The syntax of polar questions and their answers in Taiwanese

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Abstract

This thesis discusses positive and negative polarity questions and their answers in Taiwanese. Different types of questions and their answers are scrutinized, which include intonation questions, sentence final particle questions, sentence internal particle questions, disjunctive questions, and [A-not-A] questions.

Chapter 1 introduces the aims and background of the study and the outline of thesis. Chapter 2 provides essential background information and theoretical assumptions, concerning, among other things, the semantics of questions, and asymmetries between affirmative and negative questions and answers, and terminology used in the thesis.

Chapter 3 is a review of recent work on questions and answers, particularly Holmberg (2013a, b, 2016) on the distinction between polarity-based and truth-based answering systems and the syntax of English questions and answers. It is demonstrated how the syntactic structure of the answer is determined by the syntactic structure of the question, and how the position of negation in the question affects the form and meaning of the answer. This hypothesis is tested on Taiwanese in subsequent chapters.

Chapters 4 to chapter 9 are focused on Taiwanese yes-no questions and their answers; the issues of negation, and modality are also discussed. Yes-no questions can be divided into two categories: presumptive and non-presumptive questions. Presumptive questions, which include intonation questions and sentence final particle questions will be discussed in chapter 5. Chapter 6 discusses tag questions and chapter 7 neutral questions. Chapter 8 examines disjunctive questions and chapter 9 A-not-A questions. These chapters demonstrate that Taiwanese has very consistent answering patterns. Predicate head answers, which are the answers consisting of just the head of the predicate of the question in positive or negative form, can be used to answer yes-no questions as well as disjunctive questions. The answer particles *si a* 'yes', *m-si* 'no', and the judgment verb/particle *tioh a* can be used to answer yes-no questions but not disjunctive questions. The judgement verb *tioh a* 'correct' can only be used to answer presumptive yes-no questions. It is shown that, unlike English, the position of the negation in the question does not affect the form and meaning of the answer in Taiwanese. Chapter 10 is a brief description of the question and answer patterns in Mandarin Chinese, focusing on questions with a final question particle *ma*. It is shown that the position

of the negation in the question does affect the form and meaning of the answer in Mandarin Chinese, like English and unlike Taiwanese. In other respects, the answering system is the same in Mandarin and Taiwanese. Chapter 11 concludes.

The importance of the study is to provide an explicit description of answering patterns used in response to all types of yes-no questions, disjunction questions, and [A-not-A] questions in Taiwanese, in a comparative perspective. The Taiwanese answer particles are shown to differ from their English counterparts, and in part their Mandarin counterparts, in the following way: The English answer particle *no* can disagree with a positive statement or positively biased question, and agree with a negative statement or negatively biased question. The Taiwanese answer particle *m-si* can only disagree with a positive, or a negative statement, or biased question. Correspondingly, the Taiwanese positive answer particles *si a* and *tioh a* can only agree with a positive or a negative statement or biased question. The relation between the different forms/uses of *si* is discussed: as a copula, a focus marker, and with the discourse marker *a*, as a positive answer particle. An explanation is provided why the negative answer particle *m-si* in Taiwanese always needs to co-occur with a full sentence. The explanation is based on an analysis of particle answers, even when consisting of a single word like *si* or *yes*, as derived from a full sentential source by ellipsis.

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Declaration

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Abbreviations

A	answer
Aff	affirmation
ASP	aspect marker
CL	classifier
CP	complementizer phrase
COP	copula
DM	discourse marker
DUR	durative aspect marker
EC	empty category
EMP	emphasis marker
EXP	experiential aspect marker
FM	focus marker
FOC	focus
HAB	habitual
IMPF	imperfective aspect marker
ModP	modal phrase
NEG	negative morpheme
Neg-FM	negative focus marker
NOM	nominalizer
NPI	negative polarity item
PASS	passive marker
PERF	perfective aspect marker
PRFV	perfective aspect verbs
PROG	progressive aspect marker
POL	polarity
POSS	possessive
PRT	particle
Q	question
Q ForceP	question force phras
QPRT	question particle
REL	relative clause
R	rejoinder
S	statement
SFP	sentence final particle
SUB	subordinator
TOP	topic marker
VP	verb phrase
YNQ	Yes-No questions
YNA	Yes-No answers
[FP …]	functional phrase

I will often omit the tones in examples from Mandarin Chinese and Taiwanese. These specify pronunciation and are not vital to my discussion of syntax.

Chapter 1.   Introduction

1.1   Aims and background

This thesis examines the syntax of polar questions and their answers in Taiwanese, in a comparative perspective. The system in Taiwanese will be compared primarily with the systems in English and Mandarin Chinese. Various types of questions in Taiwanese will be scrutinized, including intonation questions, questions with a sentence final particle, questions with a sentence-internal particle, tag questions, disjunctive questions, and A-not-A questions. The strategy will be to systematically investigate question-answer pairs. This is based on the idea that the syntax of the question determines the form of the answer, and conversely, the possible answers to a question indicate what the syntax of the question is. The background is a recent, emerging interest in the syntax of answers to yes-no questions. Very recent works include Farkas and Bruce (2009) on some European languages including English, Kramer and Rawlins (2011) on English, Yaisomanang (2012) on Thai, Krifka (2013) mainly on English, Holmberg (2013a) on English and Swedish, and Holmberg (2013a,b, 2016) with a cross- linguistic approach.

There is a well-known distinction between two answering systems, sometimes called the truth-based system and the polarity-based system (Jones 1999, Holmberg 2013a, b, 2016). Another name for the truth-based system is the agree/disagree system (Kuno 1973, Pope 1976). The two systems differ with regard to how negative questions are answered. They can be exemplified by Taiwanese and English, respectively (DM = discourse marker).

(1)   Q: Lauong bô   lai   nih?   [Taiwanese]
              Lauong not.have come Q
              'Did Lauong not come?'
       A:a.   si   a
              yes DM
              'Yes (he didn't come)'
          b. m-si, i   lai   a
              no   he   come PRFV

1

'No, he did./Yes, he did.'

(2)   Q: Hasn't John arrived yet?   [English]

       A:a.   No.

       A:b.   Yes he has.

The simplest characterisation of the difference is that you answer 'yes' in Taiwanese when the person hasn't come, while you answer 'no' in English in the same situation, with the same meaning, and you answer 'no' in Taiwanese when the person has come, while you can answer 'yes' in English in that same situation, with the same meaning. Holmberg (2013a, b, 2016) argues that the difference between the two systems is mainly due to a difference in the system of negation: The truth-based answering system would be a property of languages with a low sentential negation, particularly in questions. It will be shown in this work that this is insufficient as an explanation of the variation. Instead, the difference is primarily due to properties/features of the answer particles in ways that will be detailed in subsequent chapters.

An important question is whether answers to polar questions using answer particles are derived by ellipsis from full sentences or whether they substitute for full sentences. See Holmberg, 2016: chs. 1 and 3) for arguments that they are derived by ellipsis. The answer (1Aa) above is derived by ellipsis from a full sentence as shows in (3)

(3)   si   a   [TP ~~Lauong~~   ~~bô~~   ~~lai~~]

       yes DM   Lauong   not.have   come

See Krifka (2013) for arguments that bare particle answers are not derived by ellipsis from full sentences, at least in English. It will be demonstrated in the present work that there are very good reasons to think that the answers are derived by ellipsis in Taiwanese.

There is a fair amount of work on questions in Chinese. However, most attention, by far, has been given to A-not-A questions, a prominent feature of many varieties of Chinese (Huang 1991,1990,1988,1988a; Hagstrom 2005). This dissertation will also deal with these questions, but will focus more on 'proper yes-no questions', that is questions that can actually be

answered 'yes' or 'no', using answer particles. This is in order to understand how these answers are syntactically constructed, and how they compare with the system in other languages such as English. Disjunctive questions and A-not-A questions are not answered by answer particles, but by echoing the highest predicate of the question, with or without negation. This is also an option in the case of 'proper yes-no questions'. It will be argued that these answers are derived by ellipsis from full sentences.

1.2   Outline of thesis

This dissertation consists of 5 chapters followed by a conclusion. Chapter one introduces the topic, objectives, and structure of the study.

Chapter 2 provides some theoretical assumptions, including assumptions concerning the semantics of questions, and a point about an essential asymmetry between positive and negative answers which will play an important part in this dissertation. Some of the terminology used will also be introduced.

Chapter 3 is a literature review with main focus on Holmberg (2013a, b, 2016). Holmberg's theory of question and answer pairs in English is reviewed. It is demonstrated that the syntactic structure of the answer is determined by the syntactic structure of the question. It is demonstrated that the position of negation in the question affects the form and meaning of the answer in English, as argued by Holmberg (2013a). In subsequent chapters it will be investigated whether the same holds true in Taiwanese and Mandarin.

Chapters 4 to 9 are the main part of the thesis. They deal with the syntax of polar questions and their answers in Taiwanese. The different types of questions and their answers are dealt with one by one starting with the presumptive questions which include intonation questions and sentence final particle (SFP) questions which will be discussed in chapter 5. Responses to statements and answers to questions are compared. Chapter 6 discusses the tag questions. The role of the focus marker *si* in questions and answers is discussed. Chapter 7 examines neutral questions which consist of *si-m-si* questions and *kam* questions. Chapter 8 looks at disjunctive questions and chapter 9 on A-not-A questions. The role of the focus marker *si* in questions and answers is discussed.

Chapter 10 is a brief exposition of some of the properties of Mandarin Chinese polar questions and answers, focusing on the questions with the sentence final particle *ma*. It is shown that, like English but unlike Taiwanese, the position of the negation in the question does make a difference for how the question is answered, though in other respects, the answering system in Mandarin is the same as in Taiwanese.

The thesis ends with conclusions in chapter 11.

Chapter 2. Theoretical Assumptions

2.1   Yes-no questions and alternative questions

It is common to use the term 'yes-no questions' synonymously with 'polar questions'. In this thesis they are not synonyms. The term 'yes-no questions' will be used exclusively for questions which can be answered by the counterparts of the answer particles 'yes' and 'no'. In Taiwanese as well as in Mandarin a common kind of polar questions has the form of an alternative question, the A-not-A question. This type of question cannot be answered by 'yes' and 'no', but only by echoing the predicate of the question in positive or negative form. As will be discussed, the answer spells out one of the two alternative propositions posed by the question, although it is typically reduced by ellipsis to just a predicate head. In our terms, this is a 'polar question' but not a 'yes-no question'. 'Polar question' can refer to direct as well as indirect (embedded) questions. In this thesis, I will only deal with direct questions that is questions which call for an answer.

What is the meaning of questions? Hamblin (1958) provides a semantic account which has been widely adopted in generative work on questions. It is based on the following three postulates:

(1)   a. An answer to a question is a statement.

         b. Knowing what counts as an answer is equivalent to knowing the question.

         c. The possible answers to a question are an exhaustive set of mutually exclusive

            possibilities.

The meaning of questions is identified with the set of its possible answers (1b), that is a set of propositions (1a), which determine a partition of the logical space (1c). It follows that to know the meaning of a question is to know the exhaustive set of mutually exclusive statements which constitute possible answers to the question (see Hamblin 1958, 1973). As Kaufmann (2009) points out, knowing what counts as an answer is obviously different from knowing the answer. To know what the question means, one does not need to know what the answer is (or there would be no point asking the question).

Kaufmann (2009) also points out that 'statement' in (1a) means a declarative sentence. We can therefore interpret (1a) to mean that even short answers like *Yes* and *No* are elliptical forms of full, declarative sentences. That this is the case is argued by Kramer and Rawlins (2011) and Holmberg (2013a, b, 2016). It will be shown in this thesis that there is strong evidence that this is the case in Taiwanese as well.

The fact that questions are used to elicit answers from interlocutors is a matter of pragmatics, according to Hamblin. This idea is not adopted here. Following Holmberg (2016), I will regard it as an essential part of the meaning of direct questions that they request the addressee to say which of the possible answers is the true answer.

There are three main types of questions: alternative questions, polar questions, and *wh*-questions. *Wh*-questions will not be dealt with at all in the present work, so they can be put aside. (2) is an example of an alternative question, (3) an example of a polar question (of the yes-no type).

(2)   Do you want tea or coffee?

(3)   Do you want tea?

What is the relation between them? The alternative question lists two alternatives (there can be more than two) overtly, and asks the interlocutor to say which one is true. If Hamblin (1958) is right, the two alternatives are the two propositions 'you want tea' and 'you want coffee'. That the disjunction *or* in a case like (2) has sentential scope was also demonstrated by Larson (1985)[1]. A yes-no question also poses a choice between two alternatives, asking the interlocutor to say which one is true. The alternatives in (3) are 'you want tea' and 'you do not want tea'. But in this case the second alternative is not listed overtly, although it can be, as in (4).

(4)   a.   Do you want tea or do you not want tea?

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[1] Note that the disjunction in (2) does not necessarily have sentential scope. That's only one possible reading (the most salient). Under the other, so called inclusive reading, the question is a yes-no question.

b.   Do you want tea or not?

Holmberg (2013a, b, 2016) proposes that the yes-no question does express the two alternatives syntactically, but it does so by virtue of containing a variable, which is [±Pol(arity)], taken to be a sentential head, usually abstract, of the TP (or IP). Since a sentence with a variable is semantically equal to a set of propositions, identical except for the value of the variable, the two alternative propositions which constitute the two possible answers of a yes-no question are, in this sense, syntactically represented. In this case, one alternative proposition would have [+Pol], the other one would have [−Pol]. Furthermore, in this perspective, what the answer does is assign a value to the variable. The derivation of the answer *yes* or *no* can be represented as follows, schematically:

(5)   i.   Copy the TP of the question containing the polarity variable [±Pol].

ii.   Merge a focused polarity particle, either *yes*, which realises the feature [+Pol], or *no,* which realises the feature [−Pol].

iii.   The focused polarity particle will assign [+] or [−] to the polarity variable.

iv.   The TP can be elided (i.e. not be phonologically spelled out), which leaves just the focused polarity particle as the spelled out form of the answer.

In this perspective the alternative questions and yes-no questions are not so different. In the yes-no question there is an abstract variable with two values, which yields a denotation of two propositions with opposite values for the variable. The answer can either spell out one of the propositions, or it can have a focused polarity feature, realised as an answer particle, which assigns a value to the variable, and thereby selects one of the propositions (the one which the respondent wants to present as the true one).

(6)   Q: Do you want tea?
       A:a.   I want tea.
          b.   Yes.

The structure of the answer (6Ab) would be roughly (7).

(7)   [$_{FocP}$ yes Foc [$_{TP}$ I [+Pol] want tea]]

In the alternative question (8), the variable would be the constituent *tea or coffee*. Following Larson (1985), the disjunction undergoes covert movement to the C-domain.

(8)   Q: Do you want tea or coffee?
      A:a. I want tea.
      A:b. Tea.

The question is thereby interpreted as denoting two disjoint propositions, one with *tea* as object the other one with *coffee* as object. The answer can either simply spell out one of the propositions, or it is derived as in (7), by copying the TP of the question with the variable *tea or coffee*, and merging a focused version of either *tea* or *coffee*, which then assigns a value to the variable.[2]

The syntactic structure of the answer A2 would be

(9)   [$_{FocP}$ tea Foc [$_{TP}$ I want tea]]

Note that the 'yes-no questions' which overtly list the two alternatives cannot be answered *yes* or *no*.

(10) Q: Do you want tea or do you not want tea?
      A1: I want tea.
      A2: *Yes.

The question (10) is not a yes-no question, even though semantically it is equivalent to the question *Do you want tea?*. It is an alternative question. This motivates keeping the two types of questions distinct, as I will do in this thesis. Syntactically speaking the difference between yes-no questions and alternative questions (also called disjunctive questions) is the use of the conjunction *or*, and normally a falling intonation on the second conjunct. The Chinese A-not-

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[2] The reason why *Tea I want* is not a felicitous answer to (8), if (9) is the structure is that for some reason, focus movement is not well formed in English, unless TP is deleted. See Merchant (2004), who gives a long list of arguments that fragment answers are derived by focus movement and TP deletion. He does not comment on the marginal status of focus movement with a spelled out TP, though. A well-formed complete answer with a fronted focused constituent would be *Tea is what I want*. Which is also derived by focus fronting, but with a more complex derivation.

A questions (11), as in the Taiwanese example are a somewhat controversial case, as they do not involve any overt disjunction.

(11)   Q: nong   ke   va   ke   cū-zi?[3] (Wu Chinese)

You   drive   not   drive   car

'Do you drive car or not?'

A:a   *zi   e

Intended reading: 'yes'

A:b.   *va   zi

Intended reading: 'no'

A:c.   ke   e

drive   PRT

A:d.   va   ke

not   drive

Most researchers agree, however, that Chinese A-not-A questions should be viewed as a special type of disjunctive questions, or at least as closely related to disjunctive questions (Huang, Li and Li 2009:244-260). The fact that the A-no-A questions cannot be answered by answer particles, but must be answered by echoing the positive or the negative alternative (which are elliptical sentences, as will be demonstrated) is evidence that they fall under alternative questions. Since the alternatives in this case differ only with respect to polarity, positive or negative, they still fall under polar questions

The theory presented above of the syntax of questions is the one articulated in Holmberg (2016). According to this theory the polar question encodes the two alternative propositions, the positive and the negative proposition, in the form of a variable [±Pol]. The answer 'yes' or 'no' assigns a value to this variable. An alternative to this theory (probably more commonly assumed within generative linguistics, explicitly or implicitly) is that the polar question consists of a TP which is valued positive or negative, so it denotes a positive or negative proposition p, but this TP is merged with a question operator which takes p as input and yields p and the negation of p as output, the two alternative propositions which constitute

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[3] Thank Qianwen Cheng for the data and discussion. Wu Chinese is mainly spoken in Zhejiang province, the municipality of Shanghai and southern Jiangsu province in China.

the possible answers. An explicit version of this theory is articulated in Biezma and Rawlins (2012).

According to Biezma and Rawlins (2012), the difference between *yes-no* questions and alternative questions is that the alternative question is the result of interaction of disjunction with a question operator while *yes-no* questions denote a single alternative. The only true complete answers to an alternative question are answers corresponding to exactly one of the disjunctions that the question spells out (Biezma and Rawlins 2012:402). Biezma and Rawlins propose that *yes-no* questions have no compositional introduction of alternatives, and that the only alternative-related operator in the structure is the question operator. According to Biezma and Rawlins (2012), the differences between alternative questions and *yes-no* questions are summarised in (12) and (13). Q-Force is an operator which requests the addressee to say which of the alternative propositions is true. An alternative question has the schematic form (12a) and the properties (12b, c).

(12) a.   Q-force[$_{TP}$ A] or [$_{TP}$ B]
      b.   it introduces an exhaustive list
      c.   by spelling all the alternatives out, no bias towards any of them is indicated.

A yes-no question, on the other hand, has the schematic form (13a), and the properties (13b, c, d):[4]

(13) a.   Q-force [$_{TP}$ A]
      b.   there is no compositional introduction of alternatives
      c.   it denotes a single alternative
      d.   the speaker chooses one alternative among the set of contextually available alternatives; the speaker favours the spell-out alternative over the other.

That is to say, according to Biezma and Rawlins (2012), there are no neutral, unbiased yes-no questions. As will be discussed, according to the criteria that will be assumed in this thesis, this is true of Taiwanese, but for a few exceptions, but is not true of English.

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[4] This is a simplification of Biezma and Rawlins's (2012) theory, still sufficiently detailed for our purposes.

Holmberg (2016) takes the Chinese A-not-A question, analysed as in Huang (1991) and Huang, Li, and Li (2009: 254-257), as a model for neutral yes-no questions in English, Finnish, and other languages he considers, claiming that they include a polarity variable [±Pol] as part of the TP (as A-not-A questions do overtly, as will be discussed in detail in chapter 9). It will be shown in this thesis that the Taiwanese yes-no questions for the most part are best understood in the model of Biezma and Rawlins (2012). Yes-no questions include questions formed by question intonation only, or sentence final question particles (*nih*, *haN, hio,* and several more), or sentence internal particles (*si-m-si, kam si*), or tags. They behave as if the TP of the question has a polarity value, to which the answer particles apply, either confirming the value, or changing (reversing) the value. They are often biased, or as we will call them, presumptive, in that the speaker expresses a presumption about which alternative is true, which is the one that is spelled out in the question, either positive or negative, as shown in (14Q1-2). Neutral questions are often uttered in the A-not-A form as shown in (14Q3). Some of the yes-no-questions can be neutral, though. As will be shown, this is reflected in the options of answers: biased questions can always be answered affirmatively by the judgment verb *tioh a* meaning '(that's) correct' as shown in (14A1-2); however, A-not-A questions cannot be answered by *tioh a* as shown in (14A3).

(14) Q1:   Lauong u   lim   ka-pi nih? [positive SFP question]
              Lauong have drink coffee Q
              'Does/ Did Lauong drink (the) coffee?'

       A1:   tioh   a
              correct   DM
              'It is correct/right/ Yes. He does/did.'

       Q2:   Lauong   bô   lim   ka-pi nih? [negative SFP question]
              Lauong   not.have drink coffee Q
              'Does/Did Lauong not drink (the) coffee?'

       A2:   tioh   a
              correct DM
              'It is correct/right/ No. he did/does not drink (the) coffee.'

       Q3:   Lauong tang m   tang kho-tsai lai? [A-not-AB question]
              Lauong can not can   again   come
              'Can Lauong come or not come again?'

       A3:   *tioh a

correct DM

Intended reading: 'It's correct/right.'

2.2 The asymmetrical relation between affirmation and negation

There is an asymmetry between affirmation and negation, which has not been noted before in work on the syntax of answers, to my knowledge. It is not discussed by Holmberg (2016), for example[5]. A *yes-no* question has only one affirmative answer in response to an unmarked yes- no question but can have many negative answers, depending on the scope of the negation in the answer as shown in (15).

(15) Q: Is John going to London tomorrow?
      A:a. No, he's not going to London tomorrow.
      A:b. No, not to London. ('John is going somewhere tomorrow, but not to London)
      A:c. No, not tomorrow. (John is going London some time, but not tomorrow.')
      A:d. Yes, he's going to London tomorrow.
      A:e. *Yes, to London. (cannot mean 'Yes someone is going to London, but not John and not tomorrow.)
      A:f. *Yes, tomorrow. (cannot mean 'Yes someone is going tomorrow, but not John and not to London.)

That is to say, the answer particle *yes* necessarily takes scope over the whole sentence. It cannot affirm part of the sentence and leave the rest negated, or leave the rest open.[6] However, the negative answer particle can negate a part of the sentence, and leave the rest positive.

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[5] See chapter 3 on English based on Holmberg's theory.

[6] The answers (15A:e and 15A:f) are obviously well formed with the reading 'Yes, John is going to London tomorrow', but completely impossible with the reading indicated.

This phenomenon is particularly salient in Taiwanese because of the versatility of the negation in this language. In terms of alternative propositions, it means that a positive yes-no question does not denote two alternative propositions, one positive, one negative, but as many alternative propositions as there are constituents that can be negated in the question, plus one positive proposition. See a more detailed discussion on Chapter 5 in respect to this issue.

This difference between affirmation and negation will turn out to be important to understand the syntax of yes-no questions and answers in Taiwanese.

2.3   Theoretical assumptions

Before I present the details of my analysis, I provide an overview of some aspects of the theoretical model that I use. In this thesis I adopt a minimalist approach to syntactic analysis (Chomsky 2000, 2001, 2008), with a few modifications, that will be pointed out when they become relevant. It is assumed that syntactic categories are composite elements, made up of grammatical features. I assume that the C-domain (or left periphery) is made up of several heads with their projections, following Rizzi (1997). In particular it may contain a Focus head projecting a FocP, which will play an important role in questions and answers to questions, and a force head as the highest head of main clauses, including direct questions. The TP-domain is also composed of several heads with their projections, including T(ense), Mod(ality), and Asp(ect). The structure of the vP or VP domain will not be relevant in this thesis.

The only unusual operation that I assume is downwards feature transmission, which is an important notion in the thesis. In particular the operation of transmission of features from the C-domain to T is adopted. Some features of a focused category in the C-domain can be transmitted down to T, the highest head of the TP-domain, where they will determine the polarity of the sentence. This is formally similar, but not identical, to the transmission of features from C to T proposed in Chomsky (2008).

Chapter 3.　English

3.1　Introduction

This chapter is a presentation and discussion of the English system of answering yes-no questions, mainly based on the theory of questions and answers in Holmberg (2013a, b, 2016). The context is a typology of answering systems: the distinction between the truth-based and the polarity-based system. It will be shown that English has a complex system, combining properties of both systems. Holmberg (2013a) claims that this is due to the various positions that negation can have in English, and Holmberg (2016) argues that the position of the negation is the crucial factor distinguishing the two answering systems. This hypothesis is put to the test in the chapters on Taiwanese and Mandarin.

3.2　The truth-based and the polarity-based answer systems

The languages of the world are divided with respect to how negative yes-no questions are answered. The following sentences exemplify the two systems.

(1)　Q:　Lauong　bô　　　lai　nih?　　[Taiwanese]
　　　　　Lauong　not.have　come　Q
　　　　　'Did Lauong not come?'
　　A:a.　si　a
　　　　　yes　DM
　　　　　'Yes (he didn't come)'
　　A:b.　*m-si
　　　　　　no
　　　　　　Intended: 'No, he didn't come.'
　　A:c.　m-si, i　lai　　a
　　　　　no　he　come　PRFV
　　　　　'No, he did./Yes, he did.'

(2)　Q:　Hasn't John arrived yet?　　　　[English]

A:a.   No.

A:b.   *Yes.

Intended: 'He hasn't arrived yet.'

A:c.   Yes, he has.

The negative question in (1) conveys an expectation that the negative alternative is true, i.e. it is negatively biased. It could be uttered when the speaker originally thought that Lauong would come, but has now had evidence that Lauong will not come, and wants to check whether this is actually true. If the answer is intended to confirm the negative alternative (the expected alternative in this case), it will be *si a*, using the positive/affirmative answer particle. It cannot be *m-si* 'no', with the intention to confirm the negative alternative. Instead, the negative particle *m-si* has to be used when the intention is to disconfirm/contradict the negative alternative, as in (1Ac).

In English, too, the negative question (2Q) conveys negative bias, unambiguously due to the negative polarity item *yet*. Negative questions are a complicated matter in English, largely due to the possibility of using *-n't*, with the negation following the auxiliary under subject-aux inversion, or using *not*, which does not undergo movement out of TP: see Ladd (1981), Romero and Han (2004), Krifka (2012), Holmberg (2016, Ch. 4). Questions with *-n't* are often positively biased (*Isn't this cake delicious?*). In this chapter, I will ignore positively biased negative questions, focusing on negatively biased questions. If the answer to the (2Q) is intended to confirm the negative alternative, it will be *no*, using the negative answer particle. If it is intended to disconfirm/contradict the negative alternative (the one expected to be true), it will very likely be *Yes he has*, using the positive answer particle.

Jones (1999) proposed to call the two systems the truth-based system and the polarity-based system. The idea is that the truth-based system, as in Taiwanese, the answer particle confirms or disconfirms the truth-value of the proposition expected to be true. In (1Aa) the answer particle confirms that the negative proposition is true by using *si a*, the positive particle. In the polarity-based system, the particle instead agrees with the polarity of the answer TP. In (2Aa) the polarity of the answer is negative, so the answer particle is also negative. In (1Ab) the answer particle denies that the negative proposition of the questions is true by using *m-si,* the negative answer particle. In (2Ab) the polarity of the answer is positive, and the answer particle is also positive.

Another name for the system seen in Taiwanese is 'the Agree-disagree system' (Kuno 1973, Pope 1976). The idea is that the answer either agrees or disagrees with the speaker's expectations. In (1Q), the speaker expects the answer to be negative, as an effect of using the negation in the question. (1Aa), the positive answer, agrees with this expectation, while (1Ab), the negative answer, disagrees with it. See Jones (1999) and Holmberg (2016) for discussion.

Holmberg (2016, Ch. 4) shows that about half of the world's languages employ the truth-based system (the agree/disagree system). It is strongly predominant in the Far East. Thai, Vietnamese, Korean, Japanese, and (probably) all varieties of Chinese, among other languages, use this system. The polarity-based system is strongly predominant in Europe

The system in English is actually more complex, as discussed first in Kramer and Rawlins' (2011) and later in Holmberg's (2013a, 2016). In (3), the answer can be either *yes* or *no*, if the intention is to confirm the negative alternative that John hasn't arrived yet.

(3)   Q: Has John actually not arrived yet?
       A:a   Yes. (He hasn't arrived)
       A:b   No. (He hasn't arrived.)

Kramer and Rawlins (2011) gave the name **negative neutralization** to this phenomenon where yes and *no* mean the same thing. As will be discussed in Chapter 10, we can see a similar phenomenon in Mandarin Chinese, a language otherwise known to use the truth-based system.

It is also possible to use the negative particle in English to disconfirm a negative expected alternative. Instead of answering as in (4Aa) (= 2Ac), one can answer (4Ab).

(4)   Q: Hasn't John arrived yet?
       A:a   Yes, he has.
       A:b   No, he has.

The following section will review the theory of the syntax of questions and answers in Holmberg (2013a, b, 2016), focusing on English, intended to explain the facts above.

3.3 Holmberg (2013a, 2016) on the syntax of questions and answers

This section discusses Holmberg's analyses of questions and their answers, with special attention given to negative questions. Holmberg (2013a, b, 2016) proposes that a question always presents a set of alternatives in the form of a variable. In wh-questions the variable is the wh-phrase, in alternative questions the variable is spelled out as a disjunctive NP or PP or whatever the case may be, and in yes-no questions the variable is an unspecified polarity feature [±Pol], with two possible values [+Pol] or [−Pol]. In most questions, this variable is merged in TP, but undergoes movement, overt or covert, to the C-domain. In Holmberg (2013a) it moves to [Spec FocP] in the CP, but Holmberg (2016, Ch. 2) argues against the idea that the landing site is a focus position. Instead, the reason why the movement is necessary is in order to assign sentential scope to the disjunction, so that the question, whatever its exact content, denotes a disjunctive set of propositions. In direct questions the illocutionary force feature Q-force merged with CP requests the addressee to provide a value for the variable such that the resulting proposition is true. In a yes-no question the value assigned by the answer is [+Pol] or [−Pol], 'yes' or 'no'.

The tree diagram in (5) shows the structure of the yes-no question, according to Holmberg (2013a), where the [±Pol] feature moves to focus position in the CP[7].

(5)

```
        QforceP
       /      \
  Q-force    FocP
            /    \
        [±Pol] Foc   TP
                    /  \
                 … [±Pol]…
```

---
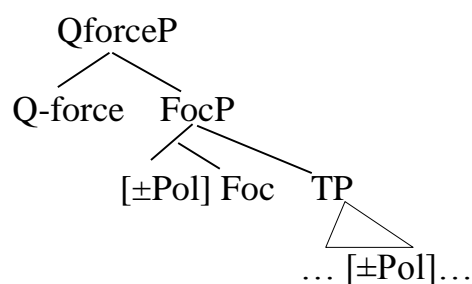
[7] Holmberg (2013a) assumes that the highest projection in the T-domain is PolP, headed by a Polarity feature. I call it 'TP' in (5) because I assume that the polarity of the sentence is a feature of T. Holmberg (2013a) assumes that movement of a head to the C-domain need not be classical head-movement with adjunction to a head, but can be movement to a Spec-position. I will keep to the traditional analysis where a head that moves always adjoins to a head.

There are two question operators in this structure. First, there is Q-force, which is found only in direct questions. Then there is the feature [±Pol] in the C-domain which ensures that the sentence denotes two alternative propositions, *p* and *¬p*, which is the defining property of yes-no questions. In English the movement of [±Pol] is overt, in the form of subject-auxiliary inversion, i.e. T-movement to C.

Holmberg (2013a, b, 2016) assumes that the polarity feature is a head distinct from, and higher than Tense. In this thesis, I will represent it as a feature of T.

One of the important claims in this theory is that the structure of the TP in the answer is identical to the TP in question except that the polarity variable is assigned a value by the particle in the answer, i.e. *yes* or *no*, which is merged in spec of FocP. Consider first the question (6). The (simplified) structure of the question is (7). '<A>' is 'copy of moved A'.

(6)   Is John coming?

(7)   [$_{CP}$ Q-Force [$_{FocP}$ [is, ±Pol] Foc [$_{TP}$ John < [is, ±Pol]> [$_{VP}$ coming]]]]

The structure of the affirmative answer is (8).

(8)   [$_{FocP}$ [yes, +Pol] Foc [$_{TP}$ John [+Pol] [$_{VP}$ coming]]]]

The answer copies the TP of the question, with the polarity variable. It merges an answer particle with it, in the focus position. This answer particle then assigns a value to the variable in TP. In this case the value is positive. Because the TP in the answer is identical with the TP in the question, 'up to the assignment of value to variables', it can be deleted, so the answer can be spelled out as (9). Only the focused constituent has to be pronounced.

(9)   Yes.

See Holmberg (2016, Ch. 3) for discussion of the identity condition. Holmberg adopts Merchant's (2001) condition on identity required for ellipsis. Basically, a constituent A can be deleted if it is identical to a constituent B in the near context if A and B have identical LF structure, or A and B are identical at LF except that where A and B both contain a variable in the same position, the variable can have different binders, or it can be open in B and bound in A. The TPs are identical except they contain a variable in the same position which is open as shown in (7) but bound by a focused polarity feature as shown in (8).

19

The negative answer works exactly in the same way. The structure is (10), which can be spelled out as (11).

(10)   [$_{FocP}$ [No, −Pol] Foc [$_{TP}$ John [−Pol] [$_{VP}$ coming]]]]

(11)   No.

3.4   Negative questions: the two negations not

Now consider a negative question.

(12)   Is John not coming?

I mentioned earlier that English has a complex negation system in questions. The negation can be *n't* or *not*. If it is *n't*, it follows the auxiliary to C deriving questions like (13).

(13)   Isn't John coming?

This question will typically have positive bias. It will be uttered when the speaker thinks that John is coming but still wants to double-check (see Romero and Han 2004). In this thesis I am not interested in this type of question. The point of the present chapter is to provide a basis for a comparison of English with Taiwanese and Mandarin. These languages do not have any counterpart of (13). The positive bias expressed by (13) is not conveyed by a negative question in these languages. But they do have negative questions with negative bias similar to English, but still different in interesting ways.[8] For this reason I will disregard questions like (13) and focus on (12), a negative question with unambiguously negative bias (according to Holmberg 2013a, b, 2016).

Consider first the answer options when the question is (12), repeated here as (14Q).

(14)   Q: Is John not coming?

        A:a.   (?)Yes (= John is not coming, or the answer is not well-formed.)

---

[8] The question of how we know that there is a bias, and what bias is, is discussed more fully later in the dissertation. See chapter 5 on the answers to presumptive questions. A biased question can be answered *tioh a* . With respect to biased questions the reader is recommended to refer to (Sudo 2013, and Holmberg (2016: 181-190)).

A:b. Yes, he is. (= John is coming.)

A:c. No (= John is not coming.)

A:d. No, he is. (=John is coming.)

The answer (14Aa) has a curious status, with some variation between speakers. It can mean that John is not coming, confirming the negative alternative of the question. Alternatively it is not quite a well formed answer, because it is indeterminate; if anything, it means that John is coming (see Holmberg 2013a). Answer (14Ab) is straightforward. It means that John is coming, disconfirming the negative alternative. (14Ac) is also unambiguous, and means that John is not coming, confirming the negative alternative. However, if the negation particle is merged with a positive sentence (possibly with VP deleted), the answer will disconfirm the negative alternative. How can the ambiguous status of some of these answers be explained?

Holmberg (2013a) argues that (12, 14Q), even though it has unambiguously negative bias, is structurally ambiguous: the negation can be in a position outside vP, in what he calls the middle position or it can be inside vP (adjoined to VP), the low position. That English has these two options is shown by the fact that a sentence can contain two negations *not*, as in (15).

(15)   You should definitely not ever not address him as 'Sir' (Holmberg, 2016)

Consider first the the case where *not* is in the middle position in the question (12). In a declarative sentence the structure will be (16):

(16)   [$_{CP}$ C[$_{TP}$ John [is, −Pol] [not [$_{vP}$ coming]]]]
                        ⬆__ [−Pol]

The claim is that the polarity feature of T is always merged unvalued. (16) is a declarative sentence, not a question. If there is a negation in the TP it assigns negative value to the

polarity feature. If there isn't, the polarity feature gets positive value by default. The structure of a question will be (17):

(17)   [CP Q-Force [FocP [is, ±Pol] Foc [TP John <[is, ±Pol]> [not [vP coming]]]]
                                                            [−Pol]

On the other hand, in the yes-no question the negation does not make TP negative as shown in (17). By hypothesis, the movement of the [±Pol] feature to the C-domain precludes assignment of negative value to it by the negation in the question. Instead, in a question (17), the TP is headed by [±Pol], which moves to CP, deriving the yes-no question reading with two propositions with opposite polarity value. But in the answer, a declarative sentence, there is a problem. The negation wants to assign negative value to [±Pol] in T, but the positive answer particle wants to assign positive value to T.

(18)   [CP Yes[+Pol] [TP John is [±Pol] not [vP coming]. (ungrammatical)

This leads to a feature clash. The answer is indeterminate. This accounts for one of the readings of (14Aa), which can mean John is not coming, or the answer is not well-formed.

The negative answer particle is not a problem, because the negative answer particle can 'agree' with the negative value assigned by the negation to T, as shown in (19). Holmberg (2013a, 2016) proposes that this means that the English answer particle *no* has an unvalued negative feature [uNeg][9]. This feature will probe for a valued negative feature and copy its value.

(19)   [CP No [uNeg]] [TP John is [−Pol] not [vP coming].

---

[9] See Holmberg (2016: 163) for discussion of the status of features such as [uNeg] in a system based on a distinction between valued and unvalued features. He states "Making a distinction between interpretable and uninterpretable negation is not an innocuous assumption in the model assumed in this book, or in linguistic theory in general."
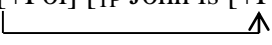
In (19), the [uNeg] would copy the value of the negative-marked Pol feature in T. This can be regarded as a case of negative concord (Zeiljstra 2004). See Kramer and Rawlins (2011) for a similar idea. Nevertheless, because the negative answer particle in English can also assign negative value to [±Pol] in a question without negation, such as (10), there must be another version of *no* which has inherent negative value [−Pol].[10]

If Holmberg is right, it would be characteristic of languages that employ the polarity-based system that they have two versions of the negative answer particle, one with interpretable negative value, which assigns negative value to a polarity variable, the other one with an uninterpretable/unvalued negative feature which agrees with a negative polarity feature.

Now consider the other structure where the negation is in a low position, within vP. The structure of the question is the same as in (17) except that the negation is inside vP.

(20)   a. [$_{CP}$ Q-Force [$_{FocP}$ [is, ±Pol] Foc [$_{TP}$ John <[is, ±Pol]> [$_{vP}$ not [$_{VP}$ coming]]]]]
                                                                    [−Pol]

This makes a difference in the answer, though. The negation is now too distant[11] from T to be able to compete with the answer particle (i.e. it is trapped inside the vP).

        b. [$_{CP}$ Yes, [+Pol] [$_{TP}$ John is [+Pol] [$_{vP}$ not coming] (= Yes, John is not coming.)

Yes assigns plus [+] value to [±Pol] in T. The negation *not* has scope only over VP. This yields the other reading of (14), repeated here as (21)

(21)   Q: Is John not coming?
        A: Yes. (= John is not coming)

(22) shows the structure of a negative answer when the question has a low negation.

---

[10] See footnote (8).

[11] See Holmberg (2016: 159), where it is postulated that the low negation is adjoined to VP, while the middle negation is a head or specifier of NegP, outside vP. There will thus be a head v intervening between the low negation and the polarity feature. In this way the low negation is clearly more distant from [± Pol] than the high negation.

(22)   [FocP [no, −Pol] Foc   [TP John [is −Pol] [VP not coming]]]

The prediction is that the answer should have a double negation reading because there are two interpretable negative features, that of T (assigned by the focused answer particle) and the negation in vP. This accounts for the meaning of the answer (14d), repeated here as (23), with the associated question.

(23)   Q: Is John not coming?
        A: No, he is.

In (23A) the answer *no* disconfirms the negative alternative, as predicted if it involves double negation. The upshot is that English answers appear to conform to the truth-based system when the negation is low, but to the polarity-based system when the negation is in the middle position.

The double negation reading in answers to questions with a low negation is brought out more clearly when an adverb is included which 'pushes the negation down' to a low position (see Holmberg 2013a).

(24)   Q: Is John often not coming?
        A:a.   Yes (= He is often not coming)
        A:b.   No. (= He is not often not coming, i.e. he is usually coming)

The adverb *often* is an aspectual adverb which is in a relatively low position in the adverb hierarchy (Cinque 1999). Since the negation follows it, it must be even lower. Holmberg (2013a) claims it is in the vP-internal position. The structure of the answer will be (25), for the negative answer.

(25)   [FocP [No,−Pol] Foc [TP John [is −Pol] [often [vP not coming]]]]

As predicted the reading is that he is usually coming (= not often not coming), the truth-based reading.

Recall the facts which Kramer and Rawlins (2011) called negative neutralization.

(26)   Q: Is John not coming?
      A:a   Yes. (John is not coming.)
      A:b   No. (John is not coming)

The answers *yes* and *no* mean the same thing, both confirming the negative alternative. Holmberg (2013a) argues that the explanation is that the answers address different versions of the question: (26Aa) addresses the version of (26Q) with a low negation. Therefore the answer will have the structure (20b), confirming the low negation. (26Ab) addresses the version with a middle negation. Therefore, it has the structure (19).

It seems that English behaves as a polarity-based language when the negation is in a relatively high position in TP. Holmberg (2013b, 2016) articulates the idea that this is a factor distinguishing between truth-based languages and polarity-based languages: The former have a low negation, the latter a high negation. This is a hypothesis that will be put to the test in this thesis. Holmberg (2016) notes that Taiwanese is a potential counterexample, as there is no reason to think that the negation is low in this language. This will be confirmed in chapter 5.

With respect to the idea that there is an asymmetrical relation between positive and negative answers, it is not assumed or discussed directly in Holmberg (2016). Holmberg (2016: 216-226) discusses questions with narrow scope. He proposes that the Finnish question (27a) has the denotation (b).

(27)   a.   Kahvia-ko Marja haluaa?
        coffee-Q   Marja wants
        'Is it coffee that Marja wants?'
     b.   Marja wants coffee or Marja wants non-coffee

The exact denotation of 'non-coffee' would be contextually determined. It can be 'some other beverage'.

I will demonstrate and discuss how Taiwanese behaves different from English in chapter5 and 6.

3.5   Tag questions and statements

Holmberg (2016, Ch. 4) discusses tag questions in English, such as (28a, b).

(28)   a.   John speaks Chinese, doesn't he?
        b.   This is the road to Lund, right?

These are yes-no questions, as they can be answered *yes* or *no*.

(29)   Q: John speaks Chinese, doesn't he?
        A:a   Yes.
        A:b   No ?(he doesn't).

A bare negative particle is only marginally acceptable; this will be discussed later. There is an important difference between questions derived by subject-auxiliary inversion and tag questions as regards how they can be answered. Compare (30) and (31).

(30)   Q: John speaks Chinese, doesn't he?
        A:a.   Yes (he does).
        A:b.   So he does.
        A: c.   That's right.

(31)   Q: Does John speak Chinese?
        A:a.   Yes (he does).
        A:b.   *So he does.
        A:c.   *That's right.

The tag question can be responded to like a question, in (30Aa), or like a statement, in (30Ab, c). These two responses seem to express agreement with a statement, rather than answers to a

question. The question derived by inversion cannot be responded to like this. This is explained if tag questions are what they look like: a statement as well as a question.

Consider how statements are responded to (S = statement, R = rejoinder to statement)[12], (32).

(32) S: John speaks Chinese.
     R:a.   Yes (he does).
     R:b.   So he does.
     R:c.   That's right/true.

These are expressions of agreement with the statement. They are the same as the answers to the tag question (30). As discussed by Holmberg (2016), there are still some differences. Compare a negative response to a statement in (33), and a tag question in (34).

(33) S: John speaks Chinese.
     R: No *(he doesn't).

(34) Q: John speaks Chinese, doesn't he?
     A: No ?(he doesn't).

While it is preferable to combine the negative particle with a spelled out sentence in the case of the tag question, this is compulsory in the case of rejoinders to statements. Holmberg (2013a, 2016) argues that the reason why a bare negation is bad in (33) is: (a) the TP of the statement is positive, [+Pol]; (b) an answer/response particle is always merged with a TP which is a copy of the TP of the question or statement responded to; (c) to be deleted, this TP must be identical to that of the question/statement. That means that a bare *No* as response in (31) would mean 'No, he speaks Chinese', which is a contradiction in this context. This is avoided by merging *No* with a 'new' TP [TP he doesn't speak Chinese]', deleting only the VP.

The tag question in (34), on the other hand, is a question, or includes a question ('Doesn't he speak Chinese?'), so there is a [±Pol] feature involved, which the answer *No* can assign a value to, with TP deleted under identity with the question. Why there is still a preference for a spelled out TP is not discussed.

---

[12] This terminology is used by Holmberg (to appear). *Response* covers both *answers* to questions and *rejoinders* to statements.

The outcome is that you can respond to tag questions as you respond to statements *and* to questions. This is evidence that the tag question is indeed made up of a statement, or assertion, and a question. The English tag question has these two components quite explicitly. I quote from Holmberg (2016):

> The English tag question shows the semantic components of a yes-no question quite explicitly. A yes-no question, as discussed, puts two alternative propositions before the addressee, one the negation of the other, combined with an instruction to the addressee to indicate which one is true. The content clause of the tag question presents one alternative in the form of a positively specified sentence (in the case of the positive-negative variety of tag-questions). The tag supplies the negative counterpart as well as, arguably, a mark of Q-force. (Holmberg, 2016, Ch. 4)

He adds that tag questions are strongly biased questions: The alternative put forward as an assertion in the content clause of the tag question is clearly strongly expected to be true. [13]

That tag questions are a combination of an assertion and a question has also been argued by Asher and Reese (2005, 2007) and Reese (2006). They argue that "biased questions /.../ "*simultaneously* express an assertion and a question" (their italics) (Asher and Reese 2005: 32). They talk about biased questions in general, though, including tag questions.

Asher and Reese apply a set of tests proposed by Sadock (1974) to biased questions to determine their speech act type. Prefixing *after all* to a sentence (in English) distinguishes assertions from neutral questions, (35).

(35) a.   After all, John speaks Chinese.
      b.   *After all, does John speak Chinese?

On the other hand, prefixing a sentence with *tell me* distinguishes questions, (36).

(36) a.   Tell me, does John speak Chinese?

---

[13] Haan and van Heuven (2003) study answers to different subtypes of yes-no questions in English with regard to how predictable they are, and find that replies to yes-no questions derived by subject-aux inversion, for a given speaker, are maximally unpredictable, whereas the answers of tag questions are maximally predictable. That is to say, they are strongly biased. Declarative questions (intonation questions) or echo questions are in between, indicating a higher degree of predictability than the inversion questions, but still a lower degree of predictability than the tag-questions.

b.   *Tell me, John speaks Chinese.

Tag questions pass the test for assertionhood as well as questionhood, (37a-b):

(37)   a.   After all, John speaks Chinese, doesn't he?
        b.   Tell me, John speaks Chinese, doesn't he?

The conclusion is that an English tag question is both an assertion and a question. More precisely, it is an assertion CP embedded in a question CP. In (36a) *after all* is adjoined to the assertion CP, while in (36b), *tell me* takes the question CP as complement; see Holmberg (2016: 183-187).

The insight that a question can contain a statement (such as a yes-no question in Taiwanese and Mandarin Chinese) /assertion (such as a tag question in Taiwanese), making it into a biased question, will be important in the investigation of questions and answers in presumptive questions in Taiwanese and Mandarin Chinese.

3.6   Conclusion

This chapter is about the syntax of yes-no questions and their answers in English, largely based on Holmberg (2013a, b, 2016), who discusses it in relation to the typological distinction between the truth-based (or agree/disagreement based) answering system and the polarity-based answering system. It is demonstrated that answers to negative yes-no questions in English depend on how the question is formulated, specifically what the position of the negation is in the question. If the negation is in the so called middle position that is in the TP-domain English answers follow the polarity-based system: *No*, but not (bare) *Yes*, can confirm the negative alternative of a negative question. If the negation in the question is in a low position, in the vP-domain, the answers follow the truth-based system: *Yes* can confirm the negative alternative of a negative question, and *No* can disconfirm it. Kramer and Rawlins' (2011) negative neutralization, where *Yes* and *No* can mean the same thing as answers to a negative question, is explained as an effect of the ambiguity of the negation

position in the question. If the position of negation is made unambiguous, for example, by introducing an adverb between the negation and T, the negative neutralization disappears.

The polarity-based system is characterized by having two versions of the negative answer particle: One is interpretable negative, and can assign negative value to T. The other is uninterpretable/unvalued negative, and can therefore agree with a negation in TP.[14] This is how *No* can confirm the negative alternative of a negative question.

Tag-questions were discussed, and shown to consist of two components: an assertion and a question. This explains a difference in how they are answered. Like statements, tag questions can be responded to by *That's true* or *So he is*, and other such expressions of agreement with a statement. Neutral yes-no questions in English derived by inversion, cannot be answered in this way.

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[14] In Holmberg's (2016) he assumes they are the same (following Chomsky 2001).

Chapter 4.   Taiwanese

From chapter 4 to chapter 9 this thesis will be dealing with the Taiwanese language. These chapters focus on two types of polar questions, the presumptive and non-presumptive questions in Cheng's (1997a, b) term. The presumptive questions are termed yes-no questions in this thesis (see Ch. 2 for discussion). The criterion of judgement of types of polar questions will be discussed. Chapter 5 deals with presumptive questions. Chapter 6 examines tag questions. Chapter 7 investigates two types of neutral questions [*si-m-si*] questions and *kam* questions. Chapter 8 scrutinizes disjunctive questions and Chapter 9 A-not-A questions.

This chapter is organized as follows. The chapter starts with an introduction. Section 2 examines Taiwanese modal verbs and their roles in questions and answers as well as in declarative sentences. It shows Taiwanese heavily relies on modality to negate and interrogate especially to form *kam* questions (see more discussion in chapter 5 and 7), disjunctive questions (see more discussion in chapter 8), and A-not-A questions (see more discussion in chapter 9). Section 3 examines Taiwanese negation and modality followed by conclusions in section 4.

4.1   Introduction: Question types and answer types

The sentences in (1Q) show various types of yes-no questions, including an intonation question, a sentence final particle question (henceforth SFP question), a *kam* question[15], a *si-m-si* question[16], a *kam si* tag question, and a *si-m-si* tag question. The question particles are all glossed as Q for the time being. They will be differentiated in due course.

(1)   Q:a   Lauong si   lau-su?   [intonation question]

          Lauong   be   teacher

          'Lauong is a teacher?'

---

[15] Depending on the presence of the focus marker *si/m-si* and the negation, the *kam* question can be classified into two different types of questions: presumptive and non-presumptive questions. The criterion is based on the answer of *tioh a* 'correct'. See chapter 5 on presumptive questions and chapter 7 on neutral questions for a detailed discussion.

[16] *Si* in [*si-m-si*] questions (but not *si-m-si* tag questions) can act as a focus marker (where a verb, or modal is overtly uttered in the question), or a copula (as in this case where *si* is the linking verb). With respect to the function of *si* the reader is suggested to read chapter 7 on neutral questions of [*si-m-si*] questions.

Q:b   Lauong si   lausu **nih**?   [SFP question]

Lauong be teacher Q

'Is Lauong a teacher?'

Q:c   Lauong **kam** si   lausu? [*kam* question]

Lauong Q   be   teacher

'Is Lauong a teacher?'

Q:d   Lauong **si-m-si** lausu?   [*si-m-si* question][17]

Lauong Q   teacher

'Lauong is (or) not a teacher?'

'Is Lauong a teacher or not?'

Q:e   Lauong si   lausu   **kam si**? [tag-question]

Lauong be teacher   Q

'Lauong is a teacher, is he?'

Q:f   Lauong si   lausu   **si-m-si**? [tag question]

Lauong be teacher   Q

'Lauong is a teacher, isn't he?'

The intonation question is marked by a question particle (or question feature), which is phonologically spelled out only as rising intonation. The question particles *nih*, *kam*, and *si-m-si* type the sentence as a question in (1Qb-d). The sentences in (1e, f) are tag questions, where the tag question marker *kam si* and *si-m-si* at the end of the sentence type them as questions.[18]

According to Cheng (1997a, b), Taiwanese polar questions are classified as presumptive or non-presumptive questions, which differ semantically and syntactically from each other. Semantically speaking, presumptive questions convey a presupposition or presumption on the part of the speaker as to which of the two alternative propositions marked by the question is true, and therefore convey an expectation about the answer. Elsewhere in the literature this is usually called *bias*. Presumptive (or biased) questions are uttered to seek confirmation of the presumed proposition. The presumed proposition can be positive or negative, so the question

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[17] *Si* in [*si-m-si]* questions (but not *si-m-si* tag questions) can act as a focus marker (where a verb, or modal is overtly uttered in the question), or a copula (as in this case where *si* is the linking verb). With respect to the function of *si* the reader is suggested to read chapter 7 on neutral questions of [*si-m-si*] questions.

[18] The tag question marker also includes *kam m-si*. Regardless the choice of tag marker *kam si* or *kam m-si* , it will not change the form or meaning of the answer (see discussion in chapter 6)

may seek confirmation of a positive or negative proposition. The non-presumptive questions, on the other hand, do not convey any presumption or expectation about the answer; they are neutral. In section 3.4 the case of English was discussed, where it was shown how the negation and tags are used in questions to convey bias. As I will show in the course of this work, there is a variety of ways to convey bias in Taiwanese and Mandarin.

The questions in (1) are all presumptive questions. We will see examples of non-presumptive questions below (see ch. 7 to 9). The answer options are different for presumptive and non-presumptive questions. Recall that one test, which will be important in this work, is whether the question can be answered *tioh a* 'correct', or not. This answer expresses the respondent's agreement with the questioner's conveyed belief or supposition that one of the alternative propositions posed by the question is true. If the question is neutral, conveying no belief or supposition on the part of the questioner, then there is nothing to agree with. All the questions in (1) can be answered *tioh a* 'correct DM'.

The schematic tree diagrams of (1a-f) are shown in (2a-f)

(2.)   a

b.

```
                    CP
                  /    \
               CP        Q force
              /   \
           TP       nih
          /  \      [±Pol]
         /    \
        [+pol]
```

c.

```
              CP
            /    \
      (Q force)    CP
                  /   \
               kam      TP
              [±Pol]   /  \
                      /    \
                   ...kam...
                    [±Pol]
```

d.

CP

(Q force)   CP

si-m-si

[±Pol]   TP

...si-m-si...

[±Pol]

e.

CP

CP   Q force

kam si

TP   [±Pol]

[+Pol]

f.

CP
├── CP
│   ├── TP
│   │   └── [+ Pol]
│   └── si-m-si
│   [± Pol]
└── Q force
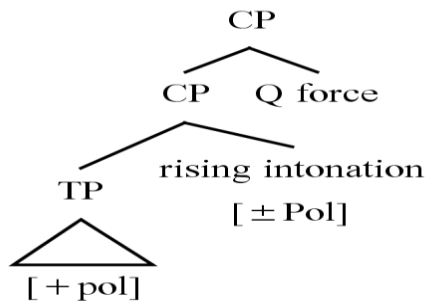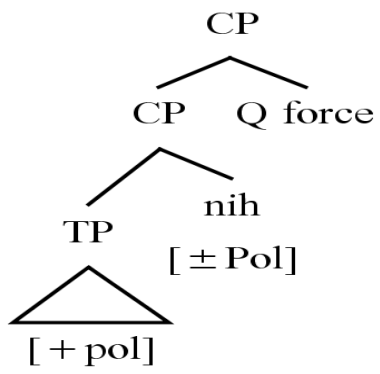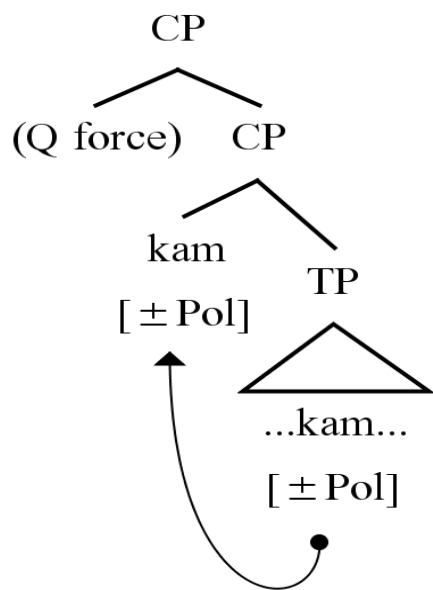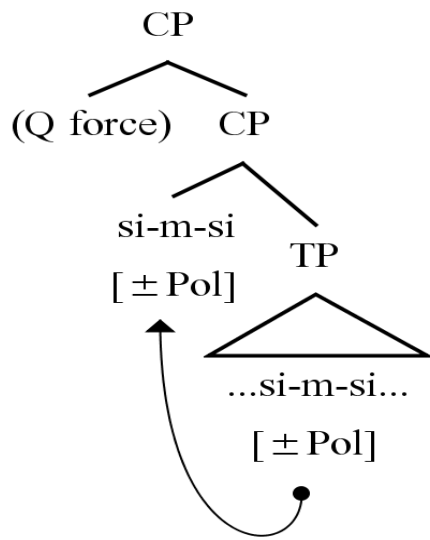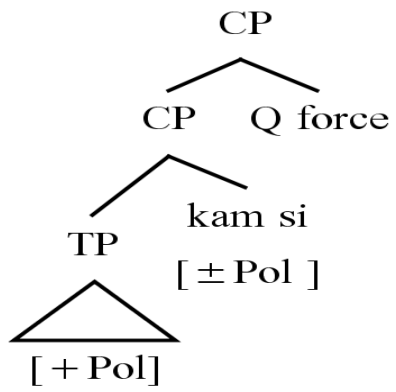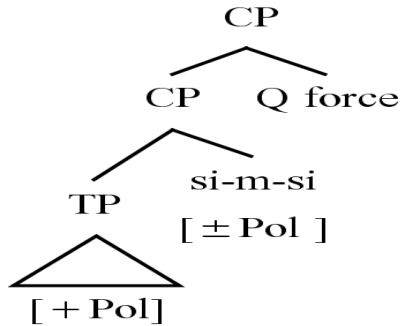
All the questions shown in (2a-f) have a question operator, which is a polarity feature with open value, in the C-domain. This determines their denotation as a set of two propositions, with the content as specified in the TP but with opposite polarity value. Intonation questions (2a), SFP questions (2b) and tag questions (2e,f) are always direct questions, while *kam*-questions (2c) and *si-m-si* questions (2d) can be direct or indirect (embedded). Direct questions have illocutionary question force, represented here as a feature adjoined to CP (following Holmberg, 2016). Question force means that the questions call for an answer. I assume that the rising intonation and the various particles in the C-domain spell out the question operator [±Pol] as well as the question force feature.

I assume Q-force and the Pol-feature are C-type heads. I represent them as projecting CP.[19] From now on, the question force feature will not be represented in the trees of direct questions except where it is specially mentioned. All the questions (1a-f, 2a-f) convey a presumed proposition, which in this case is positive. The intonation question in (1a, 2a), the SFP question as in (1b, 2b), and the tag question in (1e,f, 2e,f) do so by virtue of being based

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[19] An alternative is to represent them as projecting Q-forceP and PolP. In such the case the Pol-feature moves to a Foc head position. With respect to the headedness, I assume that sentence-final question particles in Taiwanese (to be discussed in chapter 5) are sentence-final C-type heads. I assume that intonation questions have a null counterpart of such a head, but spelled out as final rising intonation. Other C-heads, including subordinating complementisers, are sentence-initial. Thus Taiwanese (and also Mandarin Chinese) has a mixed head-initial and head-final system on the CP level. Heads that move to the C-domain are always on the left, which is consistent with the hypothesis that all movement is leftwards (Abels and Neeleman 2012)

on a positive-marked TP. The *kam*-question (1c, 2c) and *si-m-si* question (1d, 2d) do so by virtue of containing a scope marker (this will be discussed in due course).

The tree diagram of the intonation question (1a) is shown in (2a). The intonation question is marked by rising intonation. (2b) is the syntactic diagram of the SFP question (1b). The sentence final particle, i.e. *nih* is attached at the end of a declarative sentence. The tree diagram of the *kam* question (1c) is shown in (2c). The question particle *kam* is spelled out in the TP, but the claim is that it moves to CP at LF, to yield a question reading. The tree diagrams (2e, f) are tag questions. The [*si-m-si*] tag question has the same syntactic structure as [*kam si*] tag questions. The particle [*si-m-si*] encoding [±Pol] is base generated in the CP. The tag question markers *kam si* and *si-m-si* in this case combine not with a TP but a CP. This represents the fact that a tag question has more than a presumed proposition; instead, following Asher and Reese (2005, 2007) and Holmberg (2016, ch. 4), it is made up of an assertion, held by the speaker to be true, but which is still questioned, inviting confirmation, by means of a tag.

(3) lists answers to the questions in (1).

(3)   a.   si   a   / tioh   a
           yes DM /correct DM
           'Yes. (He is a teacher.)'

      b.   m-si, i   m-si   lausu
            no   he   not.be   teacher
           'No, he isn't a teacher.'

      c.   si   (lausu)
           be   teacher
           'Yes, he is.'

      d.   m-si   (lausu)
            not.be   teacher
           'No, he is not.'

      e.   m-si (only used to reply tag questions in (1e,f), but not the other questions)
            no
           'no'

Since the sentences in (1a-f) are all presumptive questions, they can be answered by the affirmative answer particle *si a* 'yes DM' as well as the judgment verb *tioh a* 'correct DM',

confirming the presumed positive alternative. To disconfirm the positive alternative the negative answer particle *m-si* 'no' can be used. Unlike its positive counterpart, the negative answer particle must be followed by a full sentence, for reasons, which will be discussed in due course. To answer tag questions (1e,f), however, the negative answer particle *m-si* 'no' can occur alone without a full sentence (see chapter 6 on tag questions). Alternatively, they can be answered by a verb-echo answer, or as I shall call them, predicate-head answer. In this case, because the predicate in the question is the copula *si*, the predicate-head answer will be *si* 'is', for the answer confirming the positive alternative, as shown in (3c), and *m-si* 'is not' for the answer disconfirming the positive answer, as illustrated in (3d). Observe that the positive answer particle is *si a*, 'yes' always followed by the discourse marker *a,* while the predicate-head answer is just *si*. Observe also that the negative answer particle must be followed by a spelled out clause, while the negative copula as a predicate-head answer may be, but need not be, followed by a spelled out predicate (and may be preceded by a spelled out subject pronoun, not shown here). Observe also when the copula *si* 'be' and its negative counterpart *m-si* 'not be' as the answers they can appear alone.

As we will see below, there is a third type of *si*-answer, which echoes a focus marker (FM) of the question.[20]

The sentences in (4) show a set of disjunctive questions, including a proper disjunctive question, an AB-not-A question, and an A-not-A question.

(4) Q:a. Lauong si lausu **asi** hak-sing?   [disjunctive question]
          Lauong be teacher or   student
          'Is Lauong a teacher or a student?'

     Q:b. Lauong **u**   khui-tshia lai   **bô**? [AB-not A questions]
          Lauong have   drive car   come   not.have
          'Did Lauong drive here (or not)?'

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[20] The example (i) shows this third type of *si*-answer, echoes a focus marker (FM) of the question.
   (i)   Q: Lauong kam si   khui-tshia   khi Tailam?
              Lauong Q   FM drive - car to Tainan
              'Did Lauong drive to Tainan?'
          A: m-si   khi-tshia, si tse-tshia
              Neg-FM drive- car   FM sit-car
              'No, he did not drive but took a bus.'
See chapter 5 on *kam si* questions for more discussion.

Q:c.   Lauong **kann-m- kann** lai?   [A-not-A question]

        Lauong   dare-not- dare come

        'Does Lauong dare to come or not?'

A:a.   (si)   lausu / (si) hak-sing

       be   teacher/ be   student

      '(He's) a teacher. / (He's) a student.'

A:b.   u   (khui-tshia) / bô   (khui-tshia)

       have drive-car / not.have drive-car

      'Yes, he did. / No, he didn't.'

A:c.   kann (lai)   / m-kann (lai)

       dare   come / not-dare come

      'Yes he does./No he doesn't.'

A:d. *si   a   /*tioh   a

      yes DM/ correct DM

      Intended reading: 'Yes.'

Sentence (4Aa) is the answer responding to (4Qa). One of the alternative propositions, 'Lauong is a teacher' or 'Lauong is not a teacher' must be picked as an answer, although typically the answer is reduced to just the predicate head, *lausu* 'teacher' or *hak-sing* 'student' in the case at hand. The copular *si* 'be' and the subject (pronoun) can be optionally spelled out. Sentence (4Ab) is the answer responding to (4Qb). One of the alternative propositions, 'Lauong did drive here' or 'Lauong did not drive here' must be picked as an answer. The answer is reduced to just the predicate head *u* 'have' or *bô* 'not.have' in this case. The modal verb *u* and *bô* are a pair of positive and negative modal verbs.[21] They can appear in isolation as answers; alternatively, they can be accompanied by their complement, as shown in (4Ab). The question (4Qc) is an [A-not-A] question, marked by [A-*m*-A].[22] The answer mechanism that applies to (4Ab) also applies to (4Qc). The alternative proposition reduced to [A] or [*m*-A] must be picked as the answer; in this case the A is *kann* 'dare', and *m*-A is *m-kann* 'not dare'. The modal verb *kann* and *m-knn* can appear in isolation; alternatively, they can be accompanied by their complement as answers as in (4Ac). In

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[21] The term 'modal' or 'modal verb' is widely accept in the Taiwanese literature when referring these types of verb. See more discussion in 4.2 on modals.

[22] Taiwanese [A-not-A] questions are formed by pairing a positive modal verb with its negative counterpart and it is formed in such an order. See more discussion in chapter 9.

response to a disjunctive question as in (4Qa), an AB-not-A question as in (4Qb), and an A-not-A question as in (4Qc), *si a* 'yes' and *tioh a* 'correct' are ungrammatical, as shown in (4Ad).

What makes the answers of *si a* and *tioh a* grammatical in response to the questions in (1Q), but not to the questions in (4Q)? One might think that *si a/ tioh a* can be used to respond to the questions in (1Qa-d) because *si* 'be' is employed in the question; thus, it would be the presence of *si* 'be', which makes the answer *si a* possible.

Consider the sentences in (5Q).

(5)   Q:a.   Lauong   khui-tshia   lai?
                Lauong   drive car   come
                'Did Lauong drive car here?'
        Q:b.   Lauong   khui-tshia   lai   nih?
                Lauong   drive- car   come   Q
                'Did Lauong drive car here?'
        Q:c.   Lauong   kam   **si**   khui-tshia lai?
                Lauong   Q   FM   drive-car   come
                'Did Lauong come by driving?'
        A: si   a   / tioh   a
                yes   DM/ correct DM

Note the presence of the focus marker (FM) *si* in construction with *kam* in (5c). In response to the questions containing no *si* 'be' in (5Qa-b), the answer *si a/ tioh a* in (5Aa) is grammatical. In response to the question containing an overt FM *si* (5c), the answer *si a/ tioh a* in (5Aa) is grammatical. The following questions arise: (1) What features are shared among these types of questions in (5Qa-c) to make *si a / tioh a* possible answers? (2) The difference between the set of questions (5Qa-b) and question (5Qc) is the absence/presence of a FM *si* in the question. Do they licence *si a* and *tioh a* for different reasons? (3) Is it because in (5Qc) the FM *si* is included in the questions and the presence of this focus marker makes answers *si a* and *tioh a* possible? If it is so, how do we explain the question in (6Q)? I will answer these questions one by one.

First, look at the sentence in (6Q). (6Q) contains the FM *si* ; however the presence of the FM '*si*' in the question does not license *si a /tioh a* as possible answers, shown in (6Aa).

(6)   Q: Lauong   si   khui-tshia   lai   asi   tse tshia lai?

                 Lauong   FM   drive car   come   or   sit car come

                 'Did Lauong come by driving a car or taking a bus?'

        A:a   *si   a   / *tioh a

                yes DM/ correct   DM

        A:b   (si)   khui-tshia   lai

                FM   drive- car   come

                'He came by car. / It was by car.'

       A:c   (si)   tse   tshia   lai

                 FM   sit   car   come

                'He came by bus./ It was by bus.'

Judging from the ungrammaticality of the *tioh a* answer in (6Aa), (6Q) is not a presumptive question. Note that this is a case where *si* heading the answer is neither the answer particle nor the copula, but a focus marker echoing the focus marker in the question (there will be more examples of this in due course). Observe that the answer particle *si* must combine with the discourse marker *a*. Also the copula *si* 'be' can stand alone as the answer. The focus marker *si* has scope over the proposition of driving a car here or of taking a car here. Apparently the presence or absence of *si* in the question, either as a copula or as a focus marker, has no direct impact on the option of using the answer particle *si a* and/or the judgment verb *tioh a* 'correct' as answers. Instead, the crucial difference is the type of question.

The answer particles *si a* and *m-s*i 'no' cannot be used to respond to disjunctive questions, neither disjunctive questions proper, [AB-not-A], nor [A-not-A] questions. They can only be answered by stating one of the alternative propositions, often reduced to just the predicate head (a predicate-head answer). The syntax of these questions and their answers will be discussed in chapter 8 and 9 below.

Second, comparing (5Qc) and (6Q) the focus marker *si* appears in both questions the positive answer particle *si a* 'yes' is allowed in (5A) but not in (6Aa). The result shows the presence of the FM *si* is not the reason that causes the acceptance of *si a/ tioh a* answers to be grammatical, but the type of the question. *Kam* questions are neutral questions; however, when the focus marker appears in this type of question it turns the questions presumptive (or biased). See more discussion in chapter 7 on neutral *kam* questions and in chapter 5 on presumptive *kam* questions respectively. With respect to disjunctive questions, the presence of the focus marker does not change the neutrality of the question type at all.

Third, since (5Qc) is a presumptive question, it is the same as the other questions in (5Qa-b). In other words, the questions (5Qa-c) are all presumptive.

The sentences in (7) show the answer particle *m-si* 'no' combined with a sentence is used to respond to the questions in (5Qa-c) (the expression of negation in the TP varies; this will be discussed in due course).

(7)   a.   m-si,   i   bô   (khui-tsia   lai)
             no,   he not.have   drive - car come

       b.   m-si, i   bô   (khui-tsia   lai)
             no,   he not.have   drive -car   come

       c.   m-si, i   m-si   khui-tshia lai
             no,   he   Neg-FM   drive -car come
             All: 'No, he didn't.'

Questions in (5Qa, b) can have the same answer as shown in (7a, b). Based on the data discussed, we can conclude that the answer particles *si a* 'yes DM' and *m-si* 'no', and the judgment verb *tioh a* 'correct DM' can only be used to answer intonation questions, SFP questions, [*si-m-si*] questions with [*si-m-si*] in the TP, and [*si-m-si*] tag questions, *kam si* questions with *kam si* in the TP position, and *kam si* tag questions. These are the questions I therefore refer to as yes-no questions.

A property that the yes-no questions above have in common is that they are biased, i.e., they convey a presumptive proposition. The questions in (5), for example, convey a presupposition on the part of the speaker that Lauong did come by car. It is not the case,

though, that yes-no questions are always biased. The following is an example of a yes-no question which is neutral, (8).

(8)   Q: Lauong kam u   lim   kapi?
            Lauong Q   have drink coffee
            'Does Lauong drink coffee?/ Did Lauong drink the coffee?'

      A:a. *si   a/ tioh a
            yes DM/ correct DM
            'Yes.'

      A:b. *m-si, i   bô   (lim kapi).
            no   he   not.have drink coffee
            'No.'

      A:c. u
            have
            'Yes (he has).'

      A:d. bô
            not.have
            'No (he has not)/(he did not)'

This question conveys no bias towards any of the alternatives posed by the question. Recall that the judgement verb *tioh a* is used to test whether a sentence is presumptive/ biased.[23] This answer requires a presumed proposition to agree with. The question (8Q) is neutral thus the judgement verb *tioh a* answer is not grammatical as shown in (8Aa). The answer of the judgement verb requires a presumed proposition to agree with. *Si a* 'yes DM' and *m-si* 'no' are not possible answers as shown in (8Aa-b). The positive and negative predicate-head answers, which, in this case, are *u* 'have' and *bô* 'not.have' (to be discussed in the next section) are grammatical as shown in (8Ac-d).

The generalisations that we can formulate now are as shown in (9):

(9)   a.   Predicate-head answers can be used to answer yes-no questions as well
           as disjunctive questions.

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[23] The question in (1Qc) can be answered *tioh a*, but not in (8Q). It explains that (1Qc) is a yes-no question but a neutral question. Recall that a yes-no question is presumptive and a neutral question is non-presumptive.

b.   The answer particles *si a* 'yes DM', *m-si* 'no', and the judgment

verb/particle *tioh a* can be used to answer yes-no questions but not disjunctive

questions.

c.   *tioh a* 'correct DM' can only be used to answer presumptive yes-no

questions.

These generalisations will be discussed in the course of the following chapters, through detailed investigation of all the different types of questions.

4.2.   Modals

I briefly review some important properties of Taiwanese modal verbs, as they appear in many questions and answers[24]. For instance, the Taiwanese modal verb *u*, which I will gloss as 'have' (although this is a very imprecise gloss) and its negative counterpart *bô*, glossed 'not.have', are used in declaratives for four, at least, partly different functions: existential, possessive, perfective, and emphatic. These are exemplified in (10a-d), respectively. The functions of *u* in Taiwanese are similar to Mandarin Chinese *you*.[25]

(10)   a.   u   lang   tua   tsia

 have person live here

'There is someone living here'   [existential]

b.   Lauong   u   tsit-e   hiann-ko.

Lauong   have one-CL older.brother

'Lauong has one older brother.'   [possessive]

c.   Lauong   u   khi gue   Jitpun tsit-kai

---

[24] Modal verbs are used to express possibility, ability, desire, permission, obligation and prohibition. They are referred as modal verbs in the Taiwan literature. These modal verbs or modals are different from other verbs. Taiwanese modal verbs are similar with the modal verbs in English but Taiwanese modal verbs can function like English *do*-support in terms of when is used to emphasize the truth of the sentence. With respect to negative form, Taiwanese modal verbs, like modal verbs and *do* support in English, are used in collaborating with negation. In respect to question formation, Taiwanese modal verbs behave, like English *do*-support, are used to form questions.

[25] Taiwanese *u* and Mandarin Chinese *you* have similar functions in terms of the possessive, existential, and perfective reading. For the Mandarin Chinese modal verb *you* the reader is recommended to refer Huang (1988a).

Lauong   have go   EXP Japan   one-time

'Lauong has been to Japan once.'   [perfective]

d.   Lauong   u   te   tsu   png[26]

Lauong   have   PROG cook   rice

'Lauong DOES cook. /Lauong IS cooking a meal.' [emphatic]

Another function that *u* and *bô* have, which is particularly relevant for the present work, is that they have a special role to play in non-biased questions and answers (11).[27]

(11)   a.   Lauong   u   khi gue   Jitpun a(si)   bô? [Disjunctive question]

Lauong   have go EXP Japan   or   not

'Has Lauong been to Japan or not?'

b.   Lauong   u   khi gue Jitpun   bô?   [AB- not-A question]

Lauong have go EXP Japan   not.have

'Has Lauong been to Japan (or) not?'

c.   Lauong kam   u   khi gue   Jitpun?   [*Kam* question]

Lauong Q   have go EXP   Japan

'Has Lauong been to Japan?'

d.   *Lauong   kam khi gue   Jitpun?

 Lauong Q   go EXP Japan

(11a) is a disjunctive question (to be discussed in chapter 8), exhibiting *u* in the positive alternative, *bô* in the negative alternative. (11b) is an [AB-not-A] question (to be discussed in chapter 9) (11c) is a *kam*-question exhibiting *u*. (11d) shows that the *kam*-question is ungrammatical with a VP without *u.*

Other modal verbs such as *e* 'likely' are used to describe an event which is likely to occur. Its negative counterpart, *be* 'unlikely', on the other hand, is used to describe an event which is unlikely to occur. According to Cheng (1997), Taiwanese modal verbs do not need the aid of

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[26] The noun *png* has a literal meaning of rice. In this context it can be referred as a meal.
[27] The absence of *u* in these questions (11a-c) will mark the sentences ungrammatical. However, in a positive declarative sentence as shown in (i) is grammatical, but the verb *bat* 'ever' must appear.

 (i)   Lauong bat khi gue Jitpun [positive declarative]
          Lauong   ever go EXP Japan
          'Lauong has been to Japan.'

The modal verbs, like *u* and *bô*, can be located at more than one position, depending on the element/constituent that they affirm or negate.

temporal adverbs to bring a tense interpretation to sentences. That is due to the meaning of the modal verb and the restrictions of their occurrence with other elements. Other modal verbs are, for instance, *beh* 'will/ want', used to assert volition, and *e-hiau* 'able' and 'know how to', used to assert ability.

4.3 Taiwanese Negations and Modality

Taiwanese has several negation markers (see Li. 1971, Lin 1974, Teng 1992, Saillard 1992, Tang 1994, Cheng 1997, Lin 2004, and Lien 2013 for discussion). Due to limitation of space, I focus on *m*, *bô*, and *be*. The negation *bô* and *be* are treated as negative modal verbs, which have been illustrated previously. The modal verb *e* 'will, likely, be able to, can' is used to express either an event that is likely to occur, or one's personal skills, or an ability. Its negative counterpart is *be* 'will not, cannot'. I say something about the negative marker *m* here. Two *m*'s have been widely discussed: volitional, and non-volitional conventionally marked as *m1* and *m2* respectively. *M1*is a free morpheme which can occur in isolation while *m*2 is a bound morpheme, which is incapable to occur alone. *M2* can only precede a few verbs. Most of the negative readings are marked by negative modal verbs, which can be analysed as the combination of the negation and the verb (Li 1971). In the current thesis, the term *negative modal verb*, which is interchangeable with the *negation*, is used. I discuss them under the category of negation.

Taiwanese negations, when compared to their counterparts in Mandarin Chinese, are not so straightforward in use in terms of their forms.[28] The most common Taiwanese negations are volitional *m*1[29] (in different form which means the negation *m* is not transparent, as shown in (12a-c)), *m*2, *bô,* and *be* 'not will'. Li (1971) gives the derivational rules of these negation markers summarized as in (12).

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[28] There's still debate about exactly what conditions the use of the negation *bu* vs. *mei*. See Ernst (1995).
[29] Li (1971) observes that only *m*1, not *m*2 can be followed by adjectives and PPs (a-b):

    a. Lauong m   (* ai)   lausit   b. Lauong m   (*ai)   li   tshu
      Lauong not (*want) honest   Lauong not (*want) at house
      'Lauong does not want to be honest.'   'Lauong doesn't want to be at home/ in the house.'
The examples (a-b) show only *m*1 is grammatical.

(12) a. Negation + *u* 'have/ do' → *bô* 'not have'

b. Negation + *e* 'able' → *be* 'not able'

c. Negation + *beh* 'want' → *m1 ai* / *bô ai* 'not want/ will not' (volition involved)

d. Negation + Ø → *m2* 'not' (a pure negation marker)

The negation *bô* 'not have' is the negative form of *u* 'have'; *be* 'not able' is the negative form of *e* 'able'; *m1/ m1(ai)/ bô ai* are the negative forms of *beh* 'want'; and *m*2 is a pure negation. The negations in (12a-c), but not the negation *m2* in (12d), are verbs derived from their corresponding affirmatives. Some scholars argue *m*1 and *m*2 are different negations (Li 1971, Lin 1974, Cheng 1997 among others) and think *m*1 and m2 need to be distinguished. *M*1 and *m*2 behave differently semantically and syntactically according to Li (1971). For instance, semantically *m2* only takes the verbs such as *si* 'be', *tsai-iann/ tsai* 'know', *tioh* 'right', *bat* 'know', *bat* 'ever', *ho* 'good', *tang* 'can', and *kann* 'dare'. Syntactically, *m2* cannot stand solitary. In this thesis, however, I treat *m*1 and *m*2 as the same negation (except in chapter 9 [A-not-AB] questions) which has a complementary distribution. I discuss the meaning and usage of some common modal verbs below.

Recall that Taiwanese modal verbs are used either to negate, as shown in (13a) or interrogate. They are used to form disjunctive questions and [A-not-A] questions as shown in (13b-c). They can also appear in *kam* questions as well as [*si-m-si*] questions, as shown in (13d-e)[30].

(13) a. Lauong bô lim ka-pi. [Negative declarative]
Lauong not. have drink coffee
'Lauong does/did not drink (the) coffee.'

b. Lauong u lim ka-pi a(si) bô? [Disjunctive question]
Lauong have drink coffee or not.have
'Does Lauong drink coffee or not.'

c. Lauong u lim ka –pi bô? [AB-not-A question]
Lauong have drink coffee not. have
'Does/Did Lauong drink (that) coffee?'

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[30] According to Cheng (1997b:244), an action or a state must be negated by the modal verb. The negation is used to form [A-not-A] questions and disjunctive questions.

    d.   Lauong   kam   bô   ti kau- sik ?   [*Kam* question]

              Lauong   Q   not.have   at   classroom

              'Is Lauong not in the classroom?'

    e.   Lauong si-m-si bô   ti kau-sik?   [si-m-si question]

              Laong FM/Q not.have at classroom

              'Is Laong not in the classroom?'

Note that *u* in (13a) has two readings. First, it can have a perfective reading, which means the action, i.e., drinking (the) coffee has taken place. Second, it can have an existential reading, a habitual behaviour, i.e., drinking coffee.

Other modal verbs such as *e-hiau* 'able' is used to affirm an ability. Its negative counterpart is *bô-hiau* 'not able'. The modal verb *a* 'has already' is used to affirm inchoation and it does not have a negative counterpart (see Li 1971 for discussion). Syntactically speaking, apart from the judgment verb *tioh a* 'correct DM'/ 'That is right'/ 'right', and the copular verb *si* 'be' no verbs can be negated or interrogated directly without the aid of a negative modal verb (or the combination of the negation and the modal verb). The modal verbs are used to form disjunctive, [A-not-A] questions and *kam* questions.

The affirmative form of an adjective in Taiwanese, for instance, is usually uttered by employing the modal verb *u*, but not always though (14a). However, the adjective must be negated by employing the negative modal verb *bô* (14b).

(14)   a.   Lauong (u) khiau

              Lauong have smart

              'Lauong is smart.'

    b.   Lauong   *(bô)   khiau

              Lauong   not.have   smart

              'Lauong is not smart.'

    c.   Lauong u   khiau   bô?   [AB-not-A question]

              Lauong have   smart   not.have

              'Lauong is smart or not.'

The modal verb *u* 'have' and its negative counterpart *bô*, in the form of [AB-not-A], are used to question the state of being smart (14c).

4.4 Conclusion

This chapter introduces various types of yes-no questions but does not discuss these questions in a detailed manner. (The detailed discussion will be given from chapters 5 to 9). It discusses the modal verbs and the negation and modality. It explores the roles of the modal verbs in positive declarative sentences, negative declarative sentences, and questions. Taiwanese has rich negation markers compared with Mandarin Chinese, which will be discussed in chapter 10. Most of Taiwanese negation markers heavily bear modality except the pure negation marker *m2*.

Chapter 5.　Taiwanese Presumptive questions

5.1 Introduction

From this chapter to chapter 9 I will discuss the following issues: (1) What are the roles of the answer *si a* and *tioh a* with respect to yes-no questions? (2) How does the negative answer particle *m-si* work? And why the answer particle *si a* 'yes DM' can occur alone but *m-si* 'no' cannot? (3) Does the position of negation in the question affect the answers and their meanings like its counterpart does in English? (4) What is the role of the FM *si* and *m-si* in questions and answers? (5) What is the precise syntactic structure of all these answers?

In this chapter I will discuss four types of yes-no questions which are presumptive questions. Among these types: intonation questions and sentence final particle questions are presumptive questions. Some of [*si-m-si*] questions and *kam* questions.

5.2　　Intonation questions

Intonation questions are a type of questions typically expressing the speaker's surprise at a proposition, though still allowing for the possibility that the proposition is not true, hence they are not neutral (also see Gunlogson 2002 and Krifka 2012).[31] They have the same form as declarative sentences except with added final rising intonation. Recall that I assume that sentence-final question particles in Taiwanese are sentence-final C-type heads (p.37).

The sentences in (1) show intonation questions consisting of various predicate heads: the copula *si* 'be' (1a), the modal verb *u* in (1b), a lexical verb in (1c), and a preposition in (1d).

(1)　　a.　　Lauong　　si　　lau-su?

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[31] In Gunlogson's (2002) the term 'declarative questions' is used to refer to questions with the form of a declarative sentence with a rising intonation. It accounts for differences between declarative questions and polar questions with a subject-auxiliary inversion. For detail, the reader is recommended to refer to the paper.

Lauong   be   teacher

'Is Lauong a teacher?'

b.   Lauong   u   lim   ka-pi ?

Lauong   have drink coffee

'Does/Did Lauong drink (the) coffee?'

c.   Lauong   tsau   khi   a?

Lauong   escape go   PRFV

'Did Lauong escape?'

d.   Lauong   (u)   ti   kau-sik ?[32]

Lauong   have at   classroom

'Is Lauong in the classroom?'

Sentence (1a) might be uttered for instance, by a speaker who did not know Lauong is a teacher, but now s/he hears that he is, and s/he is surprised at the fact. (1a) can be loosely paraphrased as 'so Lauong is a teacher, I didn't know that, and it surprises me. Please confirm that it is actually true.' The examples in (1b-d) are uttered in the same fashion where the speaker shows his/her surprise at the proposition. This indicates that they have a statement (a valued TP) as a component of their meaning. However, an intonation question is also a question, marked by rising intonation, which questions the truth of the statement. It will be argued here that this is, in fact, a correct characterization of the syntax and semantics of intonation questions and also several other yes-no question types in Taiwanese. The formal semantic difference between a statement and a yes-no question is: A statement denotes a proposition which the speaker commits himself to the truth of, while a yes-no question denotes a set of two propositions, one the negation of the other, and the speaker wants to know which one is true. To be more precise, the intonation question does not contain a statement (the speaker does not commit himself to the truth of a proposition), but it does contain a proposition with specified polarity, the presumed proposition, which is merged with

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32 Taiwanese prepositions such as *ti* 'at' 'in', unlike their counterparts in MANDARIN CHINESE (see Cheng 2015 for some discussion of Mandarin Chinese special features), cannot stand alone without its complement, or the help of a modal verb. The modal verb *u* 'have' can also be used with the PP as *u ti kàu-sik* 'have in the classroom' to express existential meaning. The negation used to negate the PP is *bô* 'not have'. The PP does not necessarily need a modal verb in intonation questions as in (1d); however, the modal verb *u* is required in *kam* questions.

    (i) Lauong kam u   ti kau-sik?

      Lauong Q   have at classroom

      'Is LO in the classroom?'

The positive PP can stand alone (in declarative sentences, or presumptive questions, but not in *kam* questions). Therefore, as shown in (2d), both answers with the modal verb *u* or without are acceptable.

an abstract question operator spelled out as question intonation, which introduces the alternative proposition with opposite polarity value (see discussion in chapter 2 with Biezma and Rawlins 2012). An interlocutor can agree or disagree with a statement/valued proposition. An interlocutor cannot agree or disagree with a question. Consider the following responses to the intonation questions in (1). The affirmative responses are shown in (2) and (3). Below I will discuss whether they are answers to a question, or rejoinders to a valued proposition, or both.

(2)   a.   si (lau-su)

              be   teacher

              'Yes, he is.'

        b.   u   (lim   ka-pi)

              have drink coffee

              'Yes, he does/he did.'

        c.   tsau   khi   a

              escape go   PRFV

              'Yes, he did.'

        d.   u   (ti kàu-sik)   / ti   kàu-sik

              have (at classroom) / at   classroom

              'Yes he is.'

The sentences in (2) are predicate-head answers, used to reply to positive intonation questions. When the predicate contains a modal verb or copular verb, it can be used alone, or can optionally be accompanied by its complement. To respond to (1d), for instance, the PP *ti kàu-sik* 'at classroom' or the positive modal verb *u* are the grammatical answers; alternative they can co-occur, as shown in (2d).

In (3), the answer particle *si a* 'yes DM' and the judgement verb *tioh a* can be used to respond to the intonation questions in (1).

(3)   a.   si   a / tioh   a   (Lauong si   lau-su)

              yes   DM/ correct   DM   Lauong is teacher

        b.   si   a / tioh   a   (Lauong u   lim   ka-pi)

              yes   DM/ correct DM   Lauong have   drink   coffee

c. si   a / tioh   a   (Lauong tsau khi   a)
yes DM/ correct DM   Lauong has escaped PRFV

d. si   a / tioh a   (Lauong u   ti   kau-sik)
yes DM / correct DM   Lauong   have at   classroom
All:'Yes.'

Now compare these answers with (4) and (5). The sentences in (4) have a set of statements corresponding to the intonation questions in (1).

(4) a.   Lauong   si   lau-su.
            Lauong   be   teacher
            'Lauong is a teacher.'
     b.   Lauong   u   lim   ka-pi.
            Lauong   have drink coffee
            'Lauong drinks/ drank (the) coffee.'
     c.   Lauong   tsau   khi   a.
            Lauong   escape go   PRFV
            'Lauong has escaped.'
     d.   Lauong   (u)   ti   kau-sik.
            Lauong g   have   at   classroom
            'Lauong is in the classroom.'

The sentences in (5) are a set of expressions of agreement with the statement. They are identical with the answers (3) to the intonation questions shown in (1).

(5) a.   si   a / tioh a   (Lauong si lau-su)
            yes DM/ correct DM Lauong   is   teacher
     b.   si   a/   tioh   a   (Lauong   u   lim   ka-pi)
            yes DM/ correct DM   Lauong   have drink coffee
     c.   si   a/   tioh   a   (Lauong tsau   khi   a)
            yes DM/ correct DM Lauong escaped go   PRFV
     d.   si   a/   tioh   a   (Lauong (u)   ti kau-sik)
            yes DM/ correct DM   Lauong   have at classroom

53

The fact that *si a* can be used to respond affirmatively to the intonation question does not show whether it does or does not contain a valued proposition, since *si a* can be used both to agree with a statement and to answer a neutral question (as *yes* can do in English; see Holmberg 2016: 210-215). But the fact that *tioh a* 'correct' can be used to respond affirmatively to the intonation questions shows that it does contain a valued proposition. This particle/verb specifically expresses agreement with a statement or, as in the present case, with a presumed proposition. As will be demonstrated below on neutral *kam* questions (in chapter 7) and A-not-A questions (in chapter 9) it cannot be used to respond to a truly neutral question. Since it expresses agreement with the presumed proposition, it serves to confirm one of the alternatives posed by the question, and in this way it indirectly provides an answer to the question.

To provide negative responses to the positive statements in (4) or the positive intonation questions in (1) one can simply employ the negated predicate as shown in (6).

(6)   a.   m-si   (lau-su)
                not-be   teacher
                'No, he is not.'

        b.   bô   (lim   ka-pi)
                not.have   drink coffee
                'No, he does not/ he did not.'

        c.   bô   (tsau   khi)
                not.have   escape go
                'No, he did not.'

        d.   bô   (ti kau-sik)
                not.have   at classroom
                'No, he is not.'

In (6a), to negate a positive intonation yes-no question or a positive statement with a copular verb, the negative copular verb *m-si* 'not be' can be used, optionally accompanied by its complement. The negative modal verb, which can appear in isolation or can be optionally accompanied by its complement, is used in (6b-d). (6d) shows that the negative modal verb *bô*, which is used to negate the PP, must appear.

The *m-si* answer in relation to yes-no questions receives little attention in the literature. *M-si* can be interpreted as 'no', 'not be', and 'not right' in Taiwanese. Another form of negative answer is the negative predicate-head answer. Some questions arise. (1) Does Taiwanese have a sentential negative answer particle 'no', a counterpart to *no* in English? Taiwanese *m-si* is literally translated as 'not-be'. (2) Does the answer particle retain this meaning? I believe Taiwanese does have an answer particle 'no', which is distinct from the negated copula. Below I argue for this claim. However, this answer particle is different from the English negative answer particle *no* in crucial respects, which will be made clear below.

The examples in (7) are negative answers to the questions in (1) and responses to the statements in (4) using the answer particle *m-si.*

(7)   a.   M-si, i   m-si (lau-su)

                no, he   not-be teacher

                'No, he isn't.'

    b.   M-si, i   bô   (lim ka-pi)

                no, he not.have drink coffee

                'No, he doesn't/ he didn't.'

    c.   M-si, i   bô   (tsau   khi)

                no, he not.have escape go

                'No, he hasn't.'

    d.   M-si, i   bô   (ti kau-sik)

                no, he not.have   at classroom

                'No, he isn't.'

(8) shows that *m-si* can occur alone only as an answer or response to (1a, and 4a).

(8)   a.   M-si

    b.   M-si *((i)   bô   (lim ka-pi))

    c.   M-si * ((i) bô   (tsau khi))

    d.   M-si *((i)   bô   (ti kau-sik))

M-si can stand alone in (8a) because in this case it can be analysed as the negative form of the copula in the question, i.e., the answer is a predicate-head answer. The answer particle *m-si*

55

'no' can never stand alone, as shown in (8b-d). This is a distinctive characteristic of this answer particle. Why this is, will be discussed in the next section.

5.2.1 The syntax of question particles
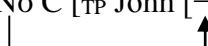
Consider first how English *no* works. First, following Holmberg (2013a, b, 2016), the English answer particle *no*, and its counterparts in a variety of other languages, can assign negative value to an unvalued polarity feature inherited along with TP from a neutral (non-negative) question, as shown in (9). The question (9) has unvalued/unspecified polarity encoded as a feature in TP. This TP is copied in the answer, where the answer particle assigns a value to the unspecified polarity feature. The TP in the answer is identical with the TP of the question, up to the assignment of value to a focus-bound variable, namely, the unspecified polarity feature [$\pm$Pol], so the TP in the answer can be deleted (refer to ch. 3) .

(9)   Q: Does John drink coffee?

[$_{CP}$ does-[$\pm$Pol] [$_{TP}$ John < [$\pm$Pol]> [$_{VP}$ drink coffee]]]

A: No.

[$_{CP}$ No C [$_{TP}$ John [$-$Pol] [$_{VP}$ drink coffee]]]

Since this chapter deals with presumptive questions, I will put neutral questions aside for the time being. Neutral yes-no questions have a much more restricted role to play anyway in Taiwanese, since neutral questions are mostly uttered by disjunctive questions, including A-not-A questions, which are not answered by answer particles (see ch.7,8 and 9).

In addition to answering neutral questions, *no* can

(a) agree with the negative polarity of a negative assertion (Ass = assertion, R = rejoinder). The line between *no* and Pol indicates agreement (10).

(10) Ass: John doesn't drink coffee.

  R: No.

  [$_{CP}$ No C [$_{TP}$ John [−Pol] n't [$_{VP}$ drink coffee]]]

(b) confirm the negative alternative of a negative question, which is again formally agreeing with a negative proposition (11).

(11) Q: Does he not drink coffee?
  A: No.
    [$_{CP}$ No C [$_{TP}$ John [−Pol] not [$_{VP}$ drink coffee]]]

(c) disconfirm the negative alternative of a negative question (12).

(12) Q: Does he not drink coffee?

  A: No, he does.

Now let us compare with *m-si* in Taiwanese in response to intonation questions. As already mentioned *m-si* 'no' can be the rejoinder in response to a positive statement and answer to a positive question. I repeat the intonation questions in (13). The negative response using the answer particle *m-si* is in (14)

(13) a. Lauong   si   lau-su?
      Lauong   be   teacher
      'Is Lauong a teacher?'
  b. Lauong   u   lim   ka-pi ?
      Lauong   have   drink coffee
      'Does/Did Lauong drink (the) coffee?'
  c. Lauong   tsau   khi   a?
      Lauong   escape go   PRFV
      'Did Lauong escape?'

      d.   Lauong   ti   kau-sik ?

            Lauong   at   classroom

            'Is Lauong in the classroom?'

(14)   a.   M-si, i   m-si   (lau-su)

            no,   he not-be teacher

            'No, he isn't.'

      b.   M-si, i   bô   (lim   ka-pi)

            no,   he not.have drink coffee

            'No, he didn't / does not .'

      c.   M-si, i   bô   (tsau- khi)

            no,   he not.have escape go

            'No, he didn't.'

      d.   M-si, i   bô   (ti kau-sik)

            no,   he not.have at classroom

            'No, he isn't.'

The rejoinder/answer disagrees with the positive proposition asserted in the statement and disconfirms the positive proposition implied in the question. This is like *no* in English.

Next, consider negative intonation questions, as shown in (15).

(15)   a.   Lauong   m- si lau-su?

            Lauong   not-be teacher

            'Is Lauong not a teacher?'

      b.   Lauong   bô   lim   ka-pi?

            Lauong not.have drink   coffee

            'Does/ Did Lauong not drink (the) coffee?'

      c.   Lauong   bô   tsau   khi?

            Lauong not.have escape   go

            'Did Lauong not run away?'

      d.   Lauong   bô   ti   kàu-sik?

            Lauong not-have   at   classroom

            'Is Lauong not in the classroom?'

If we want to confirm the negative alternative posed by the question, we can use the positive answer particle *si a* 'yes DM' as illustrated in (16). We cannot use the negative answer particle *m-si*.

(16)   a.   si a   (Lauong m- si lau-su).

              yes DM   Lauong   not-be teacher

              'No, Lauong is not a teacher/Yes, Lauong is not a teacher.'

        b.   si a   (Lauong   bô   lim   ka-pi)

              yes DM   Lauong not.have drink   coffee

              'No, Lauong doesn't/didn't drink (the) coffee'

        c.   si a   (Lauong   bô   tsau   khi).

              yes DM   Lauong   not.have   escape   go

              'No, he didn't.'

        d.   si a   (Lauong   bô   ti   kàu-sik)

              yes DM   Lauong not-have   at   classroom

              'No, he isn't in the classroom.'

Note how this is the case where we get negative neutralisation in English: *No* as well as *yes* can confirm the negative proposition posed by the question in (15), as illustrated in (16a-d). In Taiwanese, there is no negative neutralisation. Instead, the negative anwer particle *m-si* 'no' can only be used to *disconfirm* the negative proposition presumed by the negative question, as can be seen in the examples in (17a-d).

(17)   a.   m-si, i   si (lau-su)

              no   he be   teacher

              'No, he is a teacher./Yes, he is a teacher.'

        b.   m-si, i   u   (lim ka-pi)

              no   he have   drink coffee

        c.   m-si, i   u   (tsau khi)   / i tsau- khi   a

              no   he have escape-go   / he escape-go   PRFV

        d.   m-si, i   u   (ti kàu-sik)

              no   he have   at classroom

        e.   *m-si

               no

(17e) shows that the full sentence or a reduced form of the full sentence has to be spelled out with the negative particle. Note how *m-si* 'no' looks like *yes* in English can be used to disconfirm a negative alternative, as shown in (17a-d). See Holmberg (2013, a, b, 2016) for discussion.

Now consider the case of negative statements/assertions. The facts are the same: If we want to agree with the negative statements in (18), we can use *si a* 'yes DM' or *tioh a* 'correct DM', as in (19). If we want to disagree with the negative statements/assertions, we use *m-si*, as in (20).[33]

(18) a. Lauong m- si lau-su.
          Lauong   not-be teacher
          'Lauong is not a teacher.'

      b. Lauong bô   lim   ka-pi.
          Lauong not.have drink coffee
          'Lauong does/did not drink (the) coffee.'

      c. Lauong bô   tsau khi.
          Lauong not.have escape go
          'Lauong did not run away.'

      d. Lauong bô   ti kàu-sik.
          Lauong not-have   at classroom
          'Lauong is not in the classroom.'

(19) a. si a   (Lauong m- si lau-su).
          yes DM   Lauong   not-be teacher
          'Yes, Lauong is not a teacher'/ No, Lauong is not a teacher.'

      b. si a   (Lauong bô   lim   ka-pi)
          yes DM   Lauong not.have drink coffee
          'Yes, Lauong does/did not drink (the) coffee/ No, Lauong does/did not

---

[33] The sentences in (20) have stress marked in bold. In this thesis stress will not be discussed and I say no more about it. From now on the stress will not be marked in the questions or answers except where it is specially mentioned.

drink (the) coffee'

c. si a (Lauong bô tsau khi).

yes DM Lauong not.have escape go

'Yes, Lauong did not run away/ No, he didn't run away'

d. si a (Lauong bô ti kàu-sik)

yes DM Lauong not-have at classroom

'Yes, he isn't in the classroom/No, he isn't in the classroom.'

(20) a. m-si, i **si** lau-su

no, he be teacher

'No, he is. /Yes, he is.'

b. m-si, i **u** lim ka-pi

no, he have drink coffee

'No, he does/did. / Yes, he does/did.'

c. m-si, i **u** tsau khi / i tsau khi a

no, he have escape / he escape PRFV

'No, he did/Yes, he did.'

d. m-si, i **u** ti kàu-sik

no, he have in classroom

'No, he is/Yes he is.'

The sentences in (20) have stress marked in bold. In this thesis stress will not be discussed and I say no more about it. From now on the stress will not be marked in the questions or answers except where it is specially mentioned.

To summarise:

- *m-si* cannot agree with a negative assertion.
- *m-si* cannot confirm the negative alternative of a negative question.
- *m-si* can disagree with a positive assertion.
- *m-si* can disagree with a negative assertion;
- *m-si* can disconfirm the positive alternative of a positively biased question;
- *m-si* can disconfirm the negative alternative of a negatively biased question.

This exposition shows what the function of *m-si* is, and how it is different from *no* in English: *m-si* is a disagreement/disconfirmation particle, throughout. English *no*, on the other hand, while it can disagree with a positive assertion and disconfirm the positive alternative of a yes-no question, and also can disagree with a negative statement (*No, he is a teacher*), or disconfirm the negative alternative of a yes-no question, can also agree with a negative assertion or confirm the negative alternative of a negative question.

Correspondingly *si a*, the Taiwanese positive answer particle is an agreement/confirmation particle. Whatever the polarity of the question or assertion is, *si a* in the answer/rejoinder will agree/confirm that polarity.

I propose that the behaviour of *m-si* is explained if it has consistently interpretable negative value, i.e., [−Pol], while *si* has consistently interpretable positive value, [+Pol]. In English, on the other hand, there are two *no*'s, one is interpretable/valued negative and the other is uninterpretable/unvalued negative. How this works will now be discussed.

5.2.2 Many negative answers

The following is another important fact, which needs to be understood. Recall the discussion in chapter 2 of the fact that there can be more than two possible answers to a yes-no question. If the question is positive, there will be one positive answer but there can be as many negative answers as there are constituents in the sentence which can be negated.

Consider the sentences in (21). There is one positive answer, confirming the proposition that Lauong is not certain to go, the proposition presumed to be true, as shown in (21Aa). There are two negative answers, though. One answer negates the uncertainty of that he will go in (21Q), as shown in (21Ab). The other answer negates that it is not certain that he will not go, as shown in (21Ac).

(21)   Q: Lauong bô   it-ting   e   khi?
               Lauong not have certainly   will go
               'Is Lauong not certain to go?'
        A:a.   si   a   / tioh a   (i   bô   it-ting e   khi)

yes DM/ correct DM   (he not.have certain will go)

   'Yes (he is not certain to go).'

A:b.   m-si, i   it-ting   e   khi

   no, he certainly will go

   'No, he certainly will go.'

A:c.   m-si, i   bô   it-ting   be   khi

   no, he not.have certainly not.will go

   'No, he is not certain NOT to go → 'He probably will go.'

That is to say, the negative answer can target either the adverb *it-ting* 'certainly', changing its polarity value from negative to positive, (21Ab), or it can target the VP, changing its value from positive to negative, (21Ac).

The question (22Q) shows the negation marked by the negative modal verb b*e*, which follows the sentential modal adverbial *it-ting* 'sure'/ 'must' but precedes the verb. In this case, the negation is in a lower position compared to the sentence in (21Q).

(22)   Q: Lauong it-ting   be   khi?

      Lauong certain   not.will   go

      'Is Lauong certain not to go?'

A:a.   si   a   / tioh a   (i it-ting   be   khi)

   yes DM /correct DM he surely not.will go

   'Yes, it is certain that he will not go.'

A:b.   m-si, i   bô   it-ting   be   khi

   no, he not.have certain not.will go

   'No, he is not certain he will not go.' → 'No, he probably will go.'

A:c.   m-si, i   it-ting   e   khi

   no, he certain   will go

   'No, he definitely will go.'

Again, there is one positive answer (with *si a/tioh a*), confirming that it is certain he will not go, as illustrated in (22Aa). There are two negative answers (with *m-si*): One that it is NOT certain that he will not go, i.e., he might go, as shown in (22Ab), one that it is certain he WILL go, as shown in (22Ac). Again, the negative answer can target the adverb, changing its

polarity value from positive to negative, or it can target the VP, changing its value from negative to positive.

The following is a way to model how the question-answer sequence works, focusing on intonation questions. First, I postulate that not only TP can have polarity value, positive or negative, but also constituents of the TP, including arguments, adverbs, and verbs. The default value is positive.

1. The TP of the intonation question, as a presumptive question, has either positive or negative value, [+Pol] or [-Pol], a feature of T (see p.33).
2. This TP is copied by the answer (Holmberg, 2016, Chapter 2).
3. The answer particle is merged with the TP, forming CP. According to Holmberg (2016), the answer particle is focused. I assume the answer particle is merged as specifier of FocusP in the C-domain.
4. The value of the answer particle is transferred from C to T. If the answer particle is *si a*/*tioh a* T gets the value [+Pol], if it is *m-si*, T gets the value [-Pol]. This may be seen as an instance of feature transferral from C to T, following Chomsky (2008). The first step of the transmission is that Foc inherits (or copies) the feature from its specifier or a case of spec-head agreement, in my term.
5. When negative, T will target a constituent (which can be negated) in its c-command domain and negate it, i.e. change its value from positive to negative or from negative to positive.[34] The constituent which can be negated in the question and which must be in T's c-command domain.

The following trees show this process graphically.

(21Q) has a syntactic tree diagram shown in (23a). The negative answer partile *m-si* in (21Ac) has a tree structure shown in (23b).

(23)   a.

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[34] The 'targeting' is similar to Chomsky's (2000) notion 'probing' in connection with the relation Agree. The relation between the negative feature of T and the targeted constituent is not an agreement relation, though, but more like an operator-variable relation. The higher feature operates on the lower one and changes it. It is also not local, the way Agree is supposed to be. As will be shown, negative T can select a non-local target. This is characteristic of sentential operators such as negation. It can, for example, license a negative polarity item in an embedded CP, which is not a possible Agree relation as shown in (i).
(i)   I don't think that the waiter paid me the slightest attention.

b.
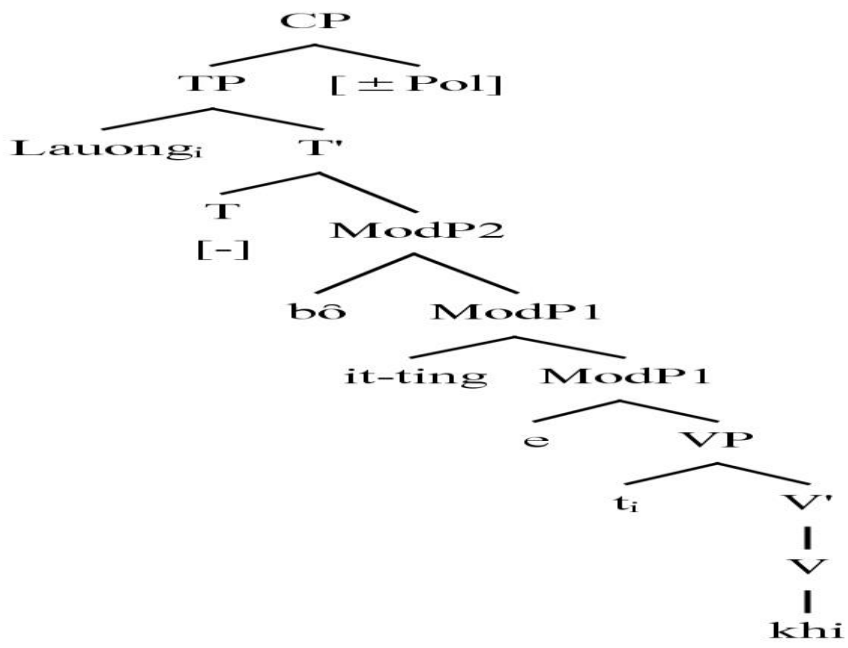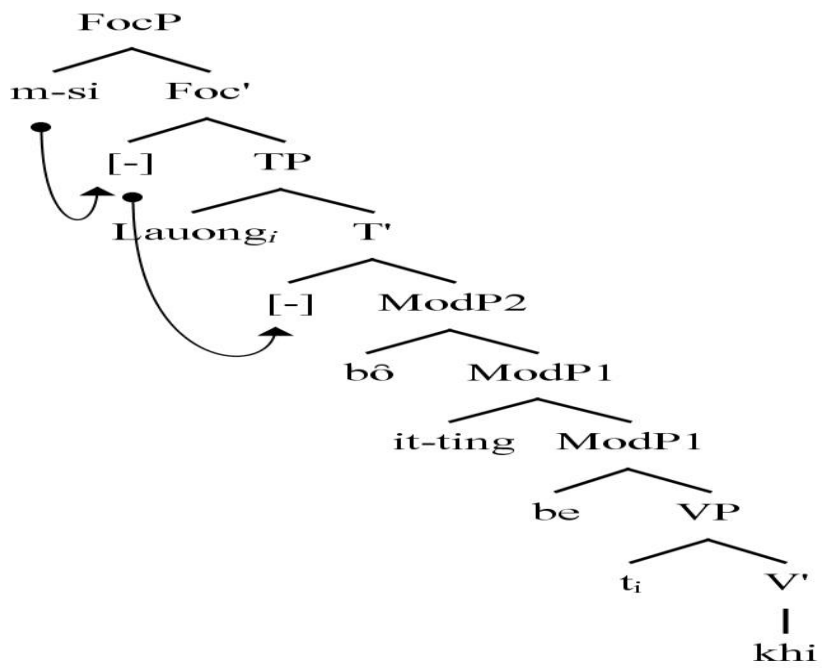
The negative answer particle *m-si* 'no' which carries a [- Pol] feature locates in the Spec FocP and this [-Pol] is transferred from C to T. The [-Pol] interacts with the constituents c-commanded by T. The tree diagram (23b) shows when the [-Pol] interacts with the modal verb *bô* in ModP2, which has [-] value. Two negative values create an affirmative reading, i.e. *it-ting* 'certainly'. This is spelled out as *m-si, i it-thing e khi* 'No, he certainly will go.', as the reading in (21Ab). When the [-Pol] interacts with the modal verb *e* 'will' in ModP1, which has [+] value. The [-] value and the [+] value create a negative reading i.e. change the positive *e* 'will' into the negative *be* 'will not'. The negative value of *be* then combines with the negative value of the *bô* in ModP2, to create a positive reading, i.e. *bô it-ting* 'not certainly'. This is spelled out as *m-si, i bô it-ting be khi* 'No, he probably will go.', as shown in (21Ac).

The positive answer particle *si a* provides a [+Pol] feature, which is transferred from C to T. This feature will interact with the constituents c-commanded by T, but being [+] valued will not change any feature values. This means that when the answer particle is *si a* or *tioh a* the TP of the answer will be identical to the TP in the question. Consequently, it can be deleted.

The negative particle *m-si* will always co-occur with a changed polarity value in TP. Therefore, the TP in the answer will never be identical with the TP in the question. This explains why the answer particle *m-si* always co-occurs with at least a partially spelled out TP (what I will call a short sentence). Consider again the following set of examples in (24) and (25):

(24)   Q: Lauong   u   lim   ka-pi?
               Lauong   have   drink   coffee
               'Does/ Did Lauong drink (the) coffee?'
        A:a.   si   a   /tioh   a
               yes DM   /correct   DM
               'Yes, he does/ did.'
        A:b.   *m-si
                no
        A:c.   m-si, i   bô   (lim   ka-pi)
               no   he not.have   drink   coffee
               'No, he doesn't/didn't.'

(25)   Q: Lauong   bô   lim   ka-pi?

           Lauong   not.have   drink   coffee

           'Does/ Did Lauong not drink (the) coffee?'

     A:a.   si   a   /tioh a

            yes DM/correct   DM

            'Yes, he doesn't/ didn't.'

     A:b.   *m-si

             no

     A:c.   m-si, i   u   (lim   ka-pi)

            no   he have drink coffee

            'No, he does/did.'

In the answers with *si a/tioh a* the TP is unchanged when compared with the question, and can be deleted, as shown in (25Aa). The negative answer particle *m-si* 'no' cannot occur in the sentence alone, as shown in (25Ab). *M-si* 'no' can only be answered the tag questions which will be discussed in chapter 6. In the answers with *m-si*, the value of the modal is changed from positive to negative in (24Ac), and from negative to positive in (25Ac), so it has to be spelled out. The VP of the answer [*lim ka-pi*] is still identical in the answer and the question, so it can be deleted.

It is interesting that the subject pronoun in the (25Ac) answers has to be spelled out. (26) is not a grammatical answer to the question (25Q).[35]

(26)   *m-si, u

          no   have

         Intended reading: 'No, he does/did not.'

This is interesting because Taiwanese, like other varieties of Chinese, is a pro-drop language, which allows null subjects as well as null objects in a variety of contexts where the identity of the pronoun can be recovered from the discourse. Note that the predicate-head answer, which

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[35] it's not the case that a null subject can never be preceded by any material, in the same clause. For instance, if a complementiser can precede a null subject, then that means it's not derived by truncation.

is always an alternative to answers with answer-particles, need not have a spelled out subject. (27) is an example.

(27)   Q: Lauong   bô   lim   ka-pi?
              Lauong   not.have   drink   coffee
              'Does/ Did Lauong not drink (the) coffee?'

       A: u
              have
              'Yes, he does/did.'

I do not have any explanation, at present, to why the subject pronoun cannot be dropped in answers employing the negative answer particle *m-si*.

The following is an alternative perspective on the difference between the positive and negative answer particles. Looking at the syntax of answers from a bottom-up perspective we can say that any constituent of the TP which has different features compared to a counterpart in the question, triggers the answer particle *m-si 'no'*. Because it is different, it cannot be deleted under identity with the question. In this perspective, it is the difference in features, including polarity value, which triggers the choice of particle instead of the particle leading to a difference in polarity value. The bottom-up perspective sometimes offers a more convenient way of presenting the facts, and I will therefore employ it, when convenient. The facts can, however, always be formulated according to the more formal top-down model described above. The bottom-up perspective is particularly convenient when considering cases like (28):

(28)   Q: Lauong kin-a-jit e   lai?
              Lauong today   will come
              'Will Lauong come today?'

       A: m-si, i   (si) bin-a-tsai e lai
              no   he FM   tomorrow   will come
              'No, he's coming tomorrow.'

In the bottom-up perspective, the answer contains a constituent which is different from its counterpart in the question (*bin-a-tsai* 'tomorrow' instead of *kin-a-jit* 'today'), hence *m-si* is

required as answer particle. In the model where the choice of answer particle causes a change of polarity value of a constituent in the sentence the answer, (27A) should probably be seen as derived by a two-step process: First, assuming that adverbs have a polarity value as part of their featural make-up, the answer particle changes the value of the adverb *kin-a-jit* 'today', inherited from the question along with the rest of the TP, from [+] to [−], i.e. 'not today' in the answer. Then, assuming that the vocabulary insertion is, or at least can be, a late operation (the Distributed Morphology perspective; Halle and Marantz 1993), 'not today' will be replaced by *bin-a-tsai* 'tomorrow'.

(29) is another possible negative answer to the question (28):

(29)　　A:　　　m-si,　i　kin-a-jit　be　　　lai
　　　　　　　　　no,　　he　today　　not.will　come
　　　　　　　　　'No,　he will not come today.'

In this case, the difference between the question and the answer is the polarity value of the VP, encoded by the modal: positive *e* in the question, negative *be* in the answer. In the bottom-up perspective, this difference determines the choice of *m-si* as answer particle. In the top-down perspective the particle *m-si*, merged with the TP inherited from the question, changes the value of the modal in the TP from positive *e* to negative *be*.

The bottom-up model is less formal because it does not specify how the comparison with the question takes place. In the top-down model the comparison is automatic because the answer is based on the TP of the question. It is also unclear in the bottom-up model what the role of T is, if any, in the process.

The accounts in respect to the question (28Q), there are some alternatives. The question in (28Q) is a tricky one. One alternative suggested by the examiners that the answer in (28a) has an underlying structure of 'No, Lauong will not come today; he will come tomorrow.' with ellipsis of [Lauong will not come today], then this will have consequences elsewhere. Most importantly, it will mean that identity is not requied for TP ellipsis. Thus, this suggested alternative is also problematic.

There are two problems need to take into consideration. First, consider the pair as shown in (30).

(30)   Q: Is John going to London tomorrow?   [English]

        A: No, because he's too busy.

If I translate the sentences in (30) into Taiwanese as shown in (31), the answer is ungrammatical, as shown in (31A).

(31)   Q: Lauong   binatsai   e   khi lun-tun? [Taiwanese]
                Lauong   tomorrow   will go   London
                'Is John going to London tomorrow?'

        A: * M-si,   inui   I   tin   boing
                no   because   he   very   busy
                Intended reading: ' No, because he is very busy.'

Second, consider the question 'tomorrow' vs. 'not today', the derivation with late insertion of vocabulary is a better solution. First, copy the TP of the question, then merge Foc and the negative answer particle *m-si*. The negative value assigned by the negative answer particle transmits the negative value to T and changes the value of [Pol]. Let [Pol] target one lexical item in the vP and change its polarity to minus (for example [today] to [not today]). Insert vocabulary consistent with [not today], it can be tomorrow or the day after tomorrow, or whatever, depending on what you want to say. This is not standard syntactic theory. However, it could still be the best alternative, if we want to keep explanations of all the facts that my theory explains.

5.2.3 Discussion

In this section, I will discuss the issue of affirmation and negation in a more detailed fashion.

The following is an alternative analysis to the one presented above, as in (28A): The answer (32a) to the question (32b) has the underlying structure as shown in (32c), with ellipsis of the TP.

(32)   a.   m-si, I (si) bin-a-tsai   e   lai
               No he FM tomorrow   will come
               'No, he will come tomorrow.'

        b.   Lauong   kin-a-jit   e   lai?
               Lauong   today   will   come
               'Will Lauong come today?'

        c.   m-si, ~~Lauong m-si   in-a-jit e   lai~~; i (si)   bin-a-tsai e   lai
               No   Lauong Neg-FM   today wil come he FM tomorrow   wll come
               'No, ~~Lauuong will not come today~~; he will come tomorrow'

This may look like a straightforward analysis, but it has several unwanted consequences. Most importantly, it would mean that identity is not required for TP ellipsis. Note that the TP in the question has positive polarity but the elided TP in the answer has negative polarity. Furthermore, under this analysis, how would we explain the fact, so salient in the thesis, that the TP cannot be deleted in a negative answer leaving just the answer particle *m-si*?

See (33A) for some possible negative answers where *m-si* is not directly followed by a TP.

(33)   Q: Lauong   bin-a-tsai   beh   khi lu-tun   ?
           Lauong   tomorrow want go   London
           'Is Lauong going to London tomorrow?'

     A:a. m-si   Lauong,   si   LauLi
             Neg-FM Lauong   FM   LauLi
             'It is not Lauong, but LauLi.'

     A:b m-si   bin-a-tsai,   si   jin-a-jit
             Neg-FM tomorrow   FM   today
             'It is not tomorrow, but today.'

     A:c m-si   khi lu-tun,   si   khi Tailum
             Neg-FM go   London FM go   Tainan
             'It is not to London, but to Tainan.'

71

The sentences in (33Aa-c) show that the negative focus marker *m-si* can appear without a spelled out TP.

If we assumed that there are two answer particles *m-si,* one which merges with an TP (or FOC and TP) and changes a polarity value in the TP, as shown in (32A), and another one which stands for a proposition (it would stand for the negative alternative proposition posed by the question), as shown in (33A). This, too, doesn't explain why *m-si* has to co-occur with an overt TP. Why can't the proposition-substituting *m-si* be used optionally, whenever you feel like it?[36]

This follows under the hypothesis that "only those propositions that correspond to the negation of a syntactically present constituent" are licit alternative propositions.

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[36] Consider the pair *Is John going to London tomorrow? – No, because he's too busy*. Is this a different proposition from e.g. *No, not to London*?" As a matter of fact, the Taiwanese literal translation of this discourse is not well formed, as shown in (i Aa); the TP must be spelled out, as shown in (i Ab-d). The negative answer particle *m-si* 'no' cannot stand alone, as illustrated in (i Ae).

(i)   Q: Lauong   bin-a-tsai   beh   khi lu-tun   ?
               Lauong   tomorrow   want go London
               'Is Lauong going to London tomorrow?'
     A:a. *m-si   inui   i   tin   boing
           no   because he   very busy
           Intended reading: ' No, because he is very busy.'
     A:b. m-si i   m-si   (beh)   khi   lu-tun
           no   he Neg-FM (want) go   London
           'No, he is not going to London.'
           (He is going somewhere tomorrow, but not to London)
     A:c. m-si i   m-si   bin-a tsai   beh   khi (lu-tun)
           no   he   Neg-FM tomorrow want   go   London
           (He is going to London sometime, but not tomorrow)
    A:d. m-si, i   si   jin-a-jit beh khi Tailam
           no   he FM today   want go Tainan
           No, he is going to Tainan today.
      A:e. *m-si
           No
           Intended reading: 'No, he is not going to London tomorrow.'

A negative answer can consist of the focus particle *m-si* followed by a constituent which is not a TP, as shown in (28A) and (29A).

5.2.4 *Conclusion*

To sum up, Taiwanese has stable answering patterns in response to positive intonation questions. Intonation questions are always presumptive questions, which is to say, they include a TP with valued polarity (in this sense, a statement) as part of their syntactic make-up. A question operator, which is an open polarity feature [±Pol], is merged with this TP. This feature introduces the possibility of an alternative to the valued TP, identical but with opposite polarity value. This makes it a yes-no question. With a Q-force feature still merged, the result is a direct question, which requests the addressee to say which proposition is true.

There are two types of answers: particle answers and predicate-head answers. Both of these can be used as answers to questions or as expressions of agreement or disagreement with assertions. Particle answers include the answer particle *si a* 'yes DM', and the judgement verb/particle *tioh a* used to confirm that the proposition uttered by the TP of the question is true, or, in the case of assertions, to express agreement with the assertion, and *m-si* 'no', used to disconfirm the proposition uttered by the TP of the question, or express disagreement with the assertion. Predicate-head answers consist of the full proposition which the respondent wants to present as true, but is typically reduced by deletion to just the highest predicate-head.

Unlike the negative answer particle *no* in English (and many other languages; see Holmberg, 2016), *m-si* cannot agree with a negative TP: It can only express disconfirmation/disagreement, while *si-a* can only express confirmation or agreement with the value of the TP in the preceding question or assertion.

A yes-no question can have more than two possible answers: It can have as many answers as there are constituents that can be negated or de-negated, plus one for the opposite value. A model for how the answer particles work is presented based on the idea that the TP of the question is copied by the answer, then an answer particle is merged, and its value is

73

transferred to T. If the value is negative, it will target a constituent in the c-command-domain of T and negate it, that is, change its polarity value from positive to negative or from negative to positive. Another model was discussed as well, where the polarity values of constituents in the TP are seen as given, and where a constituent differs from the value of its counterpart in the question, *m-si* is triggered, otherwise *si-a* is triggered.

The particles *si a* and *tioh a* can appear alone. However, *m-si* 'no' must co-occur with a (short) sentence. This sentence must consist, minimally, of the subject and the targeted constituent. This follows in that the TP merged with *si-a* and *tioh-a* is identical with the TP of the question, and therefore can be deleted, while the TP merged with *m-si* is always different. At least one constituent will be different, having the opposite polarity value, and therefore cannot be deleted in the answer. Why the subject also cannot be deleted is a problem left for future research.

5.3   SFP Questions

5.3.1 Introduction

Sentence final particle (SFP) questions are formed by attaching a particle (an SFP) at the end of a declarative sentence, positive or negative. SFP questions are always direct, never embedded. Taiwanese has a rich selection of SFPs. There are at least ten SFPs in Taiwanese: *haN, hio, hoN, le, lio, lo, ne, nih, o,* and *ma* (see also Chen 1993). The differences and similarities among these SFPs are not the focus of the thesis so I will say no more about these. I will mainly use the particle *nih* as a representative. Instead, I will discuss the structure of SFP questions and their responses. In general, SFP questions are presumptive (see Cheng 1997), that is, they contain a positive or negative TP expressing a proposition presumed to be true by the speaker, but which is still questioned. The only exception is *ma*, which is a recent borrowing from Mandarin Chinese, and which may be used in neutral contexts, as it can be in Mandarin (see Cheng 1997).[37] Consider the examples in (34). Sentence (34a) is a positive

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37 I do not consider questions with a final negation such as (i) to be SFP questions. They are instances of AB-not-A questions (see section 9), and as such are neutral.
(i) Q: Lauong   u   tsiah- hun   bô ?   [AB-not-A]
     Lauong   have eat - cigarette   not.have
     'Does/Did Lauong smoke cigarette or not?'

declarative sentence. (34b) is an SFP-question with the question particles *nih* attached to the end of the sentence. (34c) is a negative SFP-question.

(34) a. Lauong tua jia.
        Lauong live here
        'Lauong lives here.'
    b. Lauong tua jia nih?
        Lauong live here SFP
        'Does Lauong live here?'
    c. Lauong bô tua jia nih?
        Lauong not.have live here SFP
        'Does Lauong not live here?'
    d. *Li m- tsai Lauong tua jia nih?
         You not-know Lauong live here SFP
        'Don't you know that Lauong lives here?'
         Not: 'You don't know whether Lauong lives here.'

Since SFP questions are always direct, (34d) only has a direct question reading with the particle taking scope over the main clause.

The sentences in (35a-d) show SFP yes-no questions containing the copular verb *si* 'be' (35a), a modal verb (35b), a verb and an aspect marker (35c), and a PP (35d).

(35) a. Lauong si lau-su nih?
        Lauong be teacher SFP
        'Is Lauong a teacher?'
    b. Lauong u lim ka-pi nih?
        Lauong have drink coffee SFP

A: a.* si a / tioh a
      yes DM/ correct DM
    intended reading: 'Yes'
  b.* m-si, I bô
     no, he not.have
    Intended reading: 'No, he doesn't.'

'Does (Did) Lauong drink (the) coffee?'

c.   Lauong   tsau -khi   a   nih?

Lauong   escape   PRFV   SFP

'Did Lauong escape?'

d.   Lauong (u)   ti kau-sik   nih?

Lauong have   at   classroom SFP

'Is Lauong in the classroom?'

(35c) contains a VP and the aspect marker, *a,* to denote a perfective reading. (35d) contains an affirmative PP predicate. The modal verb *u* can optionally accompany the PP.

The predicate-head answers used to confirm these positive alternative of the questions in (35a-d) are shown in (36).

(36)   a.   si   (lau-su)

be teacher

'He is'

b.   u   (lim   ka-pi)

have   drink coffee

'He has.'

c.   tsau -khi   a

escape   PRFV

'He did.'

d.   ti kau-sik

in classroom

'He is.'

The answer particle *si a* 'yes DM' and the judgement verb *tioh a* 'correct DM' can be used to agree with the positive proposition of SFP yes-no questions. They can appear alone (37).

(37)   a.   si   a / tioh   a   (Lauong   si   lau-su)

yes DM/ correct DM   Lauong be   teacher

'Yes, he is.'

b.   si a   / tioh   a   (Lauong   u   lim   ka-pi)

yes DM/ correct DM   Lauong   have   drink   coffee

'Yes, he does/did.'

c.   si a/ tioh a   (Lauong   tsau -khi   a)

yes DM/ correct DM   Lauong   escape   PRFV

'Yes, he did.'

d.   si   a   / tioh a   (Lauong ti   kau-sik)

yes DM/ correct DM   Lauong   in classroom

'Yes, he is.'

This shows that these questions can be read as presumptive questions.

The negation combined with the highest predicate head can be used to disconfirm these positive SFP yes-no questions, as shown in (38).

(38)   a.   m-si   (lau-su)

           not be teacher

          'No, he is not.'

b.   bô   (lim   ka-pi)

       not.have   drink coffee

       'No, he does not / did not.'

c.   bô   (tsau –khi)

       not.have   escape

     'No, he did not.'

d.   bô   (ti kau-sik)

       not.have   in classroom

      'No, he is not.'

Recall that Taiwanese requires the negative modal verb to express a negative reading.

To disconfirm the positive proposition of SFP questions, the answer particle *m-si* 'no' which must co-occur with a spelled outTP is used, as shown in (39).

(39)   a.   m-si, i m-si

         no, he not be

'No, he is not.'

b.　　　m-si, i　bô

　　　　no,　he　do not/ he did not

　　　　'No, he does not/ did not.'

c.　　　m-si, i　bô

　　　　 no,　he　not.have

　　　　 'No, he did not.'

d.　　　m-si, i　bô

　　　　no. he not have

　　　　'No, he is not.'

The sentences in (40) are negative SFP yes-no questions, marked by an overt negation.

(40)　　a.　　　Lauong　　m- si　lau-su　　nih?

　　　　　　　　Lauong　　not-be　teacher　SFP

　　　　　　　　'Is Lauong not a teacher?'

　　　　b.　　　Lauong　bô　　　lim　　ka-pi　　nih?

　　　　　　　　Lauong　not.have　drink　coffee　SFP

　　　　　　　　'Does (Did) Lauong not drink (the) coffee?'

　　　　c.　　　Lauong　bô　　　tsau　　khi　　nih ?

　　　　　　　　Lauong　not.have　escape　　go　　SFP

　　　　　　　　'Did Lauong not run away?'

　　　　d.　　　Lauong　bô　　　ti　kàu-sik　nih ?

　　　　　　　　Lauong　　not-have　in　classroom　SFP

　　　　　　　　'Is Lauong not in the classroom?'

To confirm the negative alternative of SFP yes-no questions, the highest predicate head answers can be used, as shown in (41).

(41)　　a.　　　m-si　　　(lau-su)

　　　　　　　　not, be　teacher

　　　　b.　　　bô　　　　(lim　　ka-pi)

　　　　　　　　not. have　(drink　coffee)

　　　　c.　　　bô　　　　(tsau –khi)

78

not.have (escape)

d. bô   (ti kau-sik)

not.have (in classroom)

The answers in (41) can consist of a bare negative copula (in 41a), a bare negative auxiliary (in 41b, c, and d). Alternatively, the copula or auxiliary can be optionally accompanied by their complements. As shown in (42), it is also possible to use the answer particle *si a* 'yes DM', or the judgement verb *tioh a* 'correct DM', alone or with a spelled-out complement.

(42) a. si   a   / tioh a   (i   m- si lau-su)

yes DM   / correct DM   he not.be   teacher

'Yes, he is not a teacher,'

b. si   a/ tioh   a   (i   bô   lim   ka-pi)

yes DM/ correct DM   he not.have   drink coffee

'Yes, he does not/ did not drink (the) coffee.'

c. si   a / tioh   a   (i   bô   tsau - khi)

yes DM/ correct DM   he   not.have   escape

'Yes, he did not run away.'

d. si   a / tioh   a   (i   bô   ti kàu-sik)

yes DM/ correct DM   he not.have   at classroom

'Yes, he is not in the classroom.'

There are two ways to disconfirm the negative alternative and negative proposition of SFP yes-no questions. Using the highest predicate head (including the PP, VP and the Asp marker *a*), as illustrated in (43), or the answer particle *m-si* 'no', as shown in (44).

(43) a. si (lau-su)

be teacher

b. u   lim   ka-pi

have   drink coffee

c. tsau -khi   a

escape   PRFV

d. ti kau-sik

in classroom

The answer particle *m-si* 'no' (44) needs to co-exist with a full sentence, which includes the subject and the highest predicate head, which is identical to the ones in (43).

(44)   a.   m-si, i   si   (lau-su)

                       no, he be   teacher

                       No, he is a teacher

        b.   m-si, i   u   (lim   ka-pi)

                     no, he has drink coffee

                     No, he   does/did   drink (the) coffee

        c.   m-si, i   tsau -khi   a

                     no, he escape   Asp

                     'No, he has run away.'

        d.   m-si, i ti   kau-sik

                      no he in classroom

                     'No, he is in the classroom.'

In this section, I have examined two sets of questions: positive and negative SFP yes-no questions and their responses. The answering patterns can be divided into two types in terms of their scope: predicate head in use (which only occurs when the question is a simple question), and the answer particles *si a* 'yes DM', and *m-si* 'no', and the judgement verb/particle *tioh a* 'correct DM'. In response to positive SFP yes-no questions, it is normal to use predicate head answers (including copular verb, modal verb, verb with the Asp marker *a*, or PP) for positive answers and the corresponding negative predicates for negative answers. The answer particle *si a* 'yes DM' and *tioh a* 'correct DM' are used to confirm and agree with the positive alternative and positive proposition; they can appear in isolation. *M-si* 'no' together with a (short) sentence is employed to disconfirm the positive alternative and to express disagreement with the presumed positive proposition. In response to negative SFP yes-no questions, the predicate answers uttered by the negative predicates are to confirm the negative alternative of SFP yes-no questions and the positive predicates are used to disconfirm the negative alternative of SFP yes-no questions.

The answer particle *si a* 'yes DM' and *tioh a* 'correct DM' can be used to confirm the presumed negative proposition of SFP yes-no questions. They can appear alone, while *m-si*

'no', must appear with a sentence, which contains the subject and the predicate to disconfirm the presumed negative alternative and to express disagreement with the presumed negative proposition.

5.3.2 The syntactic structure of SFP questions

According to Cheng (1997), final question particles are in the C-domain where they function to 'type the sentences as questions'.[38] According to Holmberg (2016, Ch. 2), question particles, initial or final, in yes-no questions are morphological realisations of the disjunctive feature [±Pol] which has sentential scope, the defining characteristic of yes-no questions. I adopt the idea that the SFP is a spell-out of [±Pol] situated in the C-domain. The syntactic structure of a copulative SFP yes-no question with the SFP *nih* is illustrated in (45b) and the answer is in (45c). Recall that in this thesis, I assume that sentence-final question particles in Taiwanese are sentence-final C-type heads.

(45)   a.   Lauong si lausu nih?

             Lauong be teacher Q

             'Is Lauon a teacher?'

---

[38] Boya Li (2006) argues that most SFPs in Mandarin do not have a denotative or referential meaning. Instead, they are mainly used to convey emotive and/or epistemic nuances within a particular discourse context (see B. Li 2006: 1). Whether Taiwanese SFPs behave the same or not is under -researched. I will leave this issue to future research.

b.

```
                    CP
                   /  \
                  /    \
                TP      nih
               /  \     [± Pol]
              /    \
         Lauongᵢ    T'
                   /  \
                  /    \
                 T      VP
                [+]    /  \
                      /    \
                     tᵢ     V'
                           /  \
                          /    \
                         si     NP
                                |
                                N'
                                |
                                N
                                |
                              lausu
```
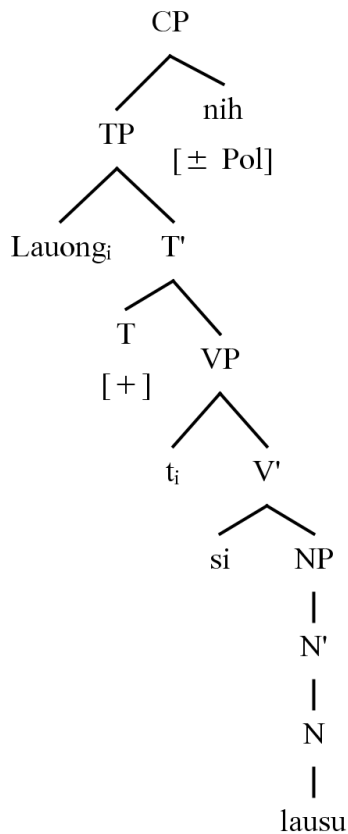
The tree in (45b), shows the SFP is represented as encoding the feature [±Pol]. Since it is a direct question, there is also a Q-force feature, not shown in the tree. The particle may be the spell-out of [±Pol] or of [±Pol] and the Q-force feature together. Following Holmberg (2016), the [±Pol] feature with sentential scope yields the two alternative propositions p and ¬p which define the sentence as a yes-no question, in this case, 'Lauong is a teacher' and 'Lauong is not a teacher'. In the case of SFP questions, as also in the case of intonation questions, the [±Pol] feature merges with a TP with either positive or negative value, and yields that proposition and its negation as output. The result is a presumptive yes-no question.

(45c) shows the structure of the answer particles.

c.
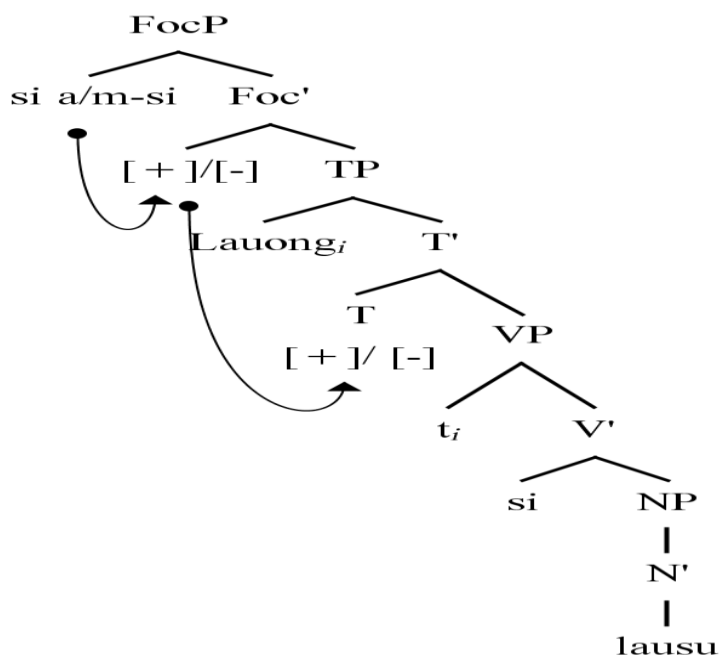
The answer shown in (45c) is based on the TP of the question. An answer particle *si a*, for instance, first is merged in focus position. Then, the focus head copies the value of the answer particle by agreement. Next, the feature of the answer particle is transferred to T. This value will then combine with any possible negation in the sentence to yield an interpretation which confirms or disconfirms either the positive or the negative alternative. A [+] marked T will not change any value in the TP inherited from the question; it will confirm the presumed proposition, positive or negative. A [−] marked T will reverse the value of whatever it combines with; it will disconfirm the presumed proposition.

Now look at example in (46a):

(46)   a. Lauong   be   khui-tshia lai   nih?

             Lauong not.will   drive-car come Q

             'Will Laong not drive here?'

The tree structure in (46b) shows a negative SFP yes-no question, as shownin (46a) marked by a negative modal verb *be* 'not will', which precedes the main verb.

b.
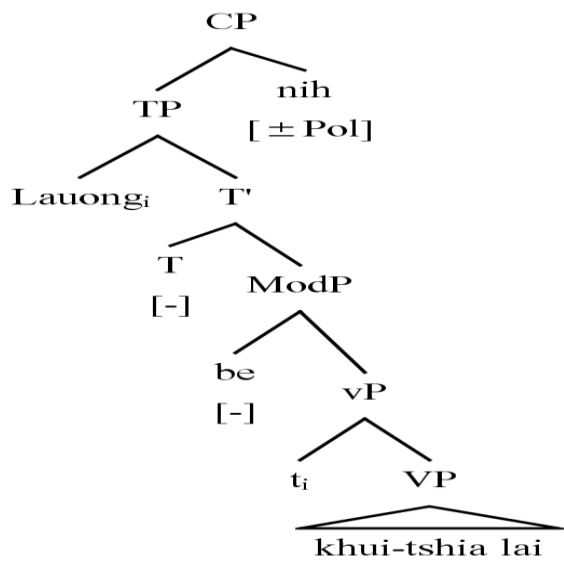
The tree diagram in (46c) shows the positive polarity answer *si a* and the negative polarity answer *m-si*.

(c)
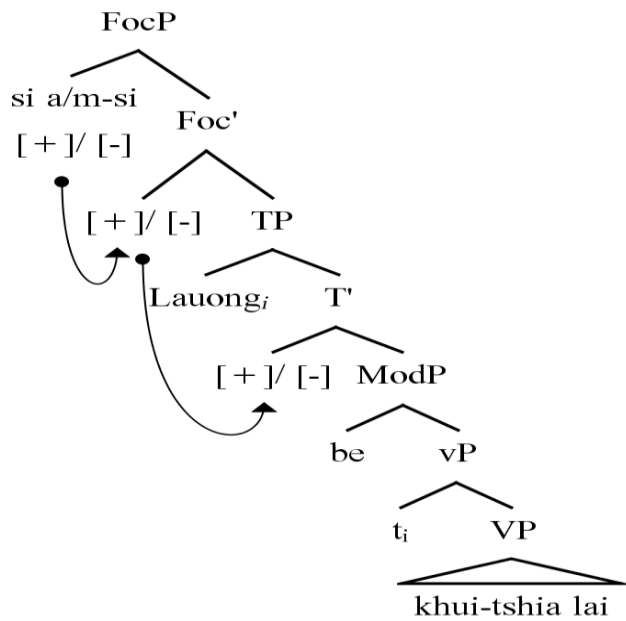
The gloss and translation of the answers are given in (46d-e).

d.　　si　　a　　/ tioh　a　　　(i　　be　　tshia　lai)

　　　　yes　DM / correct DM　　he　will　not　　drive

　　　　'Yes, he will not.'

e.　　m-si, i　　e　　　(khui-tshia　lai)

　　　　no,　　he　will　drive car　come

　　　　'No, he will.'

The question contains a negative modal *be* 'will not/ possibly not', as illustrated in (46a,b). The tree diagram (46c) shows how the value of the focused answer particle is transferred to T. *Si a* 'yes DM' assigns [+] value to T, and this value [+] combines with the inherent negative value of the negative modal verb *be*. It results in a negative answer, i.e., *si a* 'yes DM' is used to confirm the negative alternative and to agree with the negative proposition (46d). On the other hand, *m-si* 'No' assigns [-] value to T, by feature transfer, and this assigned value [-] will combine with the inherent negative value of the negative modal verb *be* 'will not', as shown in (46a) in gloss and translation, which results in a positive answer, as

shown in (46e). *M-si* co-occurs with a spelled-out sentence containing minimally the subject and the predicate head, to express disagreement with the presumed negative proposition and disconfirm the negative alternative, as shown in (46e). Note that the combination of *m-si* and the positive predicate shows that the TP in the answer is not identical to the TP in the question; thus it cannot be deleted and must be spelled out.

A SFP question can contain two modal verbs, *u* 'have' and *e* 'will': (47a). The tree structure shows in (47b).

(47)   a   Lauong u   kho-ling   e   khui-tshia   lai nih?
                Lauong have possibility will drive-car   come Q
                'Is it possible that Lauong will drive here?'

      b.
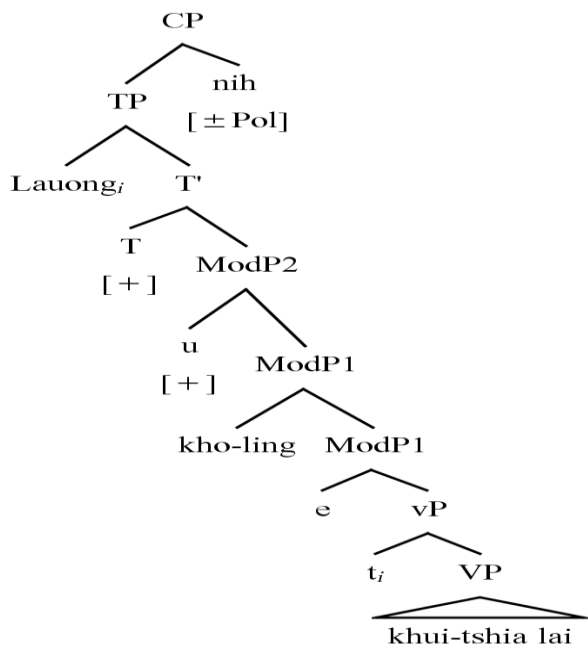
(48a) is the positive polarity answer *si a* and its syntactic structure is shown in (48b).

(48)   a.   si   a   (Lauong   u   kho-ling e   khui-tshia lai)

                   yes DM   Lauong have possibility will drive-car come

                   'Yes, it is possible that Lauong will drive here.'

      b.
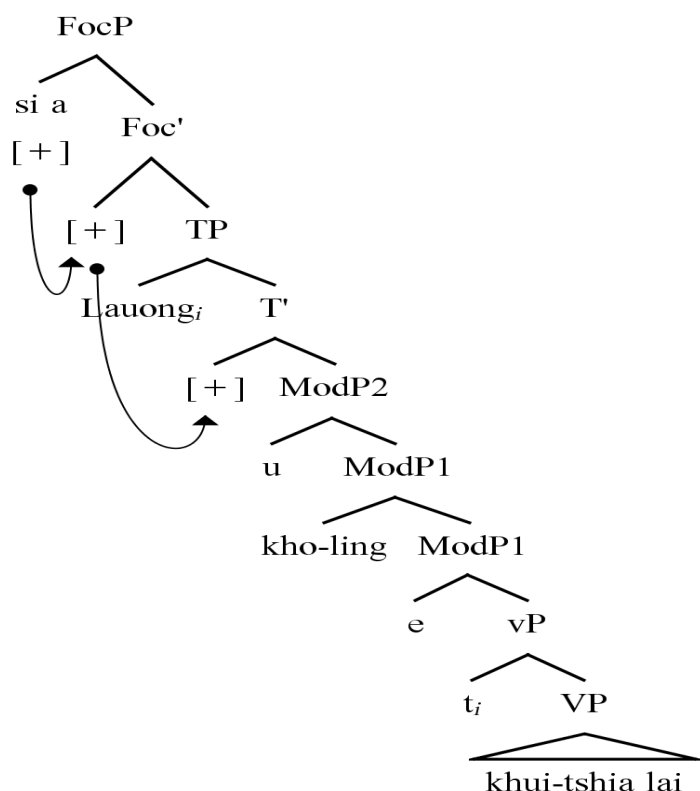
As I have proposed, in complex questions, as shown in (47Qa) the negative answer particle *m-si* can negate a particular constituent, to give a narrow-scope answer. This entails that there are as many negative answers to a complex question as there are constituents which can be negated (or de-negated) in the TP.

In (49Qa) there are three negatable constituents. This is indicated by prefixing them with +, as shown in (49Qb). Hence there are three possible narrow-scope answers, one negating the

subject *Lauong*, one the sentential modal adverbial *u kho-ling* 'have possibility', and one the ModP *e khui-tshia lai* 'will drive car here'. The answers are shown in (49Aa-d).

(49) Q:a Lauong u   kho-ling   e   khui-tshia lai   nih?
          Lauong have   possibility will   drive-car come Q
          'Is it possible that Lauong will drive here?'
      b. [CP [TP [+Lauong] [+ kho-ling] [+ khui-tshia lai]] nih]?

    A:a. si a / tioh a   (Lauong u   kho-ling e   khui-tshia lai)
          yes DM/ correct DM   Lauong have possibility will drive-car come
          'Yes'

    A:b. m-si   Lauong, si LauLi (u   kho-ling   e   khui-thia lai)
          Neg-FM   Lauong, FM LauLi   have possibility will drive-car come
          'It is not Lauong, but LauLi who is possible to drive here.'

    A:c. m-si, i   bô   kho-ling (e   khui-tshia lai)
          no, he not.have possibility will drive-car come
          'No, it is not possible for Lauong to drive here.'

    A:d. m-si, i u   kho-ling   be   (khui- tshia lai)
           no, he will possibility   will.not drive-car come
          'No, it is possible that Lauong will not drive here.'

The sentences in (49) show how in Taiwanese any element/constituent, which can be negated/ de-negated (marked by + in (49Qb)), defines a narrow scope answer. In the bottom-up perspective described in the previous section, it means any constituent in the answer which has different polarity value from its counterpart in the question will trigger *m-si* 'no'.

Note that *m-si* in (49Ab) is not the answer particle but a negative FM. It takes narrow scope only over the subject. This is a cleft sentence. In cleft sentences, the particle *si/ m-si*, which precedes the subject in SpecTP is a FM, which has scope over the subject only. The answer particle *m-si* cannot take scope over the subject, as predicted if the negative value of the answer particle is transferred down to T, leaving the subject outside the scope of the negative polarity feature.

In (49Ac) the negated constituent is the sentential adverbial. In this case, the alternatives are 'it is possible' and 'it is not possible'. The negation is uttered by a negative modal auxiliary

verb. In (49Ad) the negated constituent is the verb or the VP. The alternatives are driving or not driving (here). The negation is uttered by a lower modal auxiliary verb.

Taiwanese exhibits a neat systematic answering pattern in negative answers. The sentence (49Q) provides three potential negative narrow-scope answers: One employs the negative FM *m-si,* negating the subject only. The other two employ the answer particle *m-si* 'no', whose value is transferred to T, where it can either negate just the adverb 'possibly' or the verb/VP. The existence of more than one modal verb carrying negation makes the constituent negation explicit.

5.3.3   *Discussion and Conclusion*

I have examined SFP yes-no questions, positive and negative. As observed by Cheng (1997), SFP questions are presumptive questions in Taiwanese, with the possible exception of *ma* questions, which may sometimes be used in neutral contexts (on the model of Mandarin Chinese). The SFP encodes the feature [±Pol] (Holmberg, 2016) and is spelled out as various forms of particles such as *nih*. It is merged with a TP which is either + or –Pol expressing a positive or negative proposition, and introduces an alternative proposition with opposite polarity value. The speaker is looking for confirmation of the proposition of the TP (presumed to be true), but puts a choice before the addressee between that proposition and the one with opposite value

The answer patterns in response to SFP questions are summarized as follows. Predicate-head answers are always a possibility (often the preferred option). They simply state the proposition which is presented as true, in reduced form. It makes no difference to predicate-head answers whether the question is positive or negative. SFP questions are presumptive, so the proposition overtly uttered by the TP, positive or negative, is presumed to be true. Still, by virtue of the SFP the question also denotes the opposite proposition. The predicate-head answer just states the true proposition, which may confirm or disconfirm the presumption of the questioner. Typically the answer is reduced by subject pro-drop and VP-ellipsis, leaving only the highest predicate head spelled out, in positive or negative form. This is a sentential scope answer.

With respect to the positive SFP questions, the answer particle, *si a* 'yes DM, and the judgement verb *tioh a* 'correct DM' are used to agree with the presumed positive proposition. They can occur alone, with the TP deleted under identity with the TP of the question. M-*si* 'no' co-existing with a spelled out (short) sentence is used to disagree with the presumed positive proposition. *Si a* transfers [+] value to T and thereby confirms the positive alternative, not changing the value of any of the potentially negatable constituents of the TP. The answer particle *m-si* transfers [-] value to T, which will target one of the negatable constituents of the TP and change its value from positive to negative, thereby disconfirming the positive alternative of the positive SFP yes-no question. Since the TP thereby will be non-identical with its antecedent TP of the question, it cannot be deleted (although it can be reduced).

When the negated constituent is the subject, the form of negation used is the FM *m-si*, a focus particle in the CP, which negates the subject immediately following it in spec TP. The answer particle *m-si* cannot narrowly negate the subject, as its value is transferred to T, and thereby takes scope over the complement of T, excluding the subject.

With respect to SFP negative yes-no questions, the answer particle *si a* 'yes DM', and *tioh a* 'correct DM' are used to agree with the presumed negative proposition. The answer particle *m-si* is used to disagree with the presumed negative proposition, affecting a change of a [−] value to a [+] value. Any constituent in the question that can be negated/de-negated can be targeted by the answer particle *m-si*, via T, meaning that there are as many *m-si* answers as there are negatable/ de-negatable constituents in the complement of T. In simple clauses, consisting of a subject and a VP, there is just one, the VP. In complex clauses, containing, for instance, sentential adverbs, there will be more than one.

In Chapter 3, the situation in English negative questions was discussed, following Holmberg (2013a, b, 2016). In English, the negation can appear in two positions in the sentence, the so called middle and the low position. This gives rise to the negative neutralization phenomenon, where *yes* and *no* can mean the same thing, as follows: When the negation inherited from the question is low (internal to vP), the answer particle *Yes* will assign positive value to T, which when combining with the low negation will yield a negative answer. When the negation in the question is in middle position, *Yes* cannot be used to confirm the negation in the answer, but instead the negative answer particle *No* is used, entering a negative

concord relation with the negation, to give a negative answer. So *Yes* and *No* can have the same meaning, confirming the negative alternative of a negative question. As we will see in Chapter 10, we can see a similar phenomenon in Mandarin Chinese.

Taiwanese also has several positions of the negation in the clause. In (49) we see how it can precede or follow the sentential modal adverb *kho-ling* 'possible'. There is no negative neutralisation effect, though. One reason for this is that the answer particles are different. The negative answer particle *m-si* cannot agree with a negative constituent, entering a negative concord relation with it. *M-si* will negate anything that it applies to, thus reversing the value of any negative element it applies to from negative to positive. The *si a* answer, on the other hand, does not change any value inherited from the question. This means that the *si a* and *m-si* answers will always be different with respect to at least one value.

The answer *tioh a* 'correct' is always an option, as predicted if the SFP questions are always presumptive. The syntactic indicator of this is that T in the question has polarity value, either positive or negative. English does not have a category of SFP questions. It has tag questions, compared with the Taiwanese tag questions, which will be discussed in chapter 6. Tag questions share the property with SFP questions that they are presumptive, but are different in other ways. The question form in English which, arguably, provides the best translation of the Taiwanese SFP is the standard subject-aux question (50).

(50) Q: Does John live here?
      A:a. Yes (he does).
      A:b. *That's right.

The (50Ab) response is not an option in English, though. This follows if the subject-aux question does not have a valued T. Instead, as argued by Holmberg (2013a, b, 2016) it has [±Pol] merged as head of TP, which undergoes movement to CP.

Intonation questions and tag questions in English (discussed in Ch.3) are like presumptive questions in Taiwanese in conveying a presumption on the part of the speaker regarding which proposition is true, positive, or negative. With those questions, both English and Taiwanese are allowed to employ *correct/ that's right* and *tioh a* as the answers

To express a presumptive question, English also has a different mechanism, not used in Taiwanese: the high negation question, as in (51) (see Holmberg (2016, Ch. 4) for discussion).

(51)　Q:　　Doesn't John live here?
　　　A:a.　Yes (he does).
　　　A:b.　That's right.

5.4 presumptive [*si-m-si*] questions

5.4.1 Introduction

Literally *si-m-si* means 'be-not-be', making [*si-m-si*] questions look like a form of A-not-A questions. I distinguish [*si-m-si*] questions from [A-not-A] questions in this thesis, though, because the answer particles *si a/m-si* can be used to respond to [*si-m-si*] questions but not to [A-not-A] questions (to be discussed in chapter 9).

In Taiwanese the question particle [*si-m-si*], like its counterpart [*shi-bu-shi*] in Mandarin Chinese, can appear in three places: the CP, the TP, or attached to the end of the sentence to form a tag question. The function of *si* in [*si-m-si*] varies. It can be a FM, thus forming a focal [*si-m-si*] question, or a copular verb 'be', thus forming a copulative [*si-m-si*] question. [*Si-m-si*], in various positions, marks different types of question: a cleft question, a regular yes-no question, or a tag question. [*si-m-si*] looks like the explicit spell-out of the disjunctive question feature [±Pol], but matters are a bit more complicated, as will be discussed below. In this section I focus on [*si-m-si*] questions which can be answered with *tioh a* hence '*si-m-si* presumptive questions' distinguished from '*si-m-si* neutral questions', which cannot be answered with the judgement verb *tioh a* (see chapter 7 for discussion). Two types of [*si-m-si*] presumptive questions in relate to the position of the question particle: one is when the question particle occurs in the TP and the other is at the end of sentence are discussed in this thesis. In this section I focus on the former and leave the latter one, tag questions to be discussed in chapter 6.

5.4.2 [si-m-si] in the TP

Two types of quesitons will be investigated in this section depending on the function of *si/m-si* in the question: copulative [*si-m-si*] questions, and focal [*si-m-si*] questions. I will discuss the differences between these two types of presumptive questions in the following subsections.

[*Si-m-si*] questions can be direct questions as well as indirect questions.

5.4.2.1 copulative [*si-m-si*] questions

(52Q) shows a direct copulative [*si-m-si*] question.[39] The copular *si* 'be' in the form of [*si-m-si*] follows the subject in the TP. The copulative [*si-m-si*] question questions the relation of the subject and the predicate, putting the two alternative propositions 'Lauong is a teacher.' and 'Lauong is not a teacher.' before the addressee, asking him/her to say which one is true, as shown in (52Q).

(52) Q: Lauong si-m-si   lau-su?
            Lauong be-not-be/Q teacher
            'Is Lauong a teacher (or not)?'
      A:a. si a / tioh a   (i   si   lausu)
            yes DM/ correct DM   he is   teacher)
            'Yes, he is a teacher,'
      A:b. m-si,   i   m-si   (lausu)
             no   he   not-be   teacher
             'No, he is not (a teacher).'
      A:c. si   (lau-su)
            'be'   teacher
            'Yes. he is.'
      A:d. m-si   (lau-su)

---

[39] With respect to the function of the copula the reader is recommend to refer Huang's (1990), which is based on Mandarin Chinese *shi* 'be'. Observe Taiwanese *si* 'be' behaves the same as its counterpart *shi* 'be' in Mandarin Chinese.

not be   teacher

'No, he isn't.'

To confirm the positive alternative of a copulative [*si-m-si*] question one can employ the answer particle *si a* 'yes DM' or the judgement particle/verb *tioh a* 'correct DM': (52Aa). To disconfirm the positive alternative one can use the negative answer particle *m-si*: (52Ab). *Si a* and *tioh a* can be used alone, without spelling out the TP, but *m-si*, again, requires a spelled out TP, which can be reduced to just the highest predicate head and the subject pronoun. Alternatively, one can use the predicate-head answer, which in this case is the copular verb: *si* 'be', as in (52Ac), or *m-si*, literally 'not be' as in (52d). The negative copular *m-si* can occur alone, without a spelled out complement. Recall that the copula *si* 'be'answer and its counterpart *m-si* 'not be'can stand alone as answers.

Note the question in (52Q) does not have a negative counterpart since the question particle itself includes the negative alternative, like an A-not-A question. The copular verb is in the form of [A-not-A]. One question that arises is why the judgement verb *tioh a* can be used as the answer in (52Aa). If [*si-m-si*] in (52Q) is the spell-out of the feature [±Pol], literally meaning (in this case) 'is or is not', then that would seem to mark a neutral question. And if the question is neutral there is no proposition presumed to be true, and therefore there is nothing to agree with by affirming that it is correct, by *tioh a.*

Consider the question in (53) and its answers.

(53)   Q: Lauong si   lausu   a   m-si?
             Lauong   be teacher   or   not.be
             'Is Lauong a teacher or not (a teacher)?'
       A:a.   si   (lausu)
              be   teacher
       A:b.   m-si   (lausu)
              not be   teacher
       A:c.   *si a   /* tioh a
              yes DM/ correct DM
                Intended reading: 'Yes, he is a teacher.'
       A:d.   *m-si, i m-si lausu

94

no,　he　not-be　teacher

Intended reading: 'No, he is not a teacher.'

The sentence in (53Q) is a disjunctive question with an overt disjunction marker *a* 'or' connecting the positive alternative,　the copula *si* 'be' and the negative alternative, the negative copula *m-si* 'not-be'. This question can only be answered by predicate-head answers, explicitly stating which proposition is true (in reduced form), as shown in (9Aa-b). The answer particles or *tioh a* are not an option: (53Ac-d). A comparison of (52) and (53) shows that the [*si-m-si*] question is not a (concealed) disjunctive question. Instead, the possible answers in (52A) are identical to their counterparts in response to the copulative intonation question (see section 5.2), and the copulative SFP question (see section 5.3), both of which contain a valued T as part of their make-up.

I will put the issue of the (non-) neutrality of the [*si-m-si*] question aside for the time being. I will also come back to disjunctive questions in chapter 8.

5.4.2.2 focal [*si-m-si*] questions

In focal [*si-m-si*] quesitons the particles *si* 'FM'/*m-si* 'Neg-FM' are focus markers but not the copula *si* 'be'/ *m-si* 'not be'.

Consider example (54):

(54)　Q:　Lauong　si-m-si　khui　tshia　khi　Tailam?

　　　　　Lauong　　FM/Q　drive　car　　to　　Tainan

　　　　　'Did Lauong drive to Tainan (or not)?'

　　A: a.　si　　a　　　/ tioh　a　　　(i　khui - tshia　khi　Tailam)

　　　　　yes　DM　　/ correct DM　　　he drive car　　to　　Tainan

　　　　　'Yes, he did.'

　　A:b.　m-si,　i　　bô　　　　(khui- tshia　khi　Tailam)

　　　　　no　　he　not.have　drive　car　　to　　Tainan

　　　　　'No, he didn't.'

A:c.　si,　khui　tshia　khi

　　　FM　drive　car　to

　　　'Yes, he drove there.'

A:d.　m-si,　　　khui　tshia　khi

　　　Neg-FM,　drive　　car　to

　　　'No, he did not drive there.'

A:e　*si

　　 FM

A:f　*m-si

　　 Neg-FM

A:g　m-si, i　si　　　tse　tshia　(khi　Tailam)

　　　no　he　FM　　sit　car　to　Tainan

　　　No, he went to Tainan by taking a bus.

To answer a copulative [*si-m-si*] question in (54Q), the particle answers and the judgement verb answer are grammatical, as shown in (54Aa-b). (54ac-d) show the focus marker *si/m-si* followed by a focused constituent/element are grammatical. However, the focus marker *si/m-si* cannot stand alone as possible answers, as shown in (54Ae-f). The sentence in (54Ag) illustrates a clear FM *si* is uttered in the TP. It shows the negative answer particle *m-si* 'no' combined a spell-out TP, which contains an overt focus marker *si* taking a scope over the focused constituent/element.

Compare (52) and (54). In both cases, the answer particles *si a* and *m-si* 'no', and the judgement verb/particle *tioh a* are grammatical. However, there are some differences between these two sets of examples. First, the functions of *si* are different: in (52Q) it is the copular *si,* in (54Q) it is the focus marker *si*. Second, in (52Ac-d) the predicate head answers, the copular *si* 'be' and its negative counterpart *m-si* 'not be' are in use as possible answers, and they can stand alone. However, in (52Ac) *si* echoes the focus marker of the question, and *m-si* (52Ad) is its negative counterpart, and both of them cannot stand alone as the answers, as shown in (54Ae-f).

[*Si-m-si*] as FM is used to indicate a focused constituent/ element, which can be particular constituent/element, or the whole predicate. The position of the FM depends on the position

of the focused constituent. If a focused constituent is under the scope of a question, the FM in the form of [*si-m-si*] will immediately precede and c-command the focused constituent.

Four structures will be examined in this subsection. First, I discuss questions containing only one verb (a possessive verb or other types of verb). These questions must be positive since if they are negative, a negative modal verb must be used. Then, I discuss sentences containing one modal plus a main verb, and then complex sentences containing two modals plus a main verb.

(55Q) is a focal [*si-m-si*] question contains a possessive VP.

(55)   Q: Lauong   si-m-si   u   tsit-e   hiann-ko?
               Lauong   Q/ FM   have one-CL   older.brother
               'Does Lauong have an older brother?'

      A: a.   si   a   / tioh a   (i   u   tsit-e   hiann-ko)
               yes DM/ correct DM   he has   one-CL   older.brother
               'Yes'

      A:b.   m-si, i   bô   (hiann-ko)
               no,   he not.have older.brother
               'No, he doesn't.'

      A:c.   m-si, i   u   san-e   (hiann-ko)
               no,   he have three-CL older.brother
               'No, he has three.'

      A:d.   (si) ,   **u**   tsit-e   (hiann-ko)
               FM   have   one-CL   older.brother
               'Yes, he has one.'

      A:e.   * m-si,   bô   (hiann-ko)
               Neg-FM not.have older.brother
               Intended reading: 'No, he doesn't.'

      A:f.   m-si,   **u**   san-e (hiann-ko)
               Neg-FM, have three-CL

'No, he has three.'

A:g.   bô   /   bô   hiann-ko

not.have / not.have   older.brother

'No, he does not have.'

'No, he does not have any older brother.'

A:h.   u   (tsit-e hiann-ko)

 have one   older.brother

'Yes, he does.'

The fact that a question can be answered by *tioh a* 'correct' means that the question can be interpreted as a presumptive question. This makes it different from A-not-A questions (to be discussed in chapter 9 below), and other neutral questions. Recall that the negative particle *m-si* 'no' can be triggered by any constituent which has different value, as shown in (55Ab)/ number, as shown in (55Ac), in the answer compared to its counterpart in the question (when the derivation of answers is viewed from the bottom-up perspective). In (55Ab) the polarity of the possessive verb has different value, which is denoted by the negative modal verb *bô*, in the answer. In (55Ac) the DP (the possessee) is different from its counterpart in the question, because the quantity is different.[40] The FM *si* is used to confirm the positive alternative. A pause in between the FM *si* and the focused constituent is needed, as shown in (55Ad). A stress is preferred on *u* in (55Ad). In (55Ae) the Neg-FM *m-si* is incompatible with the negative possessive verb *bô*: (55Ae), even with a stress on the modal verb *bô*. However, the Neg-FM *m-si* can only occur with the possessive *u* if *u* is followed by the focused numeral (with an optional noun), with a pause inserted after the Neg- FM *m-si* (55Af). Instead, the predicate-head answer strategy can be used, with the positive modal verb *u* 'have' confirming

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[40] Viewed from a top-down perspective, one idea is that the answer has the answer has the complex structure shown in (i), where the first TP is not spelled out.

(i)   [CP m-si [TP ~~i~~ ~~bô~~ ~~tsit e hiann-ko~~],   [CP [TP i u   san -e hiann-ko
                no   he not.have one CL older.brother   he have three CL older-brother

Here *m-si* would assign negative value to T, by feature transmission, and this negative value combines with the positive possessive verb to yield a negative predicate. This predicate can be deleted, though, and another CP can be added with a specification how it is different from the proposition in the question.

However, this would violate the rule that a TP cannot be deleted after the negative answer particle. The following is an alternative: There is an intermediate representation where the question is interpreted as having a focused numeral [±one]. The TP containing this variable is inherited by the answer. The answer assigns negative value to it: [-one]. Then a late insertion rule replaces it with*san* 'three'. This theory could be incompatible with standard assumptions about the architecture of the grammar. I leave it for future research to investigate whether it would be a viable hypothesis.

the positive alternative in (55Ah), and the negative modal *bô* 'not have' providing a negative alternative in (55Ag). We can tell that *m-si* in (55Af) is the focus marker, not the negative answer particle, because the negative answer particle requires a spelled out subject. We have also already seen that the Neg-FM *m-si* is compatible with the possessive verb *u*. However, it seems   incompatible with the negative possessive verb *bô*. At this point I do not know the reason that causes the incompatibility between the negative focus marker *m-si* and the negative modal verb *bô* so I will not discuss it in this thesis and I leave this for future research.

The structure of (55Q) is illustrated in (56).

 (56)
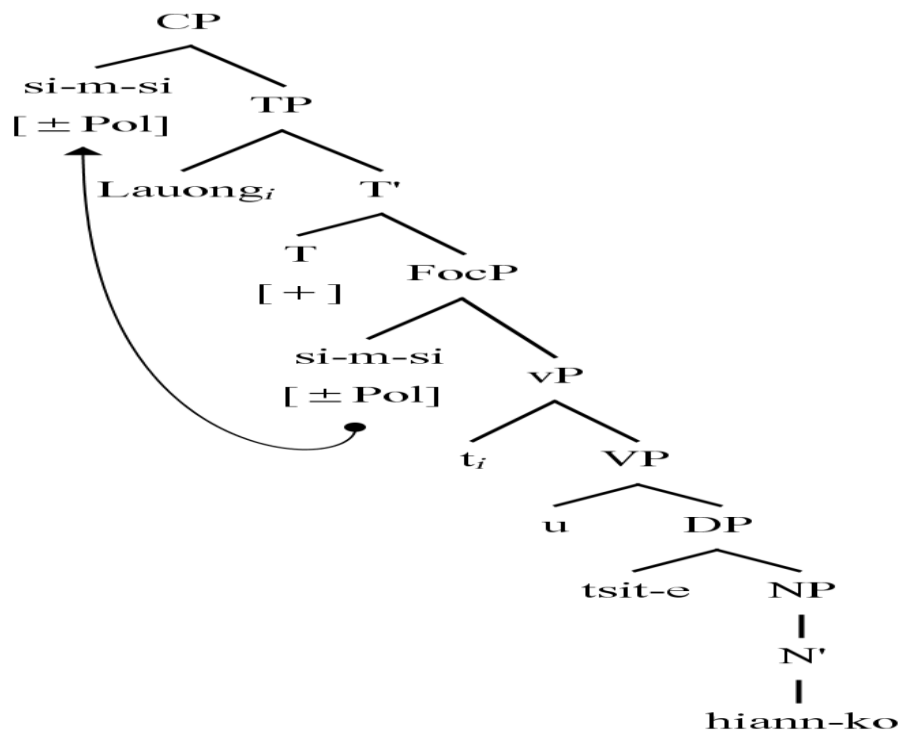
The structure shows the FM in the form of [*si-m-si*] also functions as the question particle, carrying the [±Pol] feature. The question particle moves to CP at LF (indicated by the arrow) to type the sentence as a question, in Cheng's (1997) terms, and/or to assign sentential scope to the disjunction of plus or minus [Pol], in Holmberg's (2016) terms. In S-Structure, the question marker [*si-m-si*] is in the head of FocP. In a simple sentence like the question in (54), the whole predicate is under the scope of the FM. The answer particle *si a* 'yes DM'

assigns [+] value, and *m-si* 'no' assigns [-] value to T, by feature transmission. The assigned [+] value (from the positive answer particle *si a*) combines with the positive polarity (denoted by the positive modal verb *u*) and results in a positive alternative answer, which means that the positive modal verb *u* is spelled out in the answer: (56Aa). The inherited TP is specified for [+Pol]. The question feature [+/-Pol] is not visible in the inherited TP, as it is the foot of a chain, the head of which is in the C-domain. The [-] value transferred to T from *m-si* combines with the inherent [+] value inherited from the question (denoted by the positive modal verb *u*) and results in a negative alternative answer, in which the positive *u* has changed into the negative *bô* 'not have': (56Ab) (see also footnote 39).

The analysis has one outstanding problem: The possibility of answering *tioh a* 'correct' indicates that the question has valued polarity; it can be agreed with. But this conflicts with the analysis of *si-m-si* as a head realising [±Pol] and undergoing LF movement to CP. The plus-marked T should block any such movement. It seems as if *si-m-si* functions both as a positive FM, assigning positive polarity to the sentence and as a question operator. I will put this problem aside, coming back to it in due course.

(54Q) has the analysis in (57a). The particle *si-m-si* encodes [±Pol] and focus. It undergoes movement to CP in LF (Holmberg, 2016; see also chapter 9 on A-not-A questions). Again, the analysis has one outstanding problem: The possibility of answering *tioh a* 'correct' indicates that the question has valued polarity; it can be agreed with. But this conflicts with the analysis of *si-m-si* as a head realising [±Pol] and undergoing LF movement to CP. As mentioned above, I put this problem aside for the time being, coming back to it in section 4.7 (on *kam* questions). The answer (54Aa) has the analysis in (57b).

The tree in (57a) give a structure of (54Q).

(57)　a
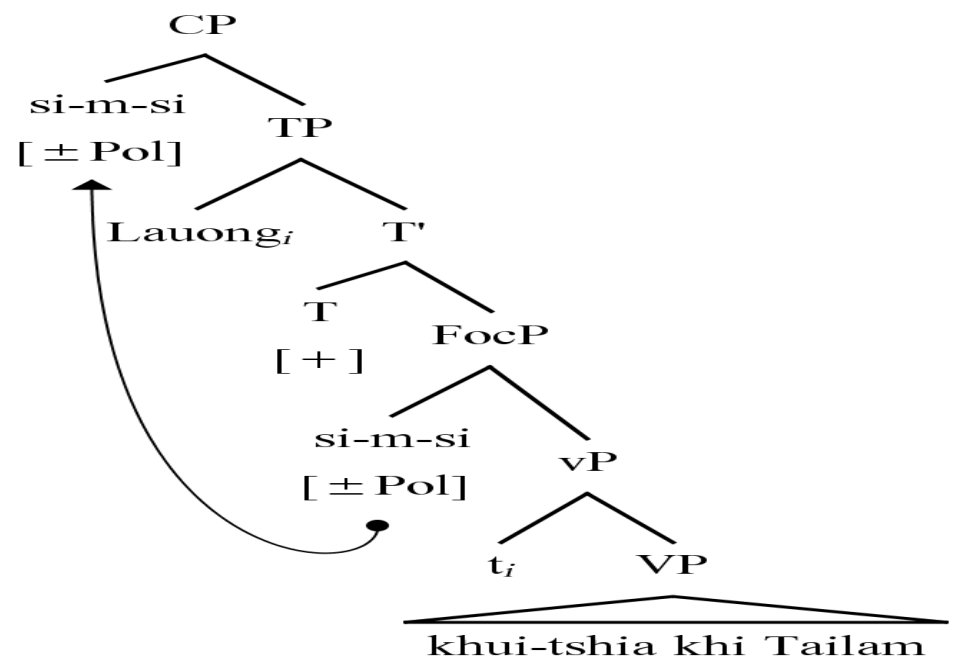
(57b) illustrates the structure of *si a* answer in (54Aa).

b.
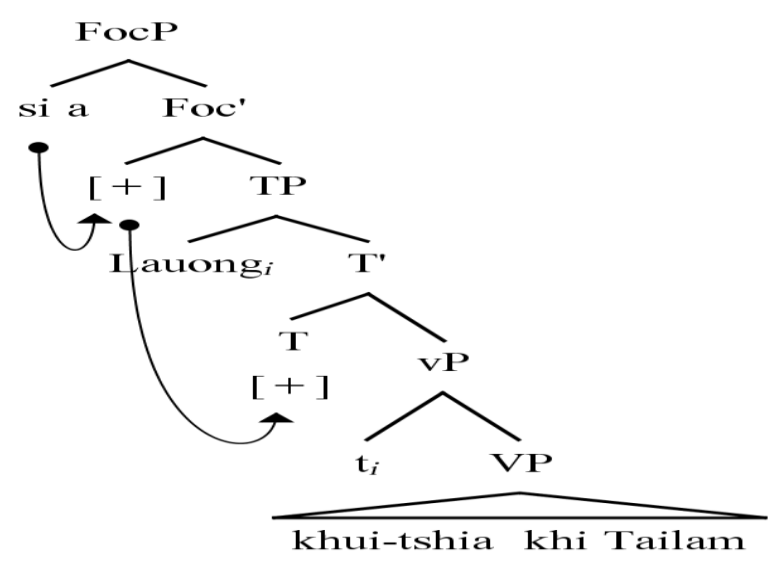
Si a 'yes DM' assigns plus [+] value to T (indicating with an arrow). It results in a positive answer (54Aa). The answer particle *m-si* 'no' assigns [-] value and results in a negative answer, in (54Ab).

Compare the questions in (58). The sentence (58a) contains the positive VP and the aspect marker *a* to yield a perfective reading, while the sentence in (58b) contains a negative modal verb *bô*.

(58) a. Lauong si-m-si khui-tshia lai   a?
          Lauong Q/FM   drive- car   come PRFV
          'Has Lauong come here by car?'

      b. Lauong si-m-si   bô   khui-tshia lai?
          Lauong Q/ FM   not.have   drive - car   come
          'Has Lauong not come here by car?'

The sentences in (58a-b) are perfective and negative questions respectively. The answers in response to (58a) are shown in (59).

(59) a. si   a   / tioh   a (i   khui-tshia lai   a)
          yes DM/ correct DM he drive.car   come PRFV
          'Yes. (He did.)'

      b. m-si, i   bô   (khui-tshia lai)
          no,   he not.have   drive.car   come
          'No, he did not (come by car).'

      c. * si,   khui-tsiah lai   a   / *si,   u
            FM drive-car   come PRFV/   FM, have
            Intended reading: 'Yes, he did.'

      d. *m-si,   bô   (khui-tsiah lai)
          Neg-FM,   not-have drive.car   come
          Intended reading: 'No, he didn't.'

      e. bô   (khui-tshia   lai)
          not.have drive-car   come
          'No, he didn't.'

      f. u   /khui-tshia   lai   a

have   drive-car   come   PRFV

'Yes, he did.'

The answer particle *s*i *a* 'yes DM' can be used to confirm the positive alternative, as illustrated in (59Aa). *M-si* 'no' combined with a spelled-out (short) sentence can disconfirm the positive alternative, as shown in (59Ab). (59c) is not good. The sentence will be more acceptable without the focus maker *si*.[41] The Neg-FM *m-si* is ungrammatical, as shown in (59d). Alternatively the predicate head answer strategy can be used, with the modal verbs as predicate heads, alone, or accompanied by their complements, as illustrated in (59e, f). (59f) exemplifies how in Taiwanese the perfective reading can be uttered by a verb combined with the perfective marker *a,* or by the perfective *u.*

The structure of (59a) is illustrated in (60).

(60)
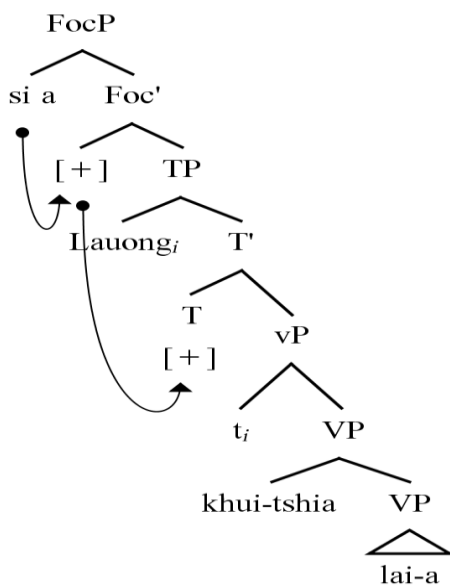
The analysis (60) shows the answer particle *si a* answer. It assigns [+Pol] value to the Foc head of CP, and to T, by feature transmission, and yields an affirmative answer, confirming the positive alternative that Lauong came by car.

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[41] *Si* is more compatible with modal verbs such as *bat* 'ever' and *u* 'have' which turns the whole vP into a state or existence. A VP denoting an action or finished event seems less compatible with *si* (Huang p.c.)

Next, I examine the question contains a ModP including VP with a negation, which means a negative modal verb will be in use.

(61Q) contains a negative possessive verb *bô*. This sentence has focus on the negative polarity.

(61)   Q: Lauong si-m-si   bô   hiann-ko?
               Lauong Q/ FM   not. have   older.brother
               'Does Lauong NOT have any older brother?'
     A: a.   si   a   / tioh a   (i   bô   hiann-ko)
               yes DM/ correct DM   he   not have older.brother
               'Yes, he doesn't. / No, he doesn't.'
     A:b.   m-si, i   u   (hiann-ko)
               no, he   have   older.brother
               'No, he does./ Yes, he does'
     A:c.   si ,   bô   hiann-ko
               FM   not.have older.brother
               'Yes, he doesn't.'
     A:d.   m-si,   **u**   hiann-ko
               Neg- FM have   older.brother
               'No, he does.'
     A:e.   u   (hiann-ko)
               have older.brother
     A:f.   bô   (hiann-ko)
               not. have older.brother

The answer particles *si a* 'yes DM' and *m-si* 'no' can be used to respectively confirm and disconfirm the negative alternative, as shown in (61Aa, b). The focus marker *si* can optionally co-exist with the negative focused answer to offer a confirmation of the negative alternative with a pause after the FM *si:* (61Ac).[42] The Neg-FM *m-si* combined with *u* is

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[42] See footnote (40).

more acceptable with a stree on *u*, as seen in (61Ad). The sentences in (61Ae,f) spell -out the modal verbs, which are carriers of the focused polarity in this case and head the predicate head answers, are used to disconfirm and confirm the negative alternative respectively.

Next, I discuss the FM/ Neg-FM preceding an indefinite subject. When the FM [*si-m-si*] precedes an indefinite subject the surface order does not tell us whether it is in the C-domain or in TP. However, the range of answers and their interpretation indicates that it is in the TP, although by hypothesis moving to CP at LF.

(62Q) shows the FM [*si-m-si*] preceding the existential verb *u* and an indefinite subject.

(62) Q: si-m-si u lang khui-tshia khi Tailam?
          FM/Q have person drive-car to Tainan
          'Was there anyone who drove a car to Tainan?'

      A: a. si a/ tioh a (u lang khui-tshia khi Tailam)
              yes DM/ correct DM have person drive-car to Tainan
              'Yes.'

      A:b. m-si, bô lang khui -tshia khi (Tailam)
              no, not.have person drive- car to Tainan
              'No, no one was.'

      A:c. si, u (lang)
              FM, have person
              'Yes, there is someone.'

      A:d. m-si, **bô** (lang)
              Neg-FM not.have person
              Intended reading: 'No, no one.'

      A:e. bô (lang)
              not. have person
              'No, no one.'

      A:f. u (lang)
              have person
              'Yes, someone'

      A:g **bô**, bô lang (khui- tshia khi Tailam)
              EMP/not.have not.have person drive- car to Tainan

'No, no one drove to Tainan.'

When preceding an indefinite subject, the question particle [*si-m-si*] cannot function as a copula, but as the focus marker, which has focus over the whole predicate including the indefinite subject, which is trapped in the vP. The answer particle *si a* and *tioh a* can be used to confirm/agree with the positive alternative. They can appear alone, as shown in (62Aa). The answer particle *m-si* shown in (62Ab) with a spelled- out sentence can be used to disconfirm the positive alternative. Recall that the negative answer particle *m-si* requires a TP with a definite subject in Spec TP as complement. (62Ab) shows when the subject is indefinite the whole TP seems to be spell-out as well. I will return to this in section 5.5 on *kam* presumptive question. The FM *si* with an indefinite subject is grammatical, as shown in (62Ac). but the Neg-FM *m-si* requires a stress on *bô,* as illustrated in (62Ad). The predicate-head answer with the negative modal verb *bô* is used, as shown in (62Ae, f). The emphasis marker *bô* is used which often appear with a full sentence, as shown in (62Ag). It is noted that the *si* 'FM' answer requires a pause before the existential modal verb *u* 'have' (62Ac). *Si* 'FM' must be accompanied by the modal verb *u* and cannot appear alone as the answer. This indicates that the FM *si*, in this case, does not carry the feature of [Cop]. This might be the reason why (62Ad) is ungrammatical. I will come back to this question in section 5.5.

The tree diagram (63) shows that when the subject is indefinite, it does not raise to the Spec TP position in the main clause. Instead, it stays in the vP the position where it is base-generated.

(63)

CP

si-m-si
[± Pol]

TP

T'

T
[+]

FocP

si-m-si
[± Pol]

ModP

u   vP

lang   VP

khui tshia khi Tailam
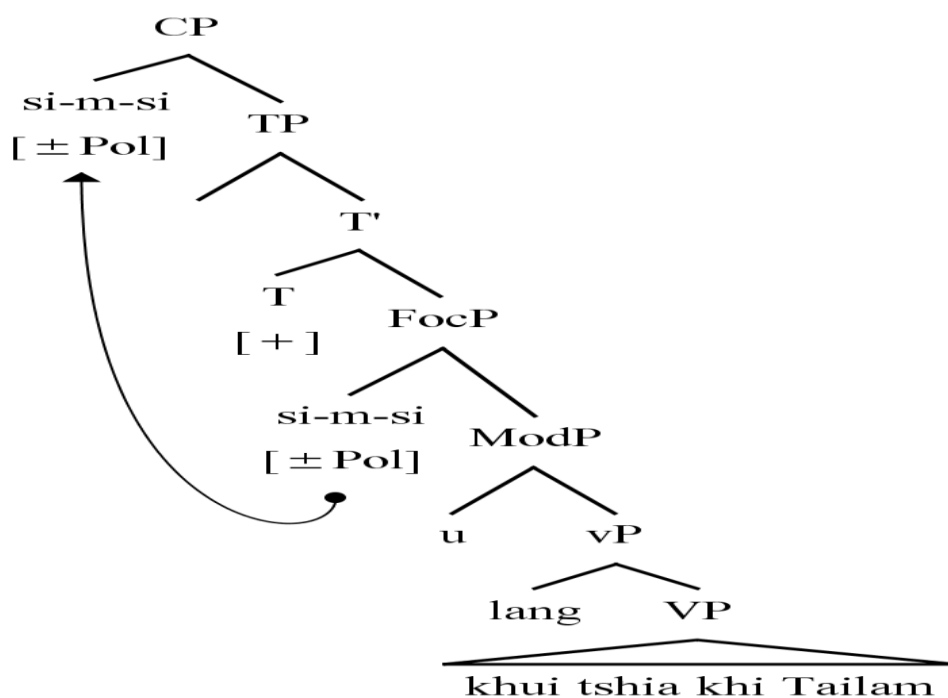
(64) shows the FM [*si-m-si*] preceding the negative existential verb *bô* and an indefinite subject.

(64) Q: si-m-si bô   lang   khui-tshia khi Tailam?
           FM/Q   not. have   person drive-car   to   Tainan
           'Was there no one driving to Tainan?'

      A:a. si   a/ tioh a
            yes DM/ correct DM
            'Yes. /No.' (There was no-one.)

      A:b. m-si, u   lang   khui-tshia khi (Tailam)
            no,   have person drive-car to   Tainan
             'No, someone was'

      A:c. si ,   bô   (lang)
            FM   not.have   person
            'Yes, there was no one.'

      A:d. m-si ,   **u**   (lang)

Neg-FM   have   person

Intended reading: 'No, there was someone.'

A:e.   bô   (lang)

not have person

'Yes, there was no one.'

A:f.   u   (lang)

have   person

'No, there was someone.'

The answer particles *si a* and *tioh a* can be used to confirm/ agree with the negative alternative as shown in (64Aa). They can appear in isolation. The answer particle *m-si* shown in (64Ab), with a spelled out sentence, can be used to disconfirm the positive alternative. (64Ac) requires a pause after the FM *si*. The FM *si* , however, cannot appear alone as the answer. (64Ad) is acceptable when the FM *m-si* combined with a stree on *u*. Alternatively, the existential modal verbs *u* and *bô* are used alone, as predicate head answers, as shown in (64Ae-f).

Now, I will move onto a complex sentence. Consider (65Qa) which contains two constituents by the question / focus marker [*si-m-si*], the sentential adverbial *kho-ling* 'possibility', and the Mod VP *e khi* 'will go'. These two constituents are also negatable constituents which can be negated (or de-negated) in the TP, shown in (65Qb).

(65)   Q:a   Lauong si-m-si   kho-ling   e   khi?

Lauong   Q/FM   possiblity   will   go

'Is it possible that Lauong will go?

Q:b   [CP [TP Lauong [si-m-si [+kho-ling] [+ e khi]]]]

A:a.   si   a   / tioh   a   (i kho-ling   e   khi)

yes DM/ correct DM   he possiblity   will go

Yes. (It is possible that he will go)

A:b.   m-si, i   bô   kho-ling   e   khi

no   he   not.have   possiblity   will go

'No, it is not possibly that he will go.'

A:c.   m-si, i   kho-ling be   khi

no   he   possiblity not.will go

'No, it is possible that he will not go.'

A:d.   si,   u   kho-ling

       FM, have possiblity

       'Yes, it is possible.'

A:e.   m-si,   bô   kho-ling

       Neg-FM not.have   possiblity

       'No, it is not possible.'

A:f.   e   khi

       will go

       'Yes, he will go.'

A:g.   be   khi

       not.will go

       'No, he will not go.'

A:h.   *m-si

        no

In focal [*si-m-si*] questions, the question marker *si-m-si* can take its sister constituent or the left most constituent of the sister, under its scope. The affirmative answer *si a/tioh a* confirms whatever values the question has. When the leftmost constituent is an adjunct, (for instance such as a temporal or locative adverbial), *si* is said to have a narrow scope. *Si* can also take a wider scope over the whole predicate. The negative feature transmitted from *m-si* to T, on the other hand, can target whatever constituent in the predicate is focused in the question and change its polarity value. In (65Q) there are two constituents that can be targeted by *si-m-si*: the sentential modal adverb *kho-ling* and the modal verb *e* 'will'. In (65Ab) the answer particle *m-si* has changed the value of the first constituent from positive to negative, i.e., from *kho-ling* 'possible' to *bô kho-ling* 'impossible'. (65Ac) shows that *m-si* has changed the second constituent from positive to negative, from *e (khi)* to *be(khi)* 'not will (go)'. Let us now see how this works in (66Q), where the first constituent of the predicate is negated, and (67Q), where the second constituent of the predicate is negated.

(66Q) contains multiple modal verbs. One, *bô,* 'not.have' is used to negate an adverbial, and the other, *e* 'will' is to affirm the verb.

(66) Q: Lauong si-m-si bô   kho-ling   e   khi?

Lauong   Q/FM   not.have   possiblity   will   go

'Is it not possible that Lauong will go?'

A: a.   si   a/   tioh   a   (i   bô   kho-ling   e   khi)

yes DM/ correct   DM   he   not.have   possiblity   will   go

'Yes/No, (it is not possible that he will go).'

A:b.   m-si, i   (u)   kho-ling   e   khi

no,   he   have   possiblity   will   go

'No, it is possible that he will go'

A:c.   m-si, i   bô   kho-ling   be   khi

no,   he   not.have   possiblity   not.will   go

'No, it is not possible that he will not go.'

'No, he must go'

A:d.   m-si,   **u**   kho-ling

Neg-FM   have   possiblity

'No, it is possible.'

A:e.   si,   **bô**   kho-ling

FM,   not have   possiblity

'Yes, it is not possible'

'No, it is not possible.'

A:f.   be   khi

will.not   go

A:g.   e   khi

will   go

In (66Aa) *si a* 'yes DM' is used to confirm the alternative that it is impossible that he will go. (66Aa) shows that all constituents in the answer must be identical to their counterparts in the question. In (66Ab) the negative feature of *m-si* has changed the value of the adverb from 'not possible' to 'possible', In (66Ac) it has changed the value of the VP from 'will go' to 'not will go', which yields double negation in the answer, which cancel each other out. (66Ad, Ae) are answers to (66Q) interpreted as focusing the negative adverb. The alternatives in that case are in rough translation: 'For Lauong, it is impossible that he will go' and 'it is not impossible that he will go', i.e. 'it is possible that he will go'. The answer (66Ad) echoes the changed value of the focused adverb, optionally preceded by the negative focus marker *m-si*, disconfirming 'impossible', while (66Ae) confirms 'impossible'. (66Af, g) are answers

to the question interpreted as focusing the VP. Both sentences in (66Ad-e) show the stress seems to be needed when occur with the focus marker *si/m-si* appear.[43] The alternative propositions in that case are 'For Lauong, it's impossible that he will go' and 'It's impossible that he won't go'. (66Af) disconfirms the 'will go' alternative; (66Ag) confirms it.[44]

(67Q) contains a positive sentential adverbial *kho-ling* 'possible' and a negative VP marked by the negative modal verb *be* 'not will'.

(67) Q: Lauong si-m-si kho-ling   be   khi?
           Lauong Q/FM   possiblity not.will go
           'Is it possible that Lauong will not go?

    A:a.   si   a/   tioh   a (i kho-ling   be   khi)
           yes   DM/ correct DM he possiblity   not.will   go
           Yes. (It is possible that he will not go)

    A:b.   m-si, i   kho-ling   e   khi
           no,   he   possiblity sure   will go
           'No, it is possibly that he will go.'

    A:c.   m-si, i   bô kho-ling   be   khi
           no,   he not possiblity not.will go
           'No, it is not possible that he will not go.'
           'No, it is likely he will go.'

    A:d.   m-si, i   bô   kho-ling   e   khi
           no,   he not.have possiblity will   go
           'No, it is not possible that he will go.'

    A:e.   si, u   kho-ling
           FM, have   possiblity
           'Yes it is possible.'

    A:f.   m-si,   bô   kho- ling

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[43] With respect to the stress issue. Since it is not the main focus in the thesis, I leave the issue for future research.

[44] It is an interesting and difficult question what the syntactic derivation is of the answers (77Af, g). The simplest analysis is that they are complete sentences where everything is deleted except the VP (including the low modal verb).

(i)   ~~lauong bô kho-ling~~ be khi

However, if deletion of non-constituents is impossible, and if fragment answers are derived by movement to CP, as argued by Merchant (2004), then the derivation of the answers is more complex. I leave this for future research.

           Neg-FM   not.have   possiblity

           'No, it is not possible.'

A:g.   be   khi

           not.will go

           'Yes, he will not go.'

A:h.   e khi

           will go

           'No, he will go.'

Si a 'yes DM' assigns [+] value to T. Thereby, whichever the focus of the question is, all the values of the complement of T in the question are retained, and the alternative that it is possible that he won't go is thereby confirmed. There are three possible *m-si* answers of which (67Ab,c) have a similar meaning, but not (67Ad). The answer (67Ad) shows that *si-m-si* in the question can target two constituents, so that the negative value of *m-si* in the answer can change the value of two constituents. The answers in (67Ae-h) echo the focused constituents, confirming and disconfirming the resulting alternative propositions.

The question (68Q) contains two negations.

(68)   Q: Lauong   si-m-si   bô   kho-ling   be   khi?

             Lauong   Q/FM   not.have possiblity   not.will   go

            'Is it not possible that Lauong will not go?

      A: a.   si   a   / tioh   a   (i   bô   kho-ling   be   khi)

            yes DM/ correct DM   he not.have possiblity   not.will   go

            'Yes, it is possible that he will go.'

      A:b.   m-si, i   u   kho-ling   be   khi

            no,   he   have   possiblity   not.will   go

            'No, it is possible that he will not go.'

      A:c.   m-si, i bô kho-ling   e   khi

            no   he   not   possiblity   will go

            'No, it is not possible that he will go.'

      A:d.   m-si, i   u   kho-ling   e   khi

            no   he   have   possiblity   will go

112

'No, it is possible that he will go.'

A:e. e   khi

will   go

A:f. be   khi

not.will go

A:g. u   kho-ling

have   possibility

'It is possible that he will go'/ 'It is possible that he will not go.'

A:h bô   kho-ling

Not.have possiblity

'It is not possible that he will go'/ 'It is not possible that he will not go.'

The answer particle *si* a 'yes DM' in (68Aa) is used to confirm the alternative with two negations (now it is difficult to say whether the question is negative or positive). *M-si* can target two constituents, the sentential adverbial *bô kho-ling* 'not possible', or the modal verb *be* 'not will', or both. The sentence in (68Ab) shows the answer particle *m-si* has changed the negative sentential adverbial of the question to the positive *kho-ling* 'possible'. The sentence in (68Ac) shows *m-si* has changed the negative modal verb to the positive *e* 'will' while in (68Ad) both constituents (the sentential adverbial and the modal verb) have changed value in (68Ad). The other answers echo the focused constituent, in positive or negative form.

The questions in (65-68) show that Taiwanese has many negative answers, depending on the scope of the negation in the answer. The answer particle *m-si* will always occur with a spelled out sentence, making overt the distinctions between the negative answers. In this respect, Taiwanese *m-si* 'no' behaves consistently and systematically, as shown in (68Af,g) which are ambiguous.

In this section, we have looked at the focal [*si-m-si*] questions where the question marker [*si-m-si*] occurs in the TP. We have seen how the question can focus a particular constituent in the predicate, c-commanded by *si-m-si*, and how, correspondingly, there is a range of possible answers, corresponding to the number of constituents that can be focused in the question. The results show how the answer particles *si a* 'yes DM', *m-si* 'No', and *tioh a* 'correct DM' behave in a stable, predictable fashion. There is always only one *si a/tioh a* answer, confirming all the values as they are in the question. However, there are as many

answers employing the negative answer particle *m-si* as there are constituents that can be focused by si-*m-si* in the question, i.e., as many as there are negatable constituents in the predicate of the question, plus one for the combination of them. This can result in answers with double negation, which will typically undergo elimination of the negations. [45]

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[45] An exception is the combination of the negation *m* and the negative modal verb *bien* 'no need'. When these two negation appear in the same sentence the negative concord occurs (see Lien 2013).
(i) a. Lauong   bien   khi   Tailam
     Lauong   not.need   go   Tainan
     'Lauong does not need to go to Tainan.'
  b. Lauong m   bien   khi   Tailam
     Lauong   not   not.need   go   Tainan
     'Lauong   does not need to go to Tainan.'
  c. Lauong si-m-si   m   bien   khi   Tailam
     Lauong FM/Q   not   not. need   go   Tainan
     'Does Lauong not need to go to Tainan?'

5.5 presumptive *kam* questions

The position of the particle *kam* determines types of questions: cleft questions which the particle occurs in the C-domain, presumptive questions, neutral *kam* question which the particle occurs in the TP, or *kam* tag questions which the particle occurs at the end of the sentence. A presumptive *kam* question is determined by its combination with other elements such as the focus marker *si* 'FM'*/m-si* 'Neg-FM', the copula *si* 'be'*/m-si* 'not be' and the negation. Cleft sentences where the particle combines with the focus marker si' m-si and the combination is in the C-domain. This type of questions will not be dealt in this section. Instead it will be discussed in chapter 7 on neutral questions since the judgement verb tioh a cannot be answered to this type of questions. Tag questions are discussed in chapter 6.

5.5.1 negation

In this section I will focus on the kam occurs in the TP and it appeas with the focus marker si/m-si, the copula si/m-si, or negation.

Next, I discuss the presence of negation in *kam* questions, as shown in (69).

(69) Q: Luong   kam   bô   hiann-ko?
           Luong   Q   not.have   older.brother
           'Does Lauong not have any older brother?'

      A: a.   si   a   / tioh   a   (i   bô   hiann-ko)
              yes DM/ correct DM   he   not.have   older.brother
              'Yes, he does not/ No, he does not (have any older brother)'

      A:b.   m-si, i   u   (hiann-ko)
             no,   he   have   older.brother
             'No, he has.'

      A:c.   u   (hiann-ko)
             have   older.brother

'Yes, he has.'

A:d.   bô (hiann-ko)

         not.have older.brother

         'No, he doesn't have.'

One important observation here is that the judgement verb *tioh a* can be used to respond to a *kam* question containing a negative possessive verb. I have claimed that this answer can only be used in response to presumptive questions, to show agreement with the presumed proposition, not to neutral question. In (69), the negation spelled out with the modal verb as *bô* makes the question negatively biased. The negative question is marked compared to the non-negative one. The fact is, as discussed by Holmberg (2016: 40-42), negative questions are nearly always biased.[46] In English, as was pointed out in 3.4, they can be positively or negatively biased, in part depending on choice of negation. In Taiwanese they can only be negatively biased. In terms of structural analysis there is no problem. The [±Pol] feature of *kam* in T moves to C, which yields the denotation of two alternative propositions. Because the predicate contains a negation, the negative alternative is the primary one (in terms of Holmberg (2016, Ch. 2)): The alternatives are 'not p' and its negation 'not (not p)'. According to Holmberg (2016) this results in negative bias because the positive alternative requires additional computation, eliminating the negations.

I claim that an overt negation or a focus marker, positive or negative, *si* or *m-si,* make questions biased whenever they appear in the TP. Therefore the judgement verb *tioh a* can be used as the answer to such questions. I acknowledge that I do not have a proper explanation in syntactic or semantic terms why a sentence with TP-internal narrow focus is always biased, though. It does not appear to be the case in English, for example, as shown by the fact that (70Ab) is not a well formed answer to (70Q), a question with narrow focus encoded by focal stress.

(70)   Q: Did John DRIVE to London?

        A: a Yes

        A: b ??That's right.

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[46] See Holmberg (2016: 41-42) for an exception to the generalization that negative questions are always biased.

The explanation is the same as in the case of negative questions. A question with a focus marker is marked, compared to a question without any such marker (i.e. with wide scope focus). The marked form is used for a reason. The simplest reason is that the speaker presumes that the positive alternative proposition is true, when using a positive-marked FM, and that the negative alternative proposition is true when using a negative-marked FM

5.5.2 *kam si* in the TP

The particle *kam* combines with the focus marker *si* or *m-si* to form *kam si / kam m-si* questions which are presumptive. This type of questions can be answered with the judgement verb *tioh a*. It can also merge with certain kinds of AspP, including perfective AspP, as in (71b), and it can merge with ModP, but not merge directly with vP; compare (71c,d).

(71)   a.   Lauong kam si   khui tahia lai e?
             Lauong Q   FM drive car come   SFP
             'Was it by driving that Lauong came?'
       b.   Lauong kam khui   tshia lai a?
             Lauong Q   drive car   come Asp
             'Has Lauong driven here yet?'
       c.   Lauong kam u khui tshia lai?
              Lauong Q have drive car come
       d.   *Lauong kam khui tshia lai?
              Lauong Q   drive   car   come

Unlike Chen and Shen (1998) and Lau (2010) I claim that *kam* is not a focus marker in Taiwanese. Instead, the particle *kam* is a question marker with a canonical position between the subject and the predicate (Huang C. 1991). To have narrow scope, the question must include the overt FM *si* or the Neg-FM *m-si*. To make (71d) grammatical the FM *si*/ Neg − FM *m-si* / or the modal verb *u* can be inserted before the VP *hui tshia lai* 'driving car here'.

The sentence in (72) shows a *kam* question co-existing with the FM *si*.

(72) Q: Lauong kam si u   lim ka-pi?
          Lauong Q   FM have drink coffee
          'Does Lauong drink coffee?'/ 'Did Lauong drink the coffee.'

     A: a. si a/ tioh   a (i (si) u lim ka-pi)
            yes DM/ correct DM
            'Yes, he does' / Yes, he drank (the) coffee.'

     A:b. m-si, i   bô   (lim ka-pi).
            no, he not.have drink coffee
            'No, he does not.'/ 'No, he did not.'

     A:c. si,   u   (lim)
            FM, have drink
            'Yes, (he) does/ (he) did.'

     A:d. *m-si, bô (lim)
            Neg-FM, not.have drink
            Intended reading: 'No, he does not'/'No, he did not.'

     A:e. u   (lim)
            have drink
            'Yes, he does' / Yes, he drank (the) coffee.'

     A:f.   bô   (lim)
            not.have drink
            No, he does not.'/'No, he did not.'

(72) poses a biased question, by employing the FM *si,* which also functions as an emphasis marker; hence *tioh a* 'correct' can be used to agree with the presumed proposition. The answer particles *si a* 'yes', and *m-si* 'no' are grammatical, (72Aa-b). The focus marker *si* can optionally co-occur with the focused constituent, with a pause,as shown in (72Ac), but not the Neg-FM *m-si,* as shown in (72Ad). Again, the sentences in (72Ac,d) show an asymmetry between the FM *si* and the Neg-FM *m-si*. When the FM *si* is followed by a pause it can co-occur with a spelled out modal verb *u* and optionally its complement; however, its negative counterpart *m-si* cannot. In (72) the whole predicate is focused, so the answer can consist of the predicate head (positive *u*, negative *bô*), optionally followed by its complement, and, in the positive answer, optionally preceded by the positive FM.

Next, I examine the relation between the Neg-FM *m-si* and the negation. The sentences in (73) show the Neg-FM *m-si* has scope over the predicate headed by *u/ bô* in a question environment.

(73) a. Lauong   m-si   u/bô   hiann-ko?
          Lauong   Neg-FM   have/ not.have   older.brother
          'Does Lauong have /not have (a) brother(s)?'
      b. tsia   m-si   u /bô   lang   tua?
          here Neg-FM   have/ not.have person live
          'Is someone living here / Is no one living here?'
      c. Lauong m-si   khi kue/ bô   khi khu litpun?
          Lauong Neg-FM   go   EXP/ not.have go   EXP Japan
          'Has Lauong been / not been to Japan?'

When the negative FM *m-si* precedes the predicate head *u/bô* 'have'/ 'not have', or a predicate with experiential aspect, as in (73c), the effect is a biased reading: the speaker expects a positive or a negative answer, depending on the following modal. This suggests that the negative FM here functions as a question particle. Since the sentences in (73) are yes-no questions, there must be a question operator feature [±Pol] involved. I suggest that *m-si* in this case encodes not [−Pol] but [±Pol]. Following our earlier assumptions, the feature would move to CP in LF. In this sense *m-si* in (73) would be somewhat similar to the negation in English high negation questions, as in (74).

(74)   Isn't this cake delicious?

These questions are well known to have a positive bias; see Ladd (1981). See Romero and Han (2001, 2002, 2004), Romero (2006) who argue that the negation here is not a negation but a kind a focus operator. See also Holmberg (2016, Ch. 4) for discussion.

Consider (75), the declarative counterparts to (73).

(75) a. *Lauong   m-si   u   /bô   hiann-ko.
           Lauong   Neg-FM   have/ not.have   older.brother
           Intended reading: 'Lauong has/ has not (a) brother(s).'

119

b. *tsia   m-si   u /bô   lang   tua.

Here   Neg-FM   have/not.have   person   live

Intended reading: 'Someone lives/ No one lives here.'

c. *Lauong   m-si   khi kue/ bô   khi kue litpun.

Lauong   Neg-FM   go EXP / not.have go EXP Japan

Intended reading: 'Lauong has been to / has not been to Japan.'

The sentences in (75a-c) show *m-si* cannot appear in this environment in declarative sentences. This is consistent with the idea that *m-si* in (73) is a question particle.

However, if the Neg-FM m-*si* is replaced by the FM *si*, the sentences are perfectly well-formed in a non-question environment as shown in (76). Apparently the positive FM does not function as a question particle. Instead, the FM *si* functions as an emphasis marker carrying the feature [EMP].

(76)   a.   Lauong   si   u   /bô   hiann-ko.

Lauong   FM/EMP   have/ not.have older.brother

'Lauong does have/ does not have (a) brother(s).'

b.   tsia   si   u /bô   lang   tua.

Here   FM/EMP   have/not.have   person   live

'Someone does live here/ There is no one living here.'

c.   Lauong   si   bat / m-bat   khi kue litpun

Lauong   FM/EMP   ever/ not-ever   go EXP Japan

'Lauong HAS been/ has NOT been to Japan.'

This is consistent with what is found in many languages, including Taiwanese: A negative particle can take on the function of a yes-no question particle, introducing an alternative proposition to the one encoded by the TP; see Bailey (2012). A positive particle cannot do that.

Hitherto we have seen when the particle *kam* is in the TP, the question may contain a polarity-marked FM, *si* or *m-si*. The FM marks focus on the predicate or a constituent in the predicate. The effect is a non-neutral question, with a bias determined not by the FM is positive or negative but by the modal verb after the focus marker. As always, a non-neutral

question can be answered with the answer particle *si a* 'yes DM', and *tioh a* 'correct DM', and *m-si* 'no' to confirm or disconfirm the presumed positive or negative proposition. If *kam* questions are truly neutral, the answer particle *si a* 'yes DM' and *m-si* 'no', and targeted scope answers spelling out the focused constituent, can be used, but not the judgement verb *tioh a* 'correct DM'.

Next, I examine some other elements inserted between *kam* and the FM *si*. We have seen that non-verbal *kong* can co-occur with the particle *kam* to form a complex question particle *kam kong* in the CP. The particles *kam* and *kong* can also co-occur with the FM *si*, in two different conbinations: *kam si kong,* see (77a), and *kam kong si*, see (77b).

(77)　　a.　　kam　si　kong Lauong　beh　puann tshu?
　　　　　　　　Q　　FM　that　Lauong　want　move　house
　　　　　　　　'Is it that Lauong wants to move house?'
　　　　b.　　Lauong kam-kong si　　beh　　puann tshu?
　　　　　　　　Lauong　Q　　　　FM　want　move　house
　　　　　　　　'Is Lauong going to move?'
　　　　　　　　'I wonder if Lauong is going to move.'

I assume that (77a) has the structure (78), where *kong* is a complementiser.

(78)　　[CP kam [FocP si [CP kong [TP Luong　beh　puann　tshu]]]]

I will put this type of question aside, focusing more on (120b). What is characteristic of this question is that it does not call for an answer. It is typically a question which one asks of oneself, silently, not expecting an answer (obviously). Bailey (2012: 43) refers to questions like this as 'speculative questions', noting that they are typically formed as questions embedded under *wonder* in English.

In (77b) the FM *si* has the scope over the predicate. The speaker of (77b), for instance, just sees Lauong cleaning his apartment and packing his stuff. He/she has not heard anything about Lauong intending to move, but now the evidence points in that direction. The speaker is asking herself/himself the question based on the scene s/he just sees. The responses to

(77b), if, contrary to expectation, there are answers, are identical to the responses to the corresponding questions without *kong*.

I claim that an overt negation or a focus marker, positive or negative, *si* or *m-si*, make *kam* questions biased whenever they appear in the TP. Therefore the judgement verb *tioh a* can be used as the answer to such questions. The explanation is the same as in the case of negative questions. A question with a focus marker is marked, compared to a question without any such marker (i.e. with wide scope focus). The marked formed is used for a reason. The simplest reason is that the speaker presumes that the positive alternative proposition is true, when using a positive-marked FM, and that the negative alternative proposition is true when using a negative-marked FM.

5.5.3 copulative kam questions

When *kam* is in the TP, it can precede the copula *si* 'be', as shown in (79), which is hence a copulative *kam* question.

(79) Q: Lauong kam si   lau-su?
           Lauong Q   be   teacher
           'Is Lauong a teacher?'
      A: a. si   a   /tioh   a   (i si lau-su)
              yes DM/ correct DM he be teacher
              'Yes, he is'
       A:b. m-si, i m-si (lau-su)
              no,   he not- be teacher
              'No, he is (a teacher).'
      A:c. si (lausu)
             be   teacher
             'Yes, he is.'
      A:d.   m-si   (lausu)
              not-be teacher
              'No, he isn't.'

To confirm the positive alternative of a copulative *kam* question one can employ the answer particle *si a* 'yes DM' or the judgement verb *tioh a* 'correct DM'; both of them can be used alone, without spelling out the TP, as shown in (79a). To disconfirm the positive alternative the negative answer particle *m-si* is used, see (79b), with a spell- out TP. Alternatively, one can use the predicate-head answers, which in this case are the copular verb, *si* 'be', as shown in (79c), or *m-si* 'not be', (79d). Both the predicate-head answers can occur in isolation, without a spell-out complement.

When (79) is uttered out of the blue we expect it to be a neutral question, and hence *tioh a* should not be acceptable as answer, contrary to fact. For some reason the copulative question is interpreted as having a bias, which is positive in (79). I have no explanation for this at present. The negative version behaves as predicted, as shown here in (80).

(80) Q: Lauong kam m-si lau-su?
          Lauong Q   not-be teacher
          'Is Lauong not a teacher?'

   A:a. si   a / tioh   a   (i m-si lau-su)
         yes DM/ correct DM (he not-be teacher)
         'Yes, he is not./ No, he is not.'

   A:b. m-si, i   si (lau-su)
         no,   he be (teacher)
         'No, he is (a teacher).'

   A:c. si (lau-su)
         be   teacher
         'Yes, he is.'

   A:d. m-si (lau-su)
         not-be teacher
         'No, he isn't.'

To confirm the negative alternative of a copulative *kam* question, the answer particle *si a* 'yes DM' and the judgement verb *tioh a* 'correct DM' as in (80Aa) can be used as answers. Recall that a negation in the question always leads to a negative bias. The non-negative copulative

question remains a problem for the present theory, though. (80Ab) shows the negative answer particle *m-si* which needs to occur with a spell-out TP. Alternatively, the predicate-head answers can occur in isolation, with or without their complement.

5.6 Conclusion

In this chapter I have examined varies types of presumptive questions: intonation questions, SFP questions, presumptive *si-m-si* questions and presumptive *kam* questions and their answers.

I have analysed the focal [*si-m-si*] questions where the question marker [*si-m-si*] occurs in the TP, taking the element/constituent immediately following it or everything following it under its scope. If the question has narrow scope over the leftmost constituent, then the answer will also focus this constituent. However, if the question has scope over the whole predicate, there are several options, depending on the constituents of the predicate. The answer can focus on any constituent that can be negated in the predicate. The results show how the answer particles *si a* 'yes DM', *m-si* 'no', and *tioh a* 'correct DM' behaving in a stable, predictable fashion. There is always only one *si a/tioh a* answer, confirming all the values as they are in the question. However, there are as many answers employing the negative answer particle *m-si* as there are constituents that can be focused by *s-m-si* in the question, i.e., as many as there are negatable constituents in the predicate of the question, plus one for the combination of them. This can result in answers with double negation, which will typically trigger elimination of the negations.

In this chapter, I have examined *kam* questions in respect to the relation with the FM *si* or Neg-FM *m-si* in various positions: in the CP, in the TP between the subject and the predicate, and attached to the end of the sentence to form a tag question. The particle *kam* does not form a constituent with the FM, which means they can be in different domains and they can be separated by other element such as the particle *kong*.

I also have investigated various types of *kam* questions and their answers, and the interaction of *kam* with other elements. The presence of the FM *si* or the Neg FM *m-si* determines the

focus of the question, hence determines the answers. I have compared and contrasted the positive and negative focus marker *si* and *m-si* in different positions in *kam* questions.

The answer patterns in response to all presumptive questions are summarized as follows.

Predicate-head answers are always a possibility (often the preferred option). They simply state the proposition which is presented as true, in reduced form. It makes no difference to predicate-head answers whether the question is positive or negative. In presumptive questions the proposition is overtly uttered by the TP, positive or negative, which is presumed to be true. Still, by virtue of presumptive question also denote the opposite proposition. The predicate-head answer just states the true proposition, which may confirm or disconfirm the presumption of the questioner. Typically the answer is reduced by subject pro-drop and VP-ellipsis, leaving only the highest predicate head spelled out, in positive or negative form. This is a sentential scope answer.

The answer particle, *si a* 'yes DM,* and the judgement verb *tioh a* 'correct DM' are used to agree with the presumed positive proposition. They can occur alone, with the TP deleted under identity with the TP of the question. M-*si* 'no' co-existing with a spelled out (short) sentence is used to disagree with the presumed positive proposition. *Si a* transfers [+] value to T and thereby confirms the positive alternative, not changing the value of any of the potentially negatable constituents of the TP. The answer particle *m-si* transfers [-] value to T, which will target one of the negatable constituents of the TP and change its value from positive to negative, thereby disconfirming the positive alternative of the positive yes-no question. Since the TP thereby will be non-identical with its antecedent TP of the question, it cannot be deleted (although it can be reduced).

When the negated constituent is the subject, the form of negation used is the FM *m-si*, a focus particle in the CP, which negates the subject immediately following it in spec TP. The answer particle *m-si* cannot narrowly negate the subject, as its value is transferred to T, and thereby takes scope over the complement of T, excluding the subject.

With respect negative yes-no questions, the answer particle *si a* 'yes DM', and *tioh a* 'correct DM' are used to agree with the presumed negative proposition. The answer particle *m-si* is used to disagree with the presumed negative proposition, affecting a change of a [−] value to a [+] value. Any constituent in the question that can be negated/de-negated can be targeted

by the answer particle *m-si*, via T, meaning that there are as many *m-si* answers as there are negatable/ de-negatable constituents in the complement of T. In simple clauses, consisting of a subject and a VP, there is just one, the VP. In complex clauses, containing, for instance, sentential adverbs, there will be more than one.

Chapter 6.   Tag Questions

6.1 Introduction

Recall that a tag question has more than a presumptive proposition. Following Asher and Reese (2005, 2007) and Holmberg (2016, Ch. 4), it is made up of an assertion, held by the speaker to be true, but which is still questioned, inviting confirmation, by means of a tag. To form a tag question, one simply attached a question marker [*si-m-si*] / or [*kam si*]/ or [*kam m-si*] at the end of the sentence.

Two types of tag questions I will examine in this chapter: [*si-m-si*] tag questions, and [*kam si*]/ [*kam m-si*] tag questions.

The chapter is organized as follows: Section 2 focusses on [*si-m-si*] tag questions. In this section depending on the structure of the preposed proposition before the tag question marker [*si-m-si*], three further subsections are introduced: tag questions with an FM in the form of *si/m-si* (section 6.2.1), with the possessive verb *u/ bô* (section 6.2.2), and with other modal verb, and an indefinite subject (section 6.2.3). Section 3 investigates on [*kam si*] and [*kam m-si*] tag question followed by conclusions.

6.2 [*si-m-si*] tag questions

The question particle [*si-m-si*] can also appear at the end of sentence forming a tag question, as shown in (1).

(1)   a.   Lauong   khui - tshia   khi   Tailam, si-m-si?
            Lauong   drive .car   to   Tainan   Q

'Lauong drove to Tainan, didn't he?'

b.　　Lauong　　bô　　　　khui - tshia　　khi　Tailam,　si-m-si?

Lauong　　not.have　drive .car　　to　　Tainan　　Q

'Lauong didn't drive to Tainan, did he?'

The sentences in (1a, b) are tag questions. Tag questions are biased questions. I propose that the particle [*si-m-si*] as a tag encoding [±Pol] is based generated in the CP. Recall that a tag question has more than a presumptive proposition; instead, following Asher and Reese (2005, 2007) and Holmberg (2016, Ch. 4), it is made up of an assertion, held by the speaker to be true but which is still questioned, inviting confirmation, by means of a tag. Therefore, the speaker of (1a) wants to check if the presumed positive proposition, which is also an assertion, is true while (1b) is to check the presumed negative proposition, an assertion, is true. If this analysis is on the right track, the judgment verb *tioh a* 'correct DM' must be grammatical to agree with the presumed proposition, both positive and negative.

To agree with a tag question with a positive assertion, in (1a) *si a* 'yes DM' and *tioh a* 'correct DM' can appear alone: (2a). *M-si* 'no' can appear alone, as illustrated in (2b).

(2)　　a.　　si　　a/　tioh　a　　(i　　　khui - tshia　　khi　Tailam)

yes　DM/ correct DM　he　　drive.car　　　to　　Tainan

'Yes, it is right that he did.'

b.　　m-si

no

'No/ it is not right'

c.　　* u

　have

d.　　* bô

not.have

As seen in (2c, d) predicate-head answers are not an option in response to tag questions.

To respond to a tag question with a negative assertion, as in (1b), *si a* 'yes DM' and *tioh a* 'correct DM' can appear alone: (3a). *M-si* 'no' can stand alone, as illustrated in (3b).

(3) a. si   a/ tioh   a   (i   bô   khui- tshia   khi Tailam)

         yes DM/ correct DM   he   not.have drive.car   to   Tainan

         'It is right (that Lauong did not drive to Tainan).'

     b. m-si

         no

         'No/It is not right.'

     c. *u

         have

     d. *bô

         not.have

Sentences in (3 c, d), predicate-head answers are not an option in the case of tag questions.

Does the contents in the TP matter in a tag question in terms of its answers? Now let us examine the following situations:

6.2.1 [si-m-si] tag questions containing a focus marker

The [*si-m-si*] tag questions in (4Q) contain an FM in the form of *si* and *m-si* respectively.

(4) Q: Lauong chahng   si   khui-tshia lai   e   si-m-si?

         Lauong yesterday FM   drive car come PRT Q

         'It is by driving that Lauong came here yesterday, right?'

     A a. si   a   / tioh a   ((i   chahng)   khui-tshia lai   e)

         yes DM/ correct DM he   yesterday   drive car   come   PRT

         'Yes, that's right (that he was driving here yesterday).'

     A:b. m-si.

         no

         'No, it is not right (that he was driving here yesterday)'

     A:c. *khui-tshia

         drive-car

129

Intended reading: 'Yes, it's by driving.'

A:d.   *m-si   khui-tshia

    Neg-FM   drive-car

Intended reading: 'No, it is not by driving.'

The [*si-m-si*] tag question contains a presumptive proposition in the form of an assertion, which can be positive or negative. This type of question is seeking for agreement/disagreement with a given assertion. Sentence (4Aa) shows the answers *si a* 'yes DM' and *tioh a* 'correct DM' used to agree with the assertion. *M-si* is used to disagree with the assertion in (4Ab). It can appear in isolation that simply expresses disagreement with the assertion. Note how this looks different from what we have seen so far from the particle answer *m-si*. I will come back to this point below. The information inside the brackets indicates that the whole proposition is not correct. [*Si-m-si*] tag questions do not allow narrow-scope answers, as shown in (4c, d).

Sentence (5) contains the FM in the form of *m-si*.

(5)   Q: Lauong   chahng   m-si   khui-tshia lai   e   si-m-si

          Lauong   yesterday Neg-FM   drive-car   come PRT   Q

          'It was not by driving that Lauong came yesterday, right?'

A:a.   si   a / tioh   a   (i   m-si   khui-tshia lai)

      yes DM/correct DM   (he   Neg-FM drive-car   come)

      Yes, that's right (that he was not driving here yesterday).'

A:b.   m-si

      no

      'No, it is not right (that he was not driving here yesterday).'

A:c.   * m-si   khui-tshia

       Neg-FM drive-car

      Intended reading: 'Yes, it is not by driving.'

A:d. *khui-tshia

      drive-car

      Intended reading: 'No, it is by driving.'

In (5) the FM *m-si* is in negative form and contributes to a negative reading to the question. The tag question in (5Q) is seeking for confirmation of the negative assertion. *Si a* 'yes DM' and *tioh a* 'correct DM' are used to agree with the negative assertion in (5Aa). *M-si* 'No' is used to express disagreement with the negative assertion in (5Ab). Again, there are no other possible answers.

(6Q) shows a tag question containing an adverbial and a predicate without an overt FM.

(6)   Q: Lauong chahng u   khui-tshia lai   si-m-si
                Lauong   yesterday have drive -car   come   Q
                'Lauong drove here yesterday, right?'

      A: a.   si   a/ tioh   a   (Lauong   chahng   u   khui-tshia   lai)
             yes DM / correct DM Lauong   yesterday have drive.car   come
             'Yes, it is right (that he drove here yesterday).'
      A:b.   m si
             no
             'No, it is not right (that he drove here yesterday).'
      A:c.   *chahng
              yesterday
             Intended reading: 'It is yesterday.'
      A:d.   *m-si chahng
             Neg-FM yesterday
             Intended reading: 'It is not yesterday.'
      A:e.   *u   (khui-tshia   lai)
             have   drive-car   come
             Intended reading: 'Yes, it is right.'
      A:f.   *bô   (khui-tshia   lai)
             not.have drive-car   come
             Intended reading: 'No, it is not right.'

The proposition of the tag question in (6Q) is complex, consisting of two constituents, i.e. the sentential adverbial and the VP. The answer particle *si a* 'yes DM' and *tioh a* 'correct DM' are used to agree with the presumptive positive proposition, as illustrated in (6Aa). *M-si* 'no'

is used to disagree with the presumptive proposition: (6Ab). So far, *m-si* is used to express disagreement with the assertion, which provides the content of the tag question. There are no predicate-head answers allowed in response the question in (6Q), as shown in (6Ac-f).

6.2.2. The possessive verb u in [si-m-si] tag questions

(7Q) shows a tag question containing a possessive verb.

(7)   Q: Lauong   u   tsit-e   hiann-ko   si-m-si?
                Lauong   have   one-CL   older. brother   Q
                'Lauong has one older brother, right?'

       A: a.   si   a   / tioh   a   (i   u   tsit-e   hiann-ko)
                yes DM/ correct DM   he have   one-CL   older.brother
                'Yes, that is right (that he has one older brother).'

       A:b.   m- si
                no
                'No, that is not right (that he has one older brother)'

       A:c.   *u   sann-e
                Have   three-CL
                Intended reading: '(He) has three.'

       A:d.   *bô   hiann-ko
                Not.have   older.brother
                Intended reading: '(He) doesn't have (any) older brother(s).'

       A:e.   bô   a
                not.have   DM
                'No such the thing.'

To confirm the positive assertion of a [*si-m-si*] tag question, the answer particle *si a* 'yes DM', and *tioh a* are used to agree with the positive assertion, in (7Aa). *M-si* 'No' is used to disagree with the positive assertion of the [*si-m-si*] tag question, as shown in (7Ab). Again, any narrow-scope answers are not allowed, (7Ac) means 'there is no such a thing that Lauong has one older brother.'

The syntactic structure of (7Q) is given in (8).

(8)

```
                        CP
                      /    \
                   TP      [si-m-si] [±Pol]
                  /   \
            Laoungᵢ    T'
                      /   \
                  T[+]     vP
                          /   \
                        tᵢ      VP
                               /   \
                              u     DP
                                   /   \
                               tsit-e   NP
                                        |
                                        N'
                                        |
                                        N
                                        |
                                      hiann-ko
```
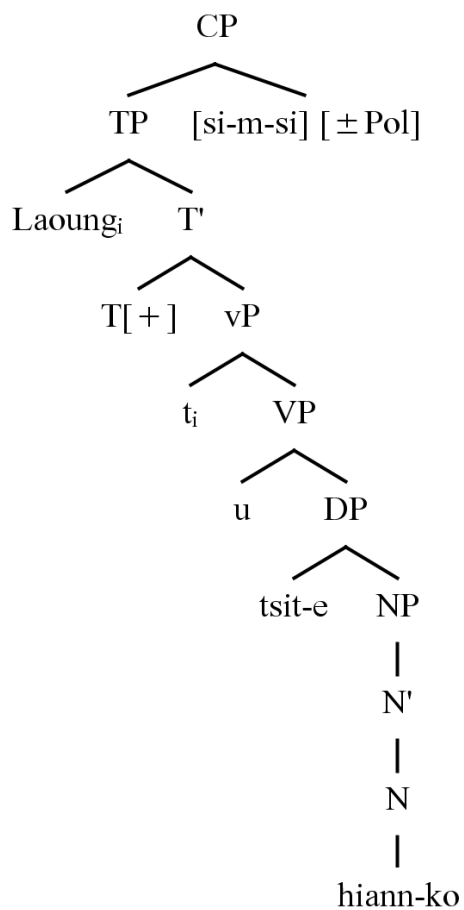
I have assumed, following Asher and Reese (2005, 2007) that the content clause of the tag question is an assertion by the speaker, with (possibly) the full set of functional heads in the left periphery, even including illocutionary force. This CP is merged with the feature [±Pol]. I assume that the effect of the feature when combined with an assertion is to derive the question whether the assertion is true or not. This is different from when the feature is

merged with a TP, as in the case of the SFPs discussed in section 5.3. In that case, the [±Pol] feature introduces an alternative proposition to the proposition denoted by the TP, identical except with opposite polarity value. The difference shows in the range of answers they can have. Most clearly, the SFP question can have a predicate head answer, which states one of the propositions, the positive, or the negative one, in reduced form, or a narrow scope answer which names the constituent which is narrowly focused in the predicate of the question, in positive or negative form. The tag question cannot have a predicate head answer or narrow scope answer naming a constituent in the predicate of the question. It does not ask for a choice between two alternative propositions, but asks whether the proposition asserted in the question is true or not. The answers, therefore, are basically just *si a* 'yes (it's true)' or *m-si* 'no (it's not true)', or *tioh a* 'it's true'.

This is the reason why the negative answer particle *m-si* can appear in isolation in answers to tag questions. It is not merged with a TP, inherited from the question, in which it changes some value(s) from positive to negative, or from negative to positive, which means that the TP must be spelled out, possibly in reduced form. Instead, it spells out the choice between plus or minus Pol encoded by the tag *si-m-si*.

This also explains why it makes no difference whether the TP of a tag question contains a FM or not. It still asks exactly the same question, asking whether the proposition asserted (whatever its content) is true or not.

Sentence (9) shows a [*si-m-si*] tag question with negation marked by the negative modal verb *bô*. The tag question asks whether the negative assertion is true or not.

(9)   Q: Lauong   bô   hiann-ko   si-m-si?
               Lauong   not have   older.brother   Q
               'Lauong does not have (any) older brother, right?'
     A: a.   si a/ tioh a   (i bô   hiann-ko)
               yes DM/ correct DM   he   does not have any older brother
               'Yes, that's right (he doesn't).'
     A:b.   m-si
               no

'No, it is not right that he does not have any older brother (i.e. he has one).'

A:c.　　*bô

　　　　Not have

A:d.　　*u

　　　　have

To agree with the negative assertion, *si* a 'yes DM' and *tioh a* 'correct DM' are used as in (9Aa). To disagree with the negative assertion the bare *m-si* 'no' is used as in (9Ab), to deny that the negative assertion is true. The predicate head answers are not grammatical, as shown in (93Ac-d).

6.2.3 [si-m-si] tag questions other modals and with an indefinite subject

The following cases just confirm the findings of the previous section that the content of the assertion part of the tag question does not directly affect the answer, but instead, the answer just directly confirms or disconfirms that the assertion is true.

(10)　Q:　　Lauong　m-bian　　khi　Taipak　si-m-si?

　　　　　　Lauong　no.need　　go　Taipei　Q

　　　　　　'Lauong does not need to go to Taipei, right?

A: a.　si　　a / tioh　　a　(i　m-bian　　khi　Taipak)

　　　　yes DM / correct DM　　he　not need　go　Taipei

　　　　'Yes,that's right (that Lauong does not need to go to Taipei).'

A:b.　　m-si.

　　　　no

　　　　'No, that is not right (that Lauong does not need to go to Taipei'

A:c.　　* m-bian

　　　　　no.need

A:d.　　* ai

　　　　　need

Si a 'yes DM' and *tioh a* 'correct DM' are used to confirm that the negative assertion of the [*si-m-si*] tag question is true, in (10Aa). *M-si* 'no' is used to disconfirm that the assertion is true, in (10Ab). The predicate-head answers are not possible, as shown in (10Ac-d).

The sentence in (11) shows a [*si-m-si*] tag question with an indefinite subject.

(11) Q: u   lang   khui-tshia lai   si-m-si?

         Have person drive car   come Q

         'There is someone driving here, right?'

      A: a. si   a / tioh   a   (u   lang   khui-tshia lai)

             yes DM/ correct DM   have someone drive- car come

             'Yes, that's right (that there is someone driving here).'

      A:b. m-si

            no

            'No, that is not right (that there is someone drining here)'

      A:c. * u   (lang)

            have   person

            Intended reading: 'Yes, there is someone.'

      A:d. * bô   (lang)

           not have person

           Intended reading: 'No, there is no one.'

Again, because the tag question does not ask for a choice between two propositions based on the TP of the question, a positive or a negative one, the answers in (10Ac, d) and (11Ac, d) are ill-formed. They each consist of one of those propositions (in reduced form). Instead, the answers simply state whether the assertion component of the tag question is true or not.

In this section 6.2, I have examined the three formats of [*si-m-si*] tag questions, depending on the structure of the preposed proposition before the tag. It is proposed that the [*si-m-si*] tag question contains a presumptive proposition in the form of an assertion, which can be positive or negative. The answer particles *si a* and *m-si* are used as the responses. The answer particle *si a* is used to agree with the assertion and the *m-si*, disagree with the assertion. Different from its counterpart in response to other types of yes-no questions, the answer particle *m-si* 'no' in response to [*si-m-si*] tag questions can appear in isolation. The SFP

question can have a predicate head answer, which states one of the propositions, the positive, or the negative one, in reduced form, or a narrow scope answer, which names the constituent, which is narrowly focused in the predicate of the question, in positive or negative form. The tag question cannot have a predicate head answer or narrow scope answer naming a constituent in the predicate of the question.

6.3   *Kam si* **tag questions**

Kam si and *kam m-si* tag questions, like [*si-m-si*] tag questions, are strongly biased questions. Following Asher and Reese (2005, 2007) and Holmberg (2016, Ch. 4), tag questions are made up of an assertion, held by the speaker to be true, but which is still questioned, inviting confirmation, by means of a tag.

Recall that the choice of tag particle, *kam si* or *kam m-si,* will not change the form or meaning of the answer. Look at example (12).

(12) Q: Lauong   beh   khi Taipak   kam si?
        Lauong   want go   Taipei   Q
        'Lauong wants to go to Taipei, right?'

    A: a.   si a / tioh   a
        yes DM/ correct DM he want go Taipei
        'Yes, that's right (that he wants to go to Taipei).'

    A:b.   m-si
         no
        'No, that is not right (that he wants to go to Taipei).'

    A:c.   * beh
            want
        Intended reading: 'Yes, he does.'

    A:d.   *m-ai /*bô   ai
        not.like/ not.have like
        Intended reading: 'No, he doesn't'.

The diagram (13) shows a *kam si* tag question.

(13)
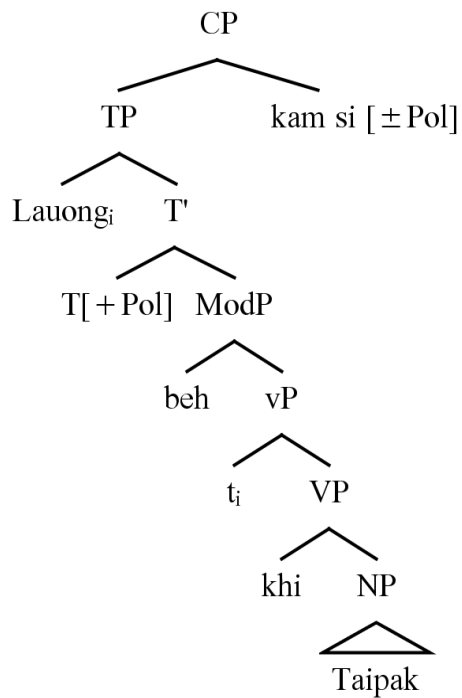
Consider (14) which is a *kam m-si* tag question, using the negative FM.

(14) Q: Lauong   beh   khi   Taipak   kam m-si?
             Lauong   want   go   Taipei   Q
             'Lauong wants to go to Taipei, right?

    A: a.   si   a   / tioh a ,   (i   beh   khi   Taipak)
             yes DM/ correct DM   he want   go   Taipei
             'Yes, that's right (he wants to go to Taipei).'

    A:b.   m-si
             no
             'No, it is not right that he wants to go to Taipei.'

(12Aa) and (14Aa) show how *si a* and *tioh a* are used to agree with the positive assertion in the tag question and how *m-si* is used to disagree with the positive assertion in the tag question. Note that the negative answer particle *m-si* can appear in isolation. As regards answers, there are no differences between the questions with the positive tag and the one with the negative tag.

An overt FM *si* can appear in tag questions, as illustrated in (15Q).

(15) Q: Lauong si   lai   khan LauLi   kam si/ kam m-si?
          Lauong FM   come   see LauLi   Q
          'Lauong will come and visit LauLi, right?'

      A: a. si   a/   tioh a   (i si   lai   khan LauLi)
              yes DM/ correct DM   he FM   come see   LauLi
              'Yes. that's right. (Lauong came and visited LauLi.)'

      A:b.   m-si
             no
             'No, it's not right that he came and visited LauLi.'

      A:c.   *lai khan LauLi
             come see   LauLi
             Intended reading: 'Yes, he will.'

      A:d.   *m-si   lai   khan LauLi
             Neg-FM come see   LauLi
             Intended reading: 'No, he won't.'

Sentence (15Aa) *si a* 'yes DM' and the judgement verb *tioh a* are used to agree with the positive assertion made in the tag question. *M-si* is used to disagree with this assertion. There are no other possible answers allowed. The predicate head answers, for example, are not well-formed: see (15Ac-d). As discussed in connection with [*si-m-si*] tag questions, the reason for this is that the question does not pose a choice between the alternative propositions based on the content clause (the assertion) of the tag question. In the case of (15), it does not pose a choice between 'Lauong came and visited LauLi' and 'Lauong did not come and visit LauLi'. If it did, the predicate head answers which simply state one of these propositions (in reduced form) would be grammatical answers. Instead, the question poses a choice between

139

'Lauong came and visited LauLi is true' and 'Lauong came and visited LauLi is not true'. The minimal answer is *si* for 'it is true' and *m-si* for 'it is not true'. There is no feature assignment to T and no ellipsis involved, hence *m-si* as well as *si* can occur on its own. This is also the reason why it makes no difference if the positive tag *kam si* is used, or the negative tag *kam m-si*. In either case the questions pose the same choice between 'p is true' and 'p is not true'.

6.4 conclusion

Following Asher and Reese (2005, 2007), it is assumed that the content clause of the tag question is an assertion by the speaker, with (possibly) the full set of functional heads in the left periphery, even including illocutionary force. This CP is merged with the feature [±Pol]. It is also assumed that the effect of the feature when combined with an assertion is to derive the question whether the assertion is true or not. This is different from when the feature is merged with a TP, as in the case of the SFPs discussed in section 5.3, where the [±Pol] feature introduces an alternative proposition to the proposition denoted by the TP, identical except with opposite polarity value. The answer particle *si a* agrees with the assertion and *m-si* disagrees with the assertion. Different from its counterpart in response to other types of yes-no questions, the answer particle *m-si* 'no' in response to [*si-m-si*] tag questions can appear in isolation. The SFP question can have a predicate head answer, which states one of the propositions, the positive or the negative one, in reduced form, or a narrow scope answer which names the constituent which is narrowly focused in the predicate of the question, in positive or negative form. The tag question cannot have a predicate head answer or narrow scope answer naming a constituent in the predicate of the question.

Chapter 7.   Neutral Questions

7.1 Introduction

In this chapter I investigate two types of neutral questions: *si-m-si* questions and *kam* questions. I call these two types of neutral questions as '[*si-m-si*] neutral questions' and '*kam* netral questions.' There are some regulations which needs to be clarified in respect to [*si-m-si*] neutral questions. The regulationa are related to the environment of which the question particle [*si-m-si*] can occur. First, the question particle [*si-m-si*] must only occur preceding the subject, but not in the TP following the subject, and it cannot be at the end of the sentence. When the question particle [*si-m-si*] is in the TP, as we have seen the judgement verb *tioh a* can be the answer, hence the question is a presumptive question. When the question particle [*si-m-si*] is at the end of the sentence it turns the question into a tag which is also a kind of presumptive question.

There are also some regulations in relate to *kam* neutral questionswhich need to be clarified. First, in *kam* questions, the particle *kam* must be in the TP following the subject and it cannot be at the end of the sentence of which the question will be a tag. Second, *kam* questions must not contain any of the following elements: copula *si* or its negative counterpart *m-si*, the FM *si* and its negative counterpart *m-si,* and/or any negation. Observe that the above mentioned elements will turn *kam* questions into presumptive questions, of which the judgement verb *tioh a* is an illicit answer.

The chapter is structured as follows. Section 7.2 deals with [*si-m-si*] neutral questions. Section 7.3 examines [*kam*] neutal questions follows by conclusion in section 7.4.

7.2 [*si-m-si*] Neutral Questions

The FM can be in two positions, preceding the subject, in (1Q); it can follow the subject but preced the predicate (see section 5.4.2.2 for discussion). When it is preceding the subject I assume it is situated in the C-domain, in the latter case within the TP.

(1Q) shows the focus question marker *si-m-si* preceding the subject.

(1) Q: si-m-si Lauong   khui tshia khi Tailam?

            FM/Q   Lauong   drive car   to   Tainan

            'Was it Lauong who drove to Tainan?'

     A:a: *si a / tioh a

             yes DM/ correct DM

     A:b: *m-si

            no

     A:c   si (Lauong)

            FM Lauong

            'It was Lauong.'

     A:d   m-si   (Lauong)

            Neg-FM   Lauong

            'It wasn't Lauong.'

(1Q) asks about the identity of the subject, is it Lauong or not Lauong, nothing else. The answer particles cannot be used in this case, as shown in (1Aa-b), as predicted, if the subject is outside the scope of the polarity feature of the particles, because the feature is transmitted to T, as discussed in previous sections. Instead, the positive or negative FMs are used, as illustrated in (1Ac-d).

The example in (65) in section 5.4.2.2 repeats here as (2).

(2) Q: Lauong   si-m-si khui tshia khi Tailam?

            Lauong   FM/Q drive car   to   Tainan

            'Did Lauong drive to Tainan (or not)?'

     A: a. si   a   / tioh a   (i khui - tshia khi Tailam)

            yes DM   / correct DM   he drive car   to   Tainan

            'Yes, he did.'

     A:b.   m-si, i   bô   (khui- tshia khi Tailam)

            no   he not.have drive car   to   Tainan

            'No, he didn't.'

     A:c.   si,   khui tshia khi

            FM drive car   to

142

'Yes, he drove there.'

A:d.   m-si,   khui tshia khi

       Neg-FM, drive   car to

       'No, he did not drive there.'

A:e   *si

      FM

A:f   *m-si

       Neg-FM

A:g   m-si, i si   tse tshia (khi Tailam)

      no he FM   sit car to   Tainan

      No, he went to Tainan by taking a bus.

In (2Q), the focus is on a constituent in the complement of T, either the whole predicate or the first constituent of the predicate. In this case the answer particles can be used to confirm or disconfirm one of the alternative propositions of the question, as illustrated in (2Aa-b, g).

Compare (1) and (2). Observe *si* 'yes' in (1Aa) and *m-si* in (1Ab) cannot be used without spelling out the TP provides evidence of the claim that the answer particles *si* and *m-si* transfers its value to T: It does not scope over the subject, even though it c-commands it. Therefore, it cannot be used as answer to (1Q). Instead, the FM *si* and *m-si* is used. We can presume that *m-si* in (1Ad) is the FM, not the answer particle, because the positive counterpart in (1Ac) is *si* (the FM), not *si a* (the answer particle), as shown in (1Aa).

When [*si-m-si*] is sentence-initial, preceding the subject, the question focuses on the subject. In (69Q) it asks if it was Lauong or somebody else who drove to Tainan. The question is neutral. In this case, [*si-m-si*] is a FM and a copular verb 'be' as well as a question particle. Given the above facts we can assume that [*si-m-si*] in the CP carries the features [±Pol], [Foc], and [Cop]. I will mark them all in the glossary. In addition, there is the Q-force feature, which may also be seen as spelled out by initial [*si-m-si*].

The construction (1Q) looks somewhat similar to a cleft or pseudocleft in, for example, English, as it involves a copula functioning as focus marker. As shown in (1) it can also be translated as such. Cleft and pseudocleft constructions are biclausal, consisting of a headless

relative *(who drove to Tainan)* embedded in a sentence which identifies the referent of the headless relative with the referent of a DP: *Lauong is (the one) who drove to Tainan.* There is no reason, though, to think that the Taiwanese focus construction contains a headless relative.

The structure of (1Q) is shown in (3).

(3)
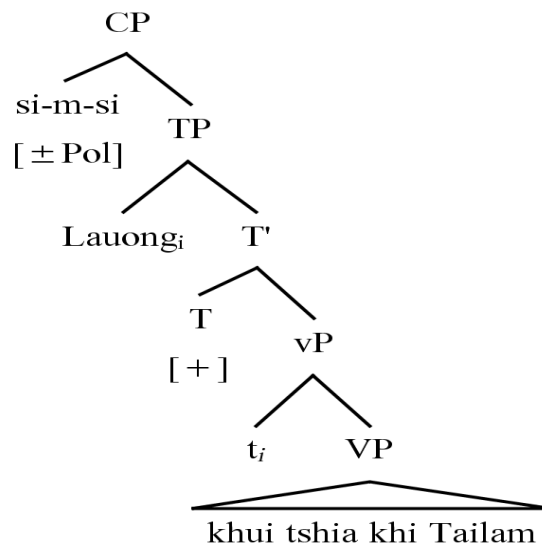
The tree diagram in (3) shows the FM [*si-m-si*] c-commanding and immediately preceding the definite subject *Lauong,* having scope over the subject but not the predicate. By virtue of the [±Pol] feature of *si-m-si*, the sentence is a question posing a choice between the propositions 'Lauong drove to Tainan' and 'Not Lauong (but someone other than Lauong) drove to Tainan'.

I therefore maintain that the construction, illustrated in (3) is monoclausal: It is a single clause in which the subject is focused by means of a focus particle, derived from a copula but functioning as a focus particle in present day Taiwanese.

In the case of (1Q) the TP has positive polarity. Will a negative predicate, as in (4Q), change the answer pattern? When the question particle [*si-m-si*] precedes a definite subject as shown

in (4Q), the answers in (4A) show no difference from their counterparts in (1A) in response to the positive question, as in (1Q). The positive FM *si* confirms that it was Lauong, who did or did not do whatever event the predicate refers to, and the negative FM *m-si* disconfirms that it was Lauong who did or did not do whatever event the predicate refers to.

(4)   Q: si –m-si   Lauong   bô   khui-tshia   khi   Tailam?
            Q/FM/be   Lauong   not.have   drive - car   to   Tainan
            'Was it Lauong (or not) who did not drive to Tainan?

      A: a.   si   (Lauong (bô   khui-tshia   khi   Tailam))
               FM/be   Lauong   not.have   drive.car   to   Tainan
               'Yes, it was Lauong.'

      A:b.   m-si   (Lauong (bô   khui-tshia   khi   Tailam))
               Neg-FM/not-be   Lauong   not.have   drive.car   to   Tainan
               'No, it was not Lauong.'

      A:c.   *bô   (Lauong)
               not   have   Lauong

      A:d.   *si a   / tioh   a
               yes DM/ correct DM
               Intended reading: 'Yes.'

Based on (1) and (4), in both cases the FM/copular *si* and *m-si* in the CP only take scope over the subject, not the following predicate. The predicate is therefore normally deleted in the answer. The answer may spell out just the FM, or the FM and the subject. The answer particle *si a* and judgement verb are not grammatical, (4Ad).

Consider (5), another case of [*si-m-si*] in the CP. In this case the subject is preceded by a sentential adverbial, *tsa-hng* 'yesterday', and [*si-m-si*] takes narrow scope over the adverbial, which yields a question with contrastive focus on the adverbial.

(5)   Q: si-m-si   tsa-hng   Lauong   khui-tshia khi Tailam?
            FM/Q   yesterday Lauong   drive-car   to Tainan
            'Was it yesterday that Lauong drove to Tainan?'

      A: a.   si   (tsa-hng)
               FM/ be   yesterday

'Yes, it was yesterday.'

A:b.   m-si   (tsa-hng)   (si   kin-a-jit)

          not-be/ Neg-FM yesterday   FM/ be   today

          'No, it was not yesterday (it is today)

A:c.   *si   a/ tioh   a

          yes DM/ correct DM

          Intended reading: 'Yes.'

In sentence (5Q) the question particle [*si-m-si*] narrowly focuses the adverbial 'yesterday', which yields the two alternative propositions 'Lauong drove to Tainan yesterday' and 'Lauong drove to Tainan not yesterday but some other day'. (5Ab) shows that the bare *m-si* 'FM/ not be' is acceptable as answer. Based on this, the FMs *si* and Neg-FM *m-si* also carry the feature [Cop] (as we have seen that the copular *si/ m-si* can stand alone). Alternatively, *m-si* can co-occur with its complement, which is the adverbial in this case. The answer particle *si a* and the judgement verb in (5Ac) are not acceptable.

To sum up, when the question particle is in the form of [*si-m-si*] in the C-domain, it is also a focus marker, taking narrow scope over the constituent which it c-commands and immediately proceeds. This can be the definite subject in spec TP or an adverbial adjoined to TP. In the answer, the focus markers *si* (positive) and *m-si* (negative) are employed. Both the FM *si* and the Neg-FM *m-si* can be used alone. Alternatively, they can appear with their complement, the constituent focused. In this case, I assume that FM *si* and *m-si* also carry the feature [Cop]. Recall that the copular *si/ m-si* can appear in isolation, or can be optionally accompanied by its complement.

When the question particle [*si-m-si*] in the CP, it is also a focus marker, taking narrow scope over the constituent which it c-commands and immediately precedes. This can be the definite subject in spec TP or an adverbial adjoined to TP. In the answer, the focus markers *si* (positive) and *m-si* (negative) are employed. Both the FM *si* and the Neg-FM *m-si* can be used alone. Alternatively, they can appear with their complement, the constituent focused. In this case, it is assumed that the FM *si* and *m-si* also carry the feature [Cop]. Recall that copula *si/ m-si* can appear in isolation, or can be optionally accompanied by their complement.

7.3 Neutral Kam Questions

7.3.1 introduction

In this section I will focus on two different *kam* neutral quesitons depending on the position of the question marker: when the question marker *kam* appears with the FM*si* and together they appear in the C-domain and when kam appears in the TP.

Recall that neutral questions cannot be answered with yes or no in Taiwanese.

In Taiwanese, the question particle *kam* is a non-sentence final question particle. It can appear in a direct question (6a) as well as in an indirect question (6b).

(6) a. Lauong kam u lai?
Lauong Q have come
'Did Lauong come?'

  b. LauLi m-tsai Lauong kam u lai.
LauLi not-know Lauong Q have come
'LauLi does not know whether Lauong has come.'

I assume the particle *kam* encodes the polar question feature [±Pol], in direct questions combined with the feature Q-force.

7.3.2 Kam in the C- domain Preceding the Subject (the cleft questions)

When the particle *kam* appears in the C-domain preceding the subject, it has to be accompanied by the positive focus marker *si* or the negative focus marker *m-si,* taking narrow scope over the subject, for instance in (7).

(7) a. (*)kam Lauong beh khi Taipak?[47]
  Q Lauong want go Taipei
'Is it Lauong who wants to go to Taipei?'

  b. kam si Lauong beh khi Taipak?
Q FM Lauong want go Taipei?
'Is it Lauong who wants to go to Taipei?'

---

[47] Some scholars consider (7a) to be grammatical, *kam* taking narrow scope over the subject.

c. kam m-si Lauong beh khi Taipak?

Q Neg-FM Lauong want go Taipei

'Is it not Lauong who wants to go to Taipei?'

The possible answers in response to (7b) are shown in (8), which has narrow scope over the subject.

(8) a. si (Lauong (beh khi Taipak))

FM/ be Lauong want go Taipei

'It is Lauong.'

b. m-si (Lauong (beh khi Taipak))

Neg-FM/ not be Lauong want go Taipei

'It is not Lauong.'

c. *si a / *tioh a (these two answers should be grammatical)

yes DM/ correct DM

d. *m-si, si LauLi

no FM LauLi

The focus marker *si* can appear in isolation, indicating that it carries the feature [Cop(ular)] as well as the feature [Focus]. Alternatively the focused subject *Lauong* can be spelled out as well, optionally along with the rest of the TP. There are no other possible answers in response to (7b). Note that there is no difference between the positive and the negative answer other than the choice of copula/FM. We have seen how, in the case of most other question types, there is a difference between positive and negative answers, such that the complete TP has to be spelled out in the negative answer. This is not the case here, and we know why: This is because the TP in the negative and the positive answer both are identical to the TP of the question, and consequently can be deleted.

The possible responses to (7c) are shown in (9).

(9) a. si (Lauong (beh khi Taipak))

FM/ be Lauong want go Taipei

'Yes, it is Lauong.'

148

b.   m-si   (Lauong (beh khi Taipak)), (si   LauLi)

Neg-FM/be Lauong   want go Taipei   FM/ be LauLi

'No, it is not Lauong, (it is LauLi).'

Like in (7b), in (7c) the Neg-FM *m-si* is used to ask about the identity of subject: is it not Lauong or is it Lauong (after all)? The only difference between (7b) and (7c) is the use of FM *si* and Neg-*m-si* in the question, respectively. However, the responses to (7b) and (7c) are identical, as shown in (8) and (9). The minimal pairs in (8) and (9) show that the use of the positive focus marker *si* is not different from the use of the negative focus marker *m-si* in the C-domain in terms of their responses. This reflects the fact that there is no difference in the derivation of the answers, as will be shown.

As was the case with *si-m-si* in the C-domain, described in section 4.6.2, when *kam si* or *kam m-si* are in the C-domain used to form cleft quesitons, they always take narrow scope over the leftmost constituent in the TP. This is usually the subject, but it can also be an adverbial constituent adjoined to TP, as shown in (10).

(10)   a.   kam si   me-ni   Lauong   beh khi Taipak?

Q   FM   next-year Lauong want go Taipei
'Is it next year that Lauong wants to go to Taipei?

b.   kam m-si   me-ni   Lauong beh khi Taipak?
Q   Neg-FM next-year Lauong   want go Taipei
'Is it not next year that Lauong wants to go to Taipei?

The temporal adverbial has a flexible position in the sentence. In this case it appears between the focus marker and the subject. In this position, it is focused. The responses to (10a) are shown in (11).

(11)   a.   si   (me-ni)
FM   next year
'It is next year,'

b.   m-si   (me-ni)
Neg-FM   next year

'It is not next year.'

The focus marker *si* or the negative focus marker *m-si* can appear in isolation. Alternatively their focused constituent can be spelled out as well, optionally followed by the rest of the TP (not shown here).

(12) shows the answers to the negative question (10b).

(12)   a.   si   (me-ni)
              FM   next year
            'It is next year,'
      b.   m-si   (me-ni)
              Neg-FM   next year
            'It is not next year.'

Compare (11) and (12). Whether *kam* co-occurs with the positive focus marker *si* or the negative focus marker *m-si* in the C-domain preceding the subject, the responses are identical, as shown in (11a), and (12a), and also (11b), and (12b) . This reflects the fact that the derivation of the answers is the same in both cases. The only difference is the choice of the FM/copula, the positive or the negative one.

The syntactic structure of (7b) is shown in (13).

(13)

```
                    CP
                  /    \
              kam      FocP
              [ ± ]   /    \
                    si      TP
                          /    \
                   Lauong_i     T'
                              /    \
                            T       ModP
                          [ + ]    /    \
                                 beh     vP
                                       /    \
                                     t_i     VP
                                           /    \
                                         khi     NP
                                                  |
                                                  N'
                                                  |
                                                Taipak
```
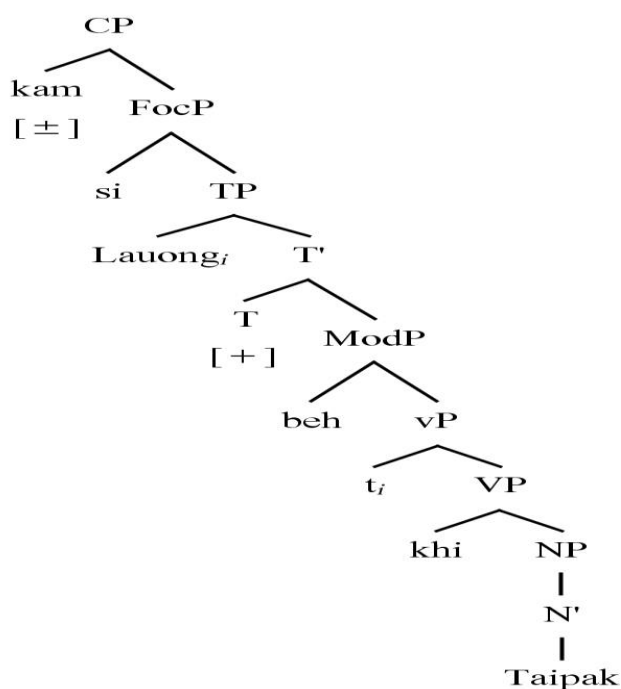
I assume that *kam* merges with a FocP headed by *si*. (7b) is a question about the identity of the subject. The two propositions that the question denotes are 'Lauong wants to go to Taipei' and 'Not Lauong but someone else wants to go to Taipei'. The TP is not questioned, only the subject, so T has positive polarity, regardless whether the FM/copula is positive or negative. The same applies in the answers: The TP remains the same regardless whether the answer is positive, featuring a positive FM/copula in Foc or negative, with a negative FM/copula in Foc.

We have seen the particle *kam* can co-exist with the FM *si* or the Neg-FM *m-si* in the C-domain, and together the combination of *kam si* or *kam m-si* takes narrow scope over the subject or an adverbial adjoined to TP. However, the particle *kam* cannot co-occur with the other question particle/focus marker [*si-m-si*], as shown in (14a). This is predicted if they both instantiate the same feature, the question operator feature [±Pol]. However, it is possible for *kam* to co-occur with the disjunction marker *asi* 'or', as shown in (14b).

(14)　　a.　　*Kam si-m-si Lauong beh khi Tailam?

　　　　　　　Q　　Q/FM Lauong want go Tainan

　　　　　　　Intended reading: 'Is it Lauong (or someone else) who wants to go to Tainan?'

　　　　b.　　Kam si　 Lauong asi LauLi beh khi　Tailam?

　　　　　　　Q　 FM Lauong or LauLi want go Tainan

　　　　　　　'Is it Lauong or LauLi who wants to go to Tainan?'

(14a) is a disjunctive (or alternative) question. I leave the issue of *kam* and disjunctive questions until chapter8.

Observe that the non-verbal *kong* can also combine with the particle *kam* to form a complex question particle *kam kong* as shown in (15).[48] In this case, it does not affect any meaning.

(15)　kam- kong si　 Lauong beh khi Taipak?

　　　Q　　　　 FM Lauong　 want go Taipei

　　　'Is it Lauong who wants to go to Taipei.'

The answers in response to (15) are identical to the responses to the question without the non-verbal *kong*. For this reason, I say no more about it.

In this subsection, I have discussed the particle *kam* appearing in the C-domain, where it must combine with the FM *si* or Neg-FM *mi-si,* to offer narrow scope over the leftmost constituent of the TP, the subject or a sentential adverbial adjoined to TP. Only narrow-scope answers are allowed in response to this kind of questions. Regardless if the FM in the C-domain is positive or negative, the answers and their meanings are the same. The non-verbal *kong* can occasionally be inserted between the particle *kam* and the focus marker *si/ m-si*.

Huang (1991) claims that the particle *kam*'s canonical position is between the subject and the predicate. In this section I will first discuss the particle *kam* in the TP without the presence of the positive FM *si* or the negative FM *m-si*. Then, I discuss the case when both the particle *kam* and the FMs *si* or *m-si* occur in the TP.

---

[48] For detailed discussion of non-verbal *kong* in Taiwanese see Chang (1998), Hsieh and Sybesma 2007, and Lau (2013).

7.3.3. *Kam preceding the possessive verb u*

First I discuss the particle *kam* precedes the positive possessive verb *u* 'have'. This type of question is regarded as neutral questions, as shown in (16). Recall that the answer *tioh a* cannot be the grammatical answer when responses to a yes-no qusiton which is a neutral question.

(16) shows the particle *kam* preceding the possessive verb *u* 'have'. The questioner has no presumption about whether Lauong has or does not have any older brother(s). He/she simply calls for an answer.

(16)   Q: Luong   kam   u   hiann-ko?
                Luong Q   have   older.brother
                'Does Lauong have an older brother?'

      A:a.   *si   a   /* tioh a   (i u hiann-ko)
              yes DM/   correct DM he has older.brother
              Intended reading: 'Yes, he has (an older brothers).'

      A:b.   *m-si, i   bô   (hiann-ko)
                no   he not.have   older.brother
              Intended reading: 'No, he doesn't.'

      A:c.   u   (hiann-ko)
              have   older.brother
              'Yes, he has.'

      A:d.   bô   (hiann-ko)
               not.have older.brother
              'No, he doesn't have.'

Recall that a positive *kam* question without *si* or *m-si* in the TP is a neutral question. The positive polarity answer *si a* and the judgement verb *tioh a* 'correct DM', as we expect, cannot be used to respond the neutral *kam* question; see (16Aa). The negative answer particles *m-si* is not possible either; see (16Ab). The positive possessive verb *u* 'have'

confirming the positive alternative is used in (16Ac), and the negative possessive verb *bô* disconfirming the positive alternative is used in (16Ad).

The structure of (16Q) is shown in (17).

(17)

```
                    CP
              ┌──────┴──────┐
           kam            TP
           [±]      ┌──────┴──────┐
                Lauong_i          T'
                            ┌──────┴──────┐
                          kam            vP
                          [±]       ┌─────┴─────┐
                                   t_i         VP
                                          ┌─────┴─────┐
                                          u          NP
                                                ┌─────┴─────┐
                                               hiann-ko
```
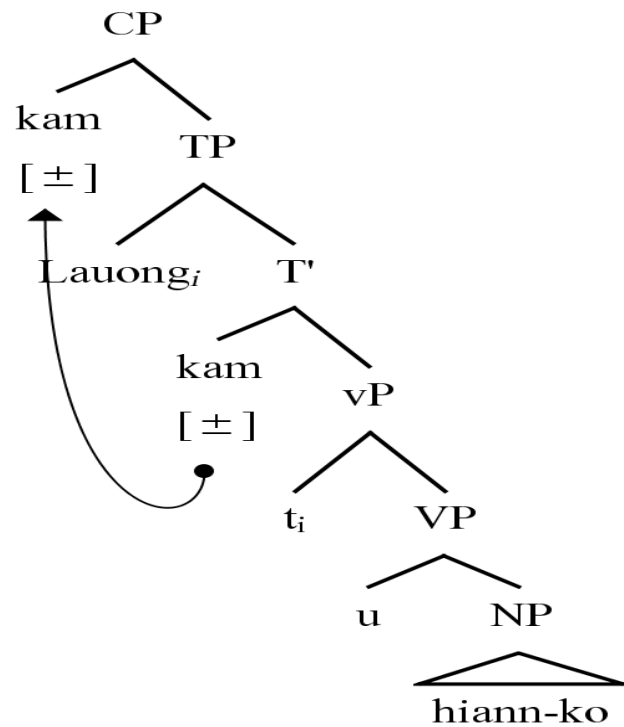
The tree structure in (17) shows the particle *kam* carrying the [±Pol] feature. The question particle *kam* is merged with T, but moves to C at LF, to type the sentence as a question, in Cheng's (1997) terms, and/or to assign sentential scope to the disjunction of plus or minus [Pol], in Holmberg's (2016) term.

In a simple sentence structure, the whole TP is in the scope of the question. In the answer, the answer particle *si a* 'yes DM' assigns [+] value, and *m-si* 'no' assigns [-] value to T, via feature transmission. The assigned [+] value combines with the positive polarity of the ModP inherited from the question and yields a positive answer, which means that the positive possessive modal verb *u* is spelled out in the answer (and all of TP can be deleted). When the [-] value transferred to T from *m-si* is combined with the inherent [+] value of the ModP

inherited from the question, the [+] value is reversed, and yields a negative alternative answer. In this case, the possessive modal is spelled out as *bô* 'not have' (and the TP must be spelled out).

Sentences (18) is a neutral *kam* question.

(18) Q: Lauong kam u   lim   ka-pi ?
          Lauong Q   have drink coffee
          'Does Lauong drink coffee?'
          'Did Lauong drink (the) coffee?'

     A: a. *si   a /* tioh a (i   u   lim   ka-pi)
             yes DM / correct DM he   have drink coffee
             Intended reading: 'Yes'

     A:b. *m-si, i   bô   lim   (ka-pi)
             no,   he   not.have drink coffee
             Intended reading: 'No, he doesn't.'
             'No, he didn't.'

     A:c. u
           have
           'Yes.'

     A:d. bô
           not.have
           'No.'

The question in (18Q) conveys no bias towards any of the alternatives. In this case, *si a* 'yes DM' and *m-si* 'no' are not possible answers, as shown in (18Aa-b). The judgment verb *tioh a,* is not a well- formed answer, in this case; (18Aa). This answer requires a presumed proposition to agree with, which the question does not provide.

The positive and negative predicate-head answers are grammatical, as shown in (18Ac, d), which, in this case, are *u* 'have' and *bô* 'not.have'.

Next, I examine the question particle *kam* preceding a predicate with an indefinite subject. Look at (19):

(19) Q: kam   u   lang   lai?

      Q   have   person come

      'Has someone come?'

A: a. *si a / * tioh   a   (u lang lai)

      yes DM/ tioh   DM has person come

      Intended meaning: 'Yes (someone has come).'

A:b. *m-si, bô   lang   lai

      no,   not.have person come

      Intented meaning: 'No (no one has come).'

A:c. u   (lang (lai))

      have person come

      'Yes..'

A: d. bô   (lang (lai))

      not.have   person

      'No..'

A:e. *si,   u   lang   (lai)

      FM/EMP   have   person come

      Intended meaning: 'Yes (someone has come).'

A:f. *m-si,   bô   lang   (lai)

      Neg-FM/EMP   not have   person come

      Intended meaning: 'Yes (someone has come).'

A:g. **bô**,   bô   lang   lai

      EMP/not.have, not.have   person come

      'No, no one has come.'

(19Q) shows a neutral *kam* question containing an existential modal verb *u* and an indefinite subject. Neither the answer particles *si* a and *m-si* nor the judgement verb *tioh a* are allowed, as shown in (19Aa-b). The predicate head answers both positive, (19Ac) and negative, (19Ad) can be used. The FM *si* combines with the predicate head answer, (19Ae) and the Negative FM *m-si* combines with the predicate head answer, (19Af) are not grammatical. .

Instead, the negative modal verb *bô* (which itself encodes polarity) is used as an emphasis marker.[49]

The case of (19) behaves differently from its counterpart in [*si-m-si*] focal questions, as shown in (73) (see section 4.6.3.3). The answer particles *si a* 'yes' and *m-si,* and the judgement verb *tioh a* 'correct' are not grammatical answers to the question in (19Q) However, in (81Aa, b) where the answer particles *si a* 'yes' and *m-si* 'no', and the judgement verb *tioh a* 'correct' are perfectly well-formed answers to a question, (81Q) with an indefinite subject. Note that there is no overt FM *si* or *m-si* occurring in the question, (19Q) (contract to (73).

(19Q) has its syntactic structure shown in (20).

---

[49] Two negations separated by a pause can be used as the answer when one is expressing emphasis, as shown in (i).
(i) Q: Lauong kam kann kho   lai?
       Lauong Q   dare again come
     'Does Lauong dare (or not dare) to come again?'
   A: a. kann a,   kann lai   a
         dare DM, dare   come DM
        '(Of course) he dares to come.'
       b. m-kann, m-kann kho   lai   a
          not-dare, not-dare again come DM
         '(Of course) he doesn't dare to come.'

(20)

```
                    CP
                   /  \
          kam [±Pol]   TP
                      /  \
              kam[±Pol]  ModP
                   ↑\·   /  \
                    \   u    vP
                          /  \
                       lang   VP
                               △
                              lai
```
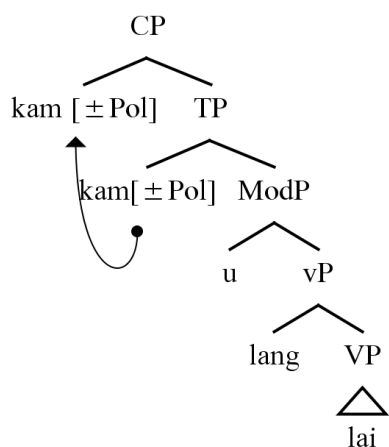
The question particle *kam* is base generated in the TP, and moves to CP at LF. However, as only definite subjects can move to spec of TP (Taiwanese is a topic-prominent language in this sense), the indefinite subject *lang* 'person' must stay in situ in the vP.

7.4 Conclusion

In this chapter I have examined two types of neutral questions: neutral [*si-m-si*] questions and neutral *kam* questions. I have demonstrated that the judgement verb *tioh a* cannot be used to answer to this type of questions.

The only neutral [*si-m-si*] questions are when the question marker occurs in the C-domain. In such the case the focus marker/question particle has a narrow scope over the subject (the definite). The focus marker *si/m-si,* but not the answer particles *si a* 'yes' / *m-si* 'no', are used to answer this type of questions.

Two types of neutral *kami* questions where the question particle *kami* occurs in the C-domain and in the TP are discussed.

Kam in the C-domain always co-occurs with a FM, and takes narrow scope over the subject. These are neutral questions. The only answers possible are the bare FM, positive or negative, optionally followed by the focused subject, and again optionally, by the predicate.

Kam in the TP can occur alone or in combination with a FM. When *kami* occurs alone in a positive sentence without the presence of the FM *si* or the copula *si* 'be' the result is a neutral question, as shown by the fact that it cannot be answered by *tioh a* 'correct DM'.

A question with bare *kam* and an indefinite subject is a neutral question; *tioh a* is not a possible answer.

Chapter 8. Disjunctive questions

8.1 Introduction

Taiwanese disjunctive questions involve the use of an overt disjunction marker *asi/a* 'or', as shown in (1a). Lack of the disjunction marker *asi/a* marks the sentence ungrammatical, as illustrated in (1b).[50]

(1) a.   Lauong   khan   tshia   asi be tshia?

               Lauong   view   car   or   buy car

               'Does Lauong view the car or buy it?

      b.   Luaong   tsiah png *(asi)   tsiah mi?

               Luong   eat   rice or   eat   noodles

               'Does Lauong eat rice or noodles?'

The disjunction marker *asi/a* is used to connect two alternatives, which can be nouns, verbs, VPs, adverbials, modal verbs, or sentences. Sentences (1a,b), for instance, show disjunctive questions containing two VPs.

Disjunctive questions can be in main clauses: (2a) as well as in embedded clauses: (2b).

(2) a.   Lauong   beh   puann-tshu   asi LauLi   beh   tshut-kok

              Lauong   want move -house or LauLi   want   go -abroad

              'Does Lauong want to move house or LauLi want to go abroad?'

      b.   wo m-tsai   lauong khan tshia asi be tshia

              I   not-know Lauong view car   or buy car

              'I do not know whether Lauong viewed a car or bought a car?'

The structure (3) shows a disjunctive question in the main clause.

---

[50] The disjunction marker does not necessarily appear in a disjunctive question in Mandarin Chinese. See examples in (a) in Mandarin Chinese.

  (a) LaoCheng kan che (haisi) mai che?

      LaoCheng view car or   buy car

      'Does LaoCheng view the car or buy the car?'

(3)
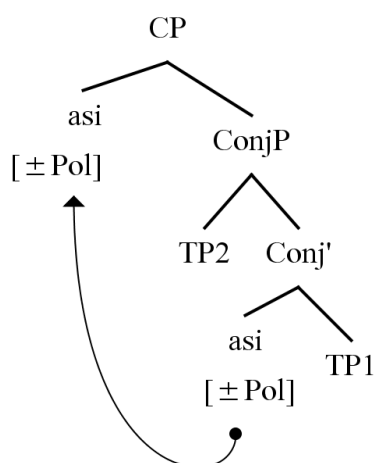
The tree diagram in (3) shows that the disjunction marker *asi* 'or', encoding the feature [±], the 'disjunction feature', merges with TP1 to form the Conj'. Then TP2 merges with the Conj' to form the ConjP (which itself has the features of a TP; I ignore the finer details of the structure of the ConjP). The disjunction marker *asi* 'or' moves to the CP at LF to form a disjunctive question.

The disjunction marker *a/asi* is specific to questions. Disjunction in statements relies on certain expressions which literally mean 'if not x, then y', which cannot be used in questions, (4).

(4) a.   Lauong si lausu   a- bô   to -si   hak-sing

          Lauong   be teacher   not.so   then   student

          'Lauong is a teacher or a student.'

    b.   Lauong   m-si   lausu   to-si   hak-sing

          Lauong   not. be   teacher   then   student

          'Lauong is a teacher or a student.

    c.   Lauong   m-si   bin-a-jit   to -si   au-jit   e   lai.

          Lauong   Neg-be   tomorrow   then   day.after.tomorrow   will   come

          'Lauong will come tomorrow or the day after tomorrow.'

      d.   Lauong   bin-a-jit   a- bô to-si au-jit   e   lai

             Lauong   tomorrow   not so then day.after.tomorrow   will   come

             'Lauong will come tomorrow or the day after tomorrow.'

It makes sense, therefore, to assume that *asi* is a question particle, undergoing LF-movement to the C-domain.

The sentences in (5) show *kam si* can combine with a disjunctive question.

(5) a.   Lauong   kam   si   beh   khan tshia asi be   tshia?
             Lauong   Q   FM   want view   car   or   buy   car?
             'Does Lauong want to view a car or buy a car?'

      b.   Kam si Lauong   asi LauLi   beh be tshia?
             Q   FM Lauong   or   LauLi want buy car
             'Is it Lauong or LauLi who wants to buy a car?'

       c.   *Kam si Lauong beh   puann-tshu   asi LauLi   beh tshut-kok?
              Q   FM Lauong want   move-house or LauLi   want go-abroad
             Intended reading 'Is it Lauong who wants to move or is it LauLi who wants to go abroad?'

When *kam si* is in the TP it takes scope over its sister, the predicate, or over the leftmost daughter constituent of the predicate. This is shown in (5a). When *si* is in the CP, it takes scope only over the subject. This is shown in (5b). When they are in the CP, the disjunction marker *asi* 'or' should only be connecting two subjects since in this case, the FM *si* only has scope over the subject, hence the question focus can only be the subject. This explains why (5c) is ungrammatical.

The answer to (5a) is straightforward. The two Hamblin-propositions are 'Lauong wants to view a car' and 'Lauong wants to buy a car'. One of the alternatives is picked. Normally the answer would be reduced to just spelling out the focused part, which in this case is *khan tshia* 'view a car' or *be thsia* 'buy a car'. The answer can optionally include the FM *si* and the

modal verb *beh* 'want'. To answer (5a), one simply employs one of the alternatives, *khan tshia* 'view car' or *be tshia* 'buy car', as shown in (6a-b).

(6) a. khan tshia
          view car
          'View a car.'

    b. be tshia
        buy car
        Buy a car.'

    c. i beh khan tshia
        he want view car
        'He wants to view a car.'

    d. i beh be tshia
        he want buy car
        'He wants to buy a car.'

    e. * beh
          want
        Intended reading: 'He does.'

    f. * bô   ai/ * bô   beh
          not.have like/ not.have   want
        'Intended reading: 'He doesn't.'

    g. * si   a   / tioh a
          yes DM/ correct DM
          Intended reading: 'yes'

    h. * m-si i beh khan tshia
          no   he want view car
          Intended reading: 'No, he wants to view a car.'

Alternatively, the whole proposition is spelled out as shown in (6c-d). The predicate head answers are not grammatical, see (6e-f), since the predicate head does not provide the information needed to tell which alternative is true. The answer particles *si a* 'yes' and *m-si* 'no', and the judgement verb answer *tioh a* are not grammatical, as illustrated in (6g-h). The particle answers and the judgement verb answer cannot be answered to disjunctive questions.

The answers in response to (5b) are shown in (7).

(7)   a.   si   Lauong
                 FM   Lauong
                 'It is Lauong.'

       b.   si   LauLi
                 FM   LauLi
                 'It is LauLi.'

       c.   si   Lauong   beh   be   tshia
                 FM   Lauong   want   buy   car
                 'It is Lauong who wants to buy the car.'

       d.   si   LauLi   beh   be   tshia
                 FM   LauLi   want   buy   car
                 'It is LauLi who wants to buy the car.'

       e.   * si
                  FM

       f.   * m-si
                 Neg-FM

      g.   * beh
                 want

The two Hamblin-propositions are 'Lauong wants to buy a car' and 'LauLi wants to buy a car. The minimal answer in this case will just mention one of the two subjects as shown in (7a-b). Alternatively, the whole proposition can be spelled out (7c-d). The FM alone or the predicate head, in this case are not grammatical, (7e-g).

As mentioned, *si* in the CP takes scope only over the adjacent subject or an adjacent adverbial if an adverbial is adjoined to TP, higher than the subject.

Consider (8a), a disjunctive question with an inserted non-verbal *kong*. (8b) shows the syntactic structure.

(8)   a. Kam si kong Lauong beh puann- tshu asi LauLi beh tshut-kok?
          Q FM that Lauong want move-house or LauLi want go-abroad

'Is it that Lauong wants to move or LauLi wants to go abroad?'

b.

```
                    CP
                   /  \
            kam si     \
            [±Pol]      C'
                       /  \
                  kong    ConjP
                         /  \
                      TP2    Conj'
                            /  \
                        asi     \
                       [±Pol]    TP1
```
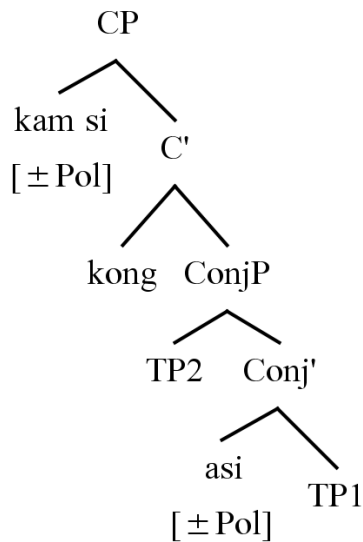
A non-verbal *kong* is inserted after the FM in CP. This makes *si* take a wider scope over the two disjoint alternative TPs. The non-verbal *kong* is a complementiser, which is equivalent to *that* in English (see Lau 2013 for discussion). The non-verbal *kong* takes TP as its complement. In this case, *kong* also blocks the FM *si* from taking scope over the subject of TP2. Instead, *kam si,* which carries the question operator feature [±] and is base-generated in the CP, takes the whole TP conjoined by the disjunction marker *asi* as its complement. Since the two alternatives, in this case, differ with respect to two constituents ('Lauong wants to move house' or 'LauLi wants to go abroad') the complete alternative proposition must be spelled out in the answer.

8.2 Disjunctive questions with the copula *si*

Repeat (64) in section 5.4.2.1 here as (9):

(9)   Q: Lauong   si   lausu   a   m-si?

                Lauong   be   teacher   or   not.be

                'Is Lauong a teacher or not (a teacher)?'

A:a. si (lausu)

be teacher

A:b. m-si (lausu)

not be teacher

A:c. *si a /* tioh a

yes DM/ correct DM

 Intended reading: 'Yes, he is a teacher.'

A:d. *m-si, i m-si lausu

no, he not-be teacher

Intended reading: 'No, he is not a teacher.'

The sentence in (9Q) is a disjunctive question with an overt disjunction marker *a* 'or' connecting the positive alternative, the copula *si* 'be' and the negative alternative, the negative copula *m-si* 'not-be'. This question can only be answered by predicate-head answers, explicitly stating which proposition is true (in reduced form), as shown in (9Aa-b). The answer particles or *tioh a* are not an option: (9Ac-d).

8.3 Conclusion

To sum up, in this chapter we have seen that in Taiwanese disjunctive questions the disjunction marker *asi/ a* 'or' is obligatorily spelled out, unlike its counterpart in Mandarin Chinese. The disjunction marker *asi/ a* 'or' is specific to questions, and therefore functions as a question operator. I assume it moves to the C-domain in LF. In disjunctive questions with *kam* in the C-domain, we do not need to assume any movement, though: *kam (si)* and the question disjunction together yield the interpretation of a question denoting two disjoint propositions. Disjunctive questions can appear in the matrix or in the embedded clause. They are neutral thus the answer particles *si a* 'yes' and *m-si* 'no', and the judgement verb *tioh a* 'correct' cannot be their answers. To answer a disjunctive question, one simply picks one of the alternative propositions as the answer, often reduced to just spelling out the focused constituent, i.e. the constituent which differs in the two (or more) alternative propositions. The particle *kam* along with the FM *si* can appear in disjunctive questions taking narrow

scope over the subject. It can also be combined with the complementiser *kong*, which yields a wide scope question with two disjoint TPs.

Chapter 9. A-not-A questions

9.1 Introduction

This chapter is organized as follows. Section 1 introduces two types of [A-not-A] questions: [A-not-AB] and [AB-not-A] questions. Section 2 focuses on the question particle *kam* in [A-not-A] questions. Section 3 examines the syntactic structure on [AB-not-A] questions and [A-not-AB] questions respectively. The chapter ends with conclusions in section 4.

Two types of [A-not-A] questions: [AB-not-A] and [A-not-AB] are shown in (1).

(1)　　a.　　Lauong tang m tang   kho-tsai lai? [A-not-AB]

　　　　　　Laong   can not can again   come

　　　　　　'Can Lauong come or not come again?'

　　　　b.　　Lauong   u   khui-tshia lai   bô? [AB-not-A]

　　　　　　Lauong   have   drive-car   come   not.have

　　　　　　'Did Lauong drive car or not?'

Both [A-not-AB] and [AB-not-A] questions can appear in a matrix clause: (1a-b) as well as in an embedded clause: (2a-b).

(2)　　a.　　LauLi m-tsai   Lauong tang m tang kho-tsai lai. [A-not-AB]

　　　　　　LauLi not-know Lauong can   not can again   come

　　　　　　'LauLi does not know whether Lauong can come or not come again.'

　　　　b.　　Lauong   m-tsai   LauLi   u   khui-tshia lai bô [AB-not-A]

　　　　　　Lauong not-know   LauLi   have   drive-car   come not.have

　　　　　　'Lauong does not know whether LauLi came by car.'

[A-not-AB] is highly restricted in Taiwanese. It only occurs when the elements which are in the form of [A-not-A] can be negated by the pure negation *m*2 (see section 4.3 on negations). There are a number of differences between A-not-A questions in Taiwanese and in Mandarin Chinese, which will be noted and discussed in this chapter.

The [A-not-AB] question in (1a) posits two alternative propositions, 'Lauong can come again' and 'Lauong cannot come again.' In response to (1a), one of the alternative propositions must be picked. The answers of (1a) are shown in (3).

(3)   a.   tang

            can

            'He can.'

        b.   m-tang

            not-can

            'He cannot.'

        c.   (i) tang kho-tsai lai

            he can   again   come

            'He can come again.'

        d.   (i)   m-tang   kho-tsai lai

            he   not-can   again   come

            '(He) cannot come again.'

        e.   * si   a   / * tioh   a

             yes DM/ correct DM

             Intended reading: 'Yes.'

        f.   * m-si, i   m-tang

             no,   he not-can

             Intended reading: 'No, he cannot.'

As before, the answer can be reduced to just spelling out the focused part. However, in A-not-A questions the focus is always polarity. Therefore the minimal answer spells out the highest predicate head in positive or negative form, as this head conveys the polarity of the answer. In the case of (1a), the predicate head is *tang* 'can' or *m-tang* 'not can', (3a-b). Alternatively, the complement of the head is spelled out as well, as shown in (3c-d). Yet another alternative is spelling out the subject of the sentence as well: (3c-d).[51]

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[51] The following is an observation which the present theory has no explanation for: The answer cannot consist of just the spelled out subject and the highest predicate head. (i) is not a possible answer to (135a).
(i) *i   tang.
     he can
I have assumed that the predicate head answers in Taiwanese are derived by VP-ellipsis and subject pro-drop, two independent deletions. (3c,d) show that subject pro-drop applies independently of VP-ellipsis. So why can VP-ellipsis not apply independently of subject pro-drop? It could be seen as an indication that predicate head

The answer particles *si a* 'yes DM' and *m-si* 'no', and the judgment verb *tioh a* 'correct DM' are not grammatical in response to [A-not-AB] questions, as shown in (3e-f). Since the question is neutral, *tioh a* '(that's) correct' is clearly not an option; there is no proposition to agree with. I will discuss this in section 9.3.1 to the question why *si a* and *m-si* are also ungrammatical answers.

The [AB-not-A] question in (1b) posits two alternative propositions. 'Lauong drove here' and 'Lauong did not drive here.' To answer (1b) one of the alternative propositions must be picked.

The possible answers are given in (4).

(4) a. u

   have

   'Yes (he did)'

  b. bô

   not have

   'No (he didn't).'

  c. (i) u khui-tshia

   he have drive-car

   'Yes (he did)'

  b. (i) bô   khui-tshia

   he not.have drive-car

   'No (he didn't).'

  d. * si a /*tioh a

   yes DM / correct DM

   Intended reading: 'Yes.'

  e. *m-si, i bô

   no he not. have

   Intended reading: 'No, he doesn't.'

---

answers are derived by some more complex operation, along the lines of verb-echo answers in Finnish (Holmberg 2001, to appear) or Thai (Yaisomanang 2012, Holmberg, to appear). I will leave this issue for future research.

The answer can spell out just the predicate heads *u* 'have' or *bô* 'not have', as shown in (4a, b). Alternatively, the complement can be spelled out as well, or the subject and the complement, (4c, d). Again, the answer particles *si a* and *m-si*, and the judgement verb *tioh a* are not allowed to respond to an [AB-not-A] question. I will come back to this issue in section 9.3.2 Also, I come back to the asymmetry in [AB-not-A] questions and [A-not-AB] in due course.

Huang (1991), and Huang, Li and Li (2009) demonstrate that [A-not-A] questions in Mandarin Chinese are unable to appear in the surface sentential subject position, in relative clauses, and in *because* clauses. These contexts are known to be islands for movement (following Ross 1967). The examples in (5) show Mandarin Chinese [A-not-AB] in the subject position in (5a), in a relative clause in (5b), and in a *because* clause in (5c).[52]

(5)   a.   * [LaoCheng qu bu qu meigou] bijiao hao?   [Mandarin Chinese]
                LaoCheng   go not go USA more good
                Intended reading: 'Is it better for LaoCheng to go to the USA or not?'

        b   * ni xihuan [ren(shi) bu renshi ni de   ren]?
                You like   kn(ow) not know you DE   person
                Intended reading: 'Do you like people who know you or don't know you?'

        c.   *ni [yinwei Lisi   lai-bu-lai]   shengqi ne?
               you because Lisi   come-not-come   angry   Q
                Intended reading: 'Are you angry because Lisi came or did not come?'

                                              [Hogstrom 2005]

Huang (1991) and Huang, Li and Li (2009) therefore take (5a-c) to be evidence that A-not-A questions are derived by LF-movement of 'the A-not-A constituent', a feature of T, to the C-domain. These constraints are also found in Taiwanese. The incompatibility of [AB-not-A] questions with an *in-ui* 'because' clause is shown in (6a), with a relative clause in (6b), and with a subject clause in (6c). The examples are Taiwanese.

(6)   a.   * Lauong tsin huann-hi   in-ui   LauLi   beh   lai   bô?
                Lauong very happy   because LauLi   want come not

---

[52] Taiwanese [A-not-AB] questions also trigger island effects which are not shown here.

Intended reading: 'Is Lauong very happy because LauLi wants to come or does not want to come?'

b.   * li   i-ai   [bat   li   e   lang   m-bat]?[53]

     you   like   know   you   E   person   not - know

     Intended reading: Do you like people who know you or not know you?

c.   * [Lauong   u   huann-hi   bô]   ka   ho?

     Lauong   have   happy   not.have   more   good

     Intended reading: 'Is it better that Lauong is happy or not?'

Note that the examples in (6) are [AB-not-A] questions. Huang, Li, and Li (2009: 252-257) argue that A-not-AB questions are derived by spelling out an 'A-not-A feature' in T, in our terms a [±Pol] feature, but moves this feature to the CP in LF. As regards [AB-not A] questions, they argue that they are derived by ellipsis from an [AB-(or) not-AB] base, but leave it unclear whether they involve any movement of a [±Pol] feature to CP. The examples in (6) show that they do, at least in Taiwanese. Below I will show what this means for the structural analysis of the questions.

Next, I examine some special features of Taiwanese [A-not-A] questions, which are different from their counterparts in Mandarin Chinese. Many examples show an asymmetry between the form of [A-not-AB] and [AB-not-A] in Taiwanese. Consider the following examples in (7) and (8), discussed in Huang (1991).

(7)   a.   Lauong   u   tsiah- hun   bô ? [AB-not-A]

       Lauong   have   eat - cigarette   not.have

       'Does/Did Lauong smoke cigarette or not?'

   b.   *Lauong   u   bô   tsiah- hun? [A-not-AB]

       Lauong   have   not.have   eat   cigarette

       Intended reading: Does/Did Lauong smoke or not?

(8)   a.   Lauong   bat   khui-kue   tshia   m-bat [AB-not-A]

       Lauong   ever   drive-EXP   car   not-ever

       'Has Lauong ever driven a car or not?'

---

[53] Note that *bat* is ambiguous between a lexical verb meaning 'know' and an adverb meaning 'ever', seen in other examples in this section.

    b.   Lauong   bat-m-bat   khui-kue   tshia? [A-not-AB]

            Lauong   ever-not-ever   drive-EXP   car

            Intended reading: Has Lauong ever driven a car or not?'

(7a) is an [AB-not-A] question, which does not have a counterpart in the form of [A-not-AB], (7b). However, both the [AB-not-A] question in (8a) and the [A-not-AB] question in (8b) are grammatical. Compare (7b and 8b). What makes (8b) grammatical but (7b) ungrammatical? According to Huang (1991), the adverb *bat* 'ever' has a transparent negated form, i.e., *m-bat* 'never', which contains a negative morpheme *m* (where *m2*, the pure negation marker). The negative form minus the negation is phonetically identical to its counterpart in the affirmative form. Other examples formed with the transparent negative morpheme *m2* are *thang* 'may', *kann* 'dare', *ho* 'good', *si* 'be', *tioh (ai)* 'must', and *tioh* 'correct'. These can all form [A-not-AB] sequences. On the other hand, in (7b), the negative modal verb *bô* 'not have' (the negative form of the modal *u* 'have' and *e* 'will') is not transparent. Other examples of this type of modal verb taking a non-transparent negated form are *e* 'possible', *e-hiau* 'able' *e-sai* 'permissible', *e-tit* 'can', *e-tang* 'can', *ing-kai* 'obliged', *kho-ling* 'possible', *eng-tong* 'obliged', and *i-king ...a* 'already'. In Taiwanese, the pure negation marker, *m2*, can negate only a limited number of elements. Hence, the range of [A-not-AB] questions is limited in Taiwanese.

The following examples show some differences between the [A-not-AB] question in Taiwanese: (9a-b) and Mandarin Chinese: (9c).

(9)   a.   *li   ka-bô -ka-i   Lauong?   [Taiwanese]

            you   li-not-like   Lauong

      b.   li u kai Lauong bô?

            you have like Lauong not.have

            'Do you like Lauong or not?'

      c.   LaoCheng   xi-bu –xihuang   LaoLi?   [Mandarin Chinese]

            LaoCheng   li-not-like   LaoLi

            'Does LaoCheng like LaoLi or not?'

In (9a) the gloss with 'li' is meant to convey. Unlike Mandarin Chinese, Taiwanese has no syllable-reduplication form of A-not-AB questions: (9a) compared to syllable-reduplication

form of A-not-AB questions in Mandarin Chinese, as shown in (9c) (see Huang 1991, 2007, Huang, Li and Li 2009 for discussion on Mandarin Chinese A-not-A questions). Instead, Taiwanese [A-not-A] questions are formed by pairing a positive modal verb with its negative counterpart, in that order, as shown in (9b), or by pairing one out of a small set of verbs or adverbs with its negative counterpart, including *bat* 'ever' (see Huang 1991, Cheng 1997, and section 9.3.2 below), as shown in (10-b).

(10)   a.   Lauong   bat-m-bat   tsiah- kue   tsit-tsiong   mi? [A-not-AB]
            Lauong   ever-not-ever   eat-   EXP   this-type   noodles?
            'Has Lauong ever eaten this type of noodles (or not)?'

       b.   Lauong   bat   tsiah- kue   tsit-tsiong   mi   m-bat? [AB-not-A]
            Lauong   ever   eat -   EXP   this-type   noodle   not-ever
            'Has Lauong ever eaten this type of noodles (or not)?'

Unlike in Mandarin Chinese, in Taiwanese, adjectives and prepositions cannot form the base of [A-not-A] questions themselves. (11a) shows the existential modal verb *u/ bô* are used; an adjective cannot form the base of [A-not-A]: (11b) in Taiwanese; however, but can do so in Mandarin Chinese, as illustrated in (11c).

 (11)   a.   Lauong   u   khiau   bô?   [Taiwanese]
            Lauong   have   smart   not.have
            'Is Lauong smart or not?'

       b.   *Lauong   khiau - bô/m- khiau   [Taiwanese]
             Lauong   smart   not   smart

       c.   LaoCheng cong-bu- cong ming   [Mandarin Chinese]
             LaoCheng sma-not-smart
            'Is LaoCheng smart or not?'

(12a) illustrates that the modal verbs *u/bô* are employed to form the base of [A-not-AB]. (12b) shows that a preposition cannot form the base of [A-not-AB] in Taiwanese, but can do so in Mandarin Chinese, as shown in (12c).

(12) a.　　Lauong　u　　tui　　Taipak　tshut-huat　　bô?　　　　[Taiwanese]

　　　　　　　Lauong　have　　from　　Taipei　depart　　　not have

　　　　　　　'Did Lauong depart from Taipei (or not)?'

　　　b*.　　Lauong　tui - bô/m - 　tui　　Taipak　tshut-huat?　　[Taiwanese]

　　　　　　　Lauong　from　not.have　　from　　Taipei　depart

　　　c.　　LaoCheng cong - bu-cong　Taibei　chufa ?　[Mandarin Chinese]

　　　　　　　LaoCheng　from- not- from　Taipei　depart

　　　　　　　'Did LaoCheng depart from Taipei (or not)?'

The well-formed Taiwanese question (12a) is the form [AB-not-A]. The [A-not-AB] alternative is not licit in Taiwanese in this case, as shown in (12b), while it is in Mandarin, (12c).

(13a) shows a manner adverb cannot form the base of [AB-not-A] question in Taiwanese, unlike its counterpart in Mandarin Chinese, shown in (13c).

(13) a.　　* Lauong　tsau　　kin　m　kin?　　　　[Taiwanese]

　　　　　　　Lauong　　run　　fast　not　fast

　　　b.　　Lauong　tsau　u　　kin　　bô ?　　　[Taiwanese]

　　　　　　　Lauong　run　have　fast　　not.have

　　　　　　　'Did/Does Lauong run fast (or not)?'

　　　c.　　LaoCheng　pao de　kaui bu kuai?　　　　[Mandarin Chinese]

　　　　　　　LaoCheng　　run　DE　fast not fast

　　　　　　　'Did/Does LaoCheng run fast (or not)?'

The Taiwanese sentences in (13a-b) show two differences compared with the Mandarin example in (13c). First, in Taiwanese the manner adverb cannot be used directly to form the base of [AB-not-A]. Instead, the modal verb *u* and *bô* are employed. Second, the modal verbs *u* and *bô* are in the form of [AB-not-A] in (13b) compared the example in Mandarin Chinese in (13c) which shows the manner adverb is directly used in the form of [AB-not-A].

Two alternative propositions are posited in (13b) which are 'Lauong runs fast' and 'Lauong does not run fast'. One of the alternative propositions must be picked as an answer. Again, the highest predicate head can be spelled out alone, in positive, (14a) or negative form, (14b),

175

or the complement can be spelled out as well, optionally with the subject spelled out as well (14c-d).

(14) a. u

     have

     'Yes (he runs fast)'

  b. bô

     not. have

     'No (he doesn't run fast')

  c. (i) u kin

     he have fast

     'Yes (he runs fast)'

  d. (i) bô   kin

     he not.have fast

     'No (he doesn't run fast')

  e. *si a / *tioh a

     yes DM/ correct DM

     Intended reading: 'Yes'

  f. *m-si i tsau bô   kin

     no he run not.have fast

     Intended reading: 'No, he does not run fast.'

Again, the answer particles *si a/ m-si* and the judgement verb *tioh a* cannot function as answers, (14e-f).

In this section, I have shown two subtypes of [A-not-A] questions in Taiwanese: [AB-not-A] and [A-not-AB]. The range of [A-not-AB] questions is limited, though, in Taiwanese, unlike the situation in Mandarin Chinese, since it is restricted to verbs and adverbs that can be negated by the pure negation marker *m*2 (see section 4.3). I also demonstrated differences between [A-not-A] questions in Taiwanese and in Mandarin Chinese. Unlike their counterparts in Mandarin Chinese, adverbs, adjectives, and prepositions cannot be used to form the base of [A-not-A] questions in Taiwanese. Instead, the modal verb is used.

A-not-A questions are neutral questions, positing an unbiased choice between two alternative propositions, p and not p. Answers to both [A-not-AB] and [AB-not-A] questions must consist of one of the alternative propositions, often reduced to just the highest predicate head, as this is enough to convey the polarity of the proposition. The answer particles and the judgement verb are ungrammatical as answers.

9.2   *Kam* in [A-not-A] question

Zhu (1985) compares the use of *kam* questions and A-not-A questions among varieties of Chinese. He claims they are the same type of questions and have a complementary distribution across the varieties. A language either has *kam* questions or [A-not-A] questions, but not both. Nevertheless, Huang (1991) argues that Taiwanese *kam* can occur in an [AB-not-A] question in Taiwanese, as shown in (15a-b), but not in an [A-not-AB] question, shown in (15c).

(15) a.   Lauong   kam   e   lai   be?   [AB-not-A]
             Lauong   Q   will   come   not.will
             'Will Lauong come or not?'

      b.   li   kam   bat   chit-e   lang   m-bat?   [AB-not-A]
            you   Q   know   this-CL   person   not-know
            'Do you know this person or not?'

      c.   * li   kam   bat-m-bat   chit-e   lang?   [A-not-AB]
              you   Q   know-not-know   this –CL   person

      d.   li   bat-m-bat   chit-e lang?   [A-not-AB]
            you know-not-know this-CL person
            'Do you know or not know this person?'

According to Huang (1991), the sentences in (15a-b) are grammatical. Combining *kam* with [AB-not-A] is grammatical in Taiwanese, but combining *kam* with [A-not-AB] yields an ungrammatical result; see (15c).[54] The explanation proposed by Huang (1991) and Huang, Li

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[54] The reason of causing the ungrammaticality is unknown. The *kam* question without the FM *si/m-si* is regarded a neutral question, the [A-not-A] question is also regarded as neutral question. The ungrammaticality may be

and Li (2009: 257), is that *kam*, being a realisation of the question morpheme, in our terms a realisation of [±Pol], cannot be combined with the [A-not-AB] construction, since this is also a realisation of the question morpheme, as will become clear in the next section.

Per contra, based on my own judgment and those of my informants, the sentences in (15a-b) are not good. Along the same lines, Lau (2010) also points out that his informants do not accept these sentences as grammatical unless a pause intervenes between *lai* and *be* in (15a), and between *lang* and *m-bat* in (15b). According to Lau, this means that the questions are incompatible with *kam* when they are [AB-not-A] questions. They are compatible with *kam* only when they are pronounced, and hence interpreted, as negative particle questions, a form of SFP questions.

It will be shown in the next section how these facts can be understood in the theory proposed here.

9.3   The syntactic structure

9.3.1 [AB-not-A] questions

In this thesis, following Huang (1990, 1991) and Huang, Li and Li (2009), it is assumed that Taiwanese [AB-not-A] questions are derived by anaphoric ellipsis (AE) from an [AB-or-not-AB] base, eliding the complement of the second conjunct. In addition, it is assumed that the two disjuncts of the [AB-not-A] questions are joined by a null disjunction marker *a/asi* 'or', in head ConjP. However, I claim that in Taiwanese, [AB-not-A] questions are not derived just by ellipsis of (most of) the second conjunct (as Huang, Li, and Li (2009) seem to suggest on pages 254 and 256). They also involve movement of the covert disjunction which functions as a question operator, a [±] feature, as shown in (16b), to CP, at LF. I repeat (1b), an [AB-not-A] question, here as (16a), with its syntactic structure shown in (16b).
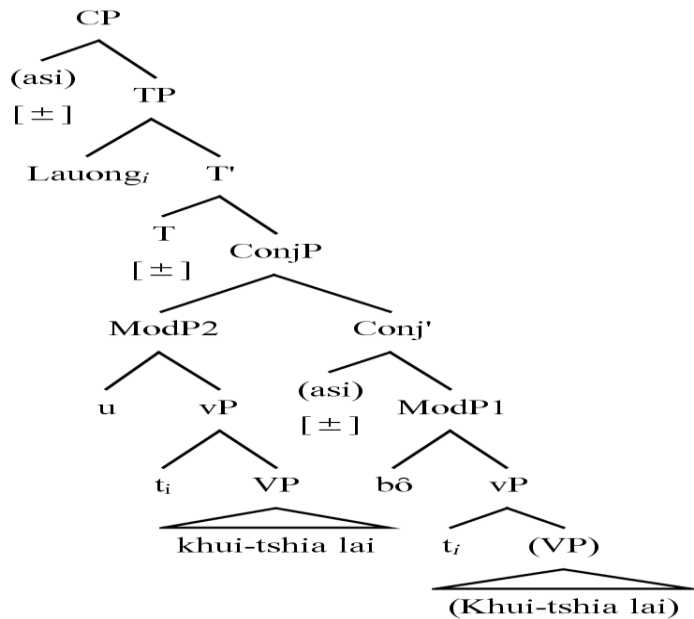
(16)   a.   Lauong   u   khui-tshia   lai   bô?   [AB-not-A]
              Lauong   have   drive-car   come   not.have

---

caused by two question markers encoded by *kam* and in the form of [A-not-A] should not co-exist in the same clause.

'Did Lauong drive a car or not drive a car here?

b.

In (16b), the Conjunction Phrase joins two Modal Phrases. With the mechanism of the anaphoric ellipsis, the VP in ModP1 is deleted. The ModP1 first merges with the disjunction marker *asi* which is null, i.e., not spelled out, to form the Conj'. The Conj' then merges with ModP2 to form the ConjP. The subject (*Lauong*) is moved by Across-the-Board Movement from the vP of both conjuncts to Spec TP (so there is a trace in both vPs). The null disjunction heading ConjP assigns [±] to T, and then this feature moves on to the CP, as it always does in polar questions.

As demonstrated in section 9.1, the answer particles *si a* or *m-si* are not allowed as answers to [AB-not-A] questions. We can understand this as follows: When answer particles are used, the TP of the question is copied in the answer (see section 4.2). The answer particles then assign their value to T (by feature transmission), and then T operates on the predicate, either preserving its polarity value(s) (if T is positive) or changing one or more of its polarity values (if T is negative). This yields a proposition which is one of the alternative propositions posited by the question (the one which is true, according to the responder). But in the case of

179

(16), the complement of T is a ConjP conjoining two ModPs with opposite polarity. Operating on such a ConjP, preserving or changing its polarity values, does not yield a proposition; it is still two disjoint propositions. The only possible form of answer, therefore, is stating one of the two alternative propositions, typically in reduced form.

Recall that Taiwanese [AB-not-A] questions are subject to island effects. The moving disjunction cannot move to the CP of a because-clause, (6a), or the CP of an embedded question, a relative clause in (6b), or a subject clause in (6c), because it is not licit in these CPs (they cannot host a question operator). And it cannot move out of these CPs to a higher CP either, because this violates Huang's (1982) Condition on Extraction Domains (CED), or some equivalent condition on movement, following Ross (1967).

In section 9.2 we observed that the TP-internal question particle *kam* cannot be combined with AB-not-A (*contra* Huang 1991). This follows, if AB-not-A is derived by movement of the [±Pol] feature of the covert disjunction to CP: The question cannot contain two question particles, *kam* and a covert disjunction.

9.3.2 [A- not-AB] questions

Recall that in Taiwanese, only when an alternative takes the pure negation marker *m*2 (refer to section 4.3) as its negated form, i.e., *m*-A, allowing 2016 in the form of [A-not-AB], (17a).

(17) a. Lauong bat-m-bat   tsiah - kue gû-bah?
          Lauong ever-not-ever   eat-EXP   beef-meat
          'Has Lauong ever eaten beef or not?'
      b. * Lauong u-   bô   tsiah- kue   gû-bah?
            Lauong   have-not. have   eat - EXP   beef-meat

Hence, [A-not-AB] has a limited range in Taiwanese. Huang, Li, and Li (2009) propose that Mandarin Chinese [A-not-AB] questions have a structure like the one shown in (18).

(18) a.   Ni xihuan bu xihuan zhe-ben shu [Mandarine Chinese]
           You like   not   like   this-CL book

180

'Do you like or not like this book?'

b.
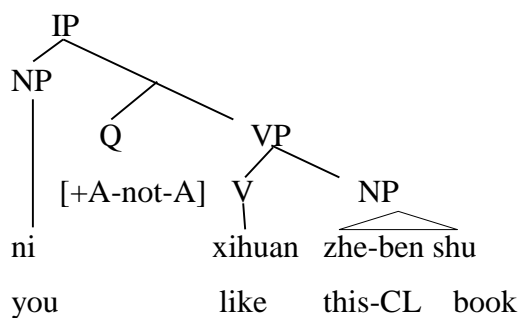
I quote:

> The Q is realized morphologically in the following way: it first reduplicates an initial portion of the VP constituent, and second, turns the second of the identical parts into its appropriate negative form. If the full verb *xihuan* is reduplicated, we have [*xihuan bu xihuan*] /as in (18a) (HMJW)/. If only the initial syllable of *xihuan* is reduplicated, we have [*xi bu-xihuan*] /.../. What form the negative part will take depends on the aspectual property of the verbal element. (Huang, Li, and Li 2009: 253)

Following Huang (1991, 2010), and Huang, Li, and Li (2009), I assume Taiwanese [A-not-AB] questions have essentially the same structure and derivation, except that reduplication of a syllable is not an option, and also the set of heads undergoing the reduplication is highly restricted, as discussed. The example is (19). (19a) repeats (17a). (19b) gives the structure of (19a).

(19)   a.   Lauong   bat-m-bat   tsiah-kue gû-bah?

               Lauong ever-not-ever eat -EXP   beef-meat

              'Has Lauong ever eaten beef or not?'

b.

CP
  C
  [±]
  TP
    Lauong$_i$
    T'
      T
      [±]
      vP
        bat
        vP
          t$_i$
          VP
            tsiah-kue
            NP
              gû-bah
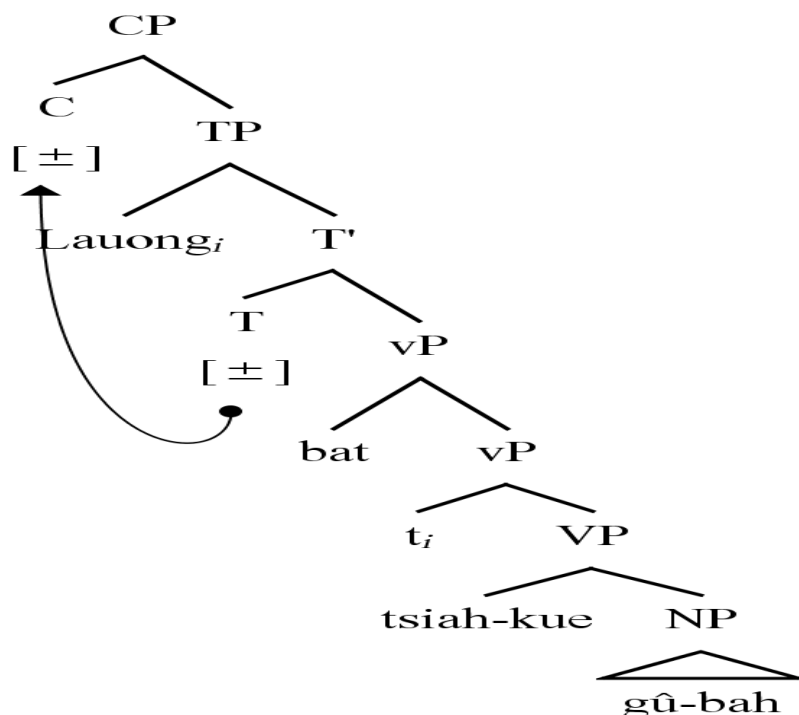
The adverb *bat* 'ever' is adjoined to vP. If Huang and Huang, Li, and Li (2009) are right, the sequence [*bat-m-bat*] is formed as the adverb *bat* is reduplicated, copying it into T. The negation *m* is inserted between the copy and the original, and the result is spelled out as [*bat-m-bat*]. Following Huang (1991) and Huang, Li, and Li (2009), I assume that the [±] feature of T (their [+A-not-A] feature) moves to CP in LF.

The responses to (19a) are shown in (20).

(20) a.   bat
              ever
              'Yes.'
      b.   m-bat
              not ever
              'No/Never'
      c.   bat   tsiah-khu gû-bah

ever　eat-Asp　beef-meat

　　　　'Yes he has.'

　　d.　　m-bat　　tsiah-khu gû-bah

　　　　not-ever　eat-Asp　beef-meat

　　　　 'No/Never.'

　　e.　　*si　a　/ *tioh　a

　　　　 yes　DM/ correct　DM

　　　　 Intended reading: 'Yes'

　　f.　　*m-si, i　m-bat

　　　　no,　he　not-ever

　　　　Intended reading: 'No, never.'

The question posits two alternative propositions: 'Lauong has eaten beef (some time)' and 'Lauong has never eaten beef'. The answer has to pick one of the two propositions. The answer can be reduced to just the highest predicate head, that is the head which can encode the sentential polarity, which in this case is *bat* 'ever' or *m-bat* 'not ever'. Optionally more of the proposition can be spelled out.

The answer particles and *tioh a* cannot be used as answers. It is clear enough why *tioh a* 'that's correct' is not an option: The question is neutral, so there is no proposition to agree with. It is less obvious why the answer particles *si a* and *m-si* cannot be used. Why can the answer not copy the TP of (19) and use the answer particles to assign a value to T, which would then determine whether the TP is [(*i*) *bat* (*tsiah-khu gû-bah*)] or [*i m-bat* (*tsiah-khu gû-bah*)]? If it was the case that the answer particles could never be used with neutral questions, because they are incapable of assigning value to a T with open polarity value [±Pol], and capable only of operating on an already valued T (as in intonation questions and SFP questions), then this could explain why they are not an option in the case of [A-not-AB] questions. But that is not the case. *Si a* and *m-si* can be used as answers to *kam* questions which are neutral (as we saw in chapter 7). I have to leave this as an unsolved problem.

9.4   Conclusion

In this section, I have discussed two subtypes of [A-not-A] questions in Taiwanese namely [AB-not-A] and [A-not-AB] questions in terms of constraints on distribution, their answers, and syntactic structure.

The essential points discussed in this section are summarized as follows. Following Huang (1991) and Huang, Li, and Li (2009), it is proposed that two subtypes of [AB-not-A] and [A-not-AB] in Taiwanese have quite different derivations: [AB-not-A] is derived from an underlying structure with two ModPs, a positive and a negative one (in that order) in a ConjP which has a covert disjunction *a/asi* 'or', realising the disjunction feature [±], as head. The subject undergoes ATB-movement to [spec TP]. The rightmost ModP undergoes ellipsis, leaving only the negative head spelled out. T is assigned [±] value by the disjunction head of ConjP. This feature then undergoes movement to CP, as in all other polar questions.

The [A-not-AB] question, on the other hand, is derived from a structure with no ConjP, but a [±] feature base-generated in T. The head of the predicate is reduplicated and a negation inserted deriving a structure which is spelled out as A-not-A, where A is the predicate head. The [±]-feature of T undergoes movement (in LF) to CP. The movement explains why we have island effects both in the case of [A-not-AB] and [AB-not-A]. The analysis can also explain why the TP-internal question particle *kam* cannot occur in either [A-not-AB] or (proper) [AB-not-A] questions.

Taiwanese makes much more use of [AB-not-A] questions than [A-not-AB] questions. The latter can only be used with a highly restricted range of predicates, namely those that can be negated by the morpheme called *m*2 in section 4.3.

Chapter 10.   Mandarin Chinese

10.1   Introduction

Recall that according to Holmberg (2013a, 2016), English has a polarity based answer system. When negation is in the low position, i.e. inside vP (adjoined to VP) in a yes-no question, English will have a truth-based answer system. That explains why English has a complex system, combining properties of both systems. English has negative neutralisation effect (Kramer and Rawlins 2011), which occurs when negation is in the middle position in the yes-no question. In such cases, both the polarity particles *yes* and *no* mean the same thing. When negation is in the low position the polarity particle *yes* is used to confirm the lower negation and the polarity particle *no* will bring a negative concord. Based on these facts, Holmberg proposes that there are two features that the polarity particle *no* has in English: one which assigns a negative value, [-Pol], and the other [uNeg] which does not assign a negative value but can agree with the negative value assigned by the negation to T.

Taiwanese also has several positions of negation in the clause. However, Taiwanese differs from English in a few ways: First, it does not have negative neutralisation effect. Second, the negative answer particle *m-si* 'no' cannot agree with a negative constituent, entering a negative concord relation with it (see chapter 5 for discussion). The *si a* answer does not change any value inherited from the question. The *m-si* answer always assigns a negative value [-Pol]. This means that the *si a* and *m-si* answers will always be different with respect to at least one value.

Mandarin Chinese, behaves more like English than Taiwanese. In this chapter I will demonstrate and examine the answers of yes-no questions in Mandarin Chinese. I only focus on the SFP *ma* question in Mandarin Chinese. Even though the SFP *ma* question has been a well-documented topic in the literature, less is known about its answers in terms of comparing and contrastng the Mandarin Chinese answer systems to English and Taiwanese systems.

The sentence final particle *ma* in Mandarin Chinese, like its counterparts in Taiwanese, is attached at the end of a declarative sentence, which can be positive or negative to yield a question reading (henceforth a *ma* -question)[55]. *Ma*-questions can be presumptive (Li and Thompson 1981) or neutral. In this chapter I will discuss *ma*- questions and particularly examine negative *ma*-questions and their answers. It will be shown that they are different from SFP questions in Taiwanese and similar to questions in English in the way the position of the negation in the question can affect how they are answered.

The chapter is organized as follows. Section 10.2 presents the main properties of the Mandarin Chinese *ma*-questions and their answers. Section 10.3 focuses on the negation effect. Section 10.4 concludes.

10.2   ma- Questions and their Answers[56]

The sentences in (1a-e) show *ma* yes-no questions with various predicate heads: a copula verb, auxiliary, main verb, and PP respectively.

(1) a. LaoCheng shi laoshi   ma?
         LaoCheng be   teacher Q?
         'Is LaoCheng a teacher?'

     b. LaoCheng   hui   kaiche   lai   ma?
         LaoCheng   will   drive.car come Q
         'Will LaoCheng drive here?'

     c. LaoCheng qu   le   ma?
         LaoCheng go   PRFV   Q
         'Has LaoCheng gone (there)?

     d. LaoCheng   zai jia   ma?[57]
         LaoCheng   at   house   Q
         'Is LaoCheng at home?'

---

[55] See B. Li (2006) for arguments that *ma* in Mandarin Chinese is not a question particle but an intensifying particle. If that is right, then we would have to say that the *ma*-questions have a null [±Pol] feature and a null Q-force head in the C-domain.

[56] I adopt the most Chinese scholars' idea(Cheng) and plot the question marker ma as the head of CP and it is following the TP.

[57] Prepositions in Mandarin Chinese, unlike their counterparts in English, are able to function as (stative) verbs (see Cheng 2015). The preposition in Mandarin Chinese, unlike its counterpart in Taiwanese, is able to appear in isolation as the answer, or it can be optionally accompanied by its complement.

The tree structure of the SFP *ma* questions in (1) is shown in (2).

(2)

```
                        CP
                       /  \
                    CP     Q force
                   /  \
                 TP     ma
                /  \    [±Pol]
               /    \
          ...[+Pol]...
```
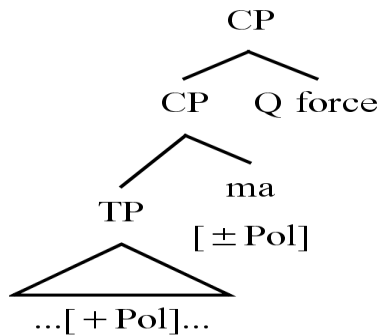
Recall that all direct questions have illocutionary question force, represented here as a feature adjoined to CP (following Holmberg, 2016). Question force means that the questions call for an answer. *Ma*-questions are always direct questions. A slightly different analysis is that the particle *ma* spells out not the question operator [±Pol], but the Q-force, or possibly both [±Pol] and Q-force. Like in Taiwanese SFP quesitons, in Mandarin Chinese *ma* qustions Q-force and the Pol-feature are C-type heads. I represent them as projecting CP.

The affirmative answers are show in (3).

(3)   a.   shi (laoshi)
           be   teacher
           'He is a teacher.'
      b.   hui   (kaiche lai)
           will drive car here
           'He will drive car (here).'
      c.   qu- le
           go –Asp
           'He has gone (there).'
      d.   zai (jia)
           at   home
           'He is at home.'

The sentences in (3) are predicate -head answers (such as the copular verb, the auxiliary, the verb with the aspect marker *le,* and the preposition), which can be optionally accompanied by their complement or appear in isolation to confirm the positive alternative (1). Alternatively, the answer particle *shi a* 'yes DM' is used to confirm the positive alternative and to agree with the positive proposition as shown in (4). *Shi a* and the judgement verb/particle *dui a* 'correct DM' are employed to agree with the positive proposition.

(4) a. shi a / dui a (ta shi laoshi)
         yes DM / correct DM he is teacher
     b. shi a / dui a (ta hui kaiche lai)
         yes DM / correct DM he will drive.car come
     c. shi a / dui a (ta qu le)
         yes DM/ correct DM he go Asp
     d. shi a / dui a (ta zai jia)
         yes DM/ correct DM he at home
     All: 'Yes.'

Even though *ma*-questions can be used as neutral questions for instance as quiz questions, they can always be answered by the judgment verb *dui a*, the counterpart of Taiwanese *tioh a*. This means that they consist of a TP with a polarity value, merged with the question marker *ma* [±Pol]. The answer can thus formally agree with the proposition of this TP. More often *ma*-questions are presumptive, though.

The sentences in (5) are negative predicate-head answers to the questions in (1), which can appear in isolation, or be optionally accompanied by their complement.

(5) a. bu shi (laoshi)
         not be teacher
         'He is not (a teacher).'
     b. bu hui (kaiche lai)
         not will drive.car come
         'He will not (drive here).'

c.   mei(you) qu[58]

 not.have   go

‘He did not go.’

d.   bu   zai (jia)

not at   home

‘He is not (at home).’

(6) shows the answer particle *bu* ‘no’ co-occurring with a short sentence employed to disconfirm the positive alternative and to disagree with the presumptive negative proposition.

(6)   a.   bu, ta   bu   shi (laoshi)

no, he   not be   teacher

‘No, he is not (a teacher).’

b.   bu, ta bu hui   (kaiche   lai)

no, he not   will drive.car come

‘No, he will not (drive here).’

c.   bu, ta   mei(you)   qu

 no, he   not.have   go

‘No, he did not go.’

d.   bu, ta   bu   zai (jia)

 no, he not at   home

‘No, he is not (at home).’

The negative *ma*-questions are shown in (7).

(7)   a.   LaoCheng   bu   shi laoshi   ma?

 LaoCheng   not be   teacher   Q

‘Is LaoCheng not a teacher?’

b.   LaoCheng   bu hui   kaiche   lai   ma?

LaoCheng   not will   drive.car   come   Q

‘Will LaoCheng not drive here?’

c.   LaoCheng   mei(you)   qu   ma?

LaoCheng   not.have   go   Q

‘Has LaoCheng not gone (there)?’

---

[58] The negative form of the affirmative *qu le* ‘go Asp’ is *meiyou qu* ‘not.have go’.

d.   LaoCheng   bu   zai   jia   ma?
          LaoCheng   not   at   house   Q
          'Is LaoCheng not at home?'

The sentences in (8) show how the answer particle *shi a* is used to confirm the negative alternative. *Shi a* 'yes DM' and *dui a* 'correct DM' are also used to agree with the presumptive negative proposition.

(8)   a.   shi   a   / dui   a   (ta   bu-shi laoshi)
              yes   DM   /correct   DM   he   not be teacher
       b.   shi   a   / dui   a   (ta   bu-hui   kaiche   lai)
              yes   DM   /correct DM   he   not-will   drive.car   come
       c.   shi   a   / dui   a   (ta   mei(you)   qu)
              yes   DM/correct   DM   he   not. have   go
       d.   shi   a   / dui   a   (ta   bu zai   jia)
               yes   DM   /correct DM   he   not at   home
              All: 'Yes.'

As in the case of Taiwanese *tioh a*, Mandarin Chinese *dui a* 'correct DM' does not have a negative counterpart *bu-dui* (or *bu-dui a*) 'not correct' used as answer particle.

The sentences in (9) show the negative predicate-head answers, which can appear in isolation to confirm the negative alternative. Alternatively, they can be accompanied by their complement.

(9)   a.   bu   shi   (laoshi)
              not   be   teacher
              'He is not (a teacher).
       b.   bu   hui   (kaiche   lai)
              not   will   drive.car   come
              'He will not (drive here).'
       c.   mei(you)   qu
              not. have   go

190

'He did not go.'

d.   bu zai (jia)

not at   home

'He is not (at home).'

The sentences in (10) show how to disconfirm the negative alternative. The answer particle *bu* 'no' co-occurring with a full sentence, though possibly reduced by ellipsis, is used. It is also used to disagree with the presumptive negative proposition.

(10)   a.   bu, ta shi (laoshi)

no, he be teacher

'No, he is (a teacher)'

b.   bu, ta hui (kaiche   lai)

no, he   will drive-car come

'No, he will drive (here).'

c.   bu, ta qu le

no, he go Asp

'No, he has gone (there).'

d.   bu, ta   zai (jia)

no, he at   home

'No, he is at home.'

The predicate head answers are used to disconfirm the negative alternative (11).

(11)   a.   shi   (laoshi)

be   teacher

'He is a teacher.'

b.   hui (kaiche   lai)

will drive.car come

'He will drive here.'

c.   qu le

go Asp

'He has gone (there).'

d.   zai (jia)

191

at home

'He is at home.'

The answer particle *shi a* is used to confirm the positive alternative, or the negative alternative. *Shi a* and the judgement verb/particle *dui a* 'correct' are used to agree with the positive proposition or the negative proposition. They can appear in isolation. The answer particle *bu* is used to disconfirm the positive alternative, or the negative alternative. It can also be used to disagree with the positive or negative proposition. When *bu* is used it must appear with a full sentence, which contains minimally the subject and the predicate-head answer.

The above data show the answer pattern in response to SFP *ma* -questions are for the most part identical to the ones in response to SFP *nih* yes-no questions in Taiwanese. I summarise briefly the properties of answer particle *m-si* in Taiwanese here:

1 *m-si* cannot agree with a negative assertion.
2 *m-si* cannot confirm the negative alternative of a negative question.
3 *m-si* can disagree with a positive assertion.
4 *m-si* can disagree with a negative assertion.
5 *m-si* can disconfirm the positive alternative of a positively biased question.
6 *m-si* can disconfirm the negative alternative of a negatively biased question.

The Mandarin Chinese answer particle *bu* differs from Taiwanese *m-si* on point 1 and 2, though. This will be discussed in the next section.

10.3   Negation effects

Sentence (12) shows a negative *ma*-questions, which contains a negation preceding and c-commanding (taking scope over) the auxiliary. I assume that the negation is adjoined to the AuxP in this case (see Ernst (1995), Huang (1988, 1990), Li (1999), Zhuang and Liu (2011) for some discussion of negations in Mandarin Chinese). It corresponds to the middle position, identified by Holmberg (2013).
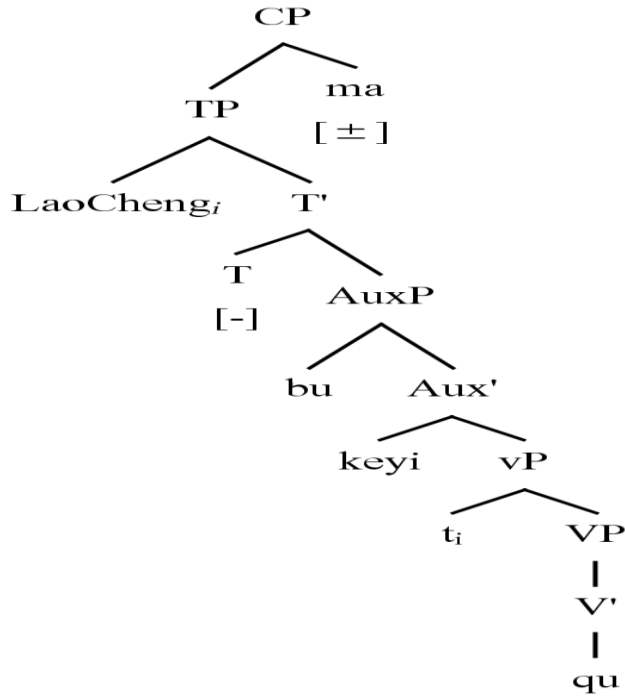
(12)   Q: LaoCheng **bu keyi** qu ma?

             LaoCheng   not can go Q

             'Can LaoCheng not go?/ Is LaoCheng not allowed to go?

     A:a.   shi   a   / dui a   (ta bu keyi qu)

           yes DM/ correct DM   he not can go

           'Yes, he cannot go.'

           'Yes. He is not allowed to go.'

     A:b.   bu, ta bu   keyi qu[59]

           no he not can go

           'No, he cannot go.'

     A:c.   bu, ta keyi qu[60]

           no he can go

           'No, He can go.'

     A:d.   bu keyi qu

           not can go

           'He cannot go.'

     A:e.   keyi qu

           can   go

           'He can go.'

Sentence (12Q) is uttered, for instance, to double check whether the presumptive negative proposition 'LaoCheng cannot go' is true. To confirm the negative alternative, the answer particle *shi a* 'yes DM' is employed. *Shi a* and *dui a* are used to agree with the presumptive negative proposition, (12Aa). The answer particle *bu* is ambiguous. It can be used to disconfirm the negative alternative and (therefore) disagree with the presumptive negative proposition/statement as shown in (12Ac). It can also be used to confirm the negative alternative as shown in (12Ab) and hence to agree with the presumptive negative proposition. In this case, both answer particles *shi a* and *bu* express the same meaning. This is a case of negative neutralization (Kramer and Rawlins 2011, Holmberg 2013a; see chapter 3). The neutralization phenomenon in Mandarin Chinese is resemblant to what we see in English. The tree diagram in (13a) shows the negation preceding the auxiliary *keyi* 'can' in the question. The TP has negative polarity, assigned to T by the negation *bu*.

---

[59] Thanks to Dongyan Chen for the data and discussion.

[60] Thanks to Antony Jiang for the data and discussion.

(13) a.

```
                              CP
                          ╱        ╲
                      TP              ma
                   ╱      ╲           [ ± ]
            LaoCheng_i       T'
                          ╱      ╲
                        T          AuxP
                       [-]        ╱    ╲
                               bu       Aux'
                                      ╱      ╲
                                   keyi       vP
                                           ╱     ╲
                                        t_i       VP
                                                   |
                                                   V'
                                                   |
                                                   qu
```
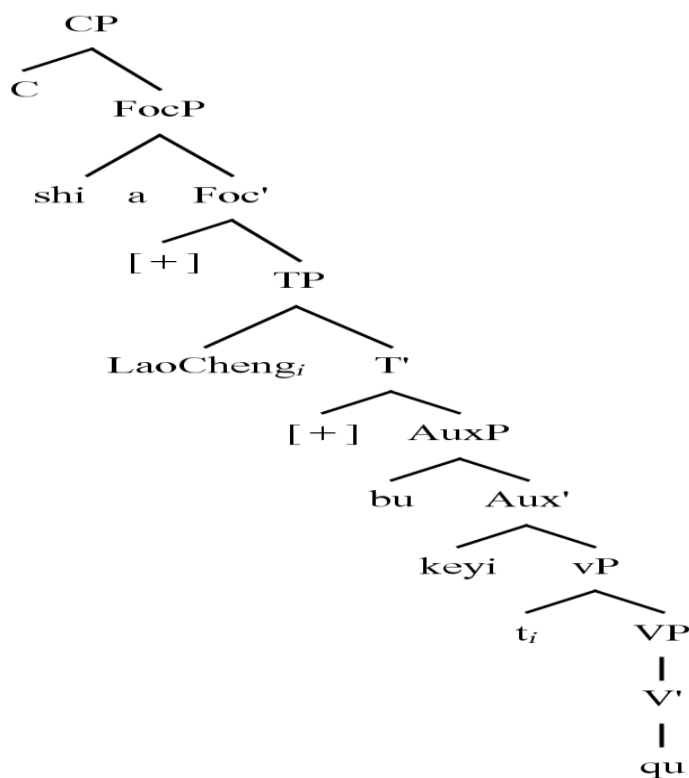
In the answer (13b) the [+] value of the particle is first picked up by Foc, by spec-head agreement, and then transferred to T. This [+] value will apply to the negative-marked predicate, with a negative reading as result ([+] combining with [−] yields [−]). The FocP in (13b) is in CP.
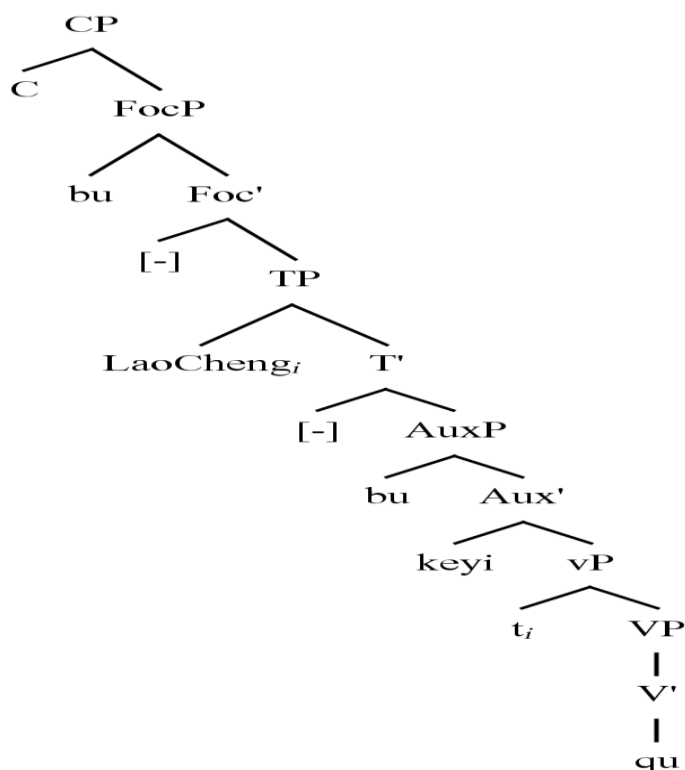
(13) b.

```
                    CP
                   /  \
                  C    FocP
                      /    \
                   shi  a   Foc'
                       [+]  /  \
                           TP
                          /   \
                   LaoCheng_i   T'
                            [+]  /  \
                                AuxP
                               /    \
                             bu      Aux'
                                    /    \
                                  keyi    vP
                                        /   \
                                      t_i    VP
                                             |
                                             V'
                                             |
                                             qu
```

The answer particle *shi a* 'yes DM' in Mandarin Chinese, like its counterpart *si a* in Taiwanese, but unlike its counterpart *yes* in English, in this case, is used to confirm the negative alternative.

In (13c), the answer particle *bu* 'no' assigns [-] value to Foc, by spec-head agreement. This negative value is transferred to T. The FocP is in the CP (Chomsky 2008). The features are transmitted from C to T. Note that the feature transmission is not Agree. It is not a copying operation. It ensures a narrower scope for the polarity feature, excluding the subject from its scope.

(13) c.

```
              CP
             /  \
            C   FocP
               /    \
             bu     Foc'
             [-]   /   \
                  TP
                 /   \
          LaoCheng_i  T'
             [-]    /    \
                   AuxP
                  /    \
                bu    Aux'
                     /    \
                  keyi    vP
                         /   \
                       t_i    VP
                              |
                              V'
                              |
                              qu
```

There are two different interpretations of the *bu* 'no' answer: (12b) and (12c). In (12b) the negative answer particle *bu* appears to agree with the negative value provided by the negation *bu* in TP, like *no* can do in English: *bu, ta bu keyi qu* 'No, he cannot go.' The other interpretation is when the answer particle *bu* 'no', or more precisely, the negative value transferred to T, combines with the negation *bu* in the TP to create a double negation reading, i.e., a positive sentence, disconfirming the negative alternative, as shown in (12Ac): *bu, ta keyi qu* 'No, he can go'.

Under the former interpretation, the answer particle *bu* 'no' in (12Ab) behaves more like English *no* and unlike Taiwanese *m-si*. Under the latter interpretation it behaves like Taiwanese *m-si* (although, as we have seen, English *no* also allows the reading where *it* disconfirms (negates) the negative alternative of a negative question).

In the case of English, I have assumed, following Holmberg (2013a, 2016) that there are two varieties of *no* as answer particle in English. One of them has the feature [uNeg], unvalued

negative. This feature needs to copy the value of a negative constituent in its c-command domain, i.e., it will agree with a negative constituent. This yields the reading where the answer particle confirms the negative alternative of a negative question (*No, he is not coming*). This is what we see in (12b). Consequently, I propose that there is a version of the answer particle *bu* in Mandarin Chinese, which is marked [uNeg].

The other variety of *no* in English is inherently negative, [−Pol]. This negative answer particle can assign negative value to a [±Pol] variable in TP. It can also disagree with a negative proposition, or disconfirm the negative alternative of a negative question, as in the translation of (12c). It has interpretable negative value. Likewise, there are two versions of Mandarin Chinese *bu*, one with [uNeg], the other with interpretable negative value, [−Pol]. The choice of (version of) negation particle distinguishes the two readings (12b, c).

Consider the example (14) in which the negation follows the auxiliary and immediately precedes the verb *qu* 'go'.

(14)   Q.   LaoCheng   **keyi bu**   qu   ma?

           LaoCheng   can   not   go   Q

           'Can LaoCheng not go/ Is LaoCheng allowed not to go?'

      A: a.   shi   a / dui   a   (ta keyi bu qu)

           yes DM/ correct DM   he   can   not   go

           'Yes/ correct, he **can** not go/ He is allowed not to go'

      A:b.   bu, ta   **bu** keyi **bu** qu

           no, he   not can   not   go

           'No, he must go/ He is not allowed not to go.'

      A:c.   keyi   (bu   qu)

           can   not   go

           'He is allowed not to go.'

           'He can not go/He can refrain from going.'

      A:d.   bu   keyi   (bu qu)

           not   can   not   go

           'He must go.'

The negation in (14Q) is in low position, i.e., adjoined to the VP under the scope of the AuxP, which follows if it is c-commanded by the auxiliary in this case. The speaker of (14Q) expresses his/ her surprise when he/she just heard that LaoCheng is allowed not to go, and he/she wants to double check this. The answer particle *shi a* 'yes DM' can appear alone to confirm the negative alternative as shown in (14Aa). It is also used to agree with the negative presumptive proposition. Alternatively, the judgement verb/particle *dui a* 'correct DM' can be used to agree with the negative proposition, (14Aa). The answer particle *bu,* must appear with a full sentence to disconfirm the negative alternative as well as to disagree with the negative presumptive proposition. However in this case, *bu* 'no' will create a double negation reading, i.e., a reading disconfirming the negative alternative. The sentences in (14Ac-d) are predicate- head answers. This type of answer is preferred among Mandarin Chinese speakers, perhaps because it is always unambiguous, unlike the *bu*-answer. As discussed in connection with Taiwanese, the predicate-head answers state one of the alternative propositions denoted by the question, in reduced form. Minimally it spells out the predicate head. The tree diagram in (15a) shows the question contains a negation preceding the verb. The tree diagrams in (15b, c) show the answer particles *shi a* and *bu*. According to Ernst (1995), the negation *bu* is a specifier of VP in this case (or we may assume it is adjoined to VP).

(15)
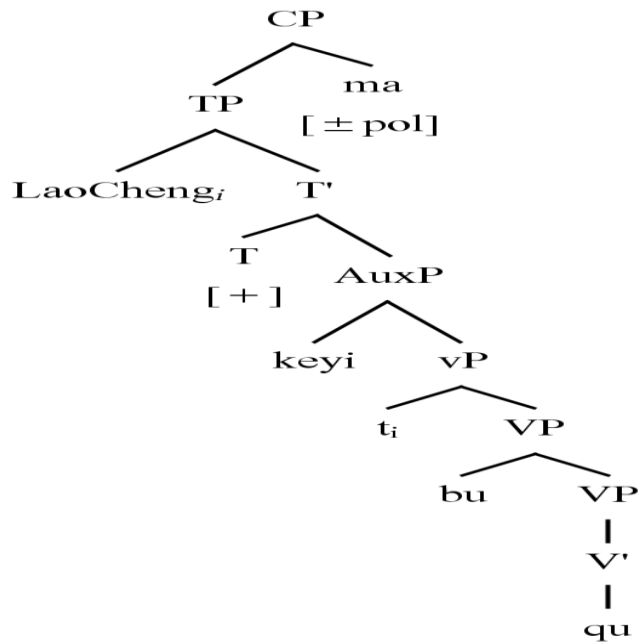
According to Holmberg (2013a), the negation *not* in English can occur in VP-internal position, for example in (16)
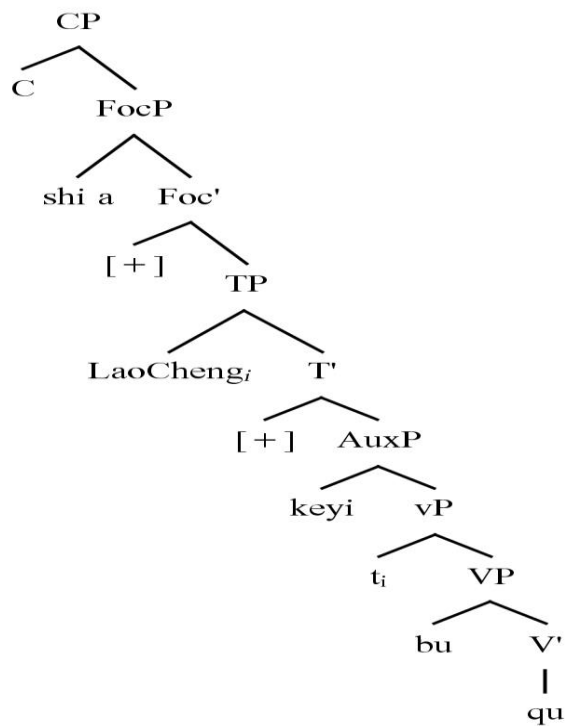
(16)   Will John sometimes not show up for work?

In this case, it is claimed, the negation is too distant from T to assign negative value to it, which means that it gets positive value by default. This has the effect that the answer *yes* in English will confirm the negative alternative and *no* will disconfirm the negative alternative, by virtue of double negation.

(17)   a.   Yes (John will sometimes not show up for work).
        b.   No (John will not sometimes not show up for work) → He will always show up.

The facts are similar in Mandarin Chinese, but the derivation is not exactly the same. (18) is the structure of the positive answer to (15).
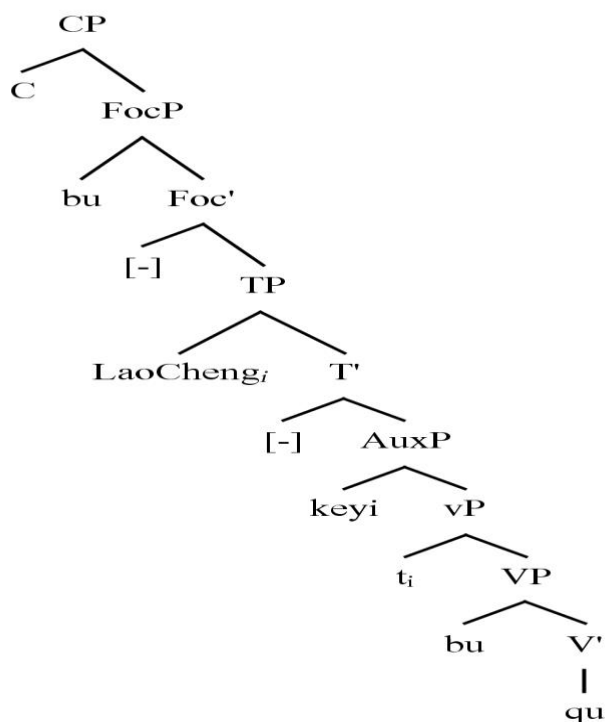
(18)

```
                    CP
                  /    \
                C      FocP
                      /    \
                  shi a    Foc'
                   [+]    /    \
                        TP
                       /    \
                  LaoCheng_i    T'
                    [+]   /    \
                        [+]    AuxP
                             /    \
                          keyi    vP
                                 /    \
                               t_i    VP
                                     /    \
                                   bu      V'
                                           |
                                           qu
```

T is plus-marked. We do not need to invoke default plus-assignment. T is plus-marked because the plus-value of the answer particle is transferred to T. The plus-valued T applies to/combines with the negative value of the negation adjoined to VP. The result is a negative T/TP: 'Yes, LaoCheng cannot go'.

(19) is the structure when the negative answer particle is used. As mentioned before the tree structure of the answer of the SFP question resides in Spec FocP and the FocP is inside the CP.

(19)

```
                    CP
                   /  \
                  C   FocP
                     /    \
                   bu     Foc'
                   [-]   /   \
                        TP
                       /  \
                 LaoCheng_i  T'
                      [-]   /  \
                          AuxP
                         /    \
                      keyi    vP
                             /  \
                            t_i  VP
                               /  \
                             bu   V'
                                  |
                                  qu
```

Here, the negative value of the answer particle is transferred to T. It applies to/combines with the negative value of the negation adjoined to VP, and the result is a positive reading: 'No, LaoCheng can go', the reading of (14b).

10.4   Conclusion

Based on the sentences in (12) and (14), the position of negation affects the answers in Mandarin Chinese in a way which is similar to that in English (Holmberg 2013a; Kramer and Rawlins 2011). We can see a negative neutralisation effect in Mandarin Chinese similar to what we see in English. I repeat the examples from (12).

(20)   Q: LaoCheng   bu   keyi   qu?
                LaoCheng   not   can   go
                'Can LaoCheng not go?'
        A:a.   shi a (ta   bu   keyi   qu)
                yes   he   not   can   go

'Yes, he can't go.'

A:b.   bu, ta bu keyi qu

        no he not can   go

        'No., he can't go.'

In this context, *shi a* 'yes' and *bu* 'no' in a sense mean the same thing. This does not occur in Taiwanese. Taiwanese does not have a counterpart to (20Ab). The explanation is that Mandarin Chinese, like English, has two version of the negative answer particle *bu*: one is uninterpretable/unvalued negative, [uNeg], and therefore agrees with a negation in TP. This is what we see in (20Ab). The other one is interpretable negative, and therefore negates a negation in the TP, which yields a positive reading. This was exemplified in (14). Taiwanese only has the second type of negative particle: It is interpretable negative, and can only disconfirm/disagree with whatever it combines with.

However, this effect is seen only when the negation is in the middle position. When the negation in the question is low, the negative-valued T will negate the low negation, causing double negation, and the answer will disconfirm the negative alternative. This is similar to what we can observe in English, in cases where the negation is unambiguously in a low position, as in (17b).

Chapter 11.   Conclusions

This dissertation deals with polar questions and their answers in Taiwanese, focusing on 'proper yes-no questions' which are the questions that can actually be answered 'yes' or 'no'. Disjunctive questions and A-not-A questions, which are answered by echoing the predicate of the question with or without negation, in elided form, are dealt with as well, but mainly as a contrast to the proper yes-no questions. There is also comparison with yes-no questions and answers in English and Mandarin Chinese. Since, only a small number of studies are reported in the literature on the interplay of the syntax of yes-no questions and their answers in the languages of the world, and certainly very few on varieties of Chinese, detailed work on the syntax of questions and their answers in individual languages is therefore called for, to shed more light on this important part of the grammar. This dissertation is a contribution to this research.

There is a variety of yes-no-questions in Taiwanese: intonation questions, sentence-final particle (SFP) questions, three varieties of questions formed with the question particle *si-m-si*, and three or more varieties of questions formed with the question particle *kam*. The three varieties differ with respect to whether the question particle is initial, sentence-medial, or final, forming a tag-question. In all of these questions, focus markers turn out to play an important role. In general, focus turns out to be an important factor in yes-no questions and answers in Taiwanese. A number of generalisations can be formulated regarding how the questions can be answered, which hold across the different types, or subsets of them. Many of these generalisations can also be explained in terms of the theory adopted in this thesis. The following are some of the generalisations that can be formulated on the basis of the investigation reported in this thesis:

- Most yes-no questions can be answered by predicate-head answers. These answers state one of the alternative propositions that the question denotes, in reduced form.
- Tag questions cannot be answered by predicate-head answers. This is because a tag question does not ask for a choice between two propositions denoted by the TP of the question. A tag question consists of an assertion made by the speaker, followed by a question if the assertion is true or not. The answers can therefore only be (a version of) 'It's true' or 'It's not true'.

- Most yes-no questions can be answered by the answer particles *si a* 'yes'and *m-si* 'no'. The particle *si a* can occur on its own, with no spelled out complement. The negative answer particle nearly always must be combined with a spelled out TP. This follows if (a) the answers all consist of an answer particle in the focus position in CP combined with a full TP which in underlying structure is identical with the TP of the question; (b) the answer particles assign their value to T, by feature transmission; (c) if the answer particle is *si a* the value is positive; this causes no change in the TP, which remains identical with the TP of the question, and hence can be deleted; (d) if the answer particle is *m-si*, the value of T will be negative. This value will interact with (constituents of) the predicate, changing one or more polarity values of the predicate from positive to negative, or negative to positive. Hence the TP will always be different from the TP of the question, hence it cannot be deleted. In answers to tag questions the answer particle *m-si* can stand alone, because there it has no TP complement, but means 'It's not true'.

- Questions which focus narrowly on the subject (or on an adverbial adjoined to TP) cannot be answered by the answer particles *si a* and *m-si*. This follows if the answer particles, even though they are spelled out in the C-domain, transmit their feature value to T, where it does not c-command the subject. Instead, answers to subject-focus questions employ the focus markers *si* and *m-si* (almost identical in shape with the answer particles, but still distinguishable).

An important task in this thesis was to distinguish and describe the different functions of the expressions *si* and its negation *m-si*: They can be copulas, focus markers, answer particles, and question particles (in the form *si-m-si*).

An important theoretical premise in this thesis is that while there is only one possible positive answer to a yes-no question there are as many negative answers as there are constituents in the predicate that can be negated, and in this sense have a polarity value. The answer can focus on a particular constituent of a complex predicate and negate that constituent. If the question focuses on a particular constituent, then this will be reflected in the answer. Taiwanese can employ the focus markers *si* and *m-si* in TP-internal focus position in the questions to focus constituents of the predicate. Then, in the answers, the answer particles, in particular the negative answer particle *m-si,* can function as a focus particle, targeting one or more constituents of the predicate, generating different negative answers. As Taiwanese also

has a highly rich system of negation, employing various modal auxiliary verbs, it is possible to distinguish syntactically between the different negative answers, more explicitly than in (probably) many other languages, including English (even though English, too, has a fairly rich and flexible system of negation; see Holmberg 2013a).

Characteristic of the so called truth-based system, also termed the agree/disagree system (Kuno 1973, Pope 1976), is that a negative question is answered 'yes' to confirm the negative alternative, and answered 'no' to contradict the negative alternative (although, there are a number of complicating factors involved). Characteristic of the polarity-based system is that the negative question is answered 'no' to confirm the negative alternative, with some variation how to contradict the negative alternative. Taiwanese has the truth-based system. English has a variety of the polarity-based system. Holmberg (2013a,b, 2016) has argued that the distinction between the systems is explained by the position of negation. However, the Taiwanese facts show that this can only be part of an explanation. Instead, it is explained by properties of the answer particles, and syntactic properties of the yes-no questions.

This is related to an important distinction between Taiwanese and English regarding how yes-no questions are formed. According to Holmberg (2013a,b, 2016) the canonical yes-no question in English is a sentence containing a TP with a disjunctive, open polarity feature [±Pol]. This feature moves, overtly or covertly, to the C-domain to form a question. The answer has the TP of the question as base, but the answer particle *yes* or *no,* merged in focus position in the C-domain, assigns a value, positive or negative, to the open feature. This theory adopts Hamblin's (1958,1973) idea that questions denote a disjunctive set of propositions which constitute the possible answers to the question, and assumes that this set is syntactically represented as a variable in TP, in the case of polar questions, a polarity variable with two values. In this view, the canonical yes-no question is neutral, although it can be made biased by various means (including adding a negation).

There is an alternative theory of the semantic of polar questions, recently articulated by Biezma and Rawlins (2012), which is that the yes-no question denotes a single alternative, which is the one spelled out by the TP of the question; it can be positive or negative. The alternative proposition is introduced by a question operator merged with the TP. Under this view, the speaker always favours the proposition, which is spelled out in the question; yes-no questions always have a bias.

The detailed investigation of Taiwanese questions and answers shows that there is a large class of yes-no questions which behave as predicted by Biezma and Rawlins's (2012) theory, namely, intonation questions, SFP questions, and most varieties of *si-m-si* and *kam*-questions. They are consistently biased, or presumptive (the term used by Cheng 1997). The interlocutor is asked to confirm the presumption of the speaker, or disconfirm it. The test that is used throughout the dissertation to tell whether a question is presumptive or not, is whether it can be answered by *tioh a* 'that's correct'. A neutral question cannot be answered this way because it does not express a proposition to be agreed with, but asks for a choice between two alternative propositions. One reason why yes-no questions in Taiwanese (and also Mandarin) are short of neutral questions is, probably, that there is a different class of questions used for neutral questions: The A-no-A questions, which pose the choice between the two alternatives quite explicitly, and which can only be answered by stating one of the alternative propositions, in reduced form. However, there is a form of neutral yes-no question even in Taiwanese: question formed with a TP-internal question particle *kam*, without a focus marker or negation added. It cannot be answered *tioh a*. This is sufficient to show that the yes-no question syntax that Biezma and Rawlins (2012) argue is universal for yes-no questions, although dominant in Taiwanese, is not universal but characteristic of a type of yes-no questions. On the other hand, the Taiwanese facts show that the yes-no question and answer system described in Holmberg (2013a,b, 2016) on the basis of English and some other languages is also not universal, and may even be quite marginal in a language, as is the case in Taiwanese. In English the neutral question type (which cannot be answered 'That's right') is the dominant one. In Taiwanese, aside from A-not-A questions, the biased (presumptive) question type is the dominant one.

The distinction between the truth-based and polarity-based answering systems is at least partly due to properties of the answer particles, especially the negative one (this is acknowledged in Holmberg, 2016, ch. 4). This cross-linguistic study has shown a difference between the English and the Taiwanese negative answer particle *no*. English has two different answer particle *no*'s. One carries negative value which it can assign to T (or more precisely to the sentential head Pol(arity), which in questions is a variable [±Pol]). The other is an unvalued negation which is unable to assign negative value to T, but instead will agree with a negative-marked T. This is the negation which appears in question-answer sequences such as *Are you not hungry? No* (*I'm not hungry*). The particle *no* here does not assign a value but agrees with the negation in the TP. It confirms the negative alternative.

The Taiwanese negative answer particle *m-si* has a consistently interpretable negative value. It always assigns negative value to T (by feature transmission), and through T, negates (hence reverses) one or more values of the predicate. The answer particle *m-si* is a disconfirmation particle: If the question has positive bias, *m-si* disconfirms the positive alternative. If the question has a negative bias, *m-si* disconfirms the negative alternative. The answer particle *m-si* can also function as a focus particle in TP, via T, focusing constituents of the predicate. English *no* has no such effect.

Correspondingly, the positive answer particle *si a* is a confirmation particle. If the question has positive bias, *si a* confirms it, if the question has negative bias, *si a* confirms it. The English positive particle *yes* can also confirm the positive alternative of a question with positive bias, and obviously can assign positive value to a neutral question. It can also confirm the negative value of a negatively biased question, but only if the negation in the question is a low negation. There is no such effect in Taiwanese. Sentential negation in Taiwanese can be high or low, but this has no effect on the meaning of the answer particle *si a*.

In Mandarin Chinese the position of negation does have an effect, though, which is, on the face of it, similar to what we see in English. The positive answer particle *shi a* in Mandarin has the same properties as its counterpart in Taiwanese: It is a confirmation particle, consistently confirming whatever proposition it applies to, negative or positive. In this thesis only one type of question is considered in Mandarin: SFP questions with the particle *ma*. But rather like English, and quite unlike Taiwanese, Mandarin Chinese has two versions of the negative answer particle *bu* 'no', a negative one, with properties and behaviour similar to Taiwanese *m-si*, and an unvalued one, which does not assign negative value to T, but instead agrees with whatever value T has. This feature makes Mandarin Chinese behave more like English in certain respects, as regards answers to negative yes-no questions.

Provided the Mandarin sentential negation *bu* in a negative question is in a position roughly corresponding to what Holmberg (2013a) calls the middle position of the English negation *not*, the question can be answered either *shi a* 'yes' or *bu* 'no', to confirm the negative alternative. *Shi a* confirms the negative alternative since when it applies, via T, to a negative predicate, it causes no change (as we have seen in the case of Taiwanese). If the negative answer particle is the unvalued version of *bu* 'no' it will also cause no change, but will agree with the negative TP. This is negative neutralisation, though not exactly as seen in English.

As mentioned, this is only the case when the sentential negation in the question is in the middle position; only in that position can the sentential negation assign negative value to T, which the unvalued answer particle can then agree with. If the sentential negation is low, adjoined to vP or VP, the unvalued answer particle is not an option. Instead, the negative-valued version is used, transmitting negative value to T, which then negates the low negation, yielding an answer which disconfirms the negative alternative. This is an effect we can also see in English, when the question has an unambiguously low negation.

Thus we see that the truth-based vs. polarity-based dichotomy is a consequence of properties of the answer particles, the syntax of yes-no questions (whether they are neutral or presumptive), and, under some circumstances, the position of negation in yes-no questions.

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