drive, isn't that right?'

In (37), *chây* 'right' modifies the negative IP *nát mây khàp rót* 'Nath doesn't drive a car' and combines with *rŭ̆u* 'Q/ or' to ask if it is right that Nath does not drive. It implies the speaker believes that Nath drives. In (38), *mây-chây* 'NEG-right' modifies the negative IP *nát mây khàp rót* 'Nath doesn't drive a car' and combines with *rŭ̆u* 'Q/ or' to ask if it is not right that Nath does not drive. This implies that the speaker believes that Nath does not drive.

2.7 The syntax and semantics of *rɯ̌ɯ-yaŋ*

rɯ̌ɯ-yaŋ ‘Q/ or-yet’ is composed of the conjunction *rɯ̌ɯ* ‘or’ and the aspect marker *yaŋ* ‘yet’. According to Peyasantiwong (1981: 89-90), *rɯ̌ɯ-yaŋ* ‘Q/ or-yet’ is related to the time and aspect of the action, which is translated as ‘yet’ in English. *yaŋ* ‘yet’ usually follows the conjunction *rɯ̌ɯ* ‘or’, forming *rɯ̌ɯ-yaŋ* ‘Q/ or-yet’. The opposite of *yaŋ* ‘yet’ is *lέεw* ‘already’, occasionally translated as ‘now’. Hence, the proposition with *rɯ̌ɯ-yaŋ* ‘Q/ or-yet’ is usually translated as ‘Have you ... (already or not yet)?’ This is also supported by Iwasaki and Ingkaphirom (2009: 284), saying *rɯ̌ɯ-yaŋ* ‘Q/ or-yet’ is used in the sense of a perfect/ anterior counterpart of *rɯ̌ɯ-plàaw* ‘Q/ or-NEG’. It projects two alternatives, roughly ‘have done’ or ‘have not done’.

At this stage, *rɯ̌ɯ* ‘Q/ or’ is still assumed to be the conjunction with the [Alt] feature. If the assumptions of Peyasantiwong and Iwasaki and Ingkaphirom on the one hand and *rɯ̌ɯ* ‘Q/ or’ as the conjunction on the other hand are correct, the following example must have two alternative readings.

(39) nát khàp rót rɯ̌ɯ-yaŋ
Nath drive car Q/ or-yet
‘Has Nath driven (already or not yet)?’

To reply to this question, according to my intuition and informants, the two most common minimal replies are as shown in (40):

(40) A: khàp lέεw
drive already
‘Yes’. (‘He has driven already.’)

A: yaŋ mây khàp
yet NEG drive
‘No.’ (‘He has not driven, yet.’)

To derive these two replies, the addressee must semantically and syntactically perceive the question as a choice between two alternatives: *nát khàp rót lέεw* ‘Nath drive car already’ and *nát yaŋ mây khàp rót* ‘Nath yet NEG drive car’. As shown, *lέεw* ‘already’ occurs in the affirmative answer *khàp lέεw* ‘drive already’ to contradict with the

negative answer *yaŋ mây khàp* ‘yet NEG drive’. Consequently, it makes sense to infer that *lέεw* ‘already’ contrasts in meaning with *yaŋ* ‘yet’ as proposed by Peyasantiwong.

lέεw ‘already’ can be either a perfect or perfective aspect marker. According to Sookgasem (1990: 67), the perfective marker will not occur with stative verbs while the perfect one ‘involves the overlap of a described interval of eventuality and an interval of utterance’. The perfect marker indicates the start of the action which continues up to the utterance time while the perfective one expresses the termination of the action (Visonyanggoon 2000: 216). Accordingly, *lέεw* ‘already’ in the example (41) below may be treated as the perfect marker while *yaŋ* ‘yet’ should be treated in this context (in some context as ‘still’) as ‘(not) yet’ which is the negative counterpart of ‘already’.

As a consequence, it may be proposed that actually *rŭ̆u-yaŋ* ‘Q/ or-yet’ is underlyingly (*lέεw-)rŭ̆u-yaŋ* ‘(already-)or-yet’. Therefore, (39) can syntactically and semantically equal (41) *nát khàp rót lέεw-rŭ̆u-yaŋ* ‘Nath drive car already-or-yet’.

(41) nát khàp rót lέεw-rŭ̆u-yaŋ
Nath drive car Q/ already-or-yet
‘Has Nath driven (already or not yet)?’

This question is formed with the combined particle *lέεw-rŭ̆u-yaŋ* ‘Q/ already-or-yet’. The [Alt] feature of the conjunction *rŭ̆u* ‘or’ connects two polarity-carrying conjuncts. Given that *nát khàp rót lέεw* ‘Nath has already driven’ is affirmative, the other must be negative. The complete structure should therefore be (42).

(42) [$_{IP}$ nat [I’ I [$_{ConjP}$ [$_{VP}$ khàp rót (lέεw)] [$_{Conj'}$ rŭ̆u [$_{VP}$ yaŋ ~~mây khàp rót~~]]]]]
Nath drive car already or yet NEG drive car
‘Does Nath drive already?’/ Has Nath driven?

The struck out portion is always deleted while the portion *lέεw* ‘already’ within the first conjunct is optionally deleted. *yaŋ* ‘yet’ of the combined particle *lέεw-rŭ̆u-yaŋ* ‘Q/ already-or-yet’ always selects a negative complement. Thus (43) does not make sense, nor does (44).

(43) *nát khàp rót lɛ́ɛw-rǔu-yaŋ khàp rót
Nath drive car Q/ already-or-yet drive car

(44) *nát mây khàp rót lɛ́ɛw-rǔu-yaŋ khàp rót
Nath NEG drive car Q/ already-or-yet drive car

(43) becomes a grammatical question if *mây* 'NEG' is inserted (at LF) into the second conjunct. (44) can be a grammatical question without *mây* 'NEG' in the first conjunct, and with *mây* 'NEG' (at LF) in the second conjunct. Accordingly, both the questions can have the same structure as shown in (42).

Conclusion

It has been argued in this chapter that all clause-final question particles in Thai contain the element *rǔu* 'Q/or', a special case of the disjunctive conjunction *rǔu* 'or' which has an additional feature [Alt] signifying that it specifically conjoins an affirmative and a negative alternative of the same category. This element is sometimes overt, sometimes covert. All YNQs contain a disjunction of two polarity-carrying phrasal constituents, one affirmative, one negative. Typically the second one is deleted, leaving the question particle/ conjunction as the final element. On the basis of the discussion in this chapter, the question particles in Thai can be divided into two main types (listing only their main representatives):

Type 1: *mǎy, rǔu*, *rǔu-mây, rǔu-plàaw* and *rǔu-yaŋ*

Type 2: *chây-mǎy, chây-rǔu-mây, chây-rǔu-plàaw, chây-rǔu* and *mây-chây-rǔu*

The main criterion is whether the reply to the question (what will be called the *primary reply* in chapter 3) echoes the verb of the questioned proposition, or whether it echoes the question particle. This criterion can be put differently: whether the polarity carriers of the question are the conjoined verbs/ VPs of the proposition, or whether they are the conjuncts made up of the complex question particle. In Type 1, the polarity carriers are the VPs; in Type 2, the polarity carriers are the elements of the question particle, *chây* 'right' and *mây chây* 'not right'. This is because the questions marked by the two types are syntactically quite distinct. The detailed syntactic analysis of the questions and the answers will be the subject of chapters 4 and 5.

Chapter 3. Reply patterns to yes-no questions

Introduction

In the last chapter, I proposed with two types of YNQ particles; these types are classified under the analytical syntax, semantics and the answers elicited from these particles. In this chapter, I will show the possible YNR patterns to the questions with those particles discussed. This includes both primary and secondary YNRs. In addition, YNR patterns to various YNQ types with different structures are also investigated.

3.1 Reply patterns to questions with *rǔ̶u̶-mây*

Table 2: Reply patterns to questions with *rǔ̶u̶-mây*

Questions (In bold is the focused polarity carrier.) answer Phat PRT COMP Nath should ASP drive car fast POT ASP Q	Polarity carried on	Primary replies (affirmative/ negative)	Secondary replies (affirmative/ negative)
1. nát **khàp** rót rǔ̶u̶-mây	verb	khàp/ mây khàp	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
2. nát **khuan** khàp rót rǔ̶u̶-mây	modal	khuan/ mây khuan	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
3. nát khàp rót **rew** rǔ̶u̶-mây	adverb	rew/ mây rew	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
4. nát **khuan** khàp rót rew rǔ̶u̶-mây	modal	khuan/ mây khuan	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
5. nát **khəəy** khàp rót rǔ̶u̶-mây	aspect marker	khəəy / mây khəəy	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
6. nát **khàp** rót lɛ́ɛw rǔ̶u̶-mây	verb	khàp lɛ́ɛw / yaŋ mây khàp	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
7. nát khàp rót **dây** rǔ̶u̶-mây	modal	dây/ mây dây	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
8. nát **khuan** khàp rót dây rǔ̶u̶-mây	modal	khuan/ mây khuan	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
9. nát **khəəy** khàp rót lɛ́ɛw rǔ̶u̶-mây	aspect marker	khəəy lɛ́ɛw/ yaŋ mây khəəy	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
10. tɔ̀ɔp phát thii wâa nát **khàp** rót rǔ̶u̶-mây	verb	khàp/ mây khàp	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây
11. tɔ̀ɔp phát thii wâa nát **khuan** khàp rót rǔ̶u̶-mây	modal	khuan/ mây khuan	khà, khráp, ɯ̶u̶-hú̶, ɯ̶u̶m,/ plàaw, mây khà, mây khráp, mây

YNR patterns to Type-1 particles are presented separately in 3 tables although the particles belong to the same family. Table 2 illustrates the YNR patterns to both *mǎy* 'Q/ NEG' and *rǔ̌ɯ-mây* 'Q/ or-NEG' as they can occur under the same environment (i.e. they can mark positive questions only) and give the same YNR patterns. Note that the morphological rule in chapter 2 is *rǔ̌ɯ* + *mây* → *mǎy/ máy*. In this table, I consequently show *rǔ̌ɯ-mây* 'Q/ or-NEG' as a representative.

This table illustrates how to reply to positive questions with *rǔ̌ɯ-mây* 'Q/ or-NEG'. A negative clause never co-occurs with this particle due to the semantics and syntax of the lexical items combined as *rǔ̌ɯ-mây* 'Q/ or-NEG' as discussed earlier. The polarity carrier plays a role in the derivation of the primary reply. That is to say, the focus of each question can be the polarity carried on the main verb *khàp* 'drive', the adverb *rew* 'fast', the pre-verbal modal verb *khuan* 'should', the post-verbal modal verb *dây* 'POT/ can, may' or the pre-verbal aspect marker *khəəy* 'EXP/ used to'. These materials are then called verbal polarity carriers that are primary YNRs. To reply to the question negatively, the negation *mây* 'NEG' precedes these verbal polarity carriers, but to reply affirmatively, the polarity carriers alone (more precisely, with the null affirmative head) are used. For example, to reply to *nát khàp rót rǔ̌ɯ-mây* 'Does/ Did Nath drive?' in table 2 where the polarity is on the verb, either *khàp* 'drive' or *mây khàp* 'NEG drive' is picked as a primary YNR. In each question where *lɛ́ɛw* 'already' also exists, *lɛ́ɛw* 'already' necessarily follows the polarity carrier in an affirmative reply like *khàp lɛ́ɛw* 'drive already' (=Yes) and *khəəy lɛ́ɛw* 'EXP/ used to already' (=Yes). In a negative reply, *yaŋ* 'yet' precedes the negative phrase like *yaŋ mây khàp* 'yet NEG drive' (=No) and *yaŋ mây khəəy* 'yet NEG EXP/ used to' (=No).

However, there are more alternative answers to positive questions with *rǔ̌ɯ-mây* 'Q/ or-NEG'. These are secondary replies. Most of them are politeness/ honorific particles e.g. *khà* 'HON' (=Yes), *khráp* 'HON' (=Yes) and their negative counterparts *mây khà* 'NEG HON' (=No), *mây khráp* 'NEG HON' (=No), affirmative exclamations e.g. *ɯɯ-hɯ́* 'EXC' (=Yes), *ɯɯm* 'EXC' (=Yes), and negative words e.g. *plàaw* 'NEG' (=No), *mây* 'NEG' (=No). There is no distinction in reply pattern between direct and embedded questions as illustrated in the pairs of 1 and 10 as well as 2 and 11.

3.2 Reply patterns to questions with *rŭu*

Table 3: Reply patterns to questions with *rŭu*

Questions (In bold is the focused polarity carrier.)	Polarity carried on	Primary replies (affirmative/ negative)	Secondary replies (affirmative / negative)
answer Phat PRT COMP Nath NEG should ASP drive car NEG fast POT ASP Q			
1a. nát **khàp** rót rŭu	verb	khàp/ mây khàp	khà, chây/ mây khà, mây chây
b. nát mây **khàp** rót rŭu		khàp/ mây khàp	mây khà, mây chây/ khà,chây
2a. nát **khuan** khàp rót rŭu	modal	khuan/ mây khuan	khà, chây/ mây khà, mây chây
b. nát mây **khuan** khàp rót rŭu		khuan/ mây khuan	mây khà, mây chây/ khà,chây
3a. nát khàp rót **rew** rŭu	adverb	rew/ mây rew	khà, chây/ mây khà, mây chây
b. nát khàp rót mây **rew** rŭu		rew/ mây rew	mây khà, mây chây/ khà,chây
4a. nát **khuan** khàp rót rew rŭu	modal	khuan/ mây khuan	khà, chây/ mây khà, mây chây
b. nát mây **khuan** khàp rót rew rŭu		khuan/ mây khuan	mây khà, mây chây/ khà,chây
5a. nát **khəəy** khàp rót rŭu	aspect marker	khəəy / mây khəəy	khà, chây/ mây khà, mây chây
b. nát mây **khəəy** khàp rót rŭu		khəəy / mây khəəy	mây khà, mây chây/ khà,chây
6a. nát **khàp** rót lɛ́ɛw rŭu	verb	khàp lɛ́ɛw/ yaŋ mây khàp	khà, chây/ mây khà, mây chây
b. nát mây **khàp** rót lɛ́ɛw rŭu		yaŋ khàp yùu/ mây khàp lɛ́ɛw	mây khà, mây chây/ khà,chây
7a. nát khàp rót **dây** rŭu	modal	dây/ mây dây	khà, chây/ mây khà, mây chây
b. nát khàp rót mây **dây** rŭu		dây/ mây dây	mây khà, mây chây/ khà,chây
8a. nát **khuan** khàp rót dây rŭu	modal	khuan/ mây khuan	khà, chây/ mây khà, mây chây
b. nát mây **khuan** khàp rót dây rŭu		khuan/ mây khuan	mây khà, mây chây/ khà,chây
9a. nát **khəəy** khàp rót lɛ́ɛw rŭu	aspect marker	khəəy lɛ́ɛw/ yaŋ mây khəəy	khà, chây/ mây khà, mây chây
b. *nát mây **khəəy** khàp rót lɛ́ɛw rŭu			
10a. tɔ̀ɔp phát thii wâa nát **khàp** rót rŭu	verb	khàp/ mây khàp	khà, chây/ mây khà, mây chây
b. tɔ̀ɔp phát thii wâa nát mây **khàp** rót rŭu		khàp/ mây khàp	mây khà, mây chây/ khà,chây
11a. tɔ̀ɔp phát thii wâa nát **khuan** khàp rót rŭu	modal	khuan/ mây khuan	khà, chây/ mây khà, mây chây
b. tɔ̀ɔp phát thii wâa nát mây **khuan** khàp rót rŭu		khuan/ mây khuan	mây khà, mây chây/ khà,chây

Table 3 shows the YNR patterns to both *rɯ̌ɯ-plàaw* ‘Q/ or-NEG’ and *rɯ̌ɯ* ‘Q/ or’. They behave in the same manner in that they can mark both positive and negative questions. They also have the same structure. This gives them the same YNR patterns. *rɯ̌ɯ-plàaw* ‘Q/ or-NEG’ is different from *rɯ̌ɯ-mây* ‘Q/ or-NEG’ in that it can be used with a negative proposition based on the analysis of Iwasaki and Ingkaphirom (2009) and Peyasantiwong (1981) discussed in chapter 2. In table 3, *rɯ̌ɯ* ‘Q/ or’ is a representative.

According to the table, positive and negative propositions are allowed to co-occur with *rɯ̌ɯ* ‘Q/ or’. All of the questions ‘a’ are positive while questions ‘b’ are negative. All the questions are formed in different contexts with different polarity carriers i.e. the polarity carried on a main verb, a pre/ post-verbal modal verb, a pre/ post-verbal aspect marker and an adverb, so these polarity carriers are used as primary answers. For example, to reply to the question *nát khàp rót rew rɯ̌ɯ* ‘Does/ Did Nath drive fast?’ where the focused polarity is carried on *rew* ‘fast’, *rew* ‘fast’ or *mây rew* ‘NEG fast’ is used as an answer. This suggests that in Thai there can be many different forms of YNRs. However, the addressee still can select from among various secondary replies.

These secondary replies are usually a politeness/ honorific particle e.g. *khà* ‘HON’ and its negative counterpart *mây khà* ‘NEG HON’ as well as a positive verb e.g. *chây* ‘right’ and its negative counterparts *mây chây* ‘NEG right’. Actually, there can be more secondary replies e.g. the politeness/ honorific particle *khráp* ‘HON’ and its negative counterpart *mây khráp* ‘NEG HON’, affirmative exclamations e.g. *ɯɯ-hɯ́* ‘EXC’, *ɯɯm* ‘EXC’ and negative words e.g. *plàaw* ‘NEG’ and *mây* ‘NEG’. Only some are listed in the table due to space.

To reply to a positive question is straightforward. An affirmative answer is used to reply to a positive question affirmatively and a negative answer is used to reply to the question negatively. This is different from responses to a negative question. An affirmative answer e.g. *chây* ‘right’ is used negatively to agree with the negative proposition while a negative answer e.g. *mây chây* ‘NEG right’ is used affirmatively to disagree with it. As shown on pairs of direct and embedded questions as in 1 and 10 as well as 2 and 11, there is no distinction in reply pattern.

3.3 Reply patterns to questions with *rŭ̶u̶-yaŋ*

Table 4: Reply patterns to questions with *rŭ̶u̶-yaŋ*

Questions (In bold is the focused polarity carrier.) answer Phat PRT COMP Nath should ASP drive car fast POT ASP Q	Polarity carried on	Primary replies (affirmative/ negative)	Secondary replies (affirmative/ negative)
1. nát **khàp** rót rŭ̶u̶-yaŋ	verb	khàp lɛ́ɛw/ yaŋ mây khàp	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
2. nát **khuan** khàp rót rŭ̶u̶-yaŋ	modal	khuan lɛ́ɛw/ yaŋ mây khuan	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
3. nát khàp rót **rew** rŭ̶u̶-yaŋ	adverb	rew lɛ́ɛw/ yaŋ mây rew	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
4. nát **khuan** khàp rót rew rŭ̶u̶-yaŋ	modal	khuan lɛ́ɛw/ yaŋ mây khuan	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
5. nát **khəəy** khàp rót rŭ̶u̶-yaŋ	aspect marker	khəəy lɛ́ɛw/ yaŋ mây khəəy	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
6. nát **khàp** rót lɛ́ɛw rŭ̶u̶-yaŋ	verb	khàp lɛ́ɛw/ yaŋ mây khàp	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
7. nát khàp rót **dây** rŭ̶u̶-yaŋ	modal	dây lɛ́ɛw/ yaŋ mây dây	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
8. nát **khuan** khàp rót dây rŭ̶u̶-yaŋ	modal	khuan lɛ́ɛw/ yaŋ mây khuan	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
9. nát **khəəy** khàp rót lɛ́ɛw rŭ̶u̶-yaŋ	aspect marker	khəəy lɛ́ɛw/ yaŋ mây khəəy	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
10. tɔ̀ɔp phát thii wâa nát **khàp** rót rŭ̶u̶-yaŋ	verb	khàp lɛ́ɛw/ yaŋ mây khàp	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây
11. tɔ̀ɔp phát thii wâa nát **khuan** khàp rót rŭ̶u̶-yaŋ	modal	khuan lɛ́ɛw/ yaŋ mây khuan	khà, khráp, u̶u̶-hú, u̶u̶m,/ plàaw, mây khà, mây khráp, mây

Table 4 illustrates the YNR patterns to *rɯ̌ɯ-yaŋ* ‘Q/ or-yet’. *rɯ̌ɯ-yaŋ* ‘Q/ or-yet’ is special in that it conveys a perfect meaning of the question, so the YNRs to this particle are typically combined with the aspect markers i.e. *lɛ́ɛw* ‘already’ and *yaŋ* ‘yet’ to convey the aspectual information asked. This is the reason it is represented in a separate table.

A negative clause cannot co-occur with this particle due to the semantic and syntactic grounds discussed in chapter 2.7. As expected, the polarity carriers are still used as primary replies. The element that can be focused in this question particle is the polarity carried on either a main verb, a modal verb, an aspect marker or an adverb. They are consequently polarity carriers. Once they are used as affirmative replies, *lɛ́ɛw* ‘already’ is attached to them to convey a perfect sense. To reply negatively, *yaŋ* ‘yet’ usually precedes a negative polarity carrier. A negative polarity carrier can be formed by placing the negation *mây* ‘NEG’ to precede the polarity carrier. For example, to reply to the question *nát khàp rót rɯ̌ɯ-yaŋ* ‘Has Nath driven, yet?’ where the focus is on *khàp* ‘drive’, *khàp* ‘drive’ is combined with *lɛ́ɛw* ‘already’ as in *khàp lɛ́ɛw* ‘drive already’, and mây khàp ‘NEG drive’ is combined with *yaŋ* ‘yet’ as in *yaŋ mây khàp* ‘yet NEG drive’. They both function as primary YNRs. *lɛ́ɛw* ‘already’ and *yaŋ* ‘yet’ are consequently in complementary distribution.

Regarding alternative replies, the addressee can select certain lexical items to use as secondary replies e.g. politeness/ honorific particles *khà* ‘HON’ (=Yes), *khráp* ‘HON’ (=Yes) and their negative counterparts *mây khà* ‘NEG HON’ (=No), *mây khráp* ‘NEG HON’ (=No), affirmative exclamations *ɯɯ-hɯ́* ‘EXC’ (=Yes), *ɯɯm* ‘EXC’ (=Yes) and negative words *plàaw* ‘NEG’ (=No), *mây* ‘NEG’ (=No). No distinction is detected among replies to both direct and embedded questions as evidenced from the pairs of 1 and 10 as well as 2 and 11.

3.4 Reply patterns to questions with *chây-rŭu-mây*

Table 5: Reply patterns to questions with *chây-rŭu-mây*

Questions (In bold is the focused polarity carrier.)																		Polarity on	Primary replies (affirmative/ negative)	Secondary replies (affirmative/ negative)	Secondary replies (affirmative/ negative)
answer	Phat	PRT	COMP	Nath	NEG	should	ASP	drive	car	NEG	fast	POT	ASP	Q							
1a.				nát				khàp	rót					**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	khàp/ mây khàp
b.				nát	mây			khàp	rót					**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	khàp/ mây khàp
2a.				nát		khuan		khàp	rót					**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	khuan/ mây khuan
b.				nát	mây	khuan		khàp	rót					**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	khuan/ mây khuan
3a.				nát				khàp	rót		rew			**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	rew/ mây rew
b.				nát				khàp	rót	mây	rew			**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	rew/ mây rew
4a.				nát		khuan		khàp	rót		rew			**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	khuan/ mây khuan
b.				nát	mây	khuan		khàp	rót		rew			**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	khuan/ mây khuan
5a.				nát			khəəy	khàp	rót					**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	khəəy/ mây khəəy
b.				nát	mây		khəəy	khàp	rót					**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	khəəy/ mây khəəy
6a.				nát				khàp	rót				lέεw	**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	khàp lέεw/ yaŋ mây khàp
b.				nát	mây			khàp	rót				lέεw	**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	yaŋ khàp yùu/ mây khàp lέεw
7a.				nát				khàp	rót		dây			**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	dây/ mây dây
b.				nát				khàp	rót	mây	dây			**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	dây/ mây dây
8a.				nát		khuan		khàp	rót		dây			**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	khuan/ mây khuan
b.				nát	mây	khuan		khàp	rót		dây			**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	khuan/ mây khuan
9a.				nát			khəəy	khàp	rót				lέεw	**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	khəəy lέεw/ yaŋ mây khəəy
b.				*nát	mây		khəəy	khàp	rót				lέεw	**chây**-rŭu-mây							
10a.	tɔ̀ɔp	phát	thii	wâa	nát			khàp	rót					**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	khàp/ mây khàp
b.	tɔ̀ɔp	phát	thii	wâa	nát	mây		khàp	rót					**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	khàp/ mây khàp
11a.	tɔ̀ɔp	phát	thii	wâa	nát		khuan	khàp	rót					**chây**-rŭu-mây				chây	chây/ mây chây	khà/ plàaw, mây khà	khuan/ mây khuan
b.	tɔ̀ɔp	phát	thii	wâa	nát	mây	khuan	khàp	rót					**chây**-rŭu-mây					mây chây/ chây	plàaw, mây khà/ khà	khuan/ mây khuan

Table 5 shows the YNRs to Type-2 particles, i.e. *chây-măy* 'Q/ right-NEG', *chây-rɯ̌ɯ-mây* 'Q/ right-or-NEG', *chây-rɯ̌ɯ-plàaw* 'Q/ right-or-NEG', *chây-rɯ̌ɯ* 'Q/ right-or' and *mây-chây-rɯ̌ɯ* 'Q/ NEG-right-or', based on the analysis that these particles are composed of two conjuncts of either *chây* 'right' or *mây-chây* 'NEG right' leading to the same primary YNR patterns. However, the two conjuncts can be in reverse order. *chây-rɯ̌ɯ-mây* 'Q/ right-or-NEG' is a representative of Type-2 particles in this table.

This table illustrates reply patterns to questions with *chây-rɯ̌ɯ-mây* 'Q/ right-or-NEG'. It can occur in either a positive or negative proposition due to the same focused polarity carrier *chây* 'right'. This correspondingly leads to *chây* 'right' and *mây chây* 'NEG right' as the primary replies to the positive questions. For example, in *nát khàp rót chây-rɯ̌ɯ-mây* 'Nath drives; is that right?', *chây* 'right' or *mây chây* 'NEG right' is used to say that the proposition *nát khàp rót* 'Nath drives' is right or not right. However, to answer negative questions, *chây* 'right', an affirmative reply, is used to agree with the negative proposition meaning 'No' while *mây chây* 'NEG right', a negative reply, is used to disagree with the negative proposition meaning 'Yes'. For example, in *nát mây khàp rót chây-rɯ̌ɯ-mây* 'Nath doesn't drive; is that right?', *chây* 'right' is used to say that the proposition *nát mây khàp rót* 'Nath doesn't drive' is true while *mây chây* 'NEG right' is used to say that the proposition *nát mây khàp rót* 'Nath doesn't drive' is not true.

More reply patterns are also found as secondary replies. These include politeness/ honorific particles e.g. *khà* 'HON', *khráp* 'HON', affirmative exclamations e.g. *ɯɯ-hɯ́* 'EXC', *ɯɯm* 'EXC' and negative words e.g. *mây* 'NEG', *plàaw* 'NEG'. Some are not listed in the table due to space considerations. In addition, another possible set of secondary replies is in the rightmost column. Without these combined particles, the replies in this column are simply verbal materials i.e. polarity carriers in the positive/ negative base sentence. When *chây-rɯ̌ɯ-mây* 'Q/ right-or-NEG' is attached to the sentence, the focused polarity is shifted to be carried on *chây* 'right'. Therefore, in real speech, the materials in the rightmost column are also used to reply to questions. For example, *nát khàp rót chây-rɯ̌ɯ-mây* 'Nath drives; is that right?' can be responded to secondarily by *khàp* 'drive' with a strong tone, accent or stress to mean 'Yes, he DOES drive' and possibly to show the addressee's annoyance or surprise etc.[21] This may be caused by the fact that the addressee has answered repeatedly or the evidence is so

[21] This originates from discussion with my informants, who suggest that the verb can also be used to reply to this question.

obvious that nothing can prompt the speaker to ask such information. Regardless of whether it is a reply to the positive or negative question, the secondary YNRs in the rightmost column work in the same manner i.e. the affirmative reply e.g. *khàp* ‘drive’ is used affirmatively and vice versa.

Regarding secondary replies, it is interesting to observe that to answer a question that includes *léɛw* ‘already’ as in 6 and 9, *léɛw* ‘already’ does not serve alone as a reply. Neither does the verbal material. Therefore, *léɛw* ‘already’ follows a verbal material as in *khàp léɛw* ‘drive already’ and *khəəy léɛw* ‘EXP/ used to already’. *yaŋ* ‘yet’, which does not exist in the question, precedes a negative answer as in *yaŋ mây khàp* ‘yet NEG drive’ and *yaŋ mây khəəy* ‘yet NEG EXP/ used to’. The account of *léɛw* ‘already’ and *yaŋ* ‘yet’ is discussed in the section of the particle *rŭ̌u-yaŋ* ‘Q/ or-yet’.

To reply to positive questions ‘a’, affirmative answers are used affirmatively e.g. *khà* ‘HON’ (=Yes) etc. while negative answers are used negatively e.g. *mây khà* ‘NEG HON’ (=No). This is contrary to how negative questions ‘b’ are responded to. Negative answers are used affirmatively to disagree with the negative proposition e.g. *plàaw* ‘NEG’ (=Yes) and *mây khà* ‘NEG HON’ (=Yes). The affirmative answer is used negatively to agree with the negative proposition e.g. *khà* ‘HON’ (=No). No more secondary YNRs are listed due to space. Finally, there is no distinction in terms of how to reply to direct and embedded questions. This can be shown by the fact that the same reply patterns occur as in the pairs of 1 and 10 as well as 2 and 11.

3.5 Reply patterns to a variety of YNQ types

3.5.1 Reply patterns to YNQs with more verbal elements

Although there is no study suggesting the exact number of verbal elements that can co-occur in the same question, we may assume that, in principle, any number of different verbal elements can occupy in a YNQ as long as (a) they provide a meaningful interpretation and (b) they do not occur in the same syntactic position. The latter condition may explain why we never see several epistemic modals co-occurring in the same proposition, as in (1), where underlined are epistemic modal verbs competing for the same position in the syntax. (One may refer here to table 6 in chapter 5.)

(1) *nát àat-cà khoŋ-cà nâa-cà tôŋ khàp rót dây rŭ̌u
Nath probably likely should must drive car POT Q/ or

To yield 'a meaningful interpretation', the verbal elements that co-occur must not conflict in semantics as in (2).

(2) *nát yaŋ khàp rót lέεw rŭ̌u
Nath still drive car already Q/ or

This conflict may be due to the contrasted semantics of two aspect markers *yaŋ* 'still' and *lέεw* 'already'. *yaŋ* 'still' is the imperfective aspect marker which conveys the ongoing action while *lέεw* 'already' is a perfect aspect marker that signifies the action has been completely carried out. The meaning of (2) consequently collapses. However, Visonyanggoon (2000) has shown some possible co-occurrences of verbal elements; namely, modal verbs and aspect markers, based on their syntactic positions and semantics that allow such co-occurrences. One can refer to (1)-(10) and table 6 in chapter 5.

In a question where there is only a main verb as a verbal element, such a verb is consequently picked as a minimal primary YNR. If the question is formed with a modal verb, such a modal verb is then picked. This is the case no matter how many modal verbs there are in a question as shown in (3) and (4) below.

(3) Q: nát khuan cà khàp rót dây rŭ̌u
Nath should will drive car can, may Q/ or
'Should Nath be allowed to drive?'

A: khuan/ mây khuan
should/ NEG should
'Yes/ No.'

(4) Q: nát nâa-cà tôŋ khàp rót dây rŭ̌u[22]
Nath should must drive car can/ may Q/ or
'Should Nath have to be allowed to drive?'

[22] According to Visonyanggoon (2000), *nâa-cà* 'should' (and *khuan-cà* 'should') is an epistemic modal verb, and can be used in a YNQ. Consequently, I would suggest that *nâa-cà* 'should' can be a primary YNR. The reason why *nâa-cà* 'should' (and *khuan-cà* 'should') is used in a YNQ while other epistemic modal verbs are not is not discussed in great detail in her study.

A: nâa-cà/ mây nâa-cà
should/ NEG should
'Yes/ No.'

The context of (3) and (4) is that the speaker is not certain if he/ she gets the message right, so the confirmation is asked for. There are three modal items i.e. *khuan* 'should', *cà* 'will', *dây* 'POT/ can, may' and *nâa-cà* 'should', *tôŋ* 'must', *dây* 'POT/ can, may' in (3) and (4), respectively. In (3), only *khuan* 'should' and *dây* 'POT/ can, may' have a verbal feature (i.e. ability to be negated or a complement to *mây* 'NEG') with the exception of *cà* 'will' while in (4) all modal verbs have a verbal feature. All of these modals are higher than the VP *khàp rót* 'drive a car', so the main verb is definitely not the primary YNR in this case. Therefore, the addressee selects *khuan* 'should' in (3) and *nâa-cà* 'should' in (4), given that they have scope over the rest of the VP and are verbal. Finally, (3) and (4) employ a modal-verb reply pattern. Apart from a modal verb, a YNR can be any verbal element, but typically in the highest position in the syntax e.g. an aspect marker as in (5).

(5) Q: nát khəəy tôŋ khàp rót yùu tɔɔn tii-sɔ̌ɔŋ rǔu
Nath EXP must drive car PROG/ IMPF at 2 A.M.
Q/ or
'Did Nath have an experience of having to drive at 2 A.M.?/ Did Nath still have to drive at 2 A.M.?'

A1: khəəy/ mây khəəy
EXP/ used to/ NEG EXP/ used to
'Yes/ No.'

A2: *tôŋ/ *mây tôŋ
must/ NEG must

A3: *yùu / *mây yùu
IMPF/ NEG IMPF

The primary YNR of (5) is *khəəy* 'EXP/ used to', not the modal verb *tôŋ* 'must' or the aspect marker *yùu* 'IMPF'. Hence, it can be confirmed at this stage that in the case of

YNQs with more verbal elements, the reply is derived from the highest verbal element in the preceding question, which is usually a modal verb or an aspect marker.

3.5.2 Reply patterns to YNQs with different lexical verbs

A main verb is definitely a legitimate primary YNR if it is the only verbal element available in the preceding YNQ. As observed, that may be due to the fact that it scopes over the rest of a predicate as shown below.

(6) khăw kin [$_{DP}$ kha-nŏm thîi sú~~u~~ maa càak lɔɔn-dɔ̂ɔn] rŭ~~u~~
he eat dessert that buy come from London Q/ or
'Did he eat [$_{DP}$ a dessert bought from London]?'

In square brackets are the elements under the scope of the verb *kin* 'eat', so *kin* 'eat' or *mây kin* 'NEG eat' is spelled out as a reply. All the main verbs that have been exemplified so far are transitive verbs which require a complement, the DP. This present section illustrates how we answer a YNQ with other verb types.

Regarding the copula-verb YNQ, *pen* 'COP' and *kh~~uu~~* 'COP' are taken as copula verbs, corresponding to the copulative sentence 'A is B' in English. According to Iwasaki and Ingkaphirom (2009: 221), *pen* 'COP' is a semi-verbal verb indicating that 'an object, a person, or a concept is in some state'. *kh~~uu~~* 'COP' is a copula verb and also treated as a linker to introduce 'the name, label, or definition of an object, person or concept.'

Each of the copula verbs can be used in a YNQ, but act differently in primary YNRs.

(7) Q: khăw pen khon thay rŭ~~u~~
he COP person Thai Q/ or
'Is he Thai?'

A: pen/ mây pen, mây dây pen
COP/ NEG COP, NEG ASP COP
'Yes/ No.'

(8) Q: nát pen tam-rùat rŭ~~u~~
Nath COP police Q/ or
'Is Nath a policeman?'

A: pen/ mây pen, mây dây pen
COP/ NEG COP, NEG ASP COP
'Yes/ No.'

(9) Q: khăw khɯɯ khun khăw-saay rŭu
he COP TL Khaosai Q/ or
'Is he Mr Khaosai?'

A1: chây/ mây chây
right/ NEG right
'Yes/ No.'

A2: *khɯɯ/ *mây khɯɯ
COP/ NEG COP

(10) Q: nát khɯɯ khon thîi bɔ̀ɔk nút rŭu
Nath COP person SBR tell Nuch Q/ or
'Was Nath the one who told Nut?/ Was it Nath who told Nuch?'

A1: chây/ mây chây
right/ NEG right
'Yes/ No.'

A2: *khɯɯ/ *mây khɯɯ
COP/ NEG COP

In (7) and (8) where *pen* 'COP' is the main verb, the affirmative primary reply is *pen* 'COP' while a negative counterpart is the negation *mây* 'NEG' + *pen* 'COP', and alternatively the negation *mây* 'NEG' + *dây* 'ASP' + *pen* 'COP'. Due to this alternative primary negative reply and the fact that **mây khɯɯ* 'NEG COP' cannot be a primary YNR, Iwasaki and Ingkaphirom (2009: 221) claim that 'neither *pen* nor *khɯɯ* is fully a verb, as they cannot be normally negated directly like any other verbs in the Thai language'. Although Iwasaki and Ingkaphirom (2009) do not give a detailed account to explain this, it is the case that *khɯɯ* 'COP' cannot be the primary YNR as in (9) and (10) as it is non-verbal. It also does not head a predicate; as we can see in Thai it precedes a non-predicate *khăw-saay* 'Khaosai' in (9). Being a predicate means having a verbal property.

In (7) and (8), alternatively the addressee can make use of *dây* 'ASP' in the reply despite it not being present in the preceding question. It simply occurs between the negation and the verb. According to Iwasaki and Ingkaphirom (2009: 167), *dây* 'ASP' is an inchoative aspect marker, concerning 'two opposing states' and indicating that 'a change from one state to another has taken place'. It can be used in the present or future as in (11) and (12) below. When it is used with the negation *mây* 'NEG', it normally signals a past time frame as in (13) (Iwasaki and Ingkaphirom 2009: 168).

(11)	kháw	rian	nàk	mâak	¦	thŭŋ	dây	pen	mɔ̆ɔ
	3	study	heavy	much	¦	reach	get/ ASP	COP	doctor

'He studied very hard. That's why he has become a doctor.'

(12)	khĭan	wáy	dii	kwàa	cà	dây	mây	lɯɯm
	write	ASP	good	than	CM	get/ ASP	NEG	forget

'It's better to write it down so that I won't forget it.'

(13)	lɛ́w	tɔɔn	nán	bɛ̀p	khon	kɔ̂	mây	dây	nɔɔn	kan	ləəy
	LINK	time	that	HDG	people	LP	NEG	get/ASP	sleep	REC	PP

'And at that time people did not get to sleep.'

It is the case that *dây* 'ASP' is an aspect marker, but the idea above has not obviously accounted for (7) and (8) because *mây dây pen* 'NEG ASP COP' in (7) and (8) does not convey a past-time interpretation. Therefore, the idea of Iwasaki and Ingkaphirom (2009) above may not be appropriate here. Takahashi (1996: 32) proposes that *mây dây* 'NEG ASP' is used to signal that the event or the condition is not the case or not felicitous. Sookgasem (1990: 82) explains that *mây dây* 'NEG ASP' is used to negate non-habitual actions while Ekniyom (1979: 60-61 cited in Takahashi (1996: 34)) distinguishes *mây dây* 'NEG ASP' as a realis negation and *mây* 'NEG' as an irrealis negation, shown in the following examples.

(14)	kháw	mây	pen	khruu	nêɛ-nêɛ
	3	NEG	COP	teacher	certainly

'He certainly will not be a teacher.'

(15)	kháw	mây-dây	pen	khruu	nêɛ-nêɛ
	3	NEG	COP	teacher	certainly

'He certainly was/ is not a teacher.'

Therefore, I would say that the idea of Sookgasem (1990) may explain other verb types, but not the copula verb in this case. The speaker of (7) and (8) can use *dây* 'ASP' to convey the message under the interpretation of either Ekniyom (1979) or Takahashi (1996).

Thus, (7) and (8) have underlying structures below.

(16) khăw pen khon thay rŭu (khăw) mây pen/ mây dây pen
he COP person Thai Q/ or he NEG COP/ NEG ASP COP
khon thay
person Thai
'Is he Thai, or not?'

(17) khăw pen tam-rùat rŭu (khăw) mây pen/ mây dây pen
he COP police Q/ or he NEG COP/ NEG ASP COP
tam-rùat
police
'Is he a policeman, or not?'

The [Alt] feature[23] of *rŭu* 'Q/ or' connects a negative conjunct to the affirmative one successfully as shown by the replies in (7) and (8). However, it fails to connect the two conjuncts as in (18) and (19) due to the fact that *khuu* 'COP' cannot be directly negated.

(18) *khăw khuu khun khăw-saay rŭu (khăw) mây khuu khun
he COP TL Khaosai Q/ or he NEG COP TL
khăw-saay
Khaosai
Intended: 'Is he Mr Khaosai, or not?'

(19) *nát khuu khon thîi bɔ̀ɔk nút rŭu (nát) mây khuu khon
Nath COP person SBR tell Nuch Q/ or Nath NEG COP person
thîi bɔ̀ɔk nút
SBR tell Nuch
Intended: 'Was Nath the one who told Nuch, or not?'

[23] It is assumed that the question particle *rŭu* 'Q/ or' has the alternative feature. It works to conjoin two conjuncts together to form a YNQ, and the second conjunct is deleted so that it is different from a disjunctive sentence. This will be discussed in greater detail in chapter 4 and 5.

This may suggest that *khɯɯ* 'COP', a copula verb in an affirmative conjunct, has a negative counterpart as *mây chây* 'NEG right', instead of **mây khɯɯ* 'NEG COP' as shown in the answers of (9) and (10). Nevertheless, this is actually a consequence of the fact that *khɯɯ* 'COP' is not verbal, so it cannot be a primary answer. Alternatively, in some context *chây* 'right' may be another copula verb. This is supported by (20) and (21) below where they convey the same semantics and solicit the same primary answers. The distinction detected is that (21) will never be used in a written text since it is in a very colloquial register.

(20) Q: khăw **khɯɯ** khun khăw-saay rŭu
he COP TL Khaosai Q/ or
'Is he Mr Khaosai?'

A1: chây/ mây chây
right/ NEG right
'Yes/ No.'

A2: *khɯɯ/ *mây khɯɯ
COP/ NEG COP

(21) Q: khăw **chây** khun khăw-saay rŭu
he right TL Khaosai Q/ or
'Is he Mr Khaosai?'

A1: chây/ mây chây
right/ NEG right
'Yes/ No.'

A2: *khɯɯ/ *mây khɯɯ
COP/ NEG COP

Therefore, we may conclude at this stage that, with the exception of *khɯɯ* 'COP', which is not verbal, a copula verb can be used as a primary YNR like other transitive verbs and my analysis of the syntax and semantics of particles in chapter 2 can account for this. This is also true for intransitive verbs or stative verbs since they can be primary YNRs on their own right as shown below.

(22) Q: mii phaa-yú mǎy
exist/ have thunder Q/ NEG
'Was there thunder?'

A: mii/ mây mii
exist/ have NEG exist/ have
'Yes/ No.'

(23) Q: fŏn tòk rŭ̆u
rain fall Q/ or
'Did it rain?'

A: tòk/ mây tòk
fall/ NEG fall
'Yes/ No.'

(24) Q: nát pùat hŭa rŭ̆u
Nath painful head Q/ or
'Did Nath have a headache?'

A: pùat/ mây pùat
painful/ NEG painful
'Yes/ No.'

In Thai, an adjective can be used as a predicate or a noun modifier in a sentence. When it is a predicate, it acts as an intransitive verb on its own requiring no copula verb as in English (Iwasaki and Ingkaphirom 2009: 91). Therefore, it is observed that it may be treated as an adjectival verb when it syntactically follows a subject argument e.g. *suăy* 'beautiful' in *nút suăy mâak* 'Nuch is very beautiful'. Given that it is an adjectival verb, this verb can have a comparative form and a superlative form and these forms can be primary YNRs as illustrated below.

(25) Q: khăw lɔ̀ɔ kwàa nát rŭ̆u
he handsome than Nath Q/ or
'Is he more handsome than Nath?'

A1: lɔ̀ɔ kwàa/ mây (dây) lɔ̀ɔ kwàa
handsome than/ NEG (ASP) handsome than
'Yes/ No.'

A2: *lɔ̀ɔ/ *mây (dây) lɔ̀ɔ
handsome/ NEG (ASP) handsome

(26) Q: nɔ́ɔy sŭay thîi-sùt rŭu
Noi pretty SPR Q/ or
'Is Noi the prettiest?'

A1: sŭay thîi-sùt/ mây (dây) sŭay thîi-sùt
pretty SPR/ NEG (ASP) pretty SPR
'Yes/ No.'

A2: *sŭay/ *mây (dây) sŭay
pretty/ NEG (ASP) pretty

To form a comparative and a superlative form, *kwàa* 'than' and *thîi-sùt* 'SPR' are added to the adjectival verbs. Then, to act as an affirmative primary YNR, both the main verb and the comparative morpheme *kwàa* 'than' or the superlative morpheme *thîi-sùt* 'SPR' will be picked together. As a negative reply, the negation *mây* 'NEG' or *mây* 'NEG'+ *dây* 'ASP' must precede them. This is actually the evidence that the minimal YNRs in Thai need not be a head, but can be a phrase.

Above I assume that an adjective in Thai can function as a verb without a copular verb, following Iwasaki and Ingkaphirom (2009). The alternative is that there is a covert copular verb linking the subject and the predicate. However, there is no study, to the best of my knowledge, to support this covert copular verb in Thai. Below are my own examples, showing that Thai has a compulsory copular verb in some constructions with nominal predicates, and that adjectival predicates are verbal, and not constructed with a covert copula.

(27) a. khon thîi pen tam-rùat
person that COP police
'a person who is a police'

b. *khon thîi tam-rùat
person that police

This is different from the corresponding examples (28) below where the adjectival predicate does not need, and in fact cannot take, a copular verb. For this reason, it is assumed that it is in fact an adjectival verb. The example (29b) further confirms that the adjectival verb has the same verbal feature as the lexical verb of action in (29a).

(28) a. khon thîi (*pen) dii
person that COP good
'a person who is nice'

b. khon thîi (*pen) khěŋ-rɛɛŋ
person that COP strong
'a person who is strong'

(29) a. khon mây dəən
person NEG walk
'A person doesn't walk.'

b. khon mây dii
person NEG good
'A person is not nice.'

Moreover, Iwasaki and Ingkaphirom (2009: 91) claim that ''adjectives may be used as the predicate in a sentence as well. Such predicate adjectives are considered intransitive verbs for they do not require a copula as in English.'' The following are the examples from Iwasaki and Ingkaphirom (2009: 92).

(30) rót khan níi phɛɛŋ
car CLS this expensive
'This car is expensive.'

(31) phûuyĭŋ khon níi sŭay
woman CLS this beautiful
'This woman is beautiful.'

From all the examples above, in this thesis I consequently follow Iwasaki and Ingkaphirom (2009) in assuming that predicative sentences with adjectival predicates are not formed with a copula, but that adjectives are classed together with intransitive verbs in Thai.

Finally, at this stage, we have learned that the copula verb can be a legitimate YNR on its own right if it is verbal e.g. *pen*. However, there is an alternative strategy in answering, making use of another verbal element like *châ*y 'right'. That is because the copula verb, for example, *khɯɯ* is non-verbal. Regarding the intransitive verb, it can act as a primary YNR on its own like other transitive verbs. In some contexts where there is a modifier co-occurring with an intransitive verb, it co-occurs with that verb to act as a primary reply e.g. a comparative or superlative morpheme.

3.5.3 Reply patterns to passive-construction YNQs

Although a passive construction in Thai does not always have a fixed structure, unlike English where the passive meaning is conveyed by the structure *S + copula V. + past participle V.* , it can be perceived through the meaning and certain passive auxiliaries e.g. *thùuk, doon* and *dâ*y*-ráp*. Therefore, in Thai there are three major types of the passive construction in relation to these auxiliaries which are glossed as PASS by Iwasaki and Ingkaphirom (2009: 313).

(32) Q: nát doon khîan rŭu
Nath PASS whip Q/ or
'Was Nath whipped?'

A1: doon / mây doon
PASS/ NEG PASS
'Yes/ No.'

A2: khîan/ mây khîan
whip/ NEG whip
'Yes/ No.'

(33) Q: nát thùuk càp rɯ̌u
Nath PASS arrest Q/ or
'Was Nath arrested?'

A1: thùuk/ mây thùuk
PASS/ NEG PASS
'Yes/ No.'

A2: càp/ mây càp
arrest/ NEG arrest
'Yes/ No.'

(34) Q: nát dây-ráp chɯ̌un rɯ̌u
Nath PASS invite Q/ or
'Was Nath invited?'

A1: dây-ráp/ mây dây-ráp
PASS/ NEG PASS
'Yes/ No.'

A2: chɯ̌un/ mây chɯ̌un
invite/ NEG invite
'Yes/ No.'

All the passive sentences above differ in meaning in that the speaker of (32) and (33) believes that the event may affect the patient *nát* 'Nath' in at least one negative way, which is the 'adversative reading' of the passive construction, while (34) provides a positive interpretation of an event. I would say that both *thùuk* 'PASS' and *doon* 'PASS' are normally used to convey a negative passive meaning although Prasithrathsint (1985: 90) suggests that '*thùuk* has been neutralized these days' and I would claim that *doon* 'PASS' is more colloquial.

To answer these questions, the addressee would select these passive auxiliaries as the primary YNRs because they are the highest verbal elements, and I would say that all A2 answers above are alternative secondary YNRs.

In addition to the passive sentences signalled by those passive auxiliaries, I have also found sentences which are not syntactically passive, but are perceived as passive constructions through meaning.

(35a) bâan níi sâaŋ dûay ìt rŭ̌u
house this build with brick Q/ or
'Was this house made of bricks?'

(36) năŋ-sŭ̌u lêm níi khĭ̌an dooy thom-má-yan-tii rŭ̌u[24]
book CLS this write by Thomayantee Q/ or
'Was this book written by Thomayantee?'

In spite of having no overt passive auxiliaries, they are still treated like the passive construction since they project a passive interpretation i.e. a house has never built itself. The same is true when a book must be written by someone. Furthermore, (35a) presupposes that the house must have been built by a man while (36) obviously denotes the agent who wrote the book through a prepositional phrase *dooy thom-má-yan-tii* 'by Thomayantee'.

To answer those sentences, the lexical verbs *sâaŋ* 'build' and *khĭ̌an* 'write' can be primary YNRs. This can be supported by the following examples with replies, where (35a) is repeated below as (35b) and compared with its active-construction counterpart (37).

(35b) Q: bâan níi sâaŋ dûay ìt rŭ̌u
house this build with brick Q/ or
'Was this house made of bricks?'

A1: sâaŋ/ mây sâaŋ
build/ NEG build
'Yes/ No.'

[24] Arguably, this sentence is not part of 'standard Thai', but may be a result of recent influence from English. However, it is still pervasively found in daily conversations and also occurs in daily news, magazines, articles etc.

A2: chây/ mây chây
right/ NEG right
'Yes/ No.'

(37) Q: nát sâaŋ bâan níi dûay ìt rŭu
Nath build house this with brick Q/ or
'Did Nath build this house out of bricks?'

A1: sâaŋ/ mây sâaŋ
build/ NEG build
'Yes/ No.'

A2: chây/ mây chây[25]
right/ NEG right
'Yes/ No.'

It is obvious from (35b) and (37) that the lexical verb *sâaŋ* 'build' and its negative counterpart *mây sâaŋ* 'NEG build' are primary YNRs to both active- and passive-construction YNQs, and that *chây* 'right' or *mây chây* 'NEG right' are used as secondary YNRs. *chây* 'right' and *mây chây* 'NEG right' scope over the proposition *bâan níi sâaŋ dûay ìt* 'This house was made of bricks' in (35b), and over *nát sâaŋ bâan níi dûay ìt* 'Nath built this house out of bricks' in (37) to convey whether the proposition is the case or not.

Arguably, one may say that the passive sentences without overt passive markers as in (35a, b), when answered as in (35A2), contain covert *chây* 'right' and *mây chây* 'NEG right' in a question particle, as shown in the underlying structure in (38).

(38) bâan níi sâaŋ dûay ìt (chây) rŭu (mây chây)
house this build with brick Q/ (right) or (NEG right)
'Is it right, or not right that this house was made of bricks?'

Above I propose that main verbs can be perfect primary YNRs to passive-construction YNQs in Thai. This is contested by some of my informants who say that the main verb is not appropriate as a YNR to passive-construction YNQs, but instead *chây* 'right' and *mây chây* 'NEG right' are the most natural YNRs in this context. According to them,

[25] These are secondary YNRs.

the main verbs *khîan* ‘whip’*, càp* ‘arrest’ and *chuun* ‘invite’ in (32), (33) and (34) would be the primary YNRs if they were the only verbal elements in the question in the active voice. Consequently, when the minimal primary YNRs to (32), (33) and (34) are *khîan* ‘whip’*, càp* ‘arrest’ and *chuun* ‘invite’, respectively, they interpret it as if Nath was an agent who did *khîan* ‘whip’*, càp* ‘arrest’ and *chuun* ‘invite’. That is to say, the answer is incompatible with the passive interpretation of the question. Thus, for these speakers, main-verb replies in (32), (33) and (34) are not valid in this construction.

At present I have no explanation for this variation in judgments. Given an analysis where the verb in the passive construction is the highest verbal category, the theory predicts that (32A1), (33A1), (34A1), and (35A1) are possible primary answers. I presume that more thorough investigation of passives will shed light on this issue. In this thesis, I will ignore the variation and focus on the variety where a bare verb can be a valid YNR to passive-construction YNQs, as predicted if the verb is the highest verbal element. This is further corroborated by the answers in (39) and (40). The primary YNR in (41) also supports that the (highest) verbal element is picked as a primary YNR regardless of being passive-construction YNQs.

(39) Q: tó càt lɛ́ɛw rŭu
table arrange already Q/ or
‘Has the table been arranged, yet?’

A1: *càt/ *mây càt
arrange/ NEG arrange

A2: *lɛ́ɛw/ *mây lɛ́ɛw
already/ NEG already

A3: càt lɛ́ɛw/ yaŋ mây càt
arrange already/ yet NEG arrange
‘Yes/ No.’

(40) Q: tó yaŋ càt yùu rŭu
table still arrange ‘PROG/ IMPF’ Q/ or
‘Has the table been being arranged?’

A1: *yùu/ *mây yùu
PROG/ IMPF/ NEG PROG/ IMPF

A2: *yaŋ/ *mây yaŋ
still NEG still

A3: *càt/ *mây càt
arrange NEG arrange

A4: yaŋ càt yùu/ mây càt lέεw
still arrange PROG/ IMPF/ NEG arrange anymore
'Yes/ No (not anymore).'

(41) Q: tó càt rîap-rɔ́ɔy mǎy
table arrange completely Q/ NEG
'Was the table arrangement completely done?'

A1: *càt/ *mây càt
arrange NEG arrange

A2: rîap-rɔ́ɔy/ mây rîap-rɔ́ɔy
completely/ NEG completely
'Yes/ No.'

In (39) and (40), the lexical verb *càt* 'arrange' is used with *léεw* 'already' and *yaŋ* 'yet' as well as *yaŋ* 'still'+ *yùu* 'PROG/ IMPF' and *léεw* 'anymore' as primary YNRs, respectively. *càt* 'arrange' cannot be an answer on its own (This is discussed in chapter 5) while *léεw* 'already', *yaŋ* 'still, yet' and *yùu* 'PROG/ IMPF' cannot either as they are non-verbal. They also cannot be focused (in the sense that the sentence can be divided into presupposition and focus). Therefore, they need an element with a verbal property from a question. It is consequently *càt* 'arrange' that is verbal due to the fact that it is the only lexical verb in the question. This can be empirically proven by the answers *yaŋ mây càt* 'yet NEG arrange' (=No, it is not arranged, yet) and *mây càt léεw* 'NEG arrange anymore' (=No, it has not been arranged anymore) where *càt* 'arrange' immediately follows the negation *mây* 'NEG'. In (41), where a manner adverb is present, the adverb becomes a primary YNR since it is verbal, as seen in the reply *mây rîap-rɔ́ɔy* 'NEG completely' (=No, it was not completely done) and in this case, it is the focused polarity carrier.

In conclusion, ignoring the variation in judgments discussed above, in the passive construction in Thai, the passive markers serve as the minimal primary replies as they

are the highest verbal elements in the VPs. In addition, in a situation where no overt passive markers are present, the main verb can be used as a reply in combination with the elements in the question which cannot act as YNRs on their own (as they are non-verbal) e.g. *lέεw* 'already/ anymore', *yaŋ* 'still, yet' and *yùu* 'PROG/ IMPF'. A manner adverb can be a reply in a covert passive-marker sentence as it is verbal. This makes it different from *lέεw* 'already, anymore', *yaŋ* 'still, yet' and *yùu* 'PROG/ IMPF'.

3.5.4 Reply patterns to YNQs with an adjunct

An adjunct can be a primary YNR in Thai in a structure where it adds more information to the VP and there is no other auxiliary verb in the sentence. However, there are some restrictions on the use of an adjunct as a YNR i.e. not every single adjunct can be a primary YNR. This can be illustrated below.

(42) Q: khăw hàn nú̱a [dûay mîit] rŭ̱u
he cut meat [with knife] Q/ or
'Did he cut the meat with a knife?'

A: *dûay mîit/ *mây dûay mîit
with knife/ NEG with knife

(43) Q: nát dəən [cháa] măy
Nath walk [slow] Q/ NEG
'Did Nath walk slowly?'

A: cháa/ mây cháa
slow/ NEG slow
'Yes/ No.'

(44) Q: khăw pay hăa mɛ̂ɛ [mû̱a-waan] rŭ̱u
he go see mother [yesterday] Q/ or
'Did he go to see his mother yesterday?'

A: *mû̱a-waan / *mây mû̱a-waan
yesterday/ NEG yesterday

In (42-44), all elements in square brackets are adjuncts to VPs, but only the one in (43) can be a primary YNR. In (42), the adjunct is a prepositional phrase while in (44) it is a noun phrase. They cannot be YNRs as the grammar never allows them to immediately

follow the negation *mây* 'NEG'. At the same time, in (43) the adjunct *cháa* 'slow' is a primary YNR since it can be under the scope of the negation *mây* 'NEG' i.e. the complement to the negation. This could be because it is a manner adverb having the same form as a verb or an adjective as shown below, where *cháa* 'slow' is a verb and an adjective in (45) and (46), respectively.

(45) nát cháa mâak ləəy pay rian săay
Nath slow very LINK go study late
'Nath was so slow that he was late for class.'

(46) rót cháa[26] tham-hây khon săay
car slow make-give/ CAUS people late
'A slow bus made people late.'

cháa 'slow' can be either a verb or an adjective depending on its position in a sentence. Therefore, the word translated as an adjective in English can be a verb in Thai. In (45), *cháa* 'slow' is a verb. In (46), it is an adjective modifying the subject *rót* 'car' while *tham-hây* 'make-give/ CAUS' is a verb.

To answer (42) and (44), it is proposed that the main verbs *hàn* 'cut' and *pay* 'go' are primary YNRs while *chây* 'right' and *mây chây* 'NEG right' are secondary ones. The latter can be accounted for by the idea that *chây* 'right' and *mây chây* 'NEG right' scope over the whole propositions *khăw hàn nɯ̀a dûay mîit* 'He cut the meat with a knife' and *khăw pay hăa mêɛ mɯ̂a-waan* 'He went to see his mother yesterday.' At this stage, we have learned that an adjunct can be a primary YNR, given that it has a verbal feature.

3.5.5 Reply patterns to co-ordination YNQs

When a speaker wants to learn more about two events or actions closely related to each other in one way or another e.g. two sequential events where one event is done as a result of or after the other, he/ she can use a co-ordination YNQ. Hence, a co-ordination YNQ is defined as a question that is composed of two conjuncts conjoined by a clausal

[26] One may say *rót cháa* 'car slow' in this sentence is like a sentential subject. If that is the case, *cháa* 'slow' is an adjectival verb, not an adjective. However, if we put a relative pronoun *thîi* as in *rót* ***thîi*** *cháa tham-hây khon săay* 'A bus **that** was slow made people late', *cháa* 'slow' is more obviously a predicate. It is suggested that without a relative pronoun *thîi*, the meaning is not different. Therefore, *cháa* 'slow' in (46) can be analysed as a predicate.

linker *lέɛw (kɔ̂)* ‘(and) then’ or a conjunction e.g. *lέ* ‘and’ and *tὲɛ* ‘but’. The two actions can be carried out by either the same or different subject as illustrated below.

(47) nát khăay rót kàw lέɛw (kɔ̂) sú̵u̵ rót mày rŭ̵u̵
Nath sell car old and then (LINK)buy car new Q/ or
‘Did Nath sell an old car, then buy a new one?’

(48) nát khăay rót kàw tὲɛ nút sú̵u̵ rót mày rŭ̵u̵
Nath sell car old but Nuch buy car new Q/ or
‘Did Nath sell an old car, but Nuch buy a new one?’

(47) is composed of the first conjunct *nát khăay rót kàw* ‘Nath sold an old car’, conjoined with the second conjunct *(nát) sú̵u̵ rót mày* ‘(Nath) bought a new car’ by a clausal linker *lέɛw (kɔ̂)* ‘and then (LINK)’. The same agent *nát* ‘Nath’ does both actions, where the second action *sú̵u̵* ‘buy’ is carried out once the first action has been completed. This is implied by the linker *lέɛw (kɔ̂)* ‘and then (LINK)’. In (48), two actions are separately carried out by two different agents, and are contrasted, signified by the contrastive conjunction *tὲɛ* ‘but’.

In both (47) and (48), there is only one question particle *rŭ̵u̵* ‘Q/ or’ although there are two sentential conjuncts. Therefore, *rŭ̵u̵* ‘Q/ or’ in each question asks about the truth of the two conjuncts simultaneously i.e. the speaker wants to know if the conjunctions of the two events are true. This determines how to answer the question. We need to find a minimal YNR that represents the two events in the two conjuncts at the same time. To find the right answer, we need to learn the meaning of the questions via conjoining two conjuncts which is made possible by the [Alt] feature discussed in general terms in chapter 2. This will be expanded on in chapter 4 and 5.

(47) can be represented as (49-51) according to the [Alt] feature of *rŭ̵u̵* ‘Q/ or’.

(49) nát khăay rót kàw lέɛw sú̵u̵ rót mày **rŭ̵u̵** nát khăay rót kàw lέɛw **mây** sú̵u̵ rót mày
Nath sell car old then buy car new Q Nath sell car old then NEG buy car new
‘Did Nath sell an old car, then buy a new one **or** did he sell an old car, then **not** buy a new one?’

(50) nát khăay rót kàw lɛ́ɛw sú~~u~~ rót mày **rŭ~~u~~** nát **mây** khăay rót kàw lɛ́ɛw sú~~u~~ rót mày
Nath sell car old then buy car new Q Nath NEG sell car old then buy car new
'Did Nath sell an old car, then buy a new one **or** did he **not** sell an old car, then buy a new one?'

(51) nát khăay rót kàw lɛ́ɛw sú~~u~~ rót mày **rŭ~~u~~** nát **mây** khăay rót kàw lɛ́ɛw **mây** sú~~u~~ rót mày
Nath sell car old then buy car new Q Nath NEG sell car old then NEG buy car new
'Did Nath sell an old car, then buy a new one **or** did he **not** sell an old car, then **not** buy a new one?'

rŭ~~u~~ 'Q/ or' will connect two polarity carriers with different polarity values together or two clauses (with two polarity carriers) one of which undergoes a reduction process. If the feature worked correctly as (49-51), the primary YNRs would be as follows.

(52) *sú~~u~~/ *mây sú~~u~~
buy/ NEG buy

(53) *khăay/ *mây khăay
sell/ NEG sell

(54) *khăay lɛ́ɛw sú~~u~~/ *mây khăay lɛ́ɛw mây sú~~u~~
sell then buy/ NEG sell then NEG buy

However, these answers are not well-formed answers to the question (47). If each conjunct in (49) and (50) was to be replied to separately, the reply would be *sú~~u~~* 'buy'/ *mây sú~~u~~* 'NEG buy' to the second conjunct and *khăay* 'sell'/ *mây khăay* 'NEG sell' to the first conjunct. This is due to the fact that each of them is the only verbal element in each conjunct. Nevertheless, we cannot pick one of these verbs in the co-ordination YNQs as a primary reply. That may be on the grounds that one verb cannot scope semantically over the other verb i.e. *khăay* 'sell', the primary reply to the first conjunct, does not signify anything about *sú~~u~~* 'buy' in the second conjunct and vice versa. Thus, a verb reply does not function as a primary reply of a co-ordination YNQ, implying the [Alt] feature of *rŭ~~u~~* 'Q/ or' may not connect any particular lexical verb here.

The question that arises here is whether the [Alt] feature of *rŭu* 'Q/ or' connects, at the same time, both verbal elements from both conjuncts with their counterparts as shown in (51). That can be possible on the basis that the negative counterparts in the second conjunct are grammatically derived by the negation *mây* 'NEG' preceding *khăay* 'sell' and *súu* 'buy'. If that was the case, **khăay lέεw súu* 'sell then buy'/ **mây khăay lέεw mây súu* 'NEG sell then NEG buy' in (54) can be legitimate primary YNRs. However, I have found that although **khăay lέεw súu* 'sell then buy' and **mây khăay lέεw mây súu* 'NEG sell then NEG buy' are not syntactically ungrammatical[27], they do not sound natural as minimal YNRs. So, what focused material is a possible reply to (47) and (48)?

I propose that *chây* 'right' and *mây chây* 'NEG right' are YNRs[28] to (47) and (48) (and also to other valid negative co-ordination YNQs). If that is the case, the [Alt] feature of *rŭu* 'Q/ or' connects the covert focused constituent *chây* 'right' with its negative counterpart *mây chây* 'NEG right'. Therefore, it can be represented as (55) and (56) where covert materials are shown in brackets.

(55) nát khăay rót kàw lέεw súu rót mày (chây) rŭu
Nath sell car old then buy car new Q/ (right) or
(mây chây)
(NEG right)
'Is it right or not right that Nath sold an old car, then bought a new one?'

(56) nát khăay rót kàw tὲε nút súu rót mày (chây) rŭu
Nath sell car old but Nuch buy car new Q/ (right) or
(mây chây)
(NEG right)
'Is it right or not right that Nath sold an old car, but Nuch bought a new one?'

In this case, *chây* 'right' and *mây chây* 'NEG right' prove to be the right answers when they account semantically for both actions which are under their scope. This can also provide evidence that the analysis of the Type-2 question particle in chapter 2 is valid even with a co-ordination question.

[27] It is grammatical in the sense that *khăay* 'sell' and *súu* 'buy' are verbal materials that can be directly negated by the negation *mây* 'NEG'.
[28] This is also checked with my informants.

The fact that *chây* ‘right’ and *mây chây* ‘NEG right’ scope over both conjuncts and then become legitimate YNRs is also supported by the aspect marker *khəəy* ‘EXP/ used to’ and the modal verb *khuan* ‘should’ which scope over both conjuncts and become primary YNRs. Shown in square brackets are elements under the scope of the auxiliaries.

(57) Q: nát khuan [khăay rót kàw lɛ́ɛw sú̶u̶ rót mày] rŭ̶u̶
Nath should [sell car old then buy car new] Q/ or
‘Should Nath sell an old car, then buy a new one?’

A: khuan/ mây khuan
should/ NEG should
‘Yes/ No.’

(58) Q: nát khəəy [khăay rót kàw lɛ́ɛw sú̶u̶ rót mày] rŭ̶u̶
Nath EXP [sell car old then buy car new] Q/ or
Did Nath have an experience of selling an old car, then buying a new one?

A: khəəy/ mây khəəy
EXP/ NEG EXP
‘Yes/ No.’

Finally, we have learned that in co-ordination YNQs, the main-verb reply cannot serve as a minimal primary YNR as it does not account semantically for the verb in the other conjunct. Therefore, the covert materials *chây* ‘right’ and *mây chây* ‘NEG right’ are exploited here, given that each of them can represent the polarity value of both conjuncts simultaneously.

3.5.6 Reply patterns to fragment YNQs

As the name suggests, a fragment YNQ in this thesis refers to a question in which only part of the proposition appears questioned by a question particle. Normally, the YNQs we have discussed so far are formed by attaching one required question particle to a full sentence. Nevertheless, in this type of question we attach a question particle to the ‘left-over’ as ‘F + a particle’ where F is the stranded element or the fragment (henceforth F). That is illustrated below.

(59) phŏm rŭ̆u
I Q/ or
'Is it me/ Am I?'

(60) yiin rŭ̆u
jeans Q/ or
'Is it 'jeans' (that you just said)/ Jeans?'

(61) khâaŋ bâan rŭ̆u
beside house Q/ or
'Is it 'beside the house'?'

(62) hâa bàat rŭ̆u
five baht Q/ or
'Is it five baht?'

(63) sìi-lìam rŭ̆u
rectangle Q/ or
'Is it rectangular?'

(64) tɛ̀ɛ[29] rŭ̆u
but Q/ or
'Is it 'but' (that you just said)?'

The fragment can be any lexical item which the speaker wants the addressee to pay attention to i.e. F is a part of the proposition of the question. It is the focus of the question, but where the presupposed part of the question is so salient in the context so that it can be deleted or left unpronounced. Therefore, this type of questions is primarily utilized to ask for confirmation from the addressee with regard to F. F can be, for example, the DP as in (59) and (60), the PP as in (61), a numeral phrase as in (62), a shape term as in (63) or even a conjunction as in (64). It can also be used when the speaker is shocked or frightened (to hear something from the addressee) or to ask for clarification or repetition. Therefore, this question is never used alone without the

[29] *tɛ̀ɛ rŭ̆u* 'But?/ Is it 'but'?' is very colloquial. This question may be used in a situation where an addressee contradicts what the speaker has said, mentioned or requested etc. earlier i.e. he/ she disagrees with it or rejects a request or claim by the speaker. The speaker then uses this question to imply something like 'Are you sure of that idea?/ Did you just say *tɛ̀ɛ* 'but' (signalling contradiction)?

discourse. If the discussion above is the case, it is assumed that in Thai any material in a proposition can be yes-no questioned given that it will attract the attention of the addressee. Accordingly, this means that F is the focus. In fact, I would say although F cannot be made into a legitimate primary YNR as in (65), it is the focus of the question.

(65) Q: phŏm rŭu
I Q/ or
'Is it me/ Am I?'

A1: chây/ mây chây
right/ NEG right
'Yes/ No.'

A2: *phŏm/ *mây phŏm
I/ NEG I

The same is true for the following fragments **yiin* 'jeans'/ **mây yiin* 'NEG jeans', **khâaŋ bâan* 'beside the house'/ **mây khâaŋ bâan* 'NEG beside the house', **hâa bàat* 'five baht'/ **mây hâa bàat* 'NEG five baht', **sìi-lìam* 'rectangle'/ * *mây sìi-lìam* 'NEG rectangle' and **tèɛ* 'but'/ **mây tèɛ* 'NEG but'.

In Thai, none of these fragments can be directly negated, i.e. they cannot be a complement to the negation *mây* 'NEG'. At the same time, all the questions above can be answered with *chây* 'right' and *mây chây* 'NEG right'. This may suggest that a fragment YNQ has as its underlying structure *F + (chây) rŭu (mây chây)* 'F + (right) Q/ or (NEG right)' of which an affirmative reply semantically conveys 'Right/ Yes, it is F that I just said' or 'Right/ Yes, it is F I am sure of' to respond to 'Is it F that you just said?' or 'Are you sure it is F?' Therefore, it would be understood between the interlocutors that F in a fragment YNQ is the material that needs attention as the focus, but it is not made into a YNR. This is the empirical evidence to suggest that the focus of the question can be any material, but this focused material is not always the answer due to its non-verbal feature. In a nutshell, the YNR in Thai is always a verbal element (or it is in combination with a verbal one), revealing the polarity value of the focused polarity in the question.

In addition, if the full sentence of (59) is pronounced, the primary YNRs differ. (59) turns into a full question as (66). In this case, the verbal material *măay-thŭŋ* 'mean' in

the proposition and its negative counterpart will be picked as primary YNRs while *châ*y 'right' and *mây châ*y 'NEG right' are secondary ones.

(66) Q: nát măay-thŭŋ phŏm rŭu
Nath mean I Q/ or
'Did Nath mean 'me'?'

A1: măay-thŭŋ/ mây măay-thŭŋ
mean/ NEG mean
'Yes/ No.'

A2: châ*y*/ mây châ*y*
right/ NEG right
'Yes/ No.'

However, if the fragment itself is verbal, it serves as a primary reply.

(67) Q: rew rŭu
fast Q/ or
'Fast?'

A: rew/ mây rew
fast/ NEG fast
'Yes/ No.'

Therefore, the fragment cannot be a primary YNR as far as it is non-verbal. Consequently, *châ*y 'right' or *mây châ*y 'NEG right' will be used instead to denote the polarity of the fragment. In a full-question counterpart, the answer differs depending upon the verbal material available in the full question. It is this material that is picked as a primary YNR.

Conclusion

All questions have a focused polarity carrier which distinguishes different reply patterns. These carriers are the primary replies. However, the addressee can also have other alternative reply patterns, secondary replies. They can be any lexical items like a politeness/ honorific particle, an exclamation and a negative word. In some cases, a

main verb, a modal verb, an aspect marker and a manner adverb can also function as secondary replies. They can be used with certain prosodic operations like strong tone, accent and stress to imply an additional message. Different answers are found to respond to questions in different structures e.g. *chây* 'right' or *mây chây* 'NEG right'. Although they may not directly show the syntax and semantics of the questions, they do confirm that the answers to YNQs in Thai must be verbal no matter what type of answers these are, and they also show that the question particle has the [Alt] feature, which provides polarity candidates for YNRs.

Chapter 4. A derivational analysis of YNQs

Introduction

Following the syntactic and semantic analyses of question particles as well as reply patterns in previous chapters, this present section is aimed at implementing those analyses to set up the derivational analysis of YNQs in more detail. This chapter starts with a review of a theory of questions and answers (Holmberg 2010, to appear) which shows the interrelation between questions and answers, and is followed by the derivations of questions with two question particle types.

4.1 The theory of questions and answers (Holmberg 2010, to appear)

4.1.1 The semantics of questions and answers

According to Holmberg (2010, to appear), direct questions, no matter what sort of questions they are e.g. information questions, alternative questions or YNQs, have two main ingredients: Q(uestion)-force which is the illocutionary force of questioning and a focused variable, both of which relate to the semantics of questions. An alternative question is introduced in (1) to reveal the semantics of a question.

(1) Does John want tea or coffee?

The semantics of this alternative question can be expressed as 'Tell me which one of the following alternative propositions is true: *(a) John wants tea* or *(b) John wants coffee*'. The answer can be 'John wants tea'. However, the answer can also be just 'Tea'. This suggests that the Q-force does not 'force' the addressee to pick one of the propositions as a preferred reply, at least not directly. Instead, it asks for a value of a variable x, where x in this case is either 'tea' or 'coffee', such that 'John wants x' is true. Thus, a short answer like 'Tea' is also an acceptable answer.

This semantic analysis of questions and the form of answers can also be applied to YNQs, which is a sub-type of alternative question.

(2) Does John speak Swedish?

The semantics of this question is 'Tell me which one of the following alternative propositions is true: (*a) John speaks Swedish* or *(b) John does not speak Swedish*. The answer can be 'John speaks Swedish'. However, the answer can also be 'Yes'. This indicates that the question does not ask the addressee to pick a proposition, at least not directly, but to assign a value to a variable x, where x is the polarity of the open proposition 'John x speak Swedish'. In this perspective, (2) means 'For the proposition 'John x speaks Swedish', tell me the value of the variable x, where x is either affirmative or negative.' Then, the answer is 'Yes' representing the affirmative value of x or 'No' representing the negative one.

A proposition P with a polarity variable x which can have either affirmative or negative value is extensionally equivalent with a disjunction of the propositions Affirmative (P) and Negative (P), so a YNQ is a disjunctive sentence providing two propositions as legitimate candidates for a required YNR. This follows Hamblin's (1958) theory of the semantics of questions, which argues that the meaning of a question is the set of possible answers to the question. Therefore, the meaning of YNQs is a disjunctive set of propositions. This is also conceptually consistent with Larson (1985), who analyses the disjunction in English, and discusses the connection between questions and disjunction. It appears accordingly that a YNQ must contain a conjunction. I assume that a YNQ in Thai has the conjunction *rʉ̌ʉ* 'or' as a YNQ particle; it has the [Alt] feature that evokes the alternatives, a set of answers to the question.

[Alt] is, in this thesis, a label of the conjunction *rʉ̌ʉ* 'or' as a YNQ particle, that is when it conjoins/ disjoins an affirmative element/ PolP and a negative element/ PolP. Under this analysis, it is a restriction on the meaning of *rʉ̌ʉ* 'or' as a YNQ particle; it is a feature which requires two disjuncts of opposite polarity, and which thereby can be interpreted as a YNQ. There is a close relation between this approach to YNQs and the 'alternative semantics' of focus.

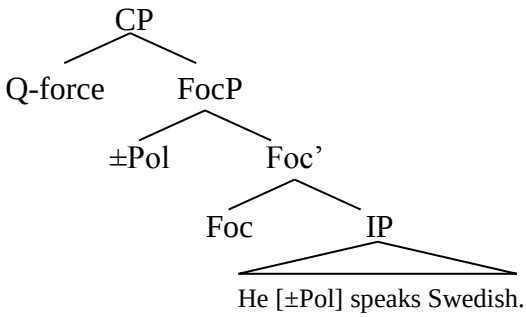
Rooth's (1985, 1992) basic idea of the 'alternative semantics' for focus is that focus generally has the function to produce alternatives. This provides each expression (with the focus) with two different values; namely, the ordinary semantic value and the focus

semantic value. It is the focus semantic value that is composed of a set of alternatives. For example, the declarative *It's John I like*, where 'John' is focused, will, in the appropriate context, evoke the alternatives 'I like John, or I like Bill, or I like Fred'. The declarative evokes the alternatives and makes a choice between them. In a similar way the question *Do you like John?*' evokes the alternatives 'You like John or you do not like John'. The choice between them is then made by the answer. This shows that the YNQ crucially involves focusing the polarity. The claim in this thesis is that the YNQ does not just evoke the alternatives, but actually represents the two alternatives syntactically.

4.1.2 The syntax of questions and answers

To see the question-answer connection, we need to comprehend the syntax of questions in terms of the mechanism for deriving YNRs. This mechanism can be best explained simply through the description of the question ingredients (as well as the semantics and forms of answers). According to the theory of questions and answers in Holmberg (2010, to appear), every direct question must be made up of Q-force and a focused variable as shown in (3), where the variable is [±Pol], inherently restricted to two values: affirmative and negative.

(3)



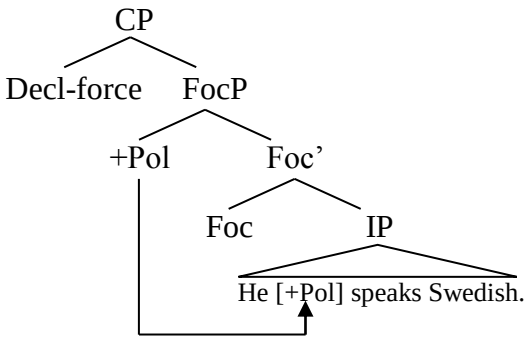
Q-force in the CP-domain is 'a question operator' that conveys an instruction to the addressee to assign a value to [±Pol], such that the sentence is true with that value assigned. Q-force provides the illocutionary force of a question in the sense of Haegeman (2004)[30], determining what speech act is performed by the utterance of the sentence. Questions in general are sentences in which a variable is left open, with an instruction (the Q-force) to the addressee to assign a value to the variable such that the

[30] The category Force in Rizzi (1997) is in part different because it is assumed to be present in embedded clauses, too. It is more of a clause-type marker than an illocutionary force marker.

sentence is true with that value assignment. In all questions the variable is the focus. This can be seen most clearly in wh-questions. In the question *Who did you see?* the presupposition is 'You saw somebody x'. The focus is the value (identity) of x, encoded as *who*, and moved to Spec, FocP (by overt wh-movement, in English). The answer provides that value. Correspondingly, in YNQs, the focus is the value of polarity, according to Holmberg (2010, to appear).The operator Q-force is a characteristic of direct questions only. This makes a direct question different from an embedded (indirect) question. The latter also contains a variable (for example, the value of *who* in *I wonder who you saw*), but it is not primarily formed to ask for an answer (although at least in Thai in some contexts we can reply to an embedded YNQ).

The IP in the YNQ diagram (3) is the propositional content of the question where there is a focused variable. At this stage, this variable has unvalued polarity. Q-force provides the instruction to assign a value to polarity. The structure of the answer, according to Holmberg, is (4):

(4)



This is the case of the affirmative answer. The negative answer has the same structure, but with [−Pol] at Spec, FocP, assigning a negative value to the polarity feature in IP. Note that the answer has the same structure and content as the question, apart from the force feature and valued polarity. The question has question force; the answer has declarative force (though from now on, I will omit the representation of the declarative force in the trees). Because the IP of the answer is identical to that of the question, except that the polarity variable of the question is assigned a value in the answer by the focused polarity feature, the IP of the answer can be, and usually is, deleted i.e. not spelled out. What is spelled out is the focused polarity feature, which in English is spelled out *yes* in affirmative answers, and *no* in negative answers (see Holmberg, to appear).

In languages like Thai, where primary YNRs are typically made up of a verb (or more generally a polarity carrier) in affirmative answers, or the sentential negation plus a verb in negative answers, the derivation of answers is more complex. The structure of such answers will be analysed in detail in chapter 5. However, I will assume, with Holmberg (2001, 2007, to appear) that the basic structure of answers is universal, and can be represented as in (4). There is a focused valued polarity feature which assigns a value to the polarity of IP, which is identical to the IP of the question, where polarity is left open.

Consider the following examples, where *mây dây* 'NEG POT' is interpreted as a negative conjunct conjoined. This can be proven by the fact that either *dây* 'POT' or *mây dây* 'NEG POT' is used to respond to them.

(5)

nát	khàp	rót	dây	rŭu
Nath	drive	car	POT	Q/ or

'Can Nath drive?'

(6)

tɔ̀ɔp	phát	thii	wâa	nát	khàp	rót	dây	rŭu
answer	Phat	PRT	COMP	Nath	drive	car	POT	Q/ or

'Tell Phat whether or not Nath can drive.'

At this stage, we know that in direct and embedded YNQs there must be the variable that is encoded by *rŭu* 'Q/ or' with its [Alt] feature. In addition, above is the preliminary analysis where YNQs are disjunctive sentences with a positive and a negative conjunct as discussed in chapter 2. It is consequently shown that YNQs involve the ellipsis of one conjunct and the ellipsis is directly relevant to the focused polarity. That is, in the example (5), the [Alt] feature of *rŭu* 'Q/ or' conjoins the negative conjunct *mây dây* 'NEG POT' with *dây* 'POT' as in *nát khàp rót dây rŭu (mây dây)* 'Nath drive car POT Q/ or (NEG POT)'. In brackets is the second conjunct that is not overtly present, but it is there in a question. The question must have this second conjunct deleted so that it can differ from the corresponding disjunctive statement as shown below.

(7)

nát	khàp	rót	rŭu	nát	mây	khàp	rót
Nath	drive	car	or	Nath	NEG	drive	car

'Nath drives a car or he does not drive a car.'

(8) nát khàp rót rŭu (nát mây khàp rót)
Nath drive car Q/ or (Nath NEG drive car)
'Does Nath drive a car (or does he not drive a car)?'

Under this analysis, the focus/ focused polarity in the question (8) is affected by the ellipsis, leaving the conjunction/ variable in the final position, which can be a focus position in Thai. Therefore, the focus of a question is realized or encoded syntactically by the ellipsis of the second conjunct which must be covertly present in the YNQs. Without the second conjunct deleted, as in (8), the structure is a disjunctive declarative. Accordingly, this suggests that *rŭu* 'Q/ or', as a variable encoder, in both direct and embedded YNQs, works to connect two conjuncts, but the connected conjunct in a YNQ is always deleted. However, it is present in a statement. The consequence is that in a statement the disjunction is not focused and it does not mark the variable of a question.

If the proposal above that *rŭu* 'Q/ or' is the variable encoder is correct, why cannot (9) be answered with *yes* or *no* while (10) can, given that they are both formed with *rŭu* 'Q/ or'?

(9) Q: phát rúu wâa nát khàp rót dây rŭu-mây
Phat know COMP Nath drive car POT Q/ or-NEG
'Phat knows whether or not Nath can drive.'

A: *dây/ *khàp
POT/ drive
Intended: 'Yes, he can.'

(10) Q: tɔ̀ɔp chăn thii wâa nát khàp rót rew rŭu-mây
answer I PRT COMP Nath drive car fast Q/ or-NEG
'Tell me whether or not Nath drives fast.'

A: rew
fast
'He does.'

The answer can be restricted to the assumption that (10) has Q-force while (9) does not. This can be accounted for by Holmberg's theory. Q-force in (10) is in the main clause *tɔ̀ɔp chăn thii* 'answer I PRT'. It is *tɔ̀ɔp* 'answer' that plausibly encodes Q-force in this

case because it is an explicit request for information. Here there is nothing to do with *rʉ̌ʉ* 'Q/ or' with regard to Q-force; it simply encodes the variable. Accordingly, the embedded YNQ can have Q-force given that it contains a corresponding encoder. In this case, it is an exceptional case.

However, I would say that typically Q-force in Thai YNQs has no overt morphology realization, as shown in the examples below where no distinction between the direct and embedded YNQs is detected. Moreover, Q-force in Thai YNQs is not marked syntactically by T-to-C movement, unlike direct YNQs in English, for example, *Will you marry me?* and *Should he drive a car?* in which auxiliary inversion involves T-to-C movement.

(11) nát khàp rót dây mǎy
Nath drive car POT Q/ NEG
Can Nath drive?

(12) nút mây tɔ̀ɔp wâa nát khàp rót dây mǎy
Nuch NEG answer COM Nath drive car POT Q/ NEG
'Nuch does not say whether or not Nath can drive.'

Eventually, as made explicit, all the questions can be responded to, given that they have both the focused polarity variable and Q-force.

4.2 The derivation of YNQs in Thai

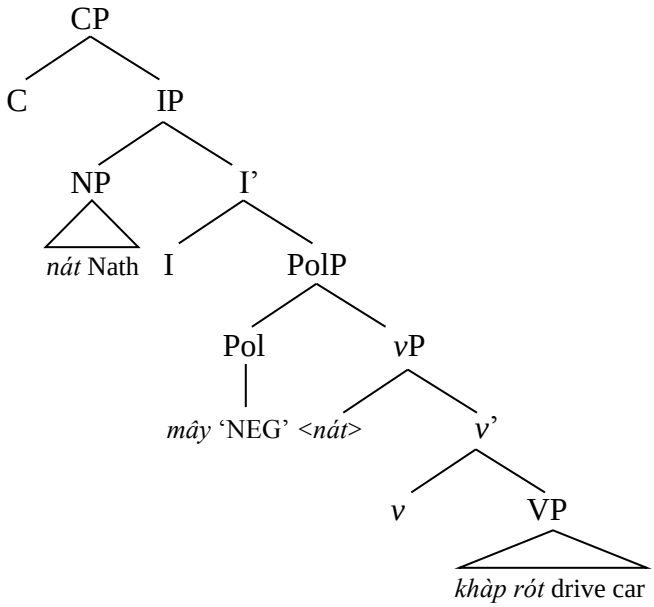
4.2.1 The structure of the sentence in Thai

Thai is a consistent head-initial language. The verb always precedes its object, PPs are prepositional, N precedes its modifiers, and complementizers precede IP. As we shall see, most sentential functional heads, such as modals and aspect markers, precede their complement although there are one or two exceptions, which will be discussed in due course. There is one striking exception, though, to the head-initial nature of Thai. Question particles are clause-final. It is generally assumed that Q-particles are heads in the C-domain. If so, then Thai would have a (type of) clause-final C-head. However, as already indicated in chapter 2, and as will be discussed in more detail in this chapter, I

propose that the Q-particles are not clause-final heads, but instead are constituent-initial heads, although their complement is normally not spelled out.

Take for instance the sentence *nát mây khàp rót* ‘Nath NEG drive car’ as diagrammed below.

(13)



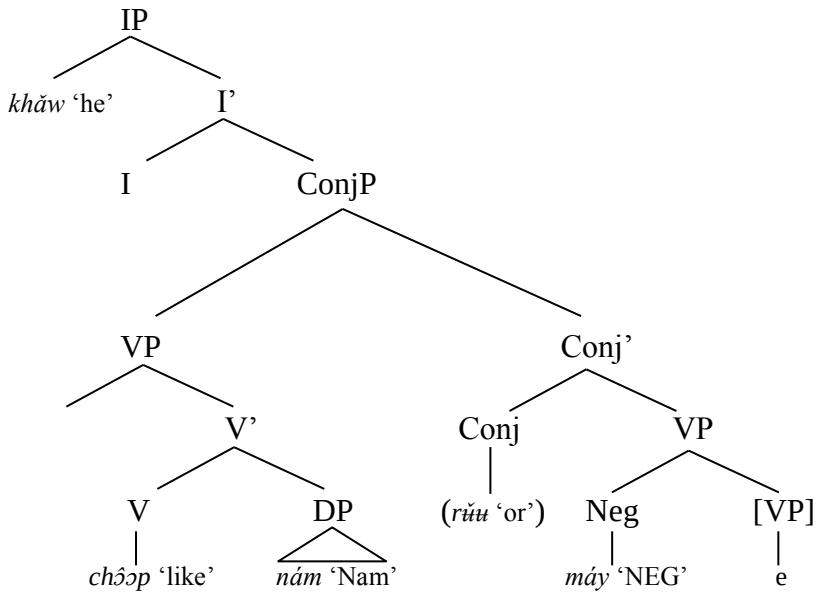
I assume (following Chomsky 1995: ch. 4) that transitive sentences have a transitivizing head *v*, which takes the subject as specifier and VP as complement. The subject is normally moved to a higher, sentence-initial position. I will represent the head which takes the subject as specifier as I, but its precise properties will not be important, and will not be discussed. Thai does not have tense (temporal information is supplied by aspect markers and adverbs) or any agreement, so I does not encode tense or agreement features. It may be a head dedicated to hosting the subject. Under this analysis, I assume that all sentences have a polarity head, which is either negative or affirmative. In the latter case it is usually null (not morphologically expressed) while the negative Pol head is usually spelled out as *mây* ‘NEG’. In addition, as we will see, the polarity head is not fixed in the position between I and *v*P/ VP, but may be merged with any other verbal maximal constituents. For ease of exposition, I will from now on omit the *v*P-layer from the trees, and represent the subject as externally merged (base-generated) in Spec, IP.

4.2.2 The syntax of questions with Type-1 particles: mǎy, rǔʉ, rǔʉ-mây, rǔʉ-plàaw and rǔʉ-yaŋ

In chapter 2, I proposed a division of question particles into two types, called Type 1 and Type 2. This section deals with questions marked by Type-1 particles.

Ruangjaroon (2005: 76) proposes a syntactic analysis of Thai YNQs in which the disjunctive connector *rǔʉ* 'or' is seen as a crucial component of the question, heading the ConjP and connecting an affirmative and a negative alternative predicate. Her analysis is below.

(14)



Ruangjaroon (2005: 76)

Under this analysis, a YNQ has a co-ordinate structure, consisting of two conjoined (or rather, disjoined) VPs, one with and one without an adjoined negation. According to her, ''the surface form would be derived by eliding the whole VP in a negative conjunct. The disjunct 'or' is omitted and the negation *mây* 'NEG' is marked by the higher tone *máy* instead of the falling tone'' (Ruangjaroon 2005: 75). In her analysis, only the question particle *máy* with the omitted disjunct *rǔʉ* 'or' is discussed, so I generalize the analysis to all questions with particles with either covert or overt *rǔʉ* 'or'. However, the analysis (14) may not work in that the negation *mây* 'NEG', pronounced as *máy* 'Q/ NEG' to mark a question, sits at Spec, VP. It cannot be in this position. That is because the Specifier will also be deleted if the VP is deleted.

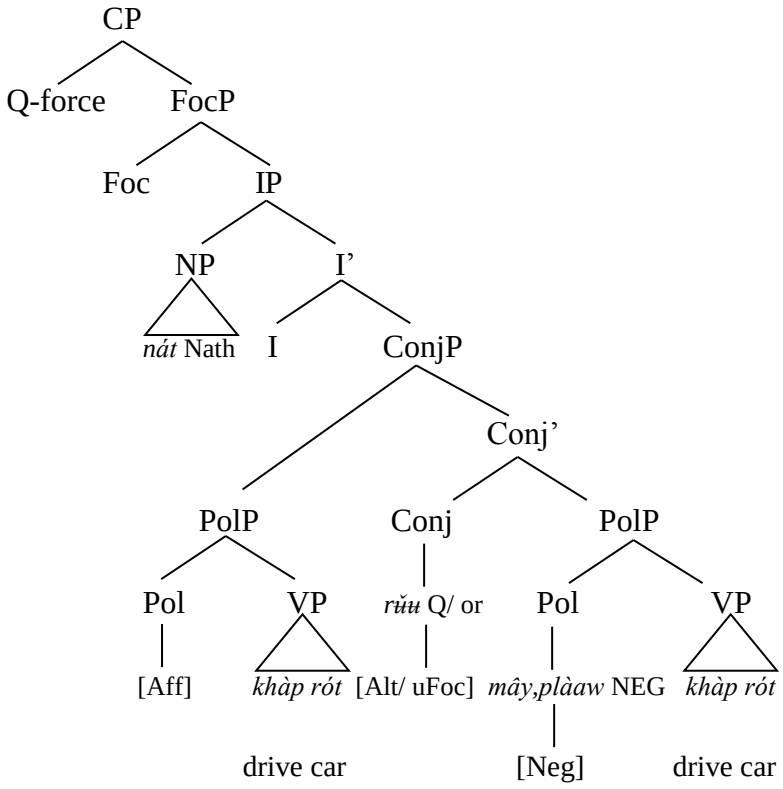
As discussed in chapter 2 and 3, YNQ particles have internal structure. Although they function as a whole unit to mark YNQs, each of them is composed of different lexical elements with different meanings and functions. With this assumption, in chapter 2 I classified those question particles into two types, according to their internal structure, and on the basis of certain properties of the questions and the answers.

In Type 1, each question particle is syntactically made up of two components: the conjunction *rŭ̶u̶* 'Q/ or' component and the negative component *mây* 'NEG', *plàaw* 'NEG' including an item occurring in a negative statement like *yaŋ* 'yet'. These components can be either covert or overt. Therefore, every particle in this group is treated as having the same underlying structure below.

(15) (rŭ̶u̶-)măy
rŭ̶u̶(-mây)
rŭ̶u̶-mây
rŭ̶u̶-plàaw
rŭ̶u̶-yaŋ

In brackets are null components. Therefore, from (15) we see that every question particle must necessarily have the conjunction *rŭ̶u̶* 'Q/ or' as what I label 'the base component'. With this assumption, I propose the analysis (16) below where the question is *nát khàp rót rŭ̶u̶(-mây)/ rŭ̶u̶-mây/ rŭ̶u̶-plàaw/* (*rŭ̶u̶-)măy* 'Does Nath drive, or not?'

(16) The analysis of a question with Type-1 particles: *rǔu(-mây)*, *rǔu-mây*, *rǔu-plàaw* and (*rǔu-)mǎy*



The analysis (16) shows how the proposition is formed with *rǔu(-mây)* 'Q/ or(-NEG)', *rǔu-mây* 'Q/ or-NEG', *rǔu-plàaw* 'Q/ or-NEG' and (*rǔu-)mǎy* 'Q/ (or-)NEG'. Based on the internal structure analysis above as well as Ruangjaroon's analysis, I therefore from now on propose that the base component *rǔu* 'Q/ or' forms a ConjP through connecting two verbal PolPs (polarity phrases). That is to say, what has been referred to in previous chapters as 'polarity-carriers' are now analysed as PolPs, made up of a polarity feature (affirmative or negative) merged with a verbal constituent (Pol can only merge with a verbal constituent). As discussed in chapter 2, the conjunction *rǔu* which heads the ConjP is a special case of the conjunction meaning 'or', as it has a feature [Alt] signifying that it specifically conjoins PolPs with opposite values (but otherwise identical content).

In terms of the theory expounded above in section 4.1, the head *rǔu* is the polarity variable which is a defining characteristic of all YNQs. It means 'affirmative or negative'. The two PolPs connected by *rǔu* can now be seen as providing the restriction on the variable. In the present context the two possible values of the variable are '[Affirmative [Nath drives]]' and [Negative [Nath drives]]. Q-force instructs the addressee to select the value which provides a true proposition, in the answer.

Another distinguishing feature that *rǔu* 'Q/ or' has is an unvalued focus feature [uFoc]. This feature is probed by the Focus head, and covertly moved to Spec, FocP. This derives the reading that the variable 'affirmative or negative' is the focus of the sentence. The two alternatives 'Nat drives' and 'Nat doesn't drive' are the background or presupposition. We know that he drives or doesn't drive, but we want to know which.

If the analysis above is correct, at this point we can conclude that there is a crucial relation between Q-force in the YNQ structure and the [Alt] feature. If Q-force is merged with an IP which lacks the base component *rǔu* 'Q/ or' (or the base component [Alt] which is spelled out as *rǔu* 'Q/ or'), it will have no variable to bind. This will be ruled out by the principle Full Interpretation (Chomsky 1986, 1993) which rules out any constituents at LF which have no semantic effect. An operator without a variable to bind will therefore be ruled out. This simply means that IP is not semantically perceived as a YNQ. Then, without Q-force, the statement cannot convey a message like 'Tell me the value of x such that 'Nath x drives' is true'.

Without Q-force binding [Alt, uFoc], the expression (17) is not a question, but a statement.

(17) nát khàp rót rǔu mây khàp rót
Nath drive car or NEG drive car
'Nath drives or doesn't drive.'

The statement is quite meaningless, but it is still a statement, not a question. This raises the question: how are the features of the YNQ morphologically (overtly) expressed? Compare (17) and the question (18):

(18) nát khàp rót rǔu-mây
Nath drive car Q/ or-NEG
'Does Nath drive?'

How can we tell that (17) is a statement while (18) is a question? Can they be differentiated by means of phonology/ prosody? According to Dryer (2008), in over 100 languages a special intonation is the only device to mark an utterance as a YNQ, but in this case intonation does not obviously play a role in distinguishing YNQs from statements/ disjunctive sentences in Thai. Although Luksaneeyanawin (1998: 388) suggests that ''questions and responses with disagreement, disbelieving, and surprised

attitudes are marked with the tense ending rise i.e. they are usually realised with shortness and loudness, and sometimes glottal constriction is perceived'', I would say that it is not true that a statement alone without a YNQ particle can be perceived as a YNQ. It can be a declarative expressing surprise, for example, and which thereby invites some kinds of response from the addressee, but this is different from a YNQ. That is, the utterance, for example, *khàp rót* 'drive car' cannot be marked with just shortness and loudness to convey a question. Instead, one YNQ particle is attached to it as in *khàp rót măy* 'Does he drive?' After that, this question may in addition be pronounced with shortness and loudness as suggested above to emphasize the questionhood. It appears that Thai is a language where intonation does not play any role in question formation, the way it does in many other languages. This is probably, at least in part, because Thai is a tone language.

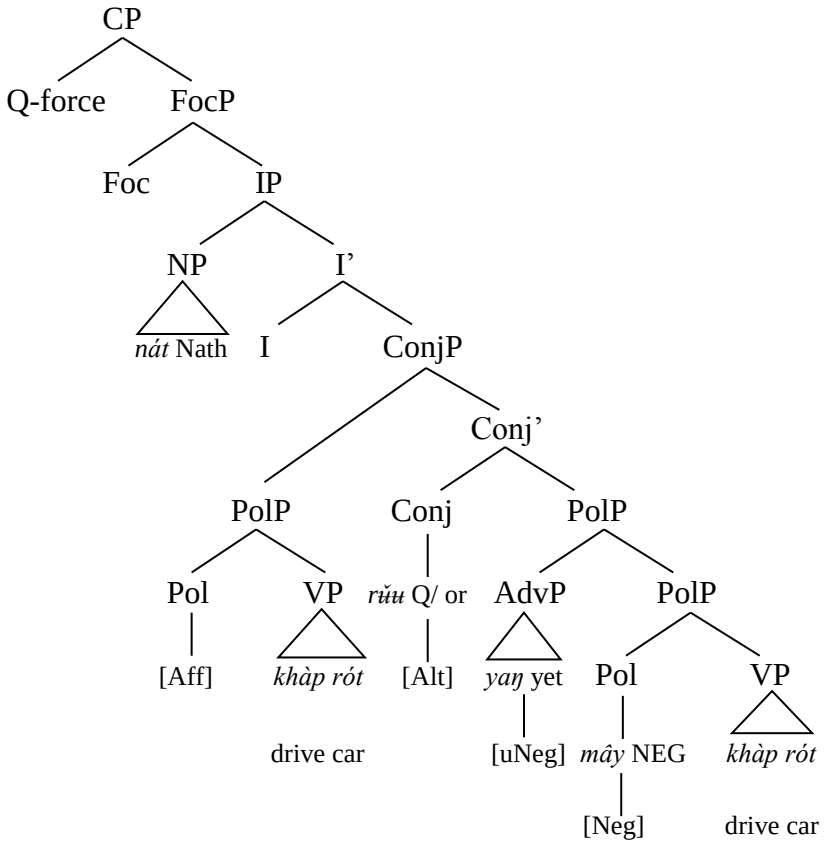
Consequently, the difference between (17) and (18) is purely detected in the syntax. The only distinction is that there is ellipsis of the second conjunct in questions. It is well known that ellipsis correlates with a focus. What gets deleted is the part of the sentence which is not focused; what is left behind (the 'complement' of the ellipsis) then does contain the focus of the sentence. In that sense, the ellipsis signals a focus. In this case, what is deleted is the second conjunct of a disjunction with [Alt]-marked 'or', that is a PolP but minus the negation, which is incorporated by the conjunction, as will be discussed below. (I claim that the focus is the [Alt]-marked disjunction 'or not', encoding the variable polarity). The various reductions of the components in the conjunct and the polarity are the overt signal of the feature [Alt/ uFoc] of *rŭu* 'Q/ or' as the crucial part of the question particle.

Being the core ingredient of the question particle, *rŭu* 'Q/ or' is seen in (16), which is the underlying structure of (18), to conjoin the negative PolP with the affirmative PolP. The negative PolP is headed by *mây* 'NEG' while the head of the affirmative PolP is null. It is assumed that *rŭu* 'Q/ or' must conjoin two PolPs, each of which has Pol as its head and a verbal phrase as its complement. Then, as discussed earlier, the second conjunct of the question must be deleted so that the focus is on the variable/ conjunction. This makes a YNQ with *rŭu* 'Q/ or' and the [Alt] feature different from a statement/ disjunctive sentence. Therefore, Q-force in the YNQ in (16) can provide the instruction to assign a value to the focused polarity, given that there is a polarity variable encoded by *rŭu* 'Q/ or' as discussed.

In chapter 2, it was proposed that the overt forms of the Type-1 question particles are derived by deletion of the second conjunct (what is now analysed as PolP) as a whole (deriving the bare *rǔu* particle) or just the VP of the second conjunct, leaving the negation behind, where in some cases it undergoes a morphological merger with the conjunction. Ellipsis, as well known, requires identity between the deleted structure and an antecedent. This is satisfied straightforwardly in the case of PolP deletion. The second conjunct PolP minus its polarity value is identical to the first conjunct PolP minus its polarity value. In the modified analysis proposed in this chapter, we can analyse the different particle forms as derived by optional incorporation of the negation (or more correctly, Pol) of the second conjunct into the Alt-conjunction. In the case of *rǔu(-mây)* 'Q/ or (-NEG)', it is assumed the negation *mây* 'NEG', or more generally, the Pol of the second PolP conjunct, is incorporated in *rǔu* 'Q/ or'. The incorporation can be analysed as head movement. Then, the PolP is totally deleted. In the case of the bare question particle/ conjunction *rǔu* , the incorporation/ head movement of Pol would be covert. In the case of *rǔu-mây* the incorporation is overt. In the case of the question particle *mǎy*, the incorporation is also overt, but following the incorporation the morphological rule *rǔu* + *mây* → *mǎy/ máy* has applied. In a negative question the first conjunct PolP is negative and the second one affirmative. The particle *rǔu* 'Q/ or' alone in a negative question is derived by the covert incorporation of the affirmative Pol head, with subsequent PolP-ellipsis.

The analysis of (16) is slightly different from the one of *rǔu-yaŋ* 'Q/ or-yet' in that the AdvP *yaŋ* 'yet' merges with the PolP, as shown in (19) below.

(19) The analysis of a question with a Type-1 particle: *rɯ̌ɯ-yaŋ*



In (19), the [Alt] feature of *rɯ̌ɯ* 'Q/ or' connects PolPs. *yaŋ* 'yet', which is an AdvP, always obligatorily requires a negative phrase as its complement, so it is adjoined to the PolP as a sister. Given that the particle is pronounced *rɯ̌ɯ-yaŋ* 'Q/ or-yet', it is *yaŋ* 'yet' which is incorporated with the [Alt] feature at LF. In addition, it has the [uNeg] feature which gets valued by the negative Pol head so that *rɯ̌ɯ-yaŋ* 'Q/ or-yet' means roughly 'or not yet'. If that is the case, *rɯ̌ɯ-yaŋ* 'Q/ or-yet' is then derived by the overt incorporation with PolP-ellipsis.

An important criterion for evaluating the theory of questions in Thai is whether it can explain when the question can be negative and when it cannot. Given that *yaŋ* 'yet' needs to get valued by the negative Pol head *mây* 'NEG', it then merges with the negative PolP headed by *mây* 'NEG' as discussed. This yields a negative conjunct, which is, however, deleted in the spell-out of the question. Since the other conjunct must then be affirmative, it cannot contain a negation. This explains why a negated (NEG-marked) predicate cannot be used with *rɯ̌ɯ-yaŋ* 'Q/ or-yet'.

The same account can also be applied to explain the ungrammaticality of a negated predicate used with *rǔu-mây* 'Q/ or-NEG' or *mǎy* 'Q/ (or-)NEG',[31] as discussed in chapter 2, but now embedded in a more explicit formal model.

Finally, in the case of *rǔu* 'Q/ or' alone, the PolP-analysis can directly annotate that both affirmative and negative predicates can co-occur with it. Given the coordination, we can expect the two conjuncts to be interchangeable, the first one negative and the other affirmative or vice versa.

4.2.3 Focus in questions

Consider the case of a YNQ which focuses on some other constituent than VP. In (20), the question is about the speed of Nath's driving. The primary answers to this question are as shown.

(20) Q: nát khàp rót rew rǔu-mây
Nath drive car fast Q/ or-NEG
'Does Nath drive fast?'

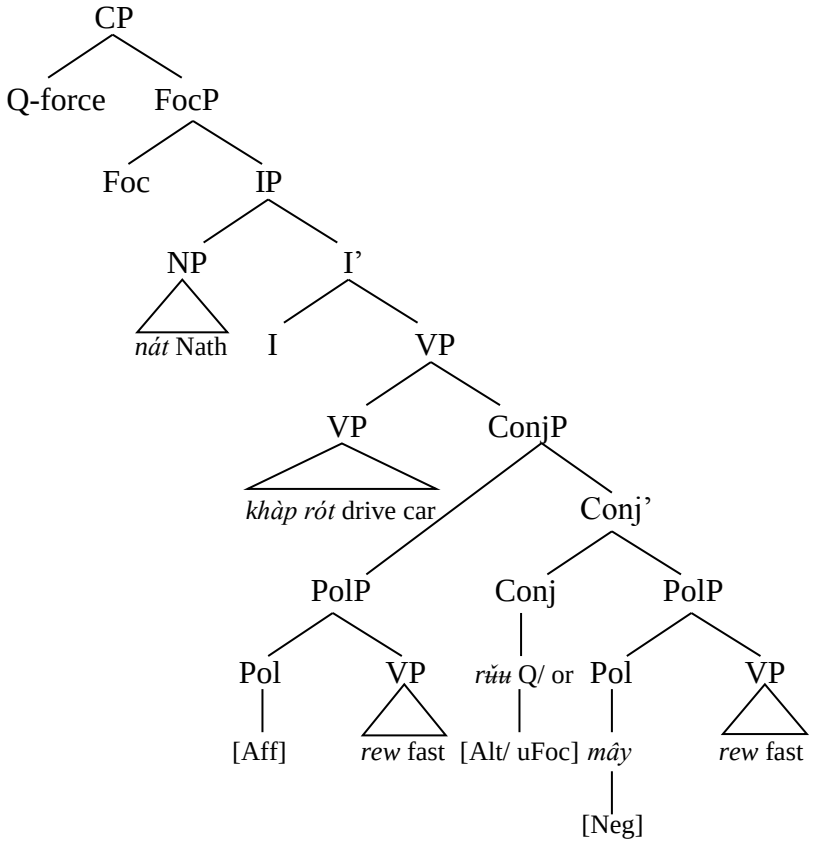
A: rew
fast
'Yes.'

A: mây rew
NEG fast
'No.'

[31] What matters is that the predicate is not negated. A question with *rǔu-mây* 'Q/ or-NEG' or *mǎy* 'Q/ (or-) NEG' can have a lexically negative predicate such as *pa-ti-sèt* 'deny' as in *nát pa-ti-sèt kham-chuun* 'Nath denied the invitation.'

I propose the following analysis of the question:

(21)



Recall that words translated as adjectives in English are verbs in Thai, including *rew* 'fast'. Therefore, this word heads a VP which is adjoined to the main VP, which it modifies. Recall that the rule is that Pol can only merge with verbal categories. Thus, in this case the two alternatives (the restriction on the variable *rŭu* 'Q/or') are 'fast' and 'not fast'. Therefore, the primary replies are 'fast' and 'not fast', translated as 'yes' and 'no' in English (the precise syntax of the answers will be discussed in chapter 5). According to the analysis above, the negation of the second conjunct is incorporated in the conjunction, and PolP is deleted at spell-out. This derives (20).

Then, compare (20) with the following question, of which primary answers are shown below.

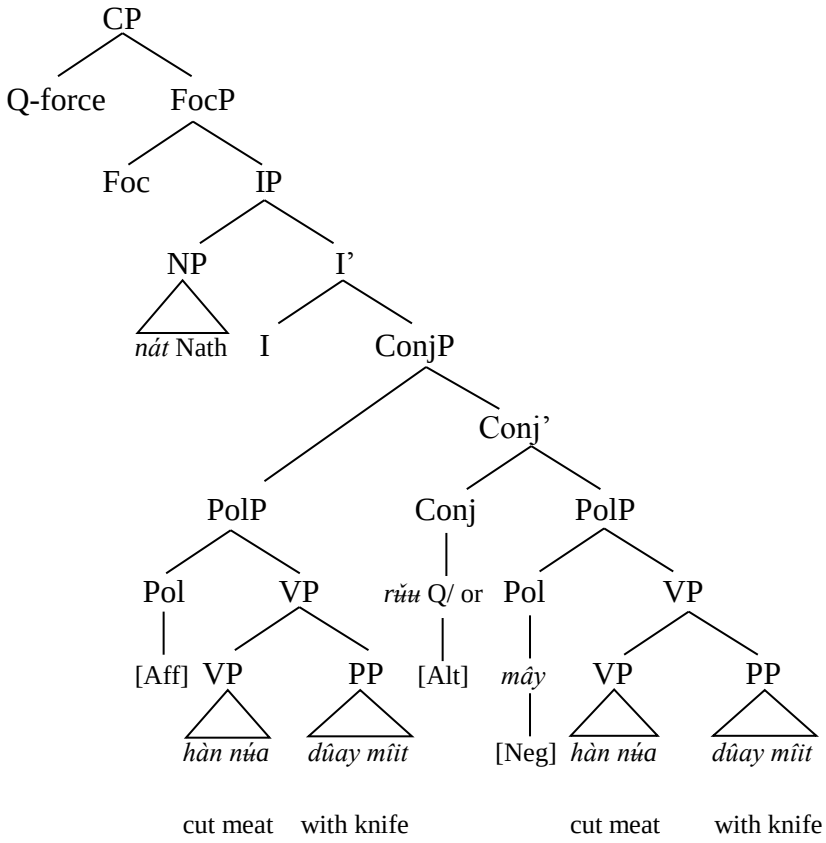
(22) Q: nát hàn núa dûay mîit rŭu
Nath cut meat with knife Q/ or
'Did Nath cut the meat with a knife?'

A: hàn
cut
'Yes.'

A: mây hàn
NEG cut
'No.'

I then propose the following analysis of the question:

(23)



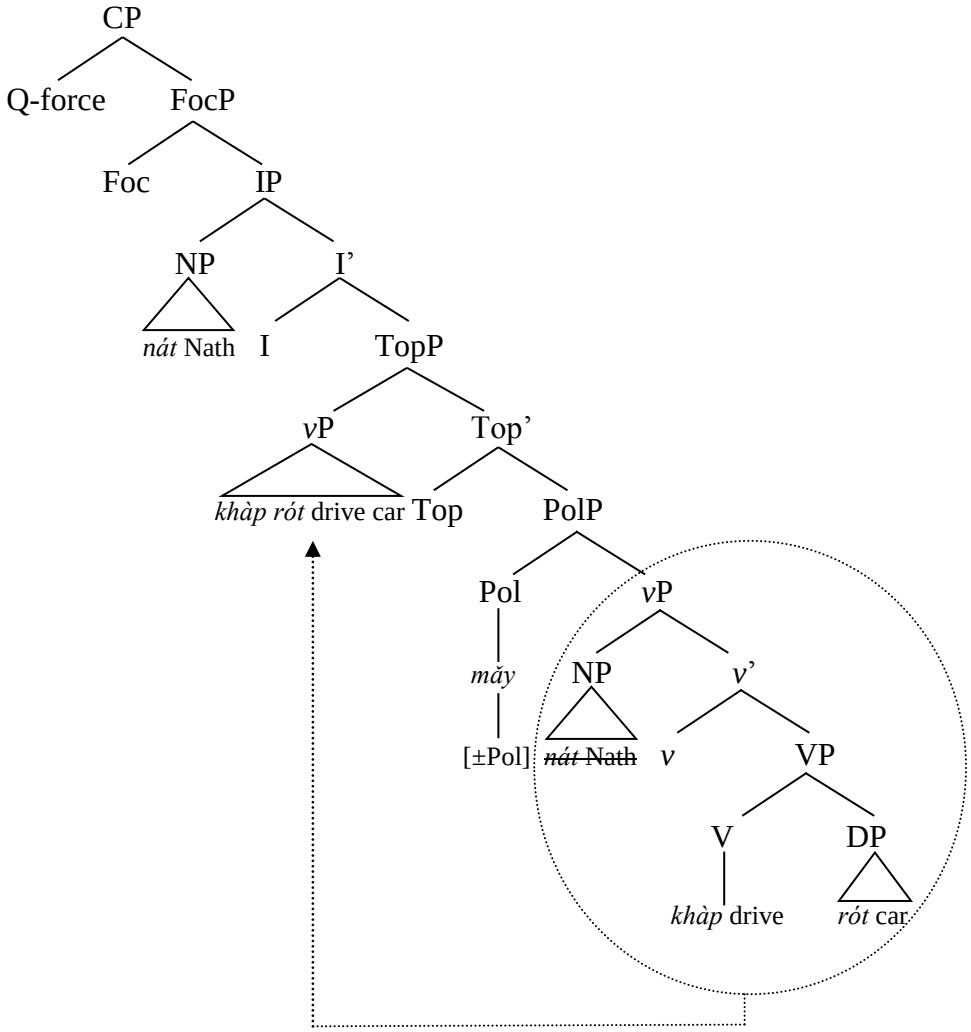
This question has the narrow focus on the PP, but it cannot be a polarity carrier as shown by the fact that it cannot merge with the Pol head. Therefore, the whole VP is the polarity carrier which is conjoined by *rŭu* 'Q/ or'. This accordingly shows that the notion of narrow focus is not the same as question focus. In (22), the narrow focus is on the PP 'with a knife', but the question focus is the Alt-conjunction, projecting a ConjP with the two PolPs. In (20), the narrow focus happens to be the same as the question focus. The generalization is that the question focus, i.e. the [Alt, uFoc]-marked conjunction takes the highest PolP of the sentence as its scope. This will be demonstrated again in chapter 5.

4.2.4 An alternative analysis of (rŭu-)măy questions

The following is an alternative analysis of (*rŭu-)măy* questions, as in *nát khàp rót măy* 'Does Nath drive?'. As will be shown, it is incompatible with the analysis of the other

particles in the same type as to be discussed below. Consequently, I am actually going to reject it. This analysis is inspired by Duffield's (2011) analysis of questions in Vietnamese.

(24)



Under this analysis the question particle *mǎy* 'Q/ NEG' is the result of a historical re-analysis of the negation *mây*. It is, however, still merged as a polarity head, like the negation. Nevertheless, unlike the negation *mây*, the question particle *mǎy* requires the movement of the complement *v*P. We may assume that the *v*P moves to an IP-internal topic position. The effect of the movement is that the question particle ends up in a sentence-final position, which is a Focus position.

Under this theory, although *mǎy* is derived historically from a negation marker, it has been now grammaticalized into a head with [±] as polarity. In addition, under this analysis, the question particle merges with the *v*P at the Pol-head position, in

complementary distribution with the negation. Therefore, the question cannot be negated as there is no position for the negation in the IP.

This analysis has certain advantages. For example, the *v*P-movement directly explains how a question particle appears sentence-finally and a negative proposition is not allowed with this question particle. In addition, the *v*P-movement can be seen in certain other constructions. It accounts for a subject which is in a clause-final/ post-verbal position in an imperative sentence in a colloquial register as shown below.

(25) a. khun kin kha-nŏm sì
you eat sweet PRT
'(You) Eat the sweet.'

b. kin kha-nŏm sì khun
eat sweet PRT you

c. [$_{vP}$ kin kha-nŏm] sì khun [$_{vP}$ ~~kin kha-nŏm~~]
eat sweet PRT you eat sweet
'(You) Eat the sweet.'

The alternative order in the imperative (25b) can be analysed as derived by *v*P-movement, as shown in (25c).

*v*P-movement can also explain how a pre-verbal modal can optionally surface as a post-verbal modal.

(26) a. nát dây khàp rót
Nath could drive car
'Nath could drive/ Nath had a chance to drive.'

b. nát [$_{vP}$ khàp rót] dây [$_{vP}$ ~~khàp rót~~]
Nath drive car could drive car
'Nath could drive.'

However, the significant drawback with the analysis (24) is that although it accounts nicely for a *măy* question, it does not provide an analysis of the other particles in the same class. For instance, it suggests that the question particle *rŭu-mây* 'Q/ or-NEG' has a completely different analysis. As discussed in chapter 2, the particles *măy* 'Q/ (or-)NEG' and *rŭu-mây* 'Q/ or-NEG' have the same syntactic and semantic/ pragmatic

properties, in that both can mark open questions. Nor does (24) account for questions with *rŭu*, and does not account for the role of *rŭu* 'Q/ or' in YNQs in general. I therefore maintain that *mǎy* 'Q/ (or-)NEG' is just another Type-1 particle as shown in (16) under the ConjP-analysis of YNQs in Thai.

4.2.5 The syntax of questions with Type-2 particles: chây-mǎy, chây-rŭu-mây, chây-rŭu-plàaw, chây-rŭu and mây-chây-rŭu

In Type 2, each question particle is syntactically made up of three components: the conjunction *rŭu* 'or', and two conjuncts, *chây* 'right' and *mây chây* 'NEG right'. The base component is still the conjunction *rŭu* 'or', which syntactically conjoins polarity alternatives. Every particle in this type must have either the covert or overt conjunction *rŭu* 'or' as the base component since it is the core component that connects those two polarity alternatives to provide the addressee with a proper choice as a primary YNR, in this case *chây* 'right' or *mây chây* 'NEG right'. Under this assumption, every particle in this group has accordingly the same underlying syntax, with different surface forms as shown below, where null elements are shown in brackets, not present at PF, but present at LF.

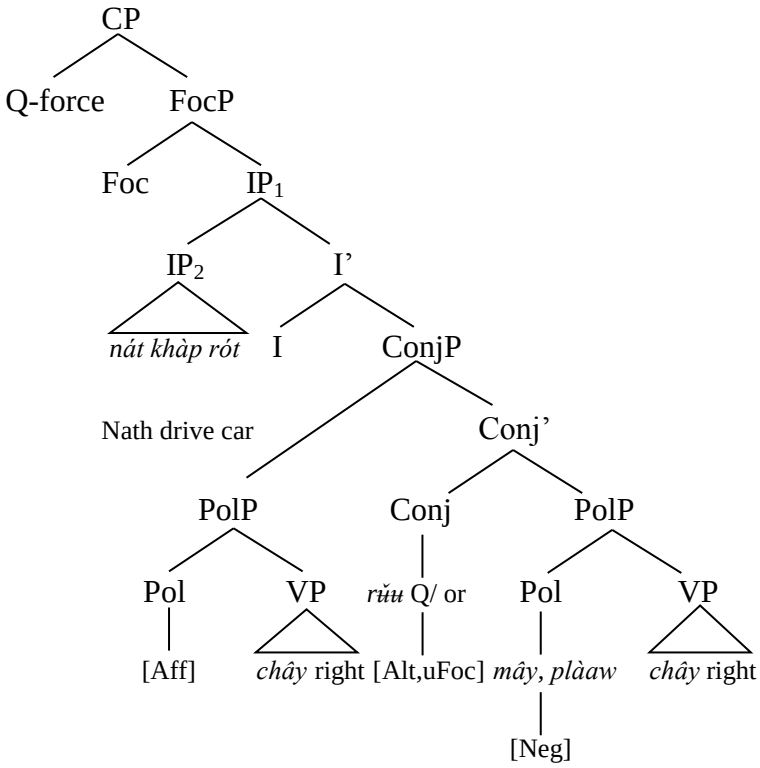
(27) chây-(rŭu-)mǎy(-chây)
chây-rŭu-mây(-chây)
chây-rŭu-plàaw(-chây)
chây-rŭu(-mây-chây)
mây-chây-rŭu(-chây)

The analysis of the question (28) is shown in (29) which is also the structure of other Type-2 particles.

(28) nát khàp rót chây-mǎy
Nath drive car Q/ right-NEG
'Does Nath drive?/ 'Nath drives, right?'[32]

[32] The translation 'Nath drives, right?' is potentially misleading, as this is not a tag question like tag questions in English. As mentioned before, this is shown by the fact that the Type-2 questions can be embedded, unlike tag questions in English.

(29) The analysis of a question with Type-2 particles: *chây-rǔu-mây(-chây), chây-rǔu-plàaw(-chây), chây-rǔu(-mây-chây), mây-chây-rǔu(-chây)* and *chây-(rǔu-)măy(-chây)*



This analysis is a refined version of the analysis proposed in chapter 2. The proposition of the question is the subject of a predicate consisting of a ConjP headed by *rǔu* 'Q/ or', with the [Alt] feature, taking two PolPs as its arguments, [Aff [*chây*]] and [Neg [*chây*]], 'right' and 'not right'. This ConjP is then reduced in various ways through deletion and morphological merger to yield the Type-2 question particles. The structure provides a focused variable, the [Alt]-marked conjunction, with two conjuncts as restriction, for Q-force to bind, which is to say it provides the addressee with choices for YNRs via connecting two polarity alternatives *chây* 'right' or *mây chây* 'NEG right'. Note that evaluative predicates like *chây* 'right' are verbs in Thai, thus we expect them to be able to merge with Pol. It is one of the two conjuncts that can be selected as a primary reply due to the syntax and semantics of the question. The primary replies to (28) are (30):

(30) chây/ mây chây
right/ NEG right

(29) illustrates how the proposition *nát khàp rót* 'Nath drives a car' is structured with Type-2 particles. Under this analysis, the internal structure of particles in this group is not different from the one in Type 1 in that the conjunction *rǔu* 'or' is still the base

component of the particles. *rŭu* 'or' heads a ConjP joining two PolPs with opposite values. This ConjP provides a focused variable which Q-force binds in the sense that Q-force solicits an answer from the addressee, requesting the addressee to pick one of the two PolPs such that when this PolP is predicated of the subject IP, it yields a true proposition.

This analysis predicts correctly that questions with Type-2 particles can be negative. You can ask about a negative proposition whether it is right or not.

(31) Q: nát mây khàp rót chây-măy
Nath NEG drive car Q/ right-NEG

A: chây
right
'Yes' (He doesn't drive.')

A: mây chây
NEG right
'No.' (He does drive.')

The various forms of the Type-2 particles are derived from the same underlying structure by a similar set of PF-rules as in the case of Type-1 particles. Most notably, the second conjunct PolP is deleted (a deletion triggered by the [uFoc] feature of *rŭu*)[33]. The conjunction *rŭu* can be overt or covert. The negation of the second conjunct (when the second conjunct is negative) can be overtly or covertly incorporated in the conjunction, prior to deletion of the second conjunct PolP. If it is overtly incorporated, we get the forms *chây-rŭu-mây*, or *chây-rŭu-plàaw*, if that negation is chosen, and also *chây-măy*, where the incorporated negation has merged morphologically with *rŭu*, with the spelled out form *măy* as a result. If the incorporation is covert, we get *chây-rŭu*. If the affirmative Pol is covertly incorporated, we get the form *mây-chây-rŭu*.

[33] The deletion of the second conjunct is not obligatory with Type 2, so this may be a problem in view of the discussion in Type 1. Whatever the difference is between the two types, that is how questionhood is overtly expressed in Type 2.

Conclusion

The present chapter has taken the analysis of question particles and the YNQs that are constructed with these particles, and embedded it in the theory of questions and answers in Holmberg (2010, to appear). As already shown in chapter 2, there are two types of question particles, corresponding to two types of questions, with different syntax, reflected most clearly in the answers that they require.

Every question particle is composed of either the covert or overt *rʉ̌ʉ* 'Q/ or' as a core part. This conjunction has an [Alt] feature, meaning that it conjoins specifically two PolPs, one negative and one affirmative, which provide the two values that the question variable can have. The first conjunct is always pronounced while the second one is null, making it overtly different from a declarative disjunctive sentence.

Finally, if all the formal analyses above are shown to be correct, I claim that in Thai the conjunction *rʉ̌ʉ* 'Q/ or' is the only 'basic' YNQ particle. This is different from Peyasantiwong's (1981: 53) claim that *rʉ̌ʉ* and *mǎy* are the two basic YNQ particles. *rʉ̌ʉ* 'Q/ or' is the basic YNQ particle by virtue of the [Alt] feature. It is this feature, which together with the [uFoc] feature provides the focused polarity variable, which together with Q-force provides the components that a YNQ needs, setting up the structure which is then employed in the YNR, in ways to be articulated in chapter 5.

Chapter 5. A derivational analysis of YNRs

Introduction

In chapter 3, I have shown primary and secondary reply patterns based on the syntax and semantics of YNQs and particles in chapter 2. In chapter 4, a theory of questions and answers (Holmberg 2010, to appear) has also been introduced to support the assumption that there is a close relation between YNRs and YNQs. In this present section, I will consequently develop those ideas to explore how the replies are derived syntactically, based on that theory. The literature which the analyses are based on is reviewed here, including the syntactic positions of modal verbs and aspect markers, as well as a discussion of serial verb constructions. The affirmative primary and secondary reply derivations in Thai are then compared to those of other languages.

5.1 Visonyanggoon (2000)

Visonyanggoon has investigated Thai modals, namely *àat-cà* 'probably', *khoŋ-cà* 'likely', *nâa-cà* 'should', *khuan-cà* 'should', *tôŋ* 'must', *cà* 'will', *dây* 'can, may', *pen* 'can' and *wăy* 'can' as well as Thai aspect markers, namely *khəəy* 'EXP', *yaŋ* 'still', *kam-laŋ* 'PROG', *yùu* 'PROG/ IMPF' and *lέεw* 'PRF/ already'. However, I place the focus on the syntactic positions and the surface order of both Thai modals and aspect markers on the one hand and the co-occurrences among them on the other hand. Both of them are directly relevant to my derivational analysis of Thai YNRs in the section to follow and also shed light on the reply patterns.

According to Visonyanggoon (2000), modals and aspect markers are linearized in relation to the position of a lexical verb as follows.

Table 6: Syntactic positions of auxiliaries

àat-cà 'probably', *khoŋ-cà* 'likely', *nâa-cà* 'should', *khuan-cà* 'should', *tôŋ* 'must'	*khəəy* 'EXP'	*yaŋ* 'still'	*cà* 'will'	*tôŋ* 'must'	*kam-laŋ* 'PROG'	VP	*dây* 'can,may', *pen* 'can', *wăy* 'can'	*yùu* 'PROG/ IMPF'	*lέεw* 'PRF/ already'
Epistemic modal	ASP	ASP	Root modal	Root modal	ASP		Root modal	ASP	ASP

Visonyanggoon (2000: 223)

Regarding the co-occurrences of these items, it has been proposed in Visonyanggoon (2000) that the items in table 6 can co-occur in such a specified surface order, given that the meaning conveyed is not 'incongruous or odd'. In the literature, there is no example that would show the possible co-occurrence of all the auxiliary verbs, but Visonyanggoon (2000) has described the distribution of these items on the basis of examples found that reveal both the linear order and the syntactic positions of co-occurring items, as follows.

(1) Epistemic modals > Experiential *khəəy* 'EXP'
(2) Epistemic modals > Continuative *yaŋ* 'still'
(3) Epistemic modals > Progressive *kam-laŋ* 'PROG'
(4) Epistemic modals > Imperfective *yùu* 'PROG/ IMPF'
(5) Epistemic modals > Perfect/ Perfective *lέεw* 'PRF/ already'
(6) Experiential *khəəy* 'EXP' > Root modals *cà* 'will', *tôŋ* 'must', *dây* 'can/ may', *pen* 'can', *wăy* 'can'
(7) Continuative *yaŋ* 'still' > Root modals *cà* 'will', *tôŋ* 'must', *dây* 'can/ may', *pen* 'can', *wăy* 'can'

(8) Pre-verbal modals *cà* ‘will’, *tôŋ* ‘must’ > Progressive *kam-laŋ* ‘PROG’ >
Post-verbal modals *dây* ‘can/ may’, *pen* ‘can’, *wăy* ‘can’

(9) Pre-verbal modals *cà* ‘will’, *tôŋ* ‘must’ > Imperfective *yùu* ‘PROG/ IMPF’ >
Post-verbal modals *dây* ‘can/ may’, *pen* ‘can’, *wăy* ‘can’

(10) Pre-verbal modals *cà* ‘will’, *tôŋ* ‘must’ > Perfect/ Perfective *léɛw* ‘PRF/ already’>
Post-verbal modals *dây* ‘can/ may’, *pen* ‘can’, *wăy* ‘can’

5.2 Syntactic positions of verbal categories

To articulate the derivational analysis of YNRs, the syntactic positions of the verbal categories to be picked as YNRs are investigated first. Then, the verbal categories in these positions are applied to show the derivations of YNRs in the next section.

5.2.1 A modal verb

Visonyanggoon (2000) has conducted a detailed study of Thai modals, uncovering their syntactic positions and co-occurrences in relation to other modals as reviewed in table 6. I have made use of the co-occurrences in that account to form questions to elicit minimal primary YNRs and I have also found that most of the modal verbs can act as YNRs on the grounds of their verbal feature. This proposal is shared with Visonyanggoon who argues that a modal can be a legitimate YNR, with the exception of epistemic modals or those having non-verbal feature. That may be correct, but it is not the concern of this present section. Instead, what follows is the discussion of the position of a modal verb.

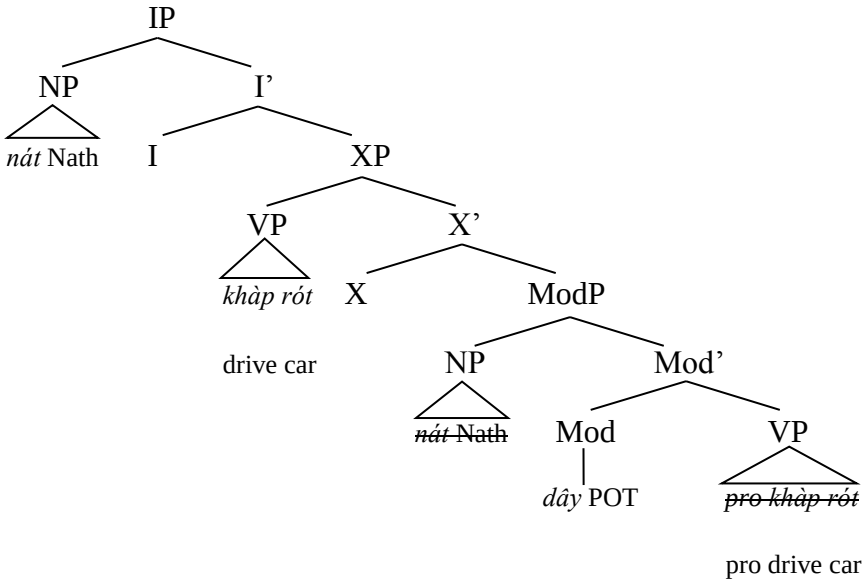
In the structure where a modal verb serves as a YNR, the modal verb always has a lexical main verb under its scope. That suggests a verbal element with the widest scope in the surface order is intuitively picked to respond to a question. However, the surface order of some modal verbs and their underlying syntactic position appears problematic, but Simpson (2001) has proposed a fine-grained study which is adopted in my analysis.

In Thai there are three post-verbal modals i.e. *dây* ‘can, may’, *pen* ‘can’ and *wăy* ‘can’, which are legitimate as YNRs. Their post-verbal position appears to argue against the hypothesis of Cinque (1999), according to which in SVO languages a modal verb which is syntactically higher than a main verb is supposed to precede this verb. Simpson

argues that this is also the case for the Thai potential modal verb *dây* 'can' although it appears to be post-verbal.[34]

Simpson suggests the post-verbal modal verb *dây* 'can' is derived from a regular underlying structure through 'a process of focus-driven light predicate raising'[35] as shown in (11), meaning the post-verbal modal verb is actually base-generated pre-verbally. Consequently, this still conforms to the account of Cinque (1999). I adopt this idea where relevant and the derivational diagram by Simpson (2001) is reflected in the syntactic position of the modal *dây* 'can' in my analysis.

(11)



Adopting the structure of Simpson (2001: 98-100), in my own analysis of the question *nát khàp rót dây rɯ̌ɯ* 'Can Nath drive?', *dây* 'POT/ can, may' heads its own projection ModP (DeP[36] in his terminology) and is base-generated pre-verbally. The subject *nát* 'Nath' is base-generated at Spec, ModP. First, the VP *pro*[37] *khàp rót* 'pro drive car' of which *pro* is controlled by *nát* 'Nath' at Spec, ModP moves to the Spec of the head

[34] Simpson (2001) points out that this is also the case in other languages like Cambodian, Vietnamese, Hmong and Cantonese.

[35] Simpson (2001) does not discuss in detail why 'the light predicate raising' or the VP-movement, the operation found in a structure with the potential modal verb *dây* 'POT/ can, may', is not applied to other modal verbs. However, it can be inferred from his discussion that all modal verbs in Thai are assumed to be base-generated pre-verbally. Other Thai modal verbs are overtly realized pre-verbally in surface order, except for the potential modal verbs, and Simpson claims that they are also underlying pre-verbal. He accordingly accounts for this variation by means of the VP-movement applying to a subset of the modal verbs, the potential ones. As a result, *dây* receives the focus intonation in the position following the moved VP.

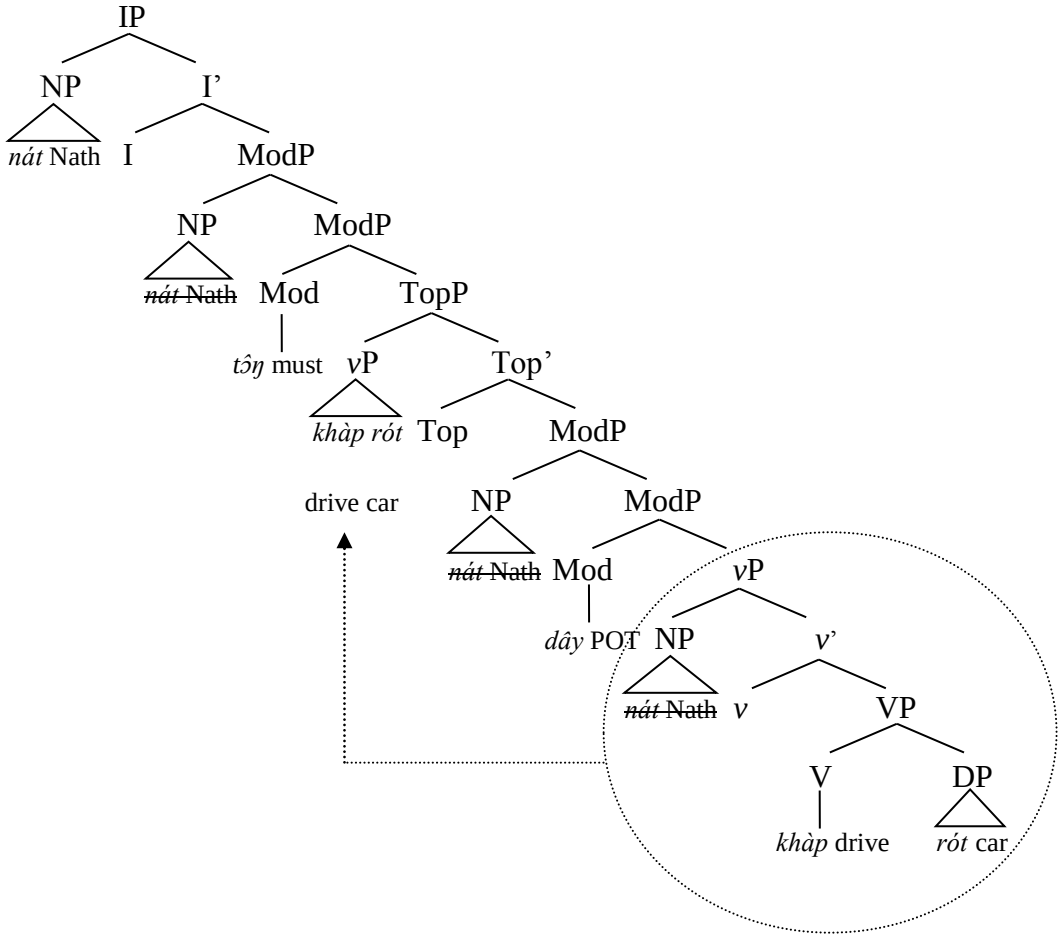
[36] DeP is used to reflect the *de* modal in Chinese.

[37] This is exactly from the source paper.

which is loosely labelled X[38]. Then, the subject *nát* 'Nath' moves to Spec, IP (TP in the source paper). This leaves the modal verb *dây* 'POT/ can, may', which is base-generated pre-verbally, to surface in a post-verbal position. The VP-movement is triggered to be defocused, 'allowing for either *dây* itself or alternatively an object following *dây* to receive the focus intonation and interpretation' (Simpson 2001: 106). That is the analysis of Simpson with a Thai proposition. Next I will show the diagram where I adopt his idea to fit a Thai modal case.

In Thai, the co-occurrence of more modal verbs in the same string is very common. The structure (11) also accounts for that case. Simpson proposes that higher modal verbs which can precede *dây* 'POT/ can, may' can be merged between the TP (IP in my analysis) and the XP. For example, *tôŋ* 'must' in *nát* ***tôŋ*** *khàp rót dây rɯ̌ɯ* '**Must** Nath be able to drive?' is positioned as follows.

(12)



The derivational structure of *dây* 'POT/ can, may' as a post-verbal modal in (12) is exactly the same as the original idea in (11), but with the addition of the higher ModP

[38] Regarding the landing site of the VP-movement, Simpson (2001: 98-99) does not make it explicit, assuming multiple occurrences of higher modal projections. The VP may land in the specifier of one of these projections, so it is loosely labelled as XP.

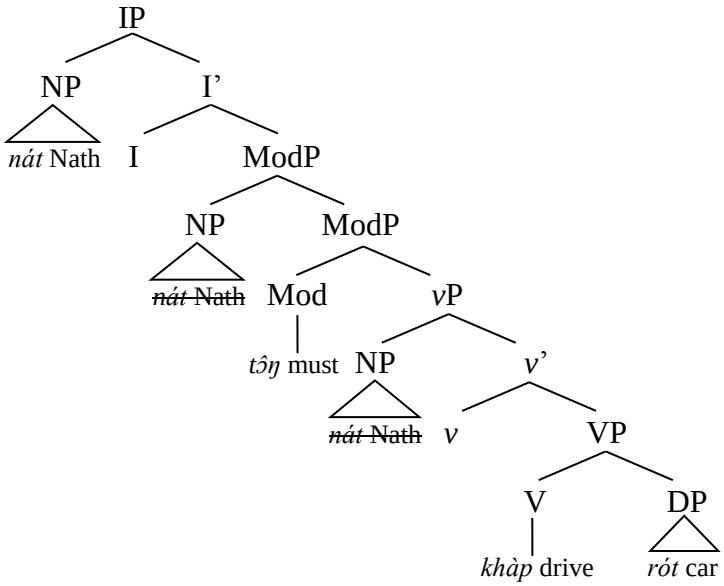
headed by *tôŋ* ‘must’ and the VP-shell analysis. Under the standard VP-shell analysis, the verb base-generated at the V head moves to little *v*, but this is not the case in Thai. The verb *khàp* ‘drive’ is based as the head of the VP which I assume does not move to little *v*. This is on the grounds of the syntactic placement of the negation *mây* ‘NEG’. The generalization of the placement of the negation *mây* ‘NEG’ is that it can merge with any verbal phrase, based on sentences where the negation *mây* ‘NEG’ can be adjoined to the AP e.g. *rew* ‘fast’ in *nát khàp rót mây rew* ‘Nath drive car NEG fast’ and the VP e.g. *nâŋ* ‘sit’ in *nát mây nâŋ* ‘Nath NEG sit’, both of which are intransitive. Therefore, the negation is predicted to adjoin to the VP. If the verb moves to little *v*, the negation consequently comes between the transitive verb *khàp* ‘drive’ and its object as in **khàp mây rót* ‘drive NEG car’ which is ungrammatical in Thai and seen as evidence that there is no V-to-*v* movement. I correspondingly assume that there is no V-movement in Thai. This is also consistent with the fact that Thai never allows any inflection on the verb. The existence of little *v* is proposed on semantic grounds, rather than syntactic criteria. The subject NP *nát* ‘Nath’ is base-generated at Spec, *v*P which then moves upwards to Spec, IP via Spec, ModPs.

In chapter 4, I have postulated *v*P-movement to Spec, TopP in a *măy* question derivation so that the focus is on the sentence-final negation. This is actually similar to Simpson’s idea in (11). Consequently, I assume that the remnant *v*P moves to Spec, XP, which I label here as a TopP, so the post-verbal modal *dây* ‘POT/ can, may’ is focused.

Then, another ModP headed by *tôŋ* ‘must’ merges with the TopP. *tôŋ* ‘must’ in this position c-commands the *v*P and *dây* ‘POT/ can, may’. Consequently, it has scope over them. I propose that ‘the light predicate raising structure’ according to Simpson (2001) may be felicitous for sentences with post-verbal modal verbs *dây* ‘POT/ can, may’, *pen* ‘can’, *wăy* ‘can’, but sentences without them have a simpler structure.

I assume that in a structure where post-verbal potential modal verbs are not present, an additional TopP as in (12) may not be needed since no *v*P-movement is triggered, as shown in (13). I still assume the VP-shell analysis where the verb at the V head does not move to little *v* and the subject base-generated at Spec, *v*P moves to Spec, IP via Spec, ModP. The pre-verbal ModP e.g. *tôŋ* ‘must’ merges with the *v*P. The modal verb *tôŋ* ‘must’ may move further to I to be local to the subject.

(13)

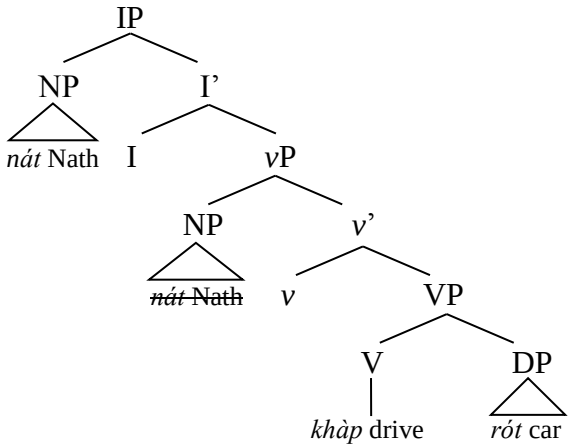


5.2.2 A lexical verb

It is proposed that the so-called simple structure of YNQs refers to a construction with only one verbal element. This verbal element is there to satisfy the requirement that the negative Pol head *mây* 'NEG' merges with a verbal category so that it is directly under the scope of the negative Pol head *mây* 'NEG'. Therefore, the only verbal element in a YNQ is the main verb like *khàp* 'drive' in *nát khàp rót rʉ́ʉ* 'Does/ Did Nath drive?' To affirmatively respond to this question, the only possible minimal primary reply based on the antecedent question is the main verb *khàp* 'drive'.

In (12), I assume that the TopP with the *v*P-movement analysis is valid for a sentence with a post-verbal modal verb, but (14) below contains no post-verbal modal verb at all. The question that arises consequently is whether the ModP and the TopP should be assumed to be syntactically present here, given that (14) contains no such an overt material. I will assume that they should not, following the methodological principle of not assuming more structures than is motivated either by properties of PF or LF. This suggests, then, that this structure is not appropriate for a simple sentence. I would therefore propose the syntax of a simple sentence as in (14), showing where the main verb (carrying the polarity variable as the focus) sits.

(14)



In (14), the subject NP *nát* 'Nath' is base-generated at Spec, *v*P, which then moves to Spec, IP. The main verb *khàp* 'drive' is base-generated at the head position of the VP, and does not move to little *v*, having *rót* 'car' as its complement. This represents a simple sentence where there is only one verbal element that can act as a minimal primary YNR. However, this structure may be different in the so-called serial verb construction (SVC).

According to Bukhari (2009: 184), 'there has been disagreement in literature concerning what a serial verb actually is…', but descriptively, it has the following significant characteristics.

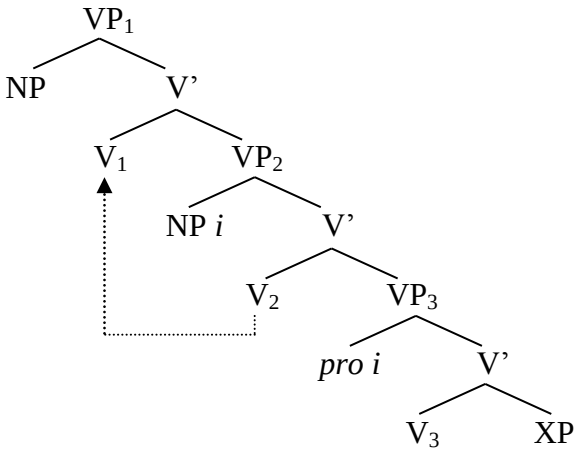
(15) Two or more verbs co-occur without any conjunction or subordination.
(16) These two verbs must share the same subject and the same object.
(17) There should be a single tense and aspect specification for the verb.

Bukhari (2009: 181)

According to Aikhenvald (2003: 1 cited in Bukhari (2009: 185)), the SVC refers to the construction of '…a sequence of verbs which act together as a single predicate, without any marker of coordination, subordination or syntactic dependency of any other sort'. This view is also shared with Chuwicha (1993), who studies Thai SVCs and claims that this construction is composed of two main verbs in a row with or without a direct object. Although a number of studies of Thai SVCs exist e.g. Sereecharoensatit (1984), Thepkanjana (1986), Chuwicha (1993) and Iwasaki and Ingkaphirom (2009), I will not get into the details of this construction here. That is because the primary goal of this section is purely to show the syntactic position of the lexical verbs in series in the IP only, which reveals correspondingly the material to be a YNR under the theory of questions and answers (Holmberg 2010, to appear).

Collins (1993, 1994, 1997) has analysed the SVC in Ewe, which is an SVO language, treating it as a complementation structure[39] i.e. the V_1 takes the VP_2 as its complement. Following Collins (1997), this structure involves overt verb raising as diagrammed below.

(18)



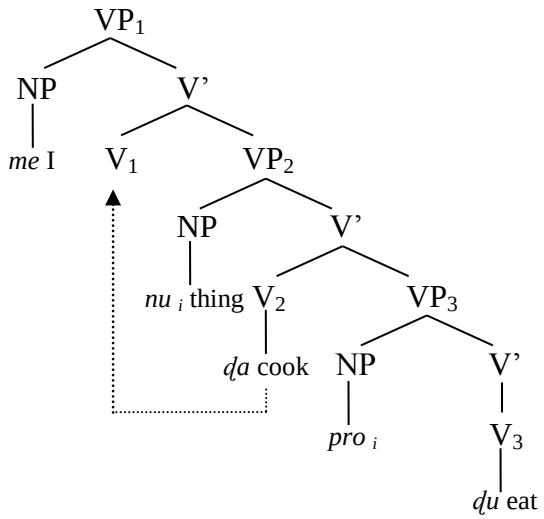
In this structure, each verb heads its own maximal projection. The subject argument is base-generated at the specifier of the highest VP_1 while the object arguments are base-generated at Spec, VP_2 and VP_3. This suggests the syntactic position of arguments is at Spec, VP, including the empty category *pro* at Spec, VP_3. This empty category is co-referenced with its antecedent. This is so-called argument sharing[40]. To get the right word order, the V_2 raises to the head position of the highest VP.

Collins (1997) argues that argument sharing is a criterion used to distinguish the SVC from other structures i.e. the SVC must have argument sharing. This is captured in the diagram below in which Collins (1997: 491) illustrates the base-generated SVC prior to verb raising.

[39] Johnson (2002) also treats the SVC as a complementation structure.

[40] Argument sharing is considered one of the major properties of the SVC (Baker 1989 and Collins 1993).

(19)



It is proposed that the agent *me* 'I' is the subject argument of both verbs *ɖa* 'cook' and *ɖu* 'eat', and it is also assumed that the verb *ɖu* 'eat' raises to adjoin to *ɖa* 'cook' at LF. Consequently, it assigns an agent role to the subject *me* 'I'. The verb *ɖa* 'cook' raises to the V_1 to make the word order right at PF as *me ɖa nu ɖu* 'I cook thing eat'.

I will show next the position of the lower lexical verb in the SVC where this lower verb is picked as a legitimate YNR, instead of the highest one which is usually picked in most cases. To respond to this, I take an example from Takahashi and Thepkanjana (1997) i.e. *paa kêɛw tèɛk* 'throw a glass and it breaks' as an SVC.

paa kêɛw tèɛk 'throw a glass and it breaks' is considered the SVC when it meets all the three characteristics above, with the minor exception that the two verbs share the same argument *kêɛw* 'glass', but as an object taken by *paa* 'throw' and as a subject of *tèɛk* 'break'. In addition, *paa* 'throw' and *tèɛk* 'break' are serialized without any conjunction or subordination marker which allows them correspondingly to share the same argument. Moreover, to ensure any given construction is an SVC, I make use of the test proposed by Collins (1997) which says the true SVC allows only one future marker, as in (20), where *cà* 'will' scopes over both VPs, and consequently the SVC projects a single tense.

(20) nát cà paa kêɛw tèɛk
Nath will throw glass break
'Nath will throw a glass and/ so that it breaks.'

(21) *nát cà paa kêɛw cà tɛɛk
Nath will throw glass will break

(22) *nát paa kêɛw cà tèɛk
Nath throw glass will break

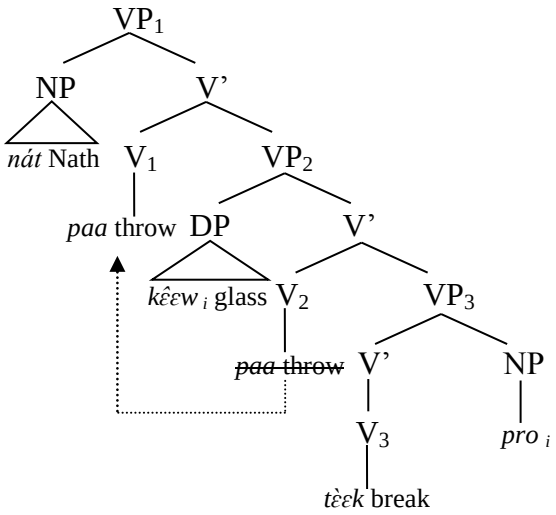
(20)-(22) suggest that there is one single tense and aspect specified by the verbs in series. Then, *paa kêɛw tèɛk* ‘throw a glass and it breaks’ is formed into a YNQ and answered below.

(23) Q: nát paa kêɛw tèɛk măy
Nath throw glass break Q/ (or) NEG
‘Does/ Did Nath throw a glass and it breaks/ broke?’

A: tèɛk/ mây tèɛk
break/ NEG break
‘Yes/ No.’

Then, I assume that the proposition *nát paa kêɛw tèɛk* ‘Nath throws a glass and it breaks’ is structured in accordance with Collins (1993, 1994, 1997) to show the position where the lexical verbs occur as in (24), but with the exception of the *pro* as the underlying complement of the VP_3.

(24)



In (24), *kêɛw* ‘glass’ surfaces to follow the highest V *paa* ‘throw’ as its direct object argument, so it sits at Spec, VP_2 where *paa* ‘throw’ heads the maximal projection. Semantically analysed, *kêɛw* ‘glass’ is the direct object of *paa* ‘throw’, but it is understood to be the subject of *tèɛk* ‘break’ to convey that the glass is broken. As a result, this shows argument sharing. I consequently assume this via the co-reference between *pro* and *kêɛw* ‘glass’ controlling it. That can be on the grounds that *kêɛw* ‘glass’ is considered an empty category of the verb *tèɛk* ‘break’ which is not spelled-out. The

verb *tɛ̀ɛ́k* ‘break’ moves to the V_2 *paa* ‘throw’ at LF to assign an agent role to the NP subject, according to Collins (1997). Finally, the V_2 *paa* ‘throw’ raises to the V_1 to get the right word order.

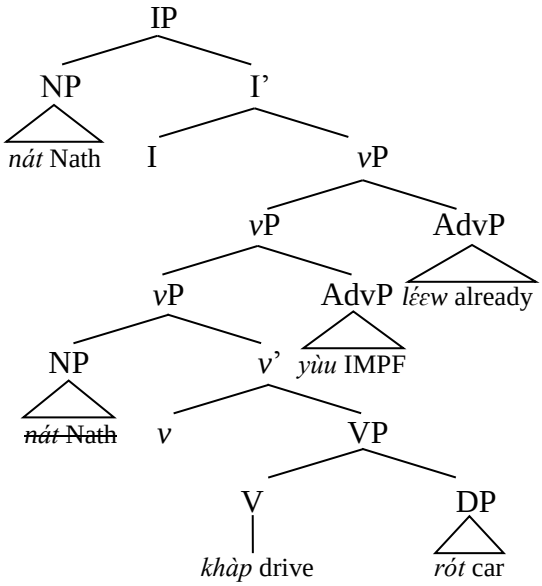
5.2.3. An aspectual auxiliary verb

Aspect markers are another class of auxiliary verbs that have the verbal feature; this makes it possible for them to be immediately under the scope of the negation *mây* ‘NEG’ (and also the scope of the affirmative abstract Pol head) i.e. the complement to either the affirmative or negative Pol head. Subject to the syntactic position of a lexical verb, the aspect marker can be either pre-verbal or post-verbal. However, not all aspect markers act like a minimal primary YNR since they have the non-verbal feature i.e. they cannot be a complement to the negative Pol head e.g. *yùu* ‘IMPF’ and *lɛ́ɛw* ‘PRF/ already’.[41]

I follow Visonyanggoon (2000: 221) in proposing that post-verbal aspect markers *yùu* ‘IMPF’ and *lɛ́ɛw* ‘PRF/ already’ are treated as phrases right-adjoined to the VPs, so I represent them in (25) below, where they cannot be YNRs on their own without the verbal phrase.

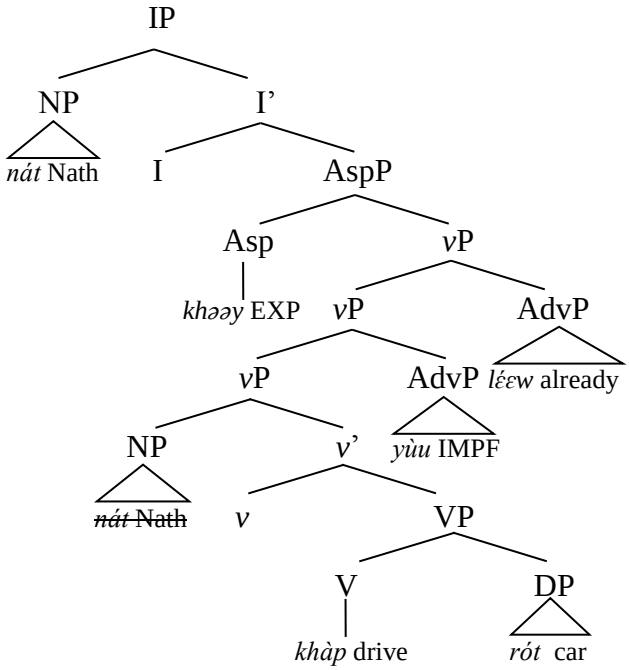
[41] Independent evidence in Thai that they are non-verbal is not supplied. I consequently argue that the verbal feature can be tested by the negation i.e. an element that can be immediately negated is verbal, and it can serve as a YNR on its own.

(25)



Being non-verbal aspect markers, they cannot function on their own as YNRs[42]. However, one particular pre-verbal aspect marker which is verbal can function as a primary reply e.g. *khəəy* 'EXP/ used to'. I propose that it heads an AspP merging with the *v*P as shown in (26) below, where it is seen to have the widest scope over the *v*P and the post-verbal aspect markers.

(26)



[42] However, they can occur in combination with other verbal materials to serve as YNRs e.g. *yaŋ khàp yùu* 'still drive IMPF', *khàp léɛw* 'drive already' and *mây khàp léɛw* 'NEG drive anymore'. In that case, *yùu* 'IMPF' is analysed as the Asp head. See the discussion in 5.3.

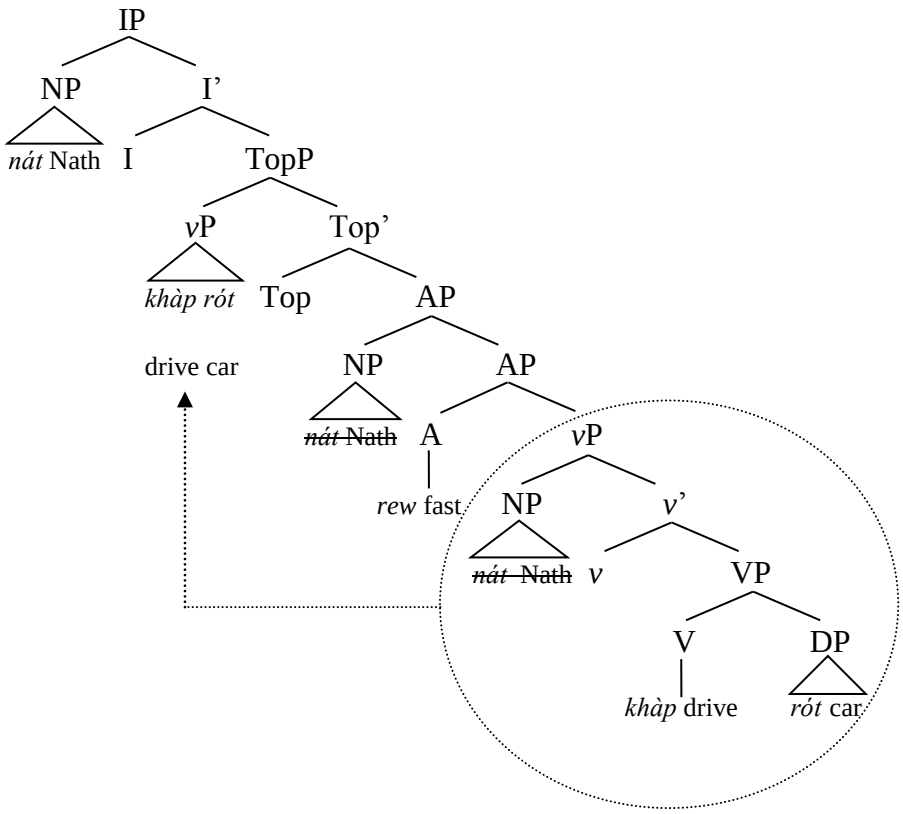
This representation shows the syntax of the aspect marker *khəəy* 'EXP/ used to' as a verbal element in the question *nát khəəy khàp rót yùu lέεw rŭ̌u*[43] 'Did Nath use to be driving already (when someone asked him to)?' A native speaker of Thai may find this question ambiguous without a situational context, so one is given as follows. Nath had/ used to have an experience where he was called to drive his father somewhere while actually he was already doing so. The speaker then asks the addressee whether it is the case that Nath was already driving when he was asked to. Therefore, the aspect marker *khəəy* 'EXP/ used to' scopes over both post-verbal aspect markers *yùu* 'IMPF' and *lέεw* 'ASP/ already' as well as the verb, through c-command. *yùu* 'IMPF' and *lέεw* 'ASP/ already' are adjuncts to the *v*Ps, given that they provide the *v*Ps with additional aspectual information. *khəəy* 'EXP/ used to', which is the highest verbal element, is base-generated to precede the *v*P and heads its projection AspP. The verb *khàp* 'drive' based at the V position does not move to little *v*. The subject NP *nát* 'Nath' is base-generated at Spec, *v*P, and moves later to Spec, IP.

5.2.4. A manner adverb

An adverb that can be a primary YNR is usually a manner adverb which modifies how the *v*P is carried out. It is used to add additional information to the *v*P. An adverb of manner will be picked as a primary YNR, given that it is verbal and appears in a sentence where there is only one verbal element i.e. a main verb as in (27) below. That is because this adverb is assumed to be the highest verbal material, as shown below.

[43] It is not clear what the semantic difference is between questions *nát khəəy khàp rót yùu lέεw rŭ̌u* 'Did Nath use to be driving already (when someone asked him to)?' and *nát khàp rót yùu lέεw rŭ̌u* 'Has Nath been already driving (when asked to)?'. However, I find that *khəəy* 'EXP/ used to' in (26) is used to encode an experiential aspect of the event.

(27)



In (27), I assume the VP-shell analysis and *v*P-movement. The verb *khàp* 'drive' is base-generated at V, which does not move to little *v*. The subject NP *nát* 'Nath' is base-generated at Spec, *v*P; it moves upwards to Spec, IP via Spec, AP. The TopP merges with the AP headed by *rew* 'fast'. It is assumed that the Top head triggers the *v*P-to-Spec, TopP movement, leaving the head *rew* 'fast' as the focus.

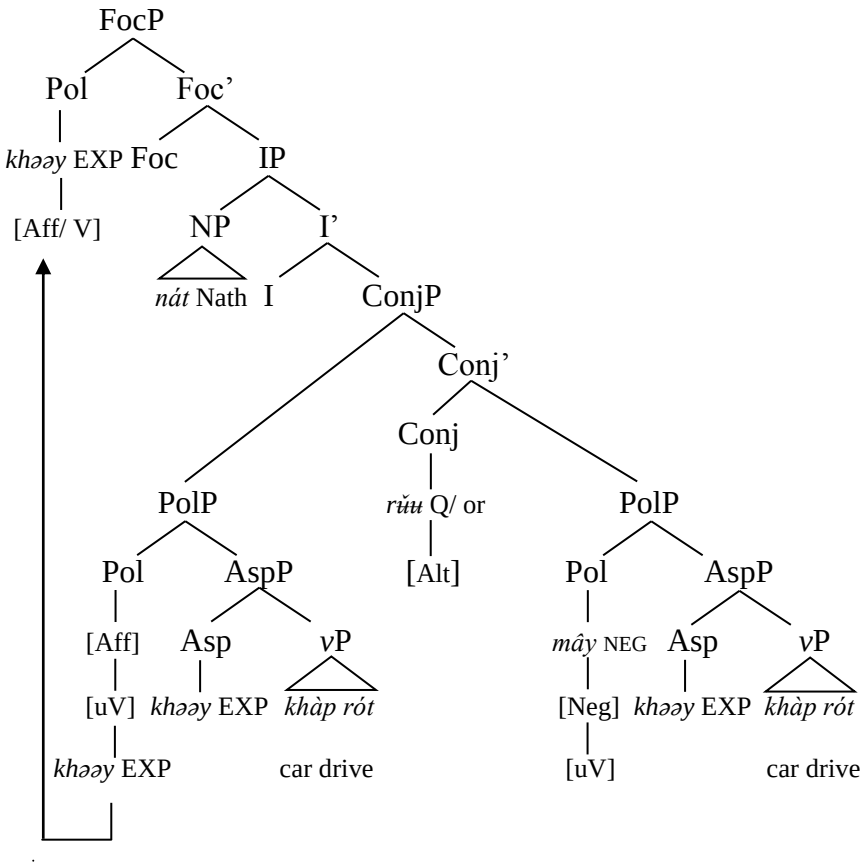
5.3 YNR derivations

5.3.1 The derivational analysis of YNRs to Type-1 questions

If the ConjP-analysis in previous YNQ-derivation analyses is correct, it essentially has a role to play in deriving YNRs. Following the syntactic positions of verbal categories and the ConjP-analysis, first I will show the structure where in the unmarked case a primary YNR is the highest verbal material, but in the marked case the lower verbal one serves as a primary YNR, instead. I will suggest that these have something to do with a spell-out rule. Finally, the derivation of secondary YNRs is also discussed with regard to the spell-out rule.

In (28), *khəəy* ‘EXP/ used to’, which is the highest verbal element, is a primary YNR to the question *nát khəəy khàp rót rŭu* ‘Did Nath use to drive?/ Did Nath experience driving?’

(28)



Value assigning

(28) is the structure of an answer which at the same time shows the structure and content of its corresponding question. They are similar in structure and content, except for the addition of an illocutionary Q-force at Spec, CP in a question (as discussed in the previous chapter) and a minimal Pol head as a reply at Spec, FocP in the answer.[44] A YNQ is, by hypothesis, composed of a conjunction of an affirmative and a negative

[44] In the answer structure above, the identity condition as discussed has a role to play. As well known, the identity condition on ellipsis requires identity up to assignment of values to variables (this is what makes sloppy identity possible with VP-ellipsis, for example). This becomes an issue with any answer that shows a deictic shift e.g. from *you* (as a subject in a question) to *I* (as a subject in an answer), and which still allows ellipsis. We may assume with Sigurðsson (2004) that pronouns, including first and second person pronouns, are all merged as variables, and that their person features are assigned only at a late stage in the derivation, being dependent on the speech context. That is, the pronouns have a nominal feature complex with a referential index, but at the point when the identity condition comes into play, the person feature is not yet assigned. The IP in the question has the subject [D, i] (where *i* is a referential index) and the IP in the answer also has the identity pronoun [D, i]; therefore, the identity requirement is met and the IP in the answer can be spelled out as null. This can also be applicable to deictic proforms like *here/ there.*

PolP where the first conjunct is always pronounced and the second one is pronounced as null. The [Alt] feature of the particle *rŭu* ‘Q/ or’ connects two PolP conjuncts with opposite polarity values.

In a Thai YNQ, we pronounce the first conjunct while we do not pronounce the second one. This is possible because the second conjunct is identical with the first one with the exception of the polarity value of the negative Pol head *mây* ‘NEG’ in a negative conjunct. The obligatory deletion of the second conjunct is an effect of the Focus feature of the [Alt]-conjunction, as discussed in chapter 4. Once the function of the [Alt] feature has been served i.e. the conjuncts with two polarity values are connected, the addressee is provided with two polarity alternatives. Then, the features of the Foc head take control of transforming either of these PolP alternatives into a reply at Spec, FocP via feature copying. I propose that, in each conjunct, the Pol head has a [uV] feature. It needs to merge with a verbal constituent to get valued, and the verbal material with its features is then copied to the Pol head. In this case, the affirmative PolP conjunct is selected. I assume that the relation between the Pol at Spec, FocP and the selected Pol head is a feature copying operation. The Pol head at Spec, FocP is merged as a [uPol] feature, which copies the low Pol head (with the features) in the selected conjunct, including the features of the highest verbal head. The result is the spell-out of that feature copy of the verbal head *khəəy* ‘EXP/ used to’ at Spec, FocP while the IP is not spelled out.[45]

In (28), the affirmative conjunct is selected to say that one of the alternative propositions is true i.e. *nát khəəy khàp rót* ‘Nath experienced driving’; the negative conjunct is consequently deleted. It is only the aspectual verb *khəəy* ‘EXP/ used to’ in this conjunct that is pronounced. As observed, it is the highest verbal element in the proposition, so it is assumed to carry the focused polarity. This is the effect of the spell-out rule of a Thai YNR. Although one conjunct is picked, only the focused material/ the material that carries the focused polarity is spelled out as a minimal YNR.

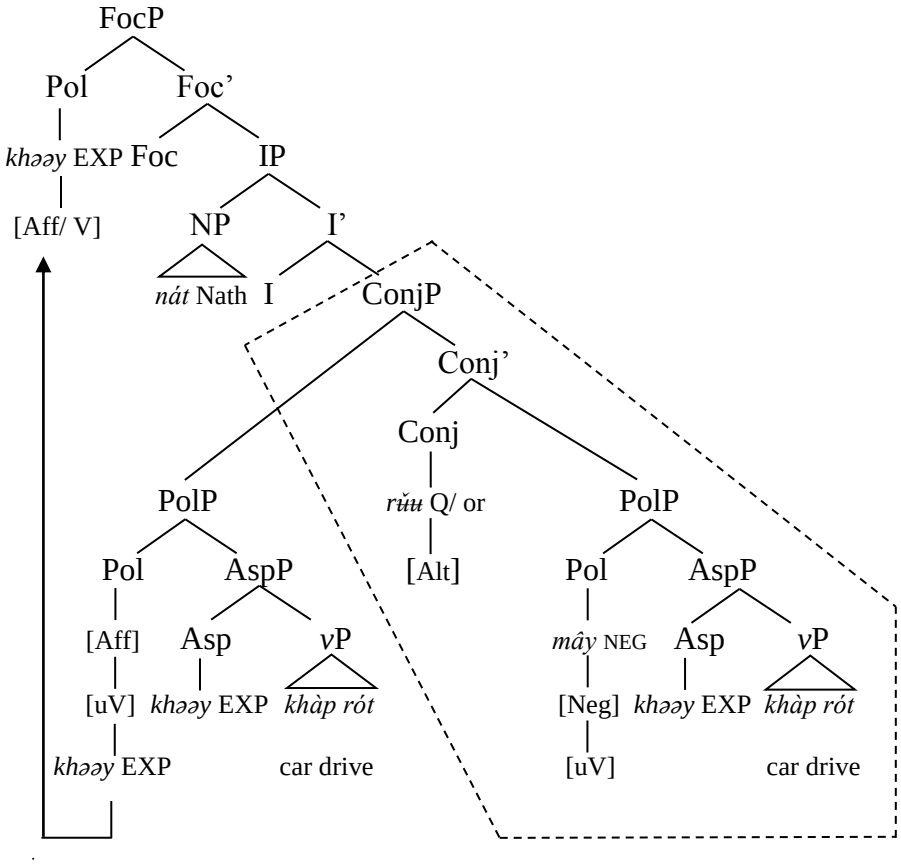
I propose that the primary YNR is the spell-out of the copied verbal material (with its features) in the selected conjunct which (a) is usually the highest in position in the IP i.e. having the widest scope over other constituents in the IP (in the marked case, lower verbal material will be spelled out, instead of the highest), and which (b) carries polarity value. We do not pronounce what is not focused. It is noted that the focus of the

[45] This is formally very similar to the movement of the selected Pol head to Spec, FocP, or re-merging of a copy of Pol with FocP. For reasons to be made clear later, I prefer to see it as feature copying.

question is the polarity carried on a verbal element if no narrow focus exists. If there is a narrow focus, e.g. DP or PP, what is asked in the question is the polarity of this narrow focus i.e. the polarity in relation to this narrow focus is the question focus. Therefore, the spelled-out YNR must convey the focused polarity asked for in the question. Being the copied Pol head, the minimal YNR *khəəy* 'EXP/ used to' reflects this value.

According to the analysis in (28), in the underlying structure of the answer the IP is the same as that of the question, with the two PolP conjuncts joined by the [Alt]-conjunction. The idea is that the answer takes the IP of the question and performs some operations on it. One of the operations is selecting the Pol-head of one of the conjuncts and copying its feature values to Spec, FocP. Another operation is eliminating the other conjunct. This must be assumed since the meaning of the answer is not a disjunction. Answering means selecting one of the alternative conjuncts of the question, and thereby deselecting the other one. The boxed structure in (29) is eliminated to derive the LF of the answer.

(29)



This is not 'deletion', as when the second conjunct PolP of the question is not pronounced. That is an operation in the derivation of PF. This is an operation in the derivation of LF. I will therefore refer to it as *elimination*.

Note that it follows that, if the answer is derived by ellipsis of the IP, leaving only the content of Spec, FocP pronounced, and if the question is a disjunction of two PolPs, then the answer must contain an identical disjunction of two PolPs, since ellipsis requires identity (up to assignment of values to variables) between the antecedent and the elided constituent. If the structure of the IP in the answer contained just the selected PolP, it would not be identical to the antecedent, and could not be elided.

If the answer is the negative value of the proposition *nát khəəy khàp rót* 'Nath experienced driving', the negative conjunct (not pronounced in the question) is selected, and the affirmative one, which is pronounced in the question, is eliminated in the answer structure. The derivation is similar to that of the previous affirmative answer above in that it makes use of copying of the verbal material with its features. The negative Pol head has the [uV] feature. To get valued, it merges with the verbal phrase headed by the verbal aspect marker *khəəy* 'EXP/ used to'. Then, this material (with its highest verbal feature) is copied by the negative Pol head. In the case of a negative YNR, the negative PolP conjunct is picked; accordingly this Pol head (including the verbal material, the negative value and the highest verbal feature) is merged with FocP, as Spec, FocP. The spell-out rule applies to this copied head as it carries the polarity. It is pronounced as *mây khəəy,* literally 'not used to', but translatable as 'No', the minimal (primary) negative YNR to the question (28). The minimal primary answer is the spell-out of a minimal Pol head.

A possible argument against this analysis of YNRs is that it violates Ross' (1967) Coordinate Structure Constraint (CSC).

(30) In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct. (Ross 1967: 89)

In (28) and (29), the focused Pol has been 'moved out of' one of the conjuncts, in the sense that its features are copied by a category outside the coordinate structure (the ConjP). However, given the operation eliminating one of the conjuncts, the coordinate structure disintegrates before LF. If the CSC applies at LF, which seems entirely plausible, the copying relation between the focused Pol and the PolP-internal head does not violate it.

According to the theory of questions and answers reviewed in section 4.1, the YNR assigns a value to the polarity variable left open in the question. If the theory of Thai

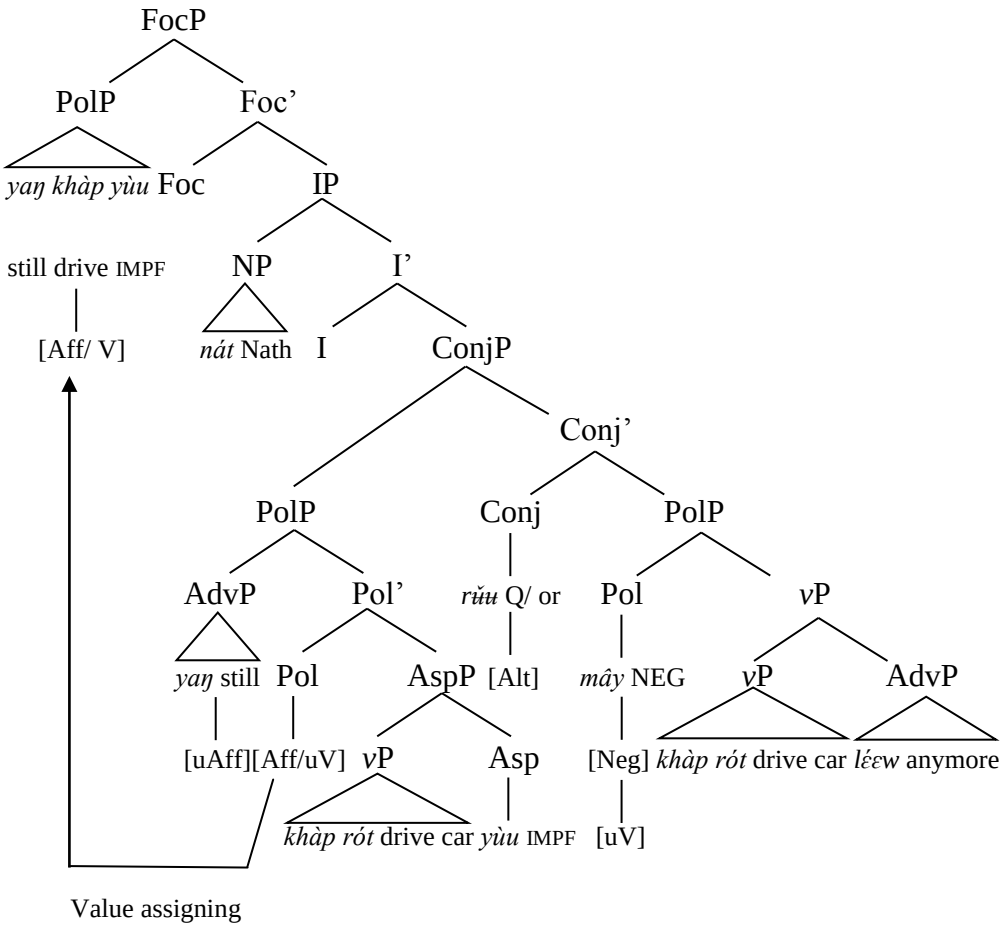
that I am proposing is right, this is done in Thai by selecting one of the PolP conjuncts present in the YNQ by focusing the head of that conjunct, and eliminating the other conjunct. In the case of (28, 29), this derives an expression spelled out *khəəy*, but which is synonymous with the affirmative proposition *nát khəəy khàp rót* 'Nath used to drive/ experienced driving'.

I will next support this theory by discussion of the structure of a question (which shows how to derive an answer) with particular aspect markers whose negative value is not represented by the negative Pol head *mây* 'NEG', but rather by different words i.e. *yaŋ* 'still, yet' and *lέεw* 'already/ anymore', as shown in (32). (The structure of a question with Type-2 particles shown in (37) in the next section also supports this theory.) This provides evidence for the derivation by feature copying (as a result of conjunct selection and elimination) and for the spell-out rule.

The question (31) is analysed as (32) with a minimal answer at Spec, FocP.

(31) nát yaŋ khàp rót yùu r~~ŭu~~
Nath still drive car IMPF Q/ or
Does Nath still drive, or not anymore?

(32)



Value assigning

In (32), the question is formed with *rŭu* 'Q/ or', so the second conjunct is not necessarily negative as long as it has a different polarity value from that of the first conjunct. This means the two conjuncts connected by the particle *rŭu* 'Q/ or' can be shifted around. (31) is repeated below as (33) with primary YNRs to compare with (34), both of which have the same primary YNRs.

(33) Q: nát yaŋ khàp rót yùu rŭu
Nath still drive car IMPF Q/ or
'Does Nath still drive, or not anymore?

A: yaŋ khàp yùu/ mây khàp lɛ́ɛw
still drive IMPF/ NEG drive anymore
'Yes/ No.'

(34) Q: nát mây khàp rót lɛ́ɛw rŭu
Nath NEG drive car anymore Q/ or
'Does Nath not drive anymore?

A:	yaŋ	khàp	yùu/	mây	khàp	lɛ́ɛw
	still	drive	IMPF/	NEG	drive	anymore
	'Yes/	No.'				

In general, the aspect markers *lɛ́ɛw* 'already/ anymore', *yùu* 'IMPF' and *yaŋ*[46] 'still/ yet' cannot be primary YNRs on their own as they are non-verbal e.g. **mây lɛ́ɛw* 'NEG already/ anymore', **mây yùu* 'NEG IMPF' and **mây yaŋ* 'NEG still/ yet'. This suggests the negative answer is not derived by directly merging the negation with the aspect markers. Instead, I will argue for the derivation by feature copying as part of the selection operation (of a negative conjunct) and some properties of spell-out. That is based on the assumption that all the elements used as primary replies exist (are not externally merged) in the conjuncts of the IP, and are pronounced when they are focused.

In (32), the affirmative answer *yaŋ khàp yùu* 'still drive IMPF' is derived from the materials in the selected affirmative conjunct. In this conjunct, the affirmative Pol head merges with the verbal AspP headed by *yùu* 'IMPF' to get valued as it has the [uV] feature. Under this PolP, *yaŋ* 'still' always requires the affirmative Pol head having the phrase *khàp rót* 'drive car' and the aspect marker *yùu* 'IMPF' as its complement so *yaŋ* 'still', *khàp* 'drive' and *yùu* 'IMPF' are spelled out at Spec, FocP as a primary reply by means of copying. That is because *yùu* 'IMPF' cannot stand alone without the *v*P, so it requires the *v*P. *yaŋ* 'still' requires the affirmative Pol head because *yaŋ* 'still', which is an AdvP, has the [uAff] feature. It must inherit the affirmative value from the affirmative Pol head it c-commands. Thus, to probe the affirmative Pol head to be affirmatively valued, *yaŋ* 'still' merges with this affirmative Pol head which later merges with the AspP headed by *yùu* 'IMPF'.

In this case, the affirmative answer copies the materials *yaŋ* 'still', *khàp* 'drive' and *yùu* 'IMPF' as well as the affirmative Pol head (with its features) in the affirmative conjunct to Spec, FocP and all get spelled out there as a reply. This is a consequence of the selection of one affirmative conjunct, followed by the elimination of the negative conjunct. By doing this, the CSC is not violated as discussed.

[46] According to some of my informants, *yaŋ* 'still/ yet' can stand as a primary YNR on its own while for me that cannot be the case, an intuition shared by Visonyanggoon (2000). Therefore, the diagram (32) represents my grammar.

Note that neither *yaŋ* nor the aspect marker *yùu* can stand alone as YNRs, in this case or in general. Nor can the main verb *khàp* alone function as an affirmative answer to this question.

(35) Q: nát yaŋ khàp rót yùu rŭ̆u
Nath still drive car IMPF Q/ or
'Does Nath still drive, or not anymore?
A: *yaŋ
A: *yùu
A: *khàp

In the case of *yaŋ* 'still', the reason why it cannot stand alone as an answer to a YNQ is that it cannot be the complement of Pol, shown by the fact that it cannot be negated (**mây yaŋ*). Instead, it needs an affirmative PolP as a complement. In the case of *yùu*, the reason is that it must be merged with a VP, to be a complement to Pol. Why this is so is unclear. A possible analysis is that *yùu* does not have a categorial value, but inherits it from the complement VP. Since Pol can only merge with a verbal category, *yùu* must be accompanied by a verb to head the complement to Pol. As a reason why the verb has to be accompanied by *yùu* in this case, I suggest that this is because the [V]-feature of the verb is copied by Pol via the aspect head; therefore, when spelled out, it is spelled out as *khàp yùu*. Why *yaŋ* must be included in the answer is not entirely clear although basically it is because *yaŋ* is part of the focus of the question, hence of the answer.

The same is true in negative replies: *lέɛw* 'anymore' cannot be negated or be a complement to the negative Pol head on its own, but need a verb phrase to serve as a reply.[47] It is a complement to the verb to encode the aspectual sense.

[47] The same account of aspectuality can explain why *lέɛw* 'already' and *yaŋ* 'yet' combine with a verbal element to serve as a primary YNR, and undergo the spell-out rule as shown below.

Q: nát khàp rót lέɛw rŭ̆u-yaŋ
Nath drive car already Q/ or-yet
Has Nath driven a car already, or not yet?
A: khàp lέɛw/ yaŋ mây khàp
drive already/ yet NEG drive
Yes (, he has)/ No(, he hasn't yet).

yaŋ 'yet' cannot be negated or a complement to the negative Pol head on its own as in **mây yaŋ* 'NEG yet'. It has the [uNeg] feature that requires the negative Pol head to be negatively valued. It consequently merges with the negative PolP *mây khàp* 'NEG drive'.

5.3.2 The derivational analysis of YNRs to Type-2 questions

The derivation of YNRs by means of focusing the polarity of one of the conjuncts inherited from the question is shown to be highly plausible when it comes to primary YNRs to questions with Type-2 question particles *chây-măy* 'Q/ right-NEG'*, chây-rŭu-mây* 'Q/ right-or-NEG'*, chây-rŭu-plàaw* 'Q/ right-or-NEG'*, chây-rŭu* 'Q/ right-or' and *mây-chây-rŭu* 'Q/ NEG-right-or.

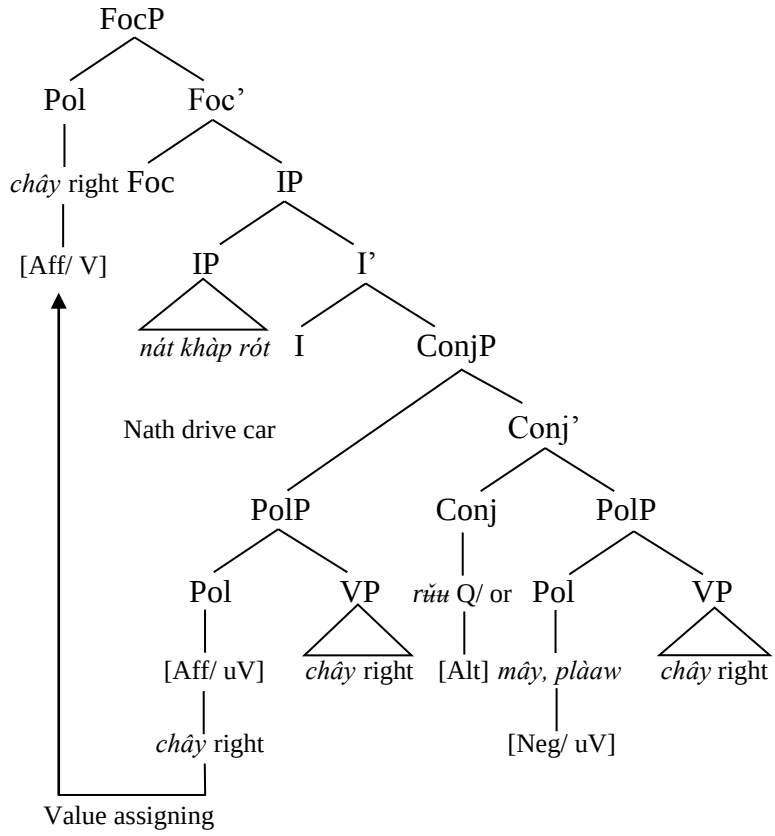
The question (36) is analysed as (37) with the affirmative answer at Spec, FocP.

(36) Q: nát khàp rót chây-rŭu
Nath drive car Q/ right-or
Nath drives; is that right?

A: chây
right
'Yes.'

A: mây chây
NEG right
'No.'

(37)



chây 'right' in (37) is a primary YNR to the question (36). As discussed in chapter 4, this is the structure where the proposition *nát khàp rót* 'Nath drives a car' serves as a sentential subject and the main verb *chây* 'right' is itself part of a question particle. *rứu* 'Q/ or' with its [Alt] feature connects the verb *chây* 'right' and *mây chây* 'NEG right' to form the conjunction of a question particle to ask for the confirmation whether or not the proposition is true. This provides two polarity conjuncts as alternatives, namely *chây* 'right' and *mây chây* 'NEG right'. The Pol head of each conjunct has the [uV] feature, so it merges with the VP, which is part of the question particle itself, to get valued. In this case of an affirmative answer, the verb *chây* 'right' with its features is accordingly copied to the affirmative Pol head. The answer at Spec, FocP copies this material with its features (at the Pol-head position in the selected conjunct) to Spec, FocP. It is *chây* 'right' which is spelled out since it carries the focused polarity and becomes syntactically focused in an answer by virtue of feature copying. The affirmative value of the Pol head *chây* 'right' as a YNR is derived via copying as well. This structure exemplifies the derivation by copying the verbal polarity carrier with features to Spec, FocP, thus selecting one of the PolP conjuncts posed in the question, and eliminating the other, where the primary YNRs are made up by the question particle itself.

5.3.3 The derivational analysis of YNRs in marked cases

Under the ConjP-analysis, the YNR derivation concerns selecting one conjunct, and eliminating the other. Then, typically the highest verbal material is spelled out as a minimal YNR as shown in previous analyses. However, in this section I will propose an analysis of cases where the answer at Spec, FocP is not derived from the highest verbal material. This is a serial verb construction (SVC). (38) is analysed as (39).

(38) Q: nát paa kɛ̂ɛw mây tɛ̀ɛk rŭu
Nath throw glass NEG break Q/ or
'Did Nath throw a glass and it didn't break?'[48]

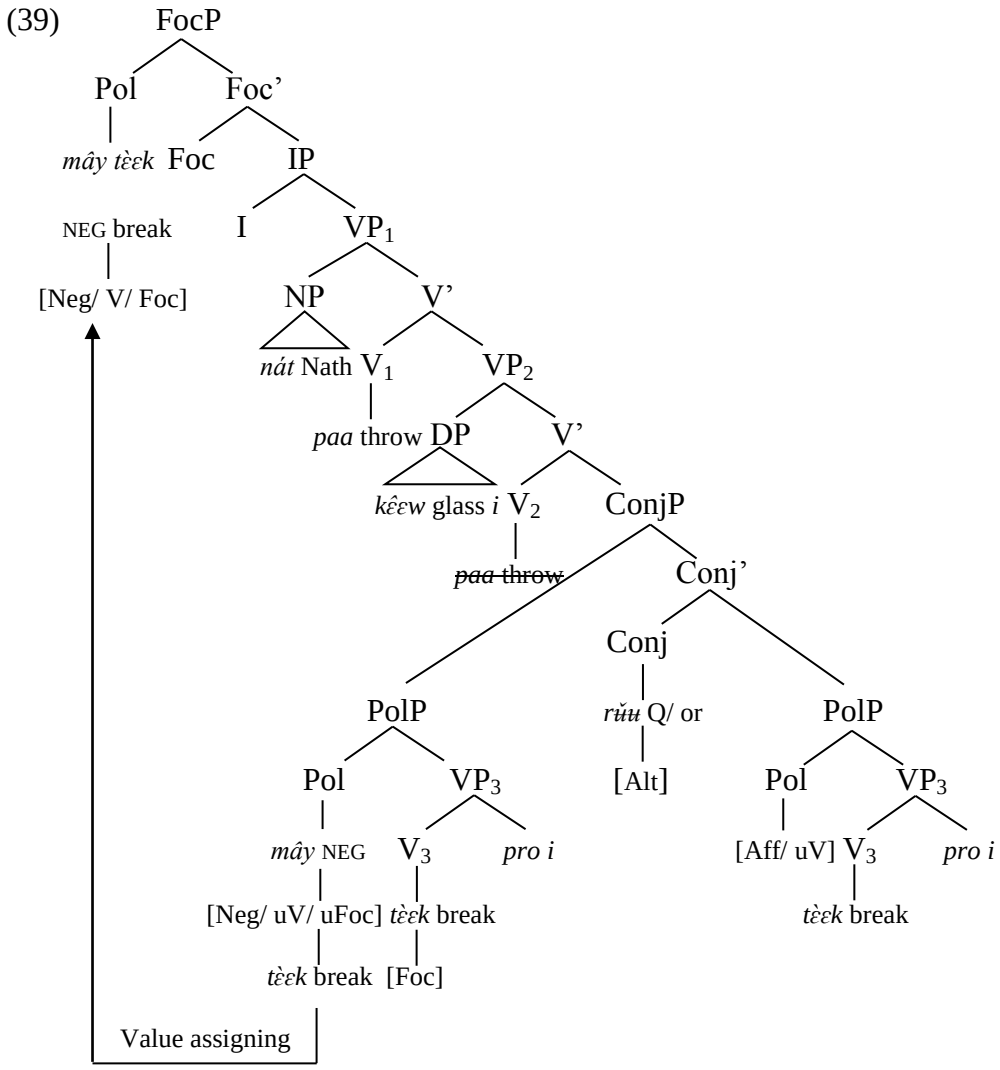
A: tɛ̀ɛk
break
'Yes.'

A: mây tɛ̀ɛk
NEG break
'No.'

The analysis (39) also shows that one conjunct is selected, and the other is eliminated. Then, the spell-out rule applies to the lower verb in the selected conjunct, instead of the highest verb as in most cases. That is because the lower verb carries the focused polarity in this marked case. This strongly suggests the pronounced reply at Spec, FocP is highly subject to the spell-out rule and the spell-out rule is highly subject to the polarity focus.

[48] This translation, although it is roughly right, does not quite reflect the constituent structure that the serial verb construction has. To reflect the structure, a better translation would be 'Did he break the glass by throwing it?' where 'by throwing it' (the glass) is an adjunct.

(39)



mây tèɛk 'NEG break' is a primary YNR to the question (38). The ConjP-analysis provides the addressee with two polarity alternatives, one of which contains the material to be a YNR at Spec, FocP. This is empirically supported by the primary YNR which is the material from the selected conjunct. (39) shows the SVC following Collins (1997) as illustrated earlier (with the exception of the PolPs and *pro* which I treat as the underlying complement of the VP_3, not the specifier of this VP_3), so it has two verbs in series. The Pol head has the [uV] feature, so it merges with the verbal phrase to get valued. In this case, it is special in that the lower verb is assumed to carry the focused polarity as represented with the [Foc] feature. Therefore, the Pol head merges with this verbal material *tèɛk* 'break'. The effect is that this verb with its features (Foc/ verbal) is copied with adjunction with the negative value at the negative Pol head. Then, the spell-out rule applies to this verbal material (with its features) by means of copying it to Spec, FocP which is later pronounced as a YNR. The effect is then that of selecting one of the conjuncts and eliminating the other, and the IP is usually unpronounced. I would

assume that this is a marked case where the spell-out rule applies to the low verb with the [Foc] feature, instead of the highest one[49]. This may be encoded by the fact that the low verb *tèɛk* 'break' is overtly negated by *mây* 'NEG', i.e. the complement to the negative Pol head, while the highest one *paa* 'throw' is not.[50]

According to Takahashi and Thepkanjana (1997: 279), *paa* 'throw' in this SVC cannot be negated at all. I find that this is not because *paa* 'throw' is non-verbal (which would entail that it can neither be negated nor be a complement to the negative Pol head), as it is perfectly verbal in a simple structure like *nát mây paa kêɛw* 'Nath didn't/ doesn't throw the glass', and there is no syntactic reason why *paa* 'throw' would be non-verbal only in the SVC. Instead, the pronounced YNR is the spell-out of the focused polarity of the question which is assumed to be carried on the low verb *tèɛk* 'break'. That is because the action of *tèɛk* 'break', as a result of the action *paa* 'throw', is what is questioned. Therefore, the focus (the polarity) is on *tèɛk* 'break'. It is correspondingly spelled out at Spec, FocP as a YNR.

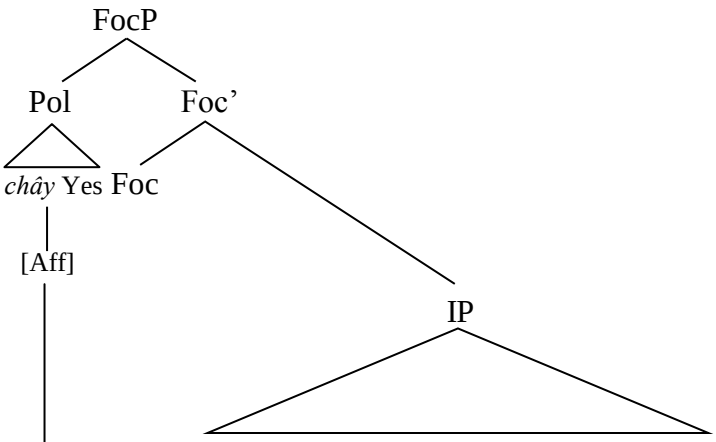
5.3.4 The derivational analysis of secondary YNRs

Finally, regarding the secondary YNR derivation, it cannot be derived by feature copying, given that the elements that the secondary YNRs are made up of are not inherited from the preceding question. This is shown in (40) below.

[49] As observed, in most cases (except, for example, for a copula *khɯɯ* 'COP') any verb can be spelled out as a primary YNR if it occurs in a simple structure i.e. there is only one verb in a clause. This includes transitive and intransitive/ stative verbs as discussed in 3.5.2. That is because it is the highest verbal material in the VP. Nevertheless, this is not always true for the case of SVCs where the highest verbal material in the VP is not used as an answer.

[50] This suggests the negative Pol head encodes the material to be pronounced as a reply.

(40)



a. nát khăay rót kàw lɛ́ɛw sú~~uu~~ rót mày rŭ~~u~~
Nath sell car old then buy car new Q/ or
'Nath sold an old car, and then bought a new one?'

b. bâan níi sâaŋ dûay ìt rŭ~~u~~
house this build with brick Q/ or
'This house was made of bricks?'

c. khăw khu~~uu~~ khun khăw-saay rŭ~~u~~
he COP TL Khaosai Q/ or
'He is Mr Khaosai?'

d. yiin rŭ~~u~~
jeans Q/ or
'(These are) jeans?'

e. khăw hàn núa dûay mîit rŭ~~u~~
he cut meat with knife Q/ or
'He cut the meat with a knife?'

f. khăw lɔ̀ɔ kwàa nát rŭ~~u~~
he handsome than Nath Q/ or
'He is more handsome than Nath?'

g. nát pen tam-rùat rŭ~~u~~
Nath COP police Q/ or
'Nath is a police man?'

Value assigning

In (40) is a collection of sentence types. As discussed in chapter 3, for some of them a primary YNR (based on the verb of the question) is either impossible or unpreferred for a variety of reasons. The questions are all formed with the bare question particle *rʉ̌ʉ*. As before, I assume that this is a spell-out of the [Alt]-marked and [uFoc]-marked conjunct 'Q/or', joining two disjuncts with opposite polarity values, and constituting the question variable which requires the assignment of a value in the reply. However, in (40), the value is assigned in the YNR by an inherently affirmative particle *chây* 'right', which is externally merged in Spec, FocP as a realization of the focused Pol head. As such this assigns the affirmative value to the variable in the IP inherited from the question. Although in other contexts *chây* can function as a primary reply, as we have seen, in (40) it functions as a secondary reply, i.e. no affirmative particles in these examples can be the result of feature copying from IP. Instead, as a secondary YNR, it is interpreted as a particle corresponding to English *yes*. As such it assigns the affirmative value to the question variable *rʉ̌ʉ*. As in the case of other YNRs, we have to assume that this causes elimination of the second conjunct.[51]

In (a), we see a co-ordination YNQ where neither lexical verb from either conjunct can be a YNR due to the semantic constraint discussed in 3.5.5. *chây* 'right/ yes' is consequently used as a secondary YNR to mean that both conjuncts at the same time are true.

In (b), the verb *sâaŋ* 'build' is verbal, so it can be a YNR. However, as discussed in chapter 3 a verbal material that is used as a primary reply usually denotes an active sense, for example, *sâaŋ* 'build' can be a primary YNR to *nát sâaŋ bâan dûay ìt rʉ̌ʉ* 'Did Nath build a house out of bricks?'. However, (b) is a passive construction, so *sâaŋ* 'build' cannot be a legitimate primary answer. If a passive construction contains a passive auxiliary, it serves as a primary YNR as discussed in 3.5.3. I consequently assume that *chây* 'right/ yes' is introduced as a particle to assign the affirmative value to the variable.

In (c), *khʉʉ* 'COP' is a copula that cannot be negated/ cannot be the complement to the negative Pol head: **mây khʉʉ* 'NEG COP'. *chây* 'right/ yes' as a particle is accordingly used to assign the affirmative value to the variable.

[51] The alternative is that, at least in some of these cases, the particle *rʉ̌ʉ* has different properties than in the YNQs discussed in previous chapters, perhaps being purely a Q-force marker, while the question variable is an underspecified Pol, more or less as in English, according to Holmberg (to appear).

(d) is a fragment YNQ in which any fragment material can be focused and questioned. If the fragment is verbal, it can be a primary YNR e.g. *rew* ‘fast’ as a primary YNR to the fragment question *rew rɯ̌ɯ* ‘Fast?’ This is different from a non-verbal fragment YNQ as in (d). Consequently, in this case, *chầy* ‘right/ yes’ as a particle is merged to assign the affirmative value to the question variable.

In (e), *dûay mîit* ‘with a knife’ can be analysed as a narrow focus, but it is non-verbal. Thus, *hàn* ‘cut’ is used as a primary reply as it is the highest verbal material that carries the polarity of this narrow focus. It accordingly means roughly ‘cut with a knife’ or ‘not cut with a knife’. When it comes to a secondary YNR, *chầy* ‘right/ yes’ is merged to assign the affirmative value to the question variable.

In (f), as discussed in 3.5.2, the primary YNR must be the combination of the verb *lɔ̀ɔ* ‘handsome’ and a comparative morpheme *kwàa* ‘than’ as the complement. The rule applies to both of them i.e. not only the verbal element *lɔ̀ɔ* ‘handsome’, but also *kwàa* ‘than’ is pronounced to yield the required meaning asked for in the question. This suggests that in this case the complement is also spelled out with the polarity carrier *lɔ̀ɔ* ‘handsome’. The spell-out rule applies to other replies with the complement as a phrase under the PolP at Spec, FocP such as *yaŋ khàp yùu* ‘still drive IMPF’. Thus, alternatively being a secondary YNR, the polarity carrier *chầy* ‘right/ yes’ is externally merged, giving rise to the interpretation that the proposition is true.

Finally, in (g), the verbal material *pen* ‘COP’ serves as a primary YNR. Given this material to be a primary YNR, *chầy* ‘right/ yes’ cannot be treated as a main verb reply that carries the affirmative polarity to say the proposition *nát pen tam-rùat* ‘Nath is a policeman’ is true. *chầy* ‘right/ yes’ is then regarded as a particle reply.

All examples[52] in (40) suggest that *châ̂y* 'right/ yes' is actually used as a (verbal) particle, the Pol head, closely corresponding to *yes* in English, externally merged in Spec, FocP. This would also be true of the negative Pol head in a negative answer. I assume that the derivation by externally merging the Pol head with its value and a particle as a spell-out of the value can also be applied to any of the secondary reply forms illustrated in tables 2-5 in chapter 3, e.g. politeness/ honorific particles, negative words and exclamations, as long as they are not inherited from the question.

5.4 Comparative YNRs

Cross-linguistically, there are mainly two forms of affirmative YNRs, an affirmative particle like *yes* in English and a repeated (finite) verb of the question. Thai grammar employs both forms in its answering system. In my analysis, a repeated (finite) verb is treated as a primary YNR while a particle is regarded as a secondary YNR. In this present section, I will show both Thai answering forms in comparison with some languages which also employ those answering forms.

5.4.1 Verb replies

5.4.1.1 The Thai verb reply

To recapitulate, (42) is the derivational analysis of the affirmative YNR to the YNQ (41).

(41)	Q:	nát	khàp	rót	rŭ̆u
		Nath	drive	car	Q/ or
		Does/ Did Nath drive?			

[52] All the examples in (40) show the derivation of secondary YNRs. Accordingly, this section can also account for how secondary answers like 'Possibly, Maybe' are derived. However, they are special answers in that they combine both primary and secondary YNR derivations as shown in the example below.

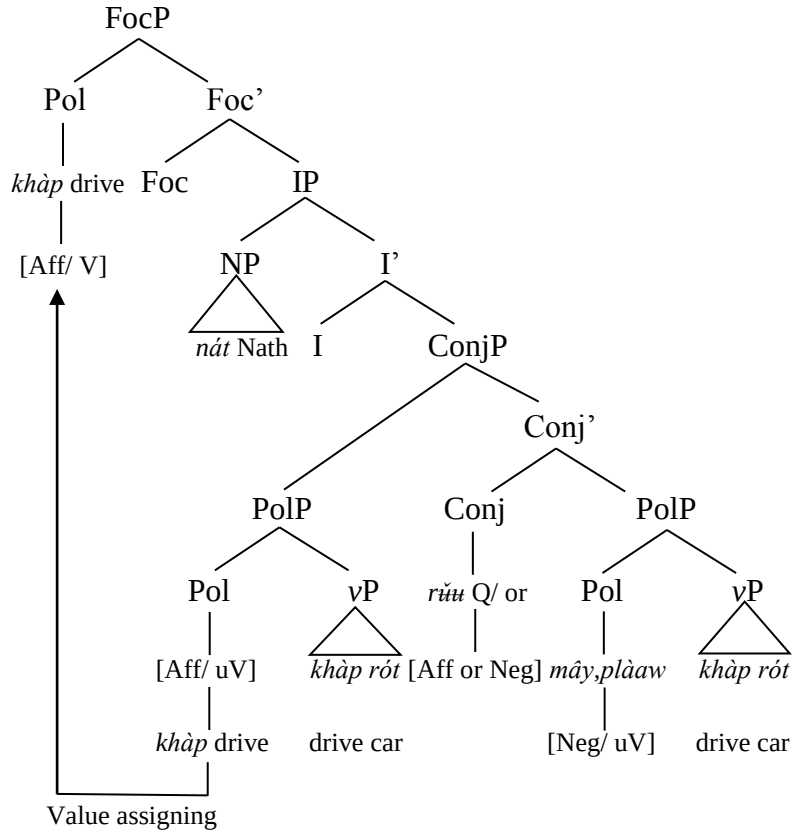
	Q:	nát	cà	khàp	rót	mă̆y/ máy
		Nath	will	drive	car	Q/ (or) NEG
		Will Nath drive?				
	A:	àat-cà/		?àat-cà	mâ̂y	khàp
		possibly /		possibly	NEG	drive
		'Possibly/		Possibly	not.'	

The affirmative answer looks like it is derived by externally merging an adverb, but the negative answer looks like it is derived by copying the negation and the verb of a full propositional answer, as in standard negative answers, and then externally merging the adverb *àat-cà*. Actually, it seems that ?*àat-cà mâ̂y* 'possibly NEG' could also, marginally, be a minimal negative answer. If so, it is presumably derived by external merge.

A: khàp
drive
'Yes.'

A: mây khàp
NEG drive
'No.'

(42)



The question is a disjunction of two PolPs with opposite values where the second PolP is deleted. The answer inherits the IP of the question. The Pol head of one of the conjuncts is copied by [uPol] in Spec, FocP, with the effect that that conjunct is selected and the other conjunct is eliminated.

5.4.1.2 The Finnish verb reply

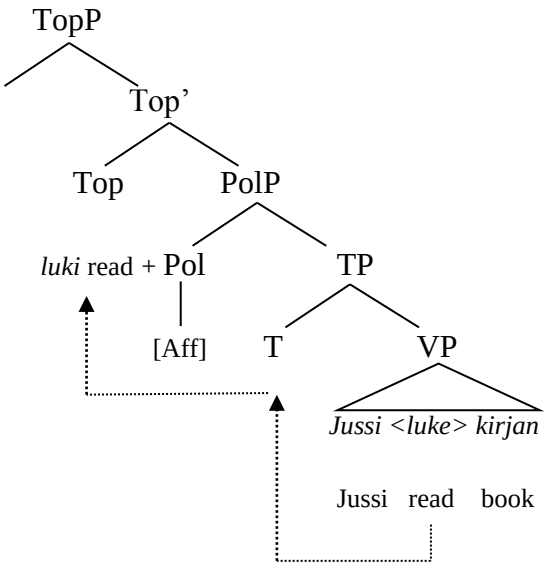
Holmberg (2001, 2007, 2010) proposes the following analysis of YNRs in Finnish. (43) is a question with an affirmative and a negative reply. (46) is the structure of the affirmative reply.

(43) Q: Luki-ko Jussi kirjan
read-Q Jussi book
'Did Jussi read a/ the book?'

A: Luki.
read
'Yes.'

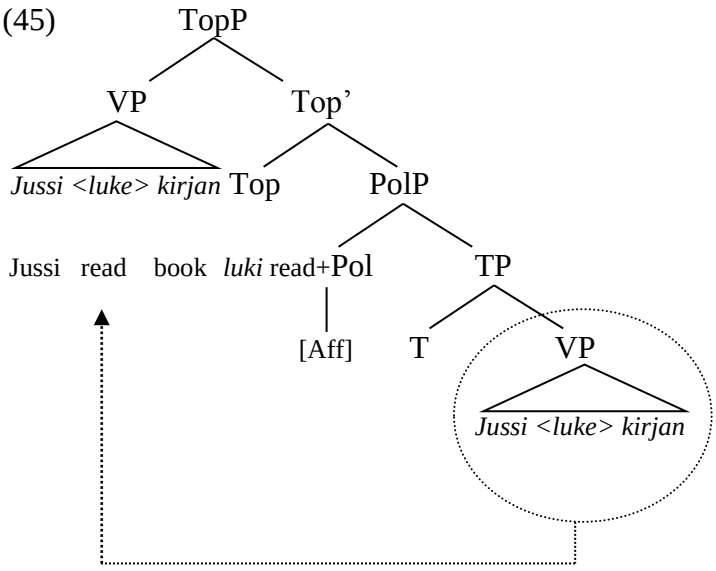
A: Ei luke-nut.
not read-Past. Participle

(44)



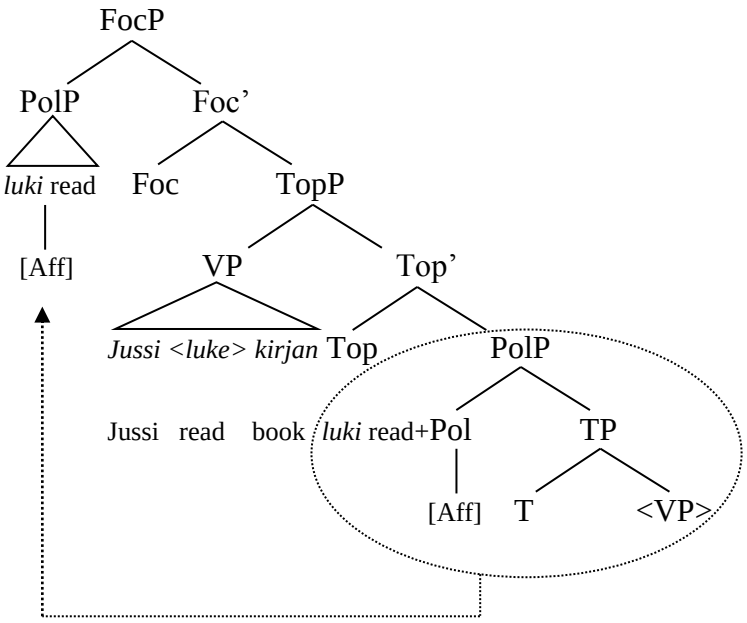
A verb in Finnish always moves out of the VP; in this affirmative reply structure, it moves, via T, to the Pol head, which contains an affirmative value. The TopP is introduced in this structure. Usually the subject moves to Spec, TopP, which is the 'EPP position' in Finnish (Holmberg 2001, 2010). However, other categories can be topics moving to this position as well. In (45), the VP moves to Spec, TopP.

(45)



After that, in (46) Foc merges with the TopP, and the remnant PolP moves to Spec, FocP which is the locus for the reply. The constituent that is spelled out here is the focused PolP which has either affirmative or negative value (in the present case affirmative) while TopP is usually not spelled out.

(46)



From the structure (46), the verb reply is still a minimal PolP containing a polarity value, and minimally the finite verb is moved to Pol. The focused PolP determines the value of the polarity variable left open by the question.[53] The biggest differences between the derivation of questions and answers in Finnish and Thai are (a) the question in Finnish does not contain a disjunction of two PolPs, but a single PolP with a head whose value is left open, and (b) the reply is derived by movement: first the presupposed material (the VP) is moved to a topic position, and then the remnant PolP is moved to Spec, FocP. The crucial evidence that the reply is derived by movement is that the entire structure can be spelled out, in which case the remnant PolP, with all that it contains, is spelled out preceding the presupposed material, which has a gap where the verb was first merged as shown in (47).

(47) Luki (Jussi kirjan).
read (Jussi book)
'Yes.'

That the focused phrase is a remnant PolP and not just a moved Pol head is shown by the fact that it can contain any constituents belonging to the PolP (except the topicalized material), including auxiliary verbs and certain adverbs as shown below.

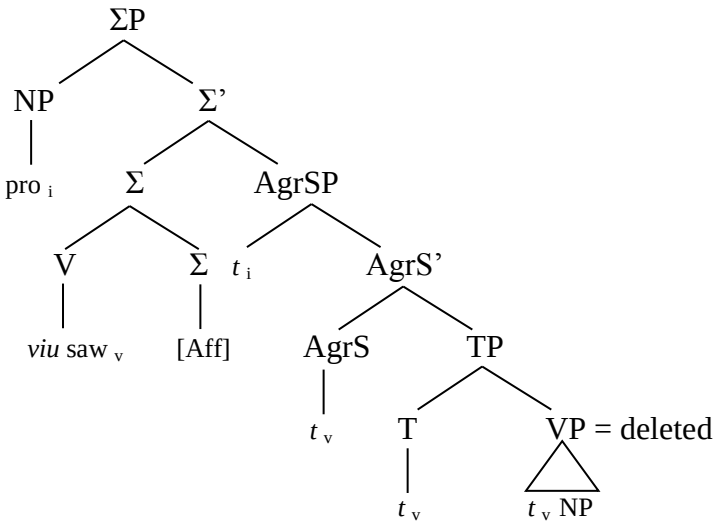
(48) Ei ole vielä lukenut (Jussi kirjan).
not has yet read (Jussi book)
'No, not yet.'

[53] Precisely how the variable of the question enters the derivation of the reply is left unclear in Holmberg (2001, 2007, 2010). A possibility (suggested by Anders Holmberg, p.c.) is that the Pol head that moves to Spec, FocP is actually the ±Pol head of the question, which is assigned a value only after movement, in Spec, FocP, and then can assign this value to the polarity variable inside the sentence.

5.4.1.3 The Portuguese verb reply

Martins (1994) studies the verb-reply derivation in Portuguese as shown in (49) where *viu* 'saw-1SG' (=Yes.) is an affirmative verb reply to *Viste o João*? 'Did you see João?'

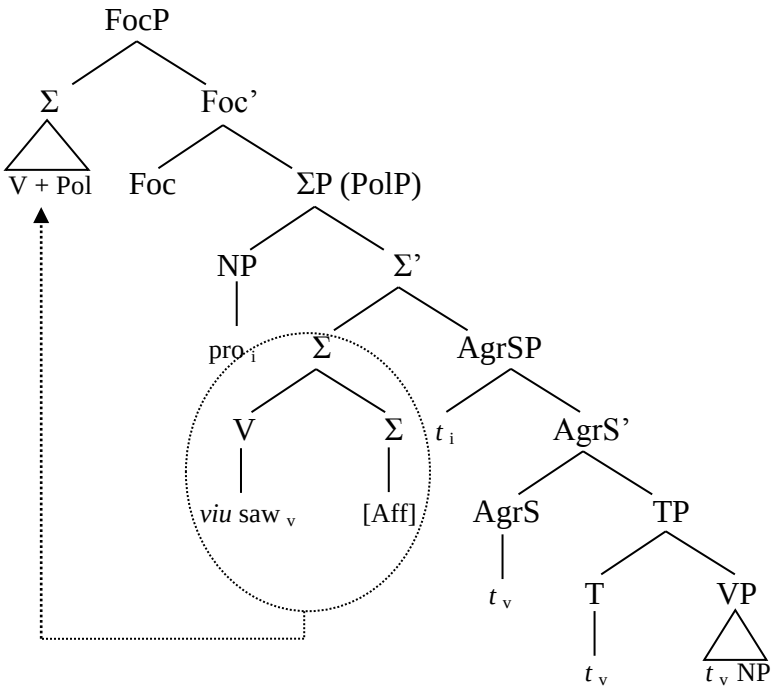
(49)



According to Martins (1994), the verb *viu* 'saw-1SG' moves out of its VP to the Σ head via T and AgrS, followed by VP-ellipsis. The VP-ellipsis is made possible after the movement of the verb/ VP with adjunction to the ΣP via the T head and the AgrS head. The subject always moves to Spec, AgrSP, but in this case it moves to Spec, ΣP. Then, this subject pro-drops and only the verb is spelled out as a reply. The ΣP in Martins' analysis is actually Holmberg's PolP where the Σ head contains the affirmative polarity value. However, what is not represented here in comparison with Thai and Finnish YNR structures is (a) the FocP where the verb is treated as being the carrier of the polarity focus, and as such gets spelled out as a YNR and (b) 'the associated polarity variable'. This means that the YNR structure in (49) does not show overtly the syntactic interrelation between an antecedent question and an answer.

Accordingly, based on Martins' (1994) analysis, Holmberg (2010) proposes that in a Portuguese verb reply, the verb and polarity at the Σ head position can undergo a further movement to the Foc head or the Spec, FocP to follow his theory where the FocP is merged with the PolP (or ΣP in Martins' analysis) as shown in (50).

(50)



Under this analysis, a Portuguese verb reply is derived by the verb-with-polarity movement to Spec, FocP, followed by PolP(ΣP)-ellipsis which allows ‘‘copying of the PolP of the question, with the crucial polarity variable’’ (Holmberg 2010).

5.4.1.4 The Welsh verb reply

Welsh also bases its replies on the verb although some restrictions are found on the choice of a verb reply as exemplified in Jones (1999). For example, the copular verb *bod* and modals can be used as a verb reply as in (51).

(51) Q: All Mair aros?
can Mair stay
‘Can Mair stay?’

A: Gall/ Na all.
can/ NEG can
‘Yes/ No.’

Verbs with irregular inflection can legitimately be a verb reply.

(52) Q: Eith hi heno?
go.FUT.3SG she tonight
‘Will she go tonight?’

A: Eith/ Nac eith.
go.FUT.3SG/ NEG go.FUT.3SG
'Yes/ No.'

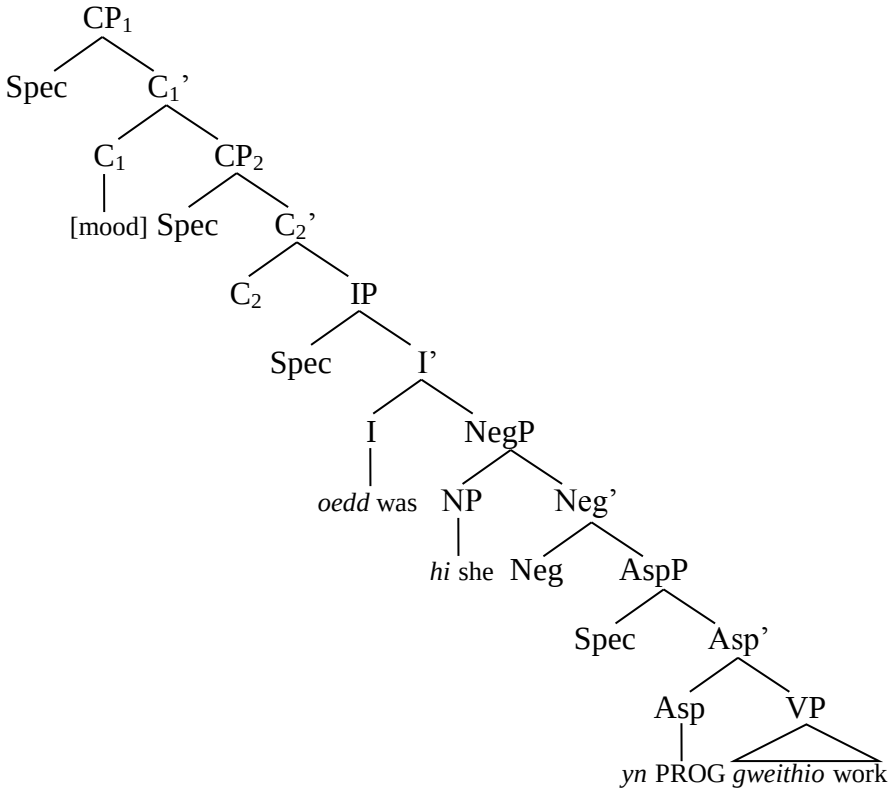
With the other verbs, the verb *gnweud* 'do' is used in place of the lexical verb as a verb reply.

(53) Q: Gytunith y prifathro?
will.agree the head teacher
'Will the head teacher agree?'

A: Gneith/ Na neith.
will.do/ NEG will.do
'Yes/ No.'

Based on an analysis in Tallerman (1996: 107-110), Jones (1999: 192) proposes the following structure of a verb reply in a Welsh fronted clause where *oedd* 'was' is a verb reply. Jones does not make explicit the relation between the question and the reply.

(54)

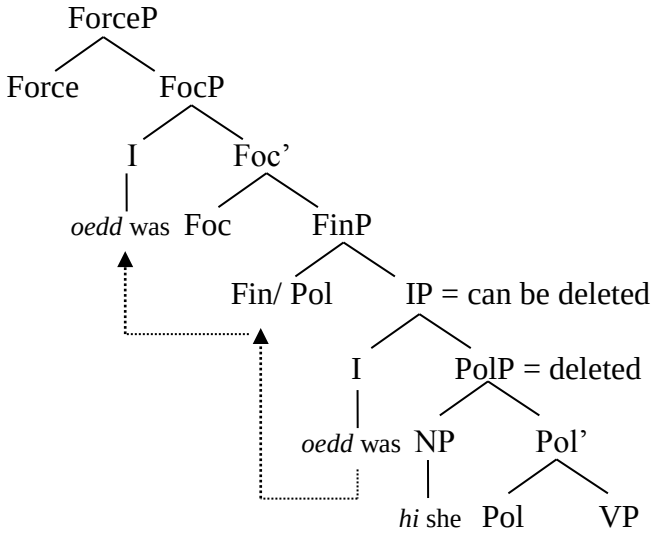


The C_1 head is specified for features of 'mood' e.g. indicative, imperative, interrogative, responsive. This suggests C_1 is the operator of both questions and answers. It can be treated to be the position of the Q-force in Holmberg's (2010, to appear) theory. The C_2

head hosts the preverbal particles e.g. *fe/ mi* occurring in the formal language. It is claimed that the interrogative feature at the C_1 head 'has different domains of focus' subject to the word order of the clause (Jones 1999: 193). For example, given that the subject NP which is based at Spec, NegP moves to Spec, CP_2, the interrogative feature at the C_1 head puts the focus on this Spec. Therefore, the moved subject NP becomes a narrow focus. Spec, CP_2 serves correspondingly as a landing site of the focus-fronted phrase. Then, if Spec, CP_2 is unoccupied by a narrowly-focused constituent, the mood feature at the C_1 head 'focuses on the next overt constituent' which is *oedd* 'was' at I in this case. It is I that is spelled-out as a verb reply, followed by the ellipsis of the NegP. Under this analysis, the C_1 is a focus-assigning head. This structure[54] accounts for the fact that when a given phrase, say the NP, is focus-fronted, the choice of a particle reply is preferred instead of the verb reply. That is to say, the focus on Spec, CP_2 requires a particle reply while the focus on I demands a verb reply.

The structure (54) is seen not to touch specifically upon the interrelation between a question and a verb reply, so Holmberg (2010) proposes an analysis of a Welsh verb reply to follow his theory (Holmberg 2010, to appear). Holmberg (2010) assumes the finite-clause analysis of Jones (1999: 192), except for labelling, i.e. the CP_1 is ForceP while the CP_2 is FinP. The FocP is introduced to merge between the ForceP and the FinP as shown below.

(55)



[54] This diagram also shows the VP-ellipsis structure in Welsh where the ellipsis deletes the AspP or VP.

Holmberg (2010) claims that the Welsh verb has a verb-reply property. That is to say, the verb at the I head moves to the Fin head to be either affirmative or negative-marked. The Fin head hosts a polarity feature (an idea which is different from most other analyses where polarity is encoded as a separate head). It is a requirement for the verb to move to the Fin head as it needs a focused polarity feature. Then, the polarity value-assigned verb moves further to land in the Spec, FocP and get pronounced there as a verb reply. In this fashion, the PolP is always deleted since the subject NP cannot co-occur with the verb reply (which is different from Finnish)[55]. The IP then can be spelled-out as null. The fact that the PolP is deleted in a Welsh verb reply allows, according to the theory, the copy of the PolP of the previous question with the required polarity variable. In this way, the verb reply is shown to have a syntactic relation with its presupposed part in the question.

All the verb replies discussed so far are derived as summarized below.

[55] Finnish has an alternative form of a verb reply where the verb is combined with a pronominal subject.

Q: Luki-ko Jussi kirjan?
read-Q Jussi book
A: Luki se.
read he
'Yes, he did.'

According to Holmberg (2001) it is derived by V-movement and VP-ellipsis.

Table 7: The derivations of verb replies

Languages	Derivations by
Thai Yaisomanang (in this thesis)	1. Pol head at Spec, FocP copying the values of Pol head of one PolP conjunct, including [V]-features inherited from the complement of Pol, and eliminating the other conjunct 2. Copied Pol (at Spec, FocP) spelled out 3. Deletion of IP
Finnish Holmberg (2010)	1. V-movement (out of VP) to Pol via T 2. Remnant VP-movement to Spec, TopP 3. Remnant PolP-movement to Spec, FocP and spelled out as a verb reply 4. TopP-deletion
Portuguese Martins (1994)	1. V-to-Σ movement (out of VP via T and AgrS) and spelled out as a verb reply 2. VP-ellipsis (derived by V-movement with adjunction to merge with ΣP and deletion) 3. Subject pro-drop
Holmberg (2010)	1. V (with polarity)-movement to Spec, FocP or Foc and spelled out as a verb reply 2. PolP-ellipsis
Welsh Jones (1999)	1. V at I spelled out as a verb reply 2. NegP-ellipsis
Holmberg (2010)	1. V-at-I movement to Spec, FocP (via Fin) and spelled out as a verb reply 2. PolP-deletion 3. IP spelled-out as null

All the verb replies in table 7, except for Thai, undergo the movement of some sort including the movements of V, VP, PolP or NP and some deletions of VP, PolP, TopP, NP or NegP. Thai shows no movement in the verb-reply derivation at all (other than movements which all sentences undergo). Instead, it is derived by feature copying of a Pol head to FocP, spelled out as a verb (the affirmative answer) or a negation and a verb (the negative answer). The effect is that of selecting one of the disjunctive PolPs posed in the question, and eliminating the other, which is what the YNQ asks for. This

provides a significant distinction among the derivations above. However, they all bear certain similarities under the same theory of questions and answers (Holmberg 2010, to appear).

The verb replies under discussion are all seen to be a minimal polarity constituent, Pol or PolP. It is a special Pol or PolP at Spec, FocP (or Foc in Portuguese) because it is assigned a polarity value in FocP (or Foc), and is spelled out as a verb or a negation and a verb. Under this analysis, a reply is new since the question which provides the basis for the reply has unspecified polarity value [±Pol], and in the reply the polarity value is specified. This value, when affirmative, needs not be overtly represented through any morphosyntax, as seen so far, but we know it is there due to certain syntactic operations. What verb replies have in common is that they specify polarity at Spec, FocP in the C-domain; the Thai verb reply is syntactically focused by virtue of feature copying while the other verb replies are syntactically focused by movement. The difference is seen most clearly when comparing (47) in Finnish with the Thai counterpart (56) below. In Finnish, if the answer is spelled out in full, without deletion of the IP, there is a gap in the IP. If the answer is spelled out in full in Thai, there is no gap.

(56) Q: nát àan nǎŋ-sŭ̆u rŭ̆u
Nath read book Q/ or
Did Nath read a book?

A: àan (nát àan nǎŋ-sŭ̆u)
read (Nath read book)
'Yes.'

A: mây àan (nát mây àan nǎŋ-sŭ̆u)
NEG read (Nath NEG read book)
'No.'

Under the present theory, there is no gap because there is no movement, only feature copying.[56]

[56] In terms of minimalist theory following Chomsky (1995), so called movement is also a matter of copying, in the sense of 'internal merge', i.e. merging a copy of a constituent already merged once. Characteristic of this copying (= movement) is that typically only the highest copy is spelled out. In the case of Thai YNRs, the feature copying is different in that both copies are spelled out although usually the lower one is deleted along with the IP.

Every verb reply makes use of the verb as a focused polarity carrier and the point of the reply is to communicate this focused polarity. In addition, with the polarity value in the Spec, FocP position, all the verb replies project their own sentential structure which is usually spelled out as null. Given that the structure is null, there must be an antecedent structure and it is the structure of a question that provides the antecedent, making possible the silent answer structure. This suggests that although a verb reply may be spelled out as one word, it represents the silent structure of a full sentence regardless of language. This is shared by all the languages under discussion under the same theoretical framework.

5.4.2 Particle replies

5.4.2.1 The English particle reply

The following question-answer pair in English shows the polarity-based answering system.

(57) Q: Isn't Mary coming?
A: ?'Yes.' (=Mary is coming.)
'No.' (=Mary isn't coming.)

Holmberg (2012: 4)

Although according to Holmberg (2012) the bare particle reply *Yes* may be infelicitous, it still can be interpreted that Mary is coming (he argues that it is infelicitous in the case when the question expects a negative answer). The bare particle *No* is obviously acceptable to mean Mary is not coming. Standard English typically selects replies 'on the basis of the polarity of the sentence answer to both positive and negative yes-no questions…The selection of a responsive is determined by the syntactic form of the sentence answer' (Jones 1999: 13). The sentence answer here could be the proposition 'Mary is/ isn't coming'. The particle *Yes* and *No* are seen to share the common polarity value with the proposition/ sentence answer. Consequently, this is the so-called polarity-based answering system (Jones 1999: 13).

However, a dialogue of English below may also be possible in some varieties of English, which suggests English does not always employ the polarity-based system.

(58) Q: Is Alfonso not coming to the party?
A: 'Yes.' (=He is not coming to the party.)
'No.' (=He is not coming to the party.)

Kramer and Rawlins (2010: 2)

Yes as an affirmative particle reply means Alfonso is not coming to the party. The interpretation can be derived if we assume the question provides the identical content, prompting *Yes* to have an elliptical expression 'Alfonso is not coming to the party'. This phenomenon is regarded as a negative neutralization effect (Kramer and Rawlins 2009, 2010) in which an affirmative particle means exactly the same as its negative counterpart. In this case, *Yes* shares the common semantics with *No* both of which mean Alfonso is not coming to the party.

Holmberg (2012: 9-12) suggests that this phenomenon is caused by the ambiguous structuring of negation in English, arguing for two distinct negators *not* in English via the addition of an adverb.

(59) Q: Does John sometimes not show up for work?
A: 'Yes.' (=John sometimes does not show up for work.)
?'No.' (=John does not sometimes not show up for work.)

The affirmative particle reply *Yes* means John sometimes does not show up for work. Therefore, *Yes* in this case confirms the negation of the question. The negative particle reply *No* then is exploited to contradict the negation of the question, meaning John does **not** sometimes **not** show up for work which is synonymous to 'He always shows up for work'.

The point we learn from this example is that the addition of the adverb 'sometimes' solves the negative neutralization effect as the two particle replies have different interpretations. The solution is then based on the assumption that English has two negation markers, high *not* and low *not*. The high *not* can be either *n't* or *not*. This can be seen to be the case when high and low negation markers co-occur in the same clause.

(60) a. You ca**n't**/ can**not not** go to church and call yourself a good Christian.

b. You must**n't**/ must **not** ever **not** address him as 'Sir'.

Holmberg (2012: 9-10)

According to Holmberg (2012: 10), under this structure the low *not* for example in (60b) scopes only over the VP, which consequently has roughly the following structure.

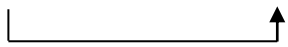
(61) [$_{IP}$ You must **not** ever [$_{VP}$ **not** address him as 'Sir'.]

Then, the addition of the adverb 'sometimes' before the negation forces the low negation reading, given that the adverb 'sometimes' is a low adverb positioned at the edge of the VP. This results in the [±Pol] feature of a YNQ of (59) as (62) below.

(62) Does [$_{IP}$ John [±Pol] [$_{VP}$ sometimes not show up for work?]]

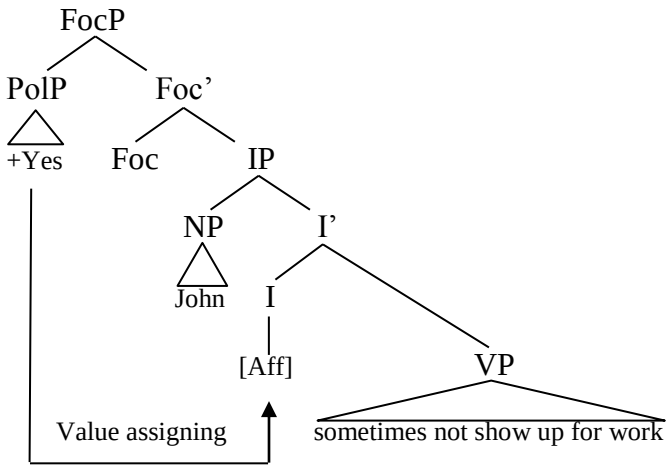
This suggests that the sentential negation of this question is on the high negation, which in (62) is an abstract Pol head with a [±Pol] value and which needs to be assigned a value in a reply. It may sit somewhere between the subject and the VP. At the same time, the low negation scoping over the VP is negatively assigned. Consequently, the particle reply to this question is in (63).

(63) Yes [+Pol] [$_{IP}$ John [+Pol] [$_{VP}$ sometimes not show up for work.]]



The particle *Yes* is externally merged with Spec, FocP with its affirmative value. At this position, it correspondingly assigns its affirmative value to the abstract high Pol head. The low negation *not* is left untouched since it has already been assigned a negative value. This results in a reading like 'Yes, it is true that he sometimes does not show up for work' as a reply to 'Does John sometimes not show up for work?' The reply (63) may be diagrammed as (64).

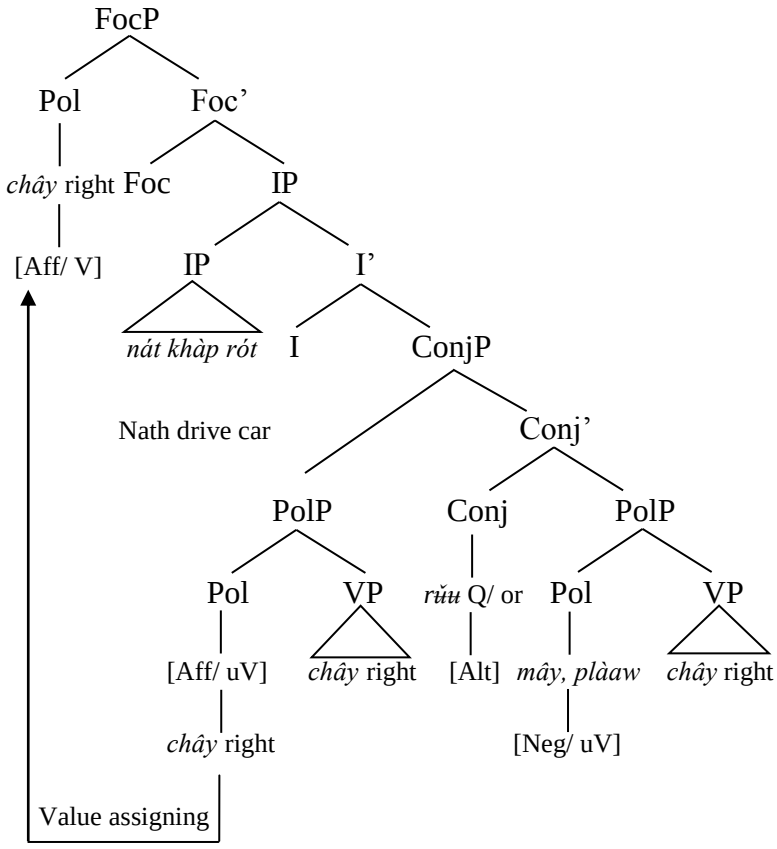
(64)



5.4.2.2 The Thai particle reply

In this section, to compare the data in Thai with the English particle reply, first in (65) I will repeat the derivation of *chây* 'right', as a verb (primary) reply, which also shows its corresponding question. Then, in (67) the structure of *chây* 'right/ yes', as a particle (secondary) reply, is analysed to reflect the truth-value-based answering system in Thai.

(65)



In (65), *chây* ‘right’ is a primary YNR to the question *nát khàp rót chây-r~~ŭu~~(-mây-chây)* ‘Nath drives a car; is that right?’ This is the structure where the minimal answer *chây* ‘right’ means *nát khàp rót* ‘Nath drives a car’. It represents both the answer and its corresponding question. The proposition *nát khàp rót* ‘Nath drives a car’ is a sentential subject and the main verb *chây* ‘right’ is a question particle itself. In the question, *r~~ŭu~~* ‘Q/ or’ has the [Alt] feature to conjoin *chây* ‘right’ and *mây chây* ‘NEG right’ to ask for the confirmation whether or not the proposition is true. This gives rise to two polarity conjuncts *chây* ‘right’ and *mây chây* ‘NEG right’ as candidates for the YNR. The Pol head has the [uV] feature, merging with the VP to get valued. The verb *chây* ‘right’ with its features is copied to the Pol head where the value has been specified. The answer at Spec, FocP copies this material with its features (at the low Pol head in the selected conjunct) to Spec, FocP. In this case, *chây* ‘right’ is spelled out since it carries the focused polarity, and it then becomes syntactically focused in the answer by virtue of copying. The derivation is by copying the Pol head (with its features) to Spec, FocP, and the effect is that of selecting one conjunct and eliminating the other.

That differs from (66) where the minimal answer *chây* ‘right/ yes’ to a negative question has a different meaning from that of (65) above. In addition, Thai does not cause a negative neutralization effect, but it has a similar structure where an affirmative particle is employed to confirm the negative proposition in the question as shown below.

(66) Q: nát mây khàp rót r~~ŭu~~
Nath NEG drive car Q/ or
‘Doesn’t Nath drive a car?’

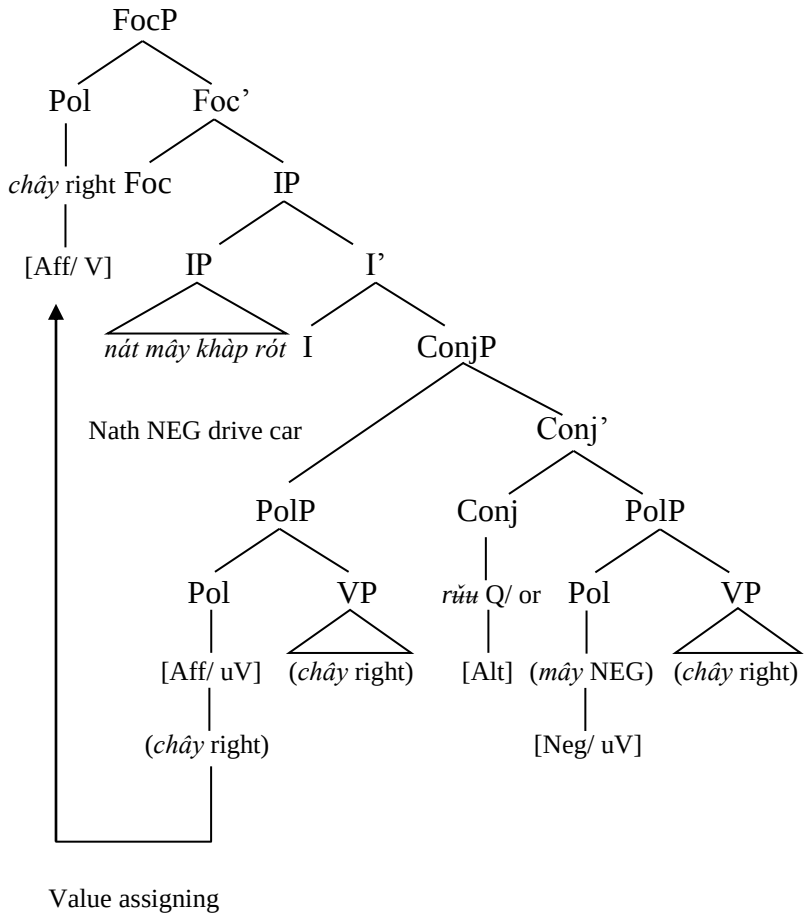
A: chây (nát mây khàp rót)
right/ yes (Nath NEG drive car)
‘No (, he doesn’t drive a car.)’

To respond to a negative question, Thai employs a truth-value-based system in which the language selects ‘a positive responsive to accept the truth value of the implied proposition in the question, or a negative responsive to counter it…The selection of a responsive is determined by the logical form of the proposition which is implied by the question’ (Jones 1999: 13). More precisely, *chây* ‘right/ yes’ with an affirmative value accepts that the negative proposition *nát mây khàp rót* ‘Nath does not drive’ is true. This is different from Standard English (with the exception of the negative neutralization above) where the answer must share the common polarity value with its

proposition (IP). In this case, *châ*y ‘right/ yes’ with its affirmative value is externally merged, so it is regarded as a secondary YNR.

According to the standard theory of Holmberg (2010, to appear), the minimal answer at Spec, FocP assigns a value to its IP so they both share the same polarity value. Consequently, (66) can be problematic here. If the affirmative Pol head of *châ*y ‘right/ yes’ is to assign a value, it must be an affirmative value that is assigned to the IP *nát mây khàp rót* ‘Nath does not drive’. Consequently, this IP becomes an affirmative conjunct which is not supposed to be so. However, the theory provides the solution given that we assume that (66) has the structure formed with the question particle (*châ*y-)*r~~ŭu~~(-mây-châ*y) ‘Q/ (right-)or(-NEG-right)’ diagrammed as (67) where the underlying parts of a question particle are shown in brackets.

(67)



Under this analysis, the overt question particle *r~~ŭu~~* ‘Q/ or’ connects two PolPs headed by the abstract affirmative and negative Pol heads whose complement is the abstract VP *châ*y ‘right’. The IP functions as a sentential subject and the predicate is a disjunction of two PolPs. This shows the subject-predicate relation. Being a polarity carrier at the Pol head, *châ*y ‘right/ yes’ with its features (in the selected conjunct) is copied to Spec,

FocP to serve as a secondary reply. That could be plausible, given that we assume the Pol head with the [uV] feature merges with the VP *chấy* 'right', which is later copied to the Pol head. Regarding the assignment of a value, the affirmative high Pol head as the particle (secondary) reply *chấy* 'right/ yes' at Spec, FocP gets the affirmative value from the low Pol head so that the negative proposition *nát mây khàp rót* 'Nath NEG drive car' is true. This consequently prompts the interpretation of the affirmative reply with its negative proposition as *chấy, nát mây khàp rót* 'Yes, it's right that Nath doesn't drive'. This is how the truth-value-based answering system works in Thai according to the theory.

The discussion above can be summarized in the table below.

Table 8: Particle-answering systems in Thai and English

Languages	**Answering systems**	**Distribution of negations**	**Negative neutralization**
Thai	Truth-value-based system	More negations allowed to merge with the verbal phrase	N/A
English	Mixed system (with some dialectal variation)	Abstract high negation between the subject and the VP/ low negation in the VP	A

English has the structure which allows the high Pol head between the subject and the VP to co-occur with the lower negation. This shows when English allows double negations. This structure consequently explains the negative neutralization effect, where an affirmative particle as well as a negative one, can confirm the negation of a negative question. In Thai, too, an affirmative particle will confirm the negation of a negative question. However, Thai does not cause a negative neutralization effect i.e. affirmative and negative replies always have different meanings regardless of a reply to a positive or negative question. Therefore, we can maintain that Thai, but not English, employs a

truth-value-based system while English can be characterized as a mixed answering-system language. Given the theory of YNQs and YNRs in Thai, and the theory of English YNRs in Holmberg (to appear), this can be explained as a consequence of the syntax of these constructions.

Conclusion

In this chapter, it is shown that primary YNRs are derived in accordance with their corresponding YNQs. Under the ConjP-analysis of questions with Type-1 particles, the primary YNRs are derived by feature copying of the Pol to Spec, FocP. The Pol head, in turn, has inherited verbal features from its complement VP. Therefore the focused Pol is spelled out as a verb or a verbal complex (a verb accompanied by aspectual markers) (the affirmative answer) or a negation and a verb or verbal complex (the negative answer). The effect is that of selecting one of the two PolP conjuncts posed by the question, and eliminating the other, deriving an LF without disjunction. The IP is normally deleted so that all that is spelled out is the verb or verbal complex. YNRs to questions with Type-2 particles are also derived by feature copying of the Pol head to Spec, FocP, and it gets spelled out there. This also has the effect of selecting one conjunct, and eliminating the other. Secondary YNRs which do not contain the overt material from the corresponding questions are derived by externally merging the Pol head with the affirmative or negative value, realized as a particle not derived by feature copying (it can be an honorific particle, for example). There is no movement to Spec, FocP in the derivation of Thai YNRs. This is different from other languages exhibiting verb-echo answers to YNQs described in the literature, all of which are analysed as having movement of some sort in the YNR derivation.

Chapter 6. Conclusion

A leading idea in this thesis is that there is a close correspondence between the syntax of yes-no questions (YNQs) and the syntax of their answers (yes-no replies, YNRs), in keeping with the theory of YNQs and YNRs in Holmberg (2010, to appear). This has been found to be the case in Thai.

The study starts with the semantic and syntactic analyses of the Thai YNQ particles. There is a great variety of yes-no question particles in Thai, all of which are sentence-final. It is argued that they all contain the element *rɯ̌ɯ* 'Q/ or', either overtly or covertly. This particle/ conjunction is argued to be a special case of the disjunctive particle 'or', having two additional features: [Alt], signifying that it conjoins specifically two PolPs (polarity phrases) with opposite values, and [uFoc] (unvalued focus), signifying that it is the question focus. A hypothesis which is first presented in chapter 2 and the further developed throughout the thesis is that YNQs in Thai are disjunctive expressions, with two PolPs joined by *rɯ̌ɯ* 'Q/ or', where the second PolP is eliminated, leaving the conjunction/ Q-particle as the final spelled-out constituent. That is to say, YNQs are always based on a ConjP headed by a special YNQ conjunction 'Q/ or'.

The question particles are categorised into two types, corresponding to the syntax of the questions they mark. Type 1 includes *(rɯ̌ɯ-)mǎy* 'Q/ (or-)NEG', *rɯ̌ɯ(-mây)* 'Q/ or(-NEG)', *rɯ̌ɯ-mây* 'Q/ or-NEG', *rɯ̌ɯ-plàaw* 'Q/ or-NEG' and *rɯ̌ɯ-yaŋ* 'Q/ or-yet'. The questions marked by these are made up of two PolPs making up a disjunctive proposition. Type 2 is made up of particles marking YNQs of which the proposition is a sentential subject while the particle is the predicate i.e. *chây-(rɯ̌ɯ-)mǎy(-chây)* 'Q/ right-(or-)NEG(-right)', *chây-rɯ̌ɯ-mây(-chây)* 'Q/ right-or-NEG(-right)', *chây-rɯ̌ɯ-plàaw(-chây)* 'Q/ right-or-NEG(-right)', *chây-rɯ̌ɯ(-mây-chây)* 'Q/ right-or(-NEG-right)' and *mây-chây-rɯ̌ɯ(-chây)* 'Q/ NEG-right-or(-right)'.

All the particles in Type 1 are derived by incorporation of some sort (i.e. the Pol head and the Adv) with the conjunction *rɯ̌ɯ* 'Q/ or' and PolP-ellipsis. For example, *rɯ̌ɯ-mây* 'Q/ or-NEG' is derived by overt incorporation of the negative Pol head with the conjunction *rɯ̌ɯ* 'Q/ or', followed by PolP-ellipsis. Type-2 particles are all also derived by incorporation of the Pol head and PolP-ellipsis. For example, *mây-chây-rɯ̌ɯ(-chây)*

‘Q/ NEG-right-or(-right) is derived by incorporation of the affirmative Pol head with the conjunction *rʉ̌ʉ* ‘Q/ or’, followed by PolP-ellipsis.

In chapter 3, the various YNRs are presented and classified. A distinction is proposed between primary replies and secondary replies. Primary YNRs are those that are based on a verb or verbal complex inherited from the preceding question. In the case of Type 2 particles/ questions, the verb in the primary reply is based on the verbal question particle itself. Secondary replies are those which consist of some particle or particle complex not derived from the question. A number of cases are discussed where, for a variety of reasons, a primary reply is not an option.

Following the theory of questions and answers in Holmberg (2010, to appear), I assume that questions contain a variable, which in YNQs is the polarity, with two possible values (affirmative and negative). This variable is the question focus. In direct questions there is a Q-force feature requesting the addressee to provide a value for the variable. In Thai, the YNQ variable is the Alt-, uFoc-marked conjunction ‘Q/ or’. The polarity is carried by the projection of a verb, a modal, an aspect marker or a manner adverb, the so called polarity carriers.

The structure of the IP of the YNR is identical to that of the YNQ (which is why it can be, and usually is, deleted). The difference is that in the answer there is a Pol-feature at Spec, FocP which probes the Pol-head of one of the conjuncts, and copies the features of that head. Thereby, one of the conjuncts is focused, the one providing the true proposition, while the other conjunct is eliminated, hence does not appear at LF. The Pol head itself copies features of its selected complement, which is always verbal. Thereby, the focused Pol head has verbal features. These are spelled out as a verb or verbal complex in the primary reply.

This is the case in answers to Type 1 and Type 2 questions alike. In the case of Type 2, the verbal material in the focused Pol-head derives from the question particle itself.

Regarding secondary YNRs which are formed by external materials, they are derived by merging the Pol head with an inherent value, spelled out as a particle, which can be for example an honorific particle, a negative particle and an exclamation, or can be *chây* ‘right’ or *mây chây* ‘NEG right’, which is used as a secondary reply as well as a primary reply of Type-2 questions.

Finally, compared to other languages which also exhibit replies echoing the verb of the YNQ, Thai is seen not to involve any V or VP-movement in YNR derivations. This differs from other languages described in the literature. The ConjP-analysis of YNQs has also not been proposed for any other language than Thai, to the best of my knowledge.

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