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外國語文學系外國文學與語言學碩士班

碩 士 論 文

閩南語否定詞的一致性分析

The Unified Analysis of Taiwanese Negation Markers

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指導教授：劉辰生　教授

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摘要

本篇論文主要在探討台灣閩南語原始否定詞的數量。閩南語中有六個否定詞，像是「唔」、「無」、「勿會」、「勿愛」、「莫」、「別」，但其中只有三個被視為原始否定詞，即句式否定詞「唔」、詞項否定詞「唔」和「無」；而其他的否定詞，皆由句式否定詞「唔」否定其他語素，再經兩者語音結合變化而來，此類亦視為句式否定詞的範疇。除此之外，文中觀察出句式否定詞必須在特定句構中: [m X predicate]中出現，句構中的 X 可以是時態輕動詞「有」、動詞「是」、或是外顯、隱藏的情態助動詞。為了進一步探討 X 在[m X predicate]句構中所扮演的角色和功能，本論文沿用 Higginbotham (1985) 所提出的理論:「一個事件中會含有一個 E(E position)且其對等到一個隱含的論元(hidden argument)」，並且將「有」、動詞「是」、和外顯或隱藏的情態助動詞分析為驅動語素，意指其驅動一個時態來約束在句子中隱含的論元，而此論元可以是一個事件、狀態或程度，這樣的約束機制亦稱為非選擇性約束（unselective binding)。

關鍵字: 台灣閩南語、否定詞、原始否定詞、唔、無、勿會、勿愛、莫、別、
　　　　非選擇性約束

The Unified Analysis of Taiwanese Negation Markers

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Abstract

The purpose of this thesis is to see how many of Taiwanese negation markers are the primitive ones? Although in TSM there are six negation markers: *m* 'not', *beh* 'not', *bo* 'not', *buai* 'not', *mai* 'not', and *mmo* 'not', only three of them are primitive negative ones such as the sentential negation marker *m*, the lexical negation *m-*, and the lexical negation *bo-*. In other words, the others are derived from fusing the sentential negation marker *m* with other elements, like *u* and modals. Besides, the study shows that the sentential negation marker *m* has to co-occur with an abstract modal *beh* 'want', and the verb *si* 'be'. Since *m* needs to be followed by these elements, it is possible for us to generate a structure [m X predicate] in which X could be *u*, covert/overt modals, and *si*. And, these three elements are analyzed as triggers which trigger an aspect to bind the hidden argument of the predicate (Higginbotham 1985). For example, *si* 'be' triggers a state to serve as an operator to bind the referential argument of the nominal expression that functions as the predicate. Also, the covert or overt auxiliary trigger a sate to function as a binder to bind the event argument. As for *u*, it serves as an aspectual light verb triggering a stative aspect that unselectively binds an event, a situation, or the degree argument of the verbal or the adjectival predicate.

Keywords: Taiwanese Sothern Min, negation, *m*, *bo*, *beh*, *buai*, *mai*, *mmo*, operator, *u* , *si*, unselective binding

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Chapter 1

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Introduction

The Taiwanese language contains a large number of negation markers, the number of which remains unresolved despite previous research. To elucidate this issue, the current thesis investigates the syntactic and semantic properties of the negation markers in Taiwanese Southern Min (TSM). The two main proposals presented in this work are as follows. First, although there are six negation markers signifying not- *m*, *beh*, *bo*, *buai*, *mai*, and *mmo* in TSM, given in (1), I argue that only three of them are primitive: the sentential negation *m*, the lexical negation *m-*, and the lexical negation *bo-*, as shown in (2)-(4).

(1) a. i   *m*   khi   hakhau

     he   not   go   school

     'He does not want to go to school.'

   b. i   saN   kang   *bo*   cia   a

     he   three   days   not   eat   PRL

     'He has not eaten for three days.'

   c. i   *beh*   lai   wun   tau

he   not   come   my   home

      'He will not come to my home.'

   d. i   buai   cia   hi

      he   not   eat   fish

      'He would not like to eat fish.'

   e. li   mai   khi   mi-kok

      you   not   go   U.S.A.

      'You should not go to U.S.A.'

   f. li   mmo   khua   tian-si

      you   not   watch   TV

      'You should not watch TV.'

(2) The sentential negation *m*:

   a. i   *m*   lai

      he   not   come

      'He does not want to come.'

   b. A-ming   *m*   si   haksing

      A-ming   not   be   student

      'A-ming is not a student.

(3) The lexical negation *m*-:

   a. woa   *m*   cai-iann   hit   kia   tai-ci

       I   not   know   that   CL   thing

      'I do not know that thing'

b. chi-siang ei *m* ho

This-pair shoes not good

'This pair of shoes is not good.'

(4) The lexical negation *bo-*:

a. i *bo* hua-hi

he not happy

'He is not happy.'

b. hit e so-cai *bo* an-chan

that CL place not safe

'That place is not safe.'

These three primitive negation markers can be further divided into two types: the sentential negation and the lexical negation (i.e., the negative prefix). Namely, the former is the negation marker *m* while the latter has as members the negative prefixes *m-* and *bo-*. Other negation markers such as the sentential *bo, beh, buai, mai* and *mmo* are derived forms consisting of a primitive marker fused with other elements such as the aspectual light verb *u,* the auxiliary *e* 'will', and the auxiliary *ai* 'would like.' [1] Such combinations are given in (5).[2]

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[1] The use of the term "light verb" was established by Grimshaw and Mester's (1988) discussion of the suru construction in Japanese. A number of studies further discuss the nature and function of light verbs from various viewpoints such as Larson (1988), Hale and Keyser (1993), Chomsky (1995), Huang (1997), Lin (2001), and Shen (2004).

[2] The example (5) is generated based on Teng's (1992) proposal.

 (i.) m + u → bo
   m + e → be
   m + ai→ mai
   m + ho→ mmo

(5) a. m + u → *bo*

b. m + u + ai → *buai*

c. m + ai → *mai*

d. m + ho → *mmo*

e. m + e → *beh*

Second, as the negation marker data shows, the negation marker *m* must occur in a predicate having the structure [m X predicate]. The elements which can occur as X are as follows.

A. [m {∅/Modal} [VP predicate]], where ∅ is an auxiliary with a phonetic form such as *khiN* 'want'; the overt modals could be *e* 'will', *ai* 'would like', and *ho* 'should'. These auxiliaries determine the aspect as a state that binds the event argument of the predicate.
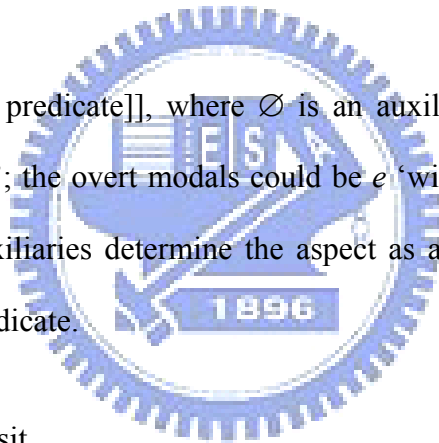
(6) li   nah   *m*   laosit
    you   if   not   honest
    'If you do not want to be honest,….'

B. [m si [NP {N/Adj-de}]], in which *si* 'be', a copula verb triggers a stative aspect that serves as an operator to bind the referential argument of the nominal expression functioning as the predicate.

(7) a. i   *m*   si   tai-uan   lang
      he   not   be   Taiwan   person

'He is not a Taiwanese.'

b. huei *m* si ang-nge.
   flower not be red
   'The flowers are not red.'

C. [m u [_{NP} {V/Adj}]], where *u* represents the aspectual light verb; functioning as an existential operator to bind the event, the situation, or the degree argument of the verbal or the adjectival predicate.

(8) a. A-ming *bo* khi hahau
        A-ming not go school
        'A-ming did not go to school.'

    b. hit e ko-niu *bo* sui
        that CL girl not pretty
        'That girl is not pretty.'

The rest of this thesis is organized in the following way: In Chapter 2, previous studies on Taiwanese negation markers are presented. Chapter 3 outlines the interaction between aspectuality and the distribution of negation markers, as well as the differences between contrary and contradictory readings. The syntactic and semantic properties of Taiwanese negation markers are shown in Chapter 4. Chapter 5 gives a detailed analysis of the three primitive negation markers and the function of X in [m X predicate] structure. Finally, conclusions are stated in Chapter 6.

5

Chapter 2

_____

Previous Studies on Taiwanese Negation Markers

Previous studies of Taiwanese negation markers are illustrated in this chapter. Both *m* and *bo* have been extensively studied. *M* has been analyzed according to two different premises. Some argue that there are two *m*'s in Taiwanese Sothern Min (TSM), the volitional *m* and the pure negation marker *m* (cf. Li 1975, Lin 1974). Others claim that TSM just has one *m*, and the volitional meaning derives from the composition of an abstract modal (cf. Teng 1992, Tang 194, Lin 2004, etc.). Previous studies of *bo* focus either on its unique generic property (cr. Teng, 1992), or on the meaning that *bo* and elements following it imply in conjunction; for example contradiction, by which *bo* is determined as a lexical or sentential negation marker (cf. Teng 1992, Claire 1992).

The above-mentioned studies of *m* and *bo* will be outlined the following sections as follows. Section 2.1 briefly discusses Li's analysis of *m* and *bo*, and in Section 2.2, Teng's analysis is discussed. In Section 2.3, Claire's viewpoint is introduced, and Tang's and Lin's arguments are illustrated in Sections 2.4 and 2.5. The various deficiencies of these analyses are discussed in Section 2.6.

2.1. Li (1971)

Li (1971) compares *m* and *bo* in TSM, pointing out the differences and similarities between these two negation markers. Although *m* and *bo* can negate the same verbs, the sentences they negate are distinct, such as (9) and (10). Example (9) contrasts with (10) on account of the distinct semantic features carried by *bo* and *m*; that is, the former carries the [+completive, -volition] feature, which differs from the later, which has the [-completive, +volition] feature. However, since *m* does not always involve the [+volition] feature, Li argues that there are two kinds of *m*'s. *M*-1 has the [+volition] feature, as shown by (10); *m*-2 is a pure negation marker, such as (11b). These two types of *m*'s in TSM appear to correspond to the two types of *bu* in Mandarin. Examples of these types of *bu* are given in (12). The subcategorizations of *m* and *bo* also differ from one another. Taking (11a-b) for example, *bo* is followed by an actual fact or a completed event, preceding the Aux Verb *ai* 'would like to' and the verbal modifier *chin* 'very,' while *m* precedes a copula verb *si* 'be' or a verb such as *cai-ia* 'to know' in (11b,d,e,f).

(9) i *bo* lai

    he not come

    'He did not come.'

(10) i *m* lai

    he not come

    'He does not want to come.'

(11) a. *i   *bo*   si   hak-seng

      he   not   is   student

      'He is not a student.'

b. i   *m*   si   hak-seng

      he   not   is   student

      'He is not a student.'

c. *i   *bo*   cai-ia   goae   mia

      he   not   know   my   name

      'He does not know my name.'

d. i   *m*   cai-ia   goae   mia

      he   not   know   my   name

      'He does not know my name.'

e. i   *bo*   ai   lai

      He   not   would-like-to   come

      'He would not like to come.'

f. i   *bo*   chin   ho

      He   not   very   good

      'He is not very good'

(12) a. ta   bu   lai

      he   not   come

      'He does not want to come.'

b. ta   bu   shi   xuesheng

      he   not   be   student

'He is not a student.'

2.2. Teng (1992)

Teng (1992) postulates that *m* is a primitive negative morpheme in TSM while others, such as *bo* 'not', *be* 'not', *mai* 'not' and *mmo* 'not' that are derived from *m*, are bi-morphemic. The bi-morphemic negatives are given in (13).

(13) a. m + u → bo

m + e → be

m + ai → mai

m + ho → mmo (Teng 1992(20))

When the subsequent sound is a vowel such as /u/ of /e/, /m/ is denasalized as /b/, except in the case of *mai* 'not' which relates to a different type of juncture. This kind of derivation indicates that the meaning of the negative element is predictable from its positive counterpart.

With action verbs, *m* always carries an element of an agent's volition, and the meaning, 'intention not to' can be interpreted. Examples are given in (14a-b).
m can only occur with a few state verbs such as *ho* 'good', *kan* 'dare' and so on; and it cannot co-occur with process verbs, e.g., *m phoah* 'not break', *m tim* 'not sink', and *m chen* 'not wake up'. According to *m*'s syntactic distribution, it functions as an adverb, and is similar to *bu* in MC. Yet, Teng argues that *m* is equivalent to neither *bu* nor *mei* in MC, since *m* does not have the generic interpretation as the Mandarin *bu* has in the example shown in (15) (cf. Teng, 1992(8a-8b) (16a)).

(14) a. m　　thak-chheh　　e　　gin-a,　　be　　an-chuN?

　　　not　　study　　　E　　children　　would　　what

　　　'What would you do to the children who do not want to study?'

　　b. i　　m　　ka　　woa　　kong　　i-e　　miaN

　　　he　　not　　to　　me　　tell　　his　　name

　　　'He would not tell me his name.'

(15) a. Xie　　Xie,　　wo　*bu*　chou-ian.　　(Mandarin)

　　　thank　　thank,　　I　　no　　somke

　　　'Thanks, I don't smoke.'

　　b. *To-sia,　goa　*m*　chia-hun.　　(Taiwanese)

　　　thanks,　　I　　no　　smoke

　　　'Thanks, I don't smoke.'

　　c. i　　*bo*　chia-hun.

　　　He　　not　　smoke

　　　'He does not smoke.'

It seems that the generic reading only belongs to *bo*, such as in (15c). In addition to a present-tense generic situation, (15c) also can be interpreted as a past-tense generic situation. The situation is no longer generic, but episodic (past), and the meaning is interpreted as, 'He didn't smoke any cigarettes (at the party last night)' (cf. Teng, 1992 (14a)). *Bo* in these two interpretations corresponds to Mandarin *bu* (generic) and *mei* (past) respectively. Teng relates the distinct correspondences to the generic

reading and past-tense of *bo*; more specifically, the non-unified correspondence comes from the temporal frames, non-specific for generic reading but specific for past.

Regarding the distribution of *bo*, Teng mentions that *bo* can negate both events and states, and he postulates one unified analysis. When *bo* negates events, events are 'deactivated', representing states. Since what *bo* negates is 'to have, to exist', it is defined as a sentential negation. What is more, he argues that when *bo* negates an adjective, the combination of *bo* and the adjective is interpreted as 'contradictory', as shown by (17) in which *bo kan-tan* 'not easy' does not mean 'difficult.'(cf. Teng, 1992 (19c)). On the other hand, when *m* negates an adjective, the combination of *m* and the adjective is interpreted as 'contrary', as shown by (16) where the meaning of *m ho* 'not good' equals to 'bad'. (cf. Teng, 1992 (9a)).

(16) chit   khoan   e   *m*   **ho**

      this   kind   shoes   not   good

      'This kind of shoes is not good.'

(17) chit-e   bun-te   *bo*   **kan-tan**, khi   mng   i

      this   question   not   easy   go   ask   him

      'This question is not easy; go to ask her/him!

2.3. Claire (1992)

Likewise, Claire (1992) illustrates that negation in Taiwanese is always associated with modality, either lexically or syntactically. Also, she considers *m* as an

adverb, where the combination of *m* and an action verb denotes a volition; while the combination of *m* and a state verb denotes either contrary or contradictory meanings. Examples are shown as (16) and (17) (cf. Claire, 1992 (31) (33)).

(18) se   tai   chhia   *m*   ho   la.   (contrary)

     small   CL   car   not   good   PRT

     'Small cars are no good!'

(19) hit   chhut   hi   *m*   si   goa kok   phin   (contradictory)

     that   CL   play   not   be   foreign   movie

     'That is not a foreign movie.'

2.4. Tang (1994)

Unlike Li (1971), based on the similar semantic properties of so called *m*-1 and *m*-2 and their complementary distribution, Tang (1994) suggests that there is just one *m* which represents the same or allomorphs of the same morpheme. In addition, *m* with the underlying *beh* 'want' can show agent's refusal and unwillingness to make the event happen in generic time. Whereas *m* does not refer to the volition of the agent, but shows the non-existence of the event, the negation marker is *bo*, which is formed by the fusion of *m* and verb *u*. Thus, it can be inferred that *m* and *bo* are allomorphs of the same morpheme.

2.5. Lin (2004)

Like the statement of Tang (1994), Lin (2004) also argues that there is only one simple negation marker *m*, and the non-volitional *m* attach to exceptional verbs at a lexical level; whereas the volitional *m* results from non-volitional *m* attaching to a modal in the syntactic level. Thus, *m* and the following exceptional verbs such as *m-si* 'not be', *m-ho* 'not good', *m-cai-ian* 'not know', *m-khing* 'not be willing to', etc., are considered lexicons, occupying the V node, and c-commanded by an NEG node. By contrast, *m* under an NEG node is subcategorized as an MP headed by either *beh* or an abstract modal. The structures for volitional *m* and non-volitional *m* are as follows.

(20)

```
        NegP
        /  \
           Neg'
          /    \
       Neg      MP
        |       /  \
        m      M    VP
               |    |
              beh   lai
           (abstract modal)
```
(Lin, 2004(38))

(21)

```
           NegP
          /    \
              Neg'
             /    \
          Neg      MP
                  /   \
                 M     VP
                 |    /   \
              m-kann ADVP   V'
                      |     |
                  tiammtiann V
                             |
                            lai
```
(Lin, 2004(41))
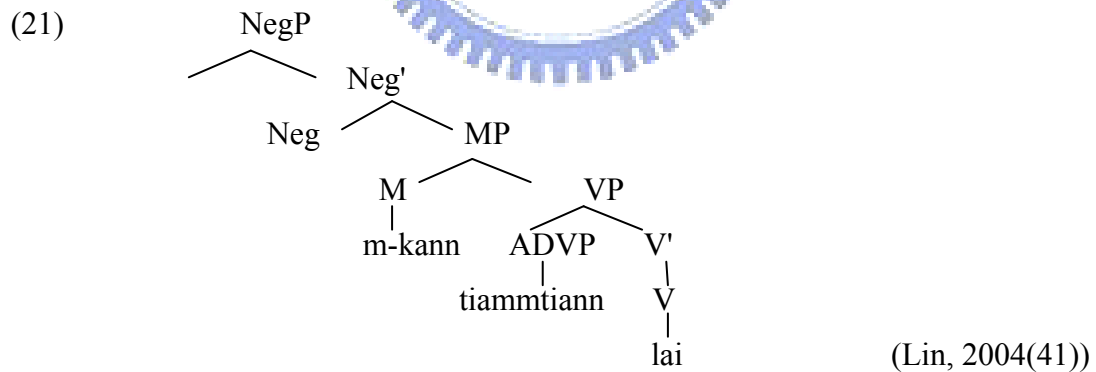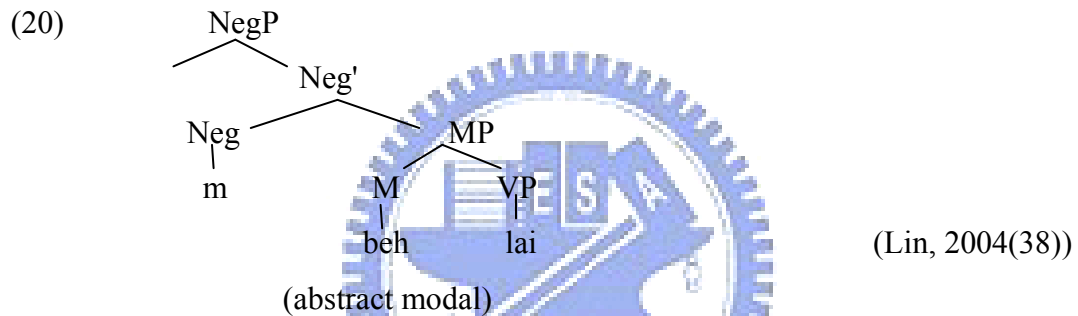
2.6 Summary

The focus of previous studies of Taiwanese negation markers is *m* and *bo*, especially discussed with respect to the interaction between aspectuality and their

syntactic distributions, and the distinction between contrary and contradictory readings, which are used to determined *m* and *bo* as lexical or a sentential negation markers. However, in these analyses, the number of the Taiwanese negation markers is still a question. For instance, whether there is one *m* or two *m*'s, or TSM has yet other primitive negation markers. In addition, the manner of determining negation markers as lexical or sentential seems insufficient; that is, since not every sentence has a gradable predicate, it is not suitable to judge every sentence by this criterion. Therefore, this work will focus on the number of primitive negation markers, and the determination of the types of negation markers. Before discussing these issues, in the next chapter, the two topics will be introduced: the interaction between aspectuality and the distribution of negation markers, and the distinction between the contradictory and the contrary reading.
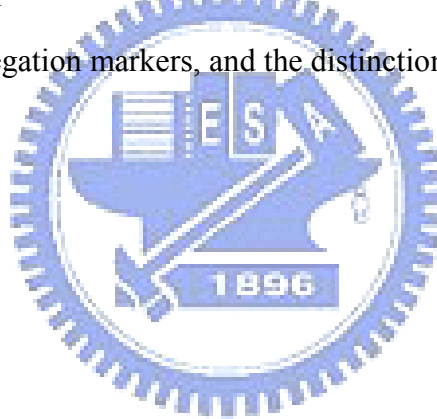
Chapter 3

This chapter briefly introduces the following two topics: the interaction between aspectuality and the distribution of negation markers, and the distinction between contradictory and contrary readings. These two topics are studied most in discussions of negation markers in MC as well as in TSM. For example, the logical notions are usually used to determine the negation as a lexical or a syntactic, and the distributions of the negation markers are generalized through the interaction between the negation marker and the aspectuality.

Therefore, the negation markers of MC and TSM will be discussed based on these two points of view. In section 3.1, the interaction between aspectuality and the negation marker's distribution is illustrated, and the difference between contrary and contradictory is given in section 3.2.

3.1. Negation and Aspectuality

Observing the interaction between negation and aspect, Thomas Ernst (1995) claims that *bu* 'not' represents an adverb located in Spec of AuxP or the spec of VP rather than in the head of NegP. *Bu* neither co-occurs with inherently perfective (*you*)

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nor hosts a perfective suffix (-*le* or -*guo*), only occurring with unbounded aspectual situations. Taking (22) for example, the perfective aspect is incompatible with *bu*; obviously, the property of *bu* conflicts with a perfective element, whereas *mei* is well-matched with the inherently perfective *you*,as shown in (23). From this conflict, it can be inferred that *mei* is not merely an allomorph of *bu*, but inherently perfective, necessarily co-occurring with bounded events.

(22)   *wo   *bu*   chi-le   mugua   (Ernst, 1995 (1c))

         I   not   eat- Asp   papaya

       'I didn't eat papaya.'

(23)   ta   tiantian   (dou)   *mei*you   shunshi   huilai   (Ernst, 1995 (76))

        he   daily   all   not-PRF   on-time   back-come

       'Every day he didn't come back on time.'
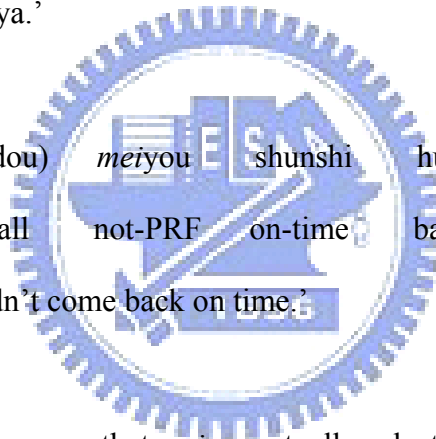
Like Ernst, Lin (2003) proposes that *mei* aspectually selects a dynamic situation as its complement, involving changes over time and requiring input of energy, as in (24a) (cf. Lin, 2003 (10)). Alternatively, *bu* aspectually selects a stative situation which does not develop or change in time, requiring no input of energy in order to obtain that situation, as in (24b) (cf. Lin, 2003 (15)). Wang (1998) mentions that negation is syntactically sensitive to modality or aspectuality in Mandarin Chinese; *bu* is licensed by the head of ModalP, an implicit willing modal, projected under the adjoining position of ModalP.

(24) a. Ta *mei* zai xi zao

   He not PROG take bath

   'He is not taking a bath.'

   b. Women zhijian *bu* cuanzai-zhe nimen suo shuo

   we in-between not exist- ASP you PAR say

   de wenti

   REL problem

   'Between us does not exist the problems that you said.'

In the previous research of Li (1971), Teng (1992), and Tang (1994) on *m* and *bo*, both of them are said to occur before both statives and dynamics. Yet, I argue that *m* only occurs before statives, while *bo* occurs before both statives and dynamics.[3] Furthermore, *m* conflicts with perfective suffixes like *guei* 'have been to', whereas *bo* is compatible with *guei* 'have been to.'

(25) a. *i m khi guei migok

   he not go PRF U.S.A.

   'He has not been to U.S.A.'

   b. i bo khi guei migok

   he not go PRF U.S.A.

   'He has not been to U.S.A.'

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[3] Although *m* can precede action verbs such as *lai* 'come', what it negates is an abstract modal [+beh], and the auxiliary is considered as a state, as are the adjectives. Additionally, progressives also can follow *m*, and the progressives are treated as states in Lin (2003). Thus, we state that *m* always precedes statives.

3.2. Contrary versus Contradictory

In addition to aspectuality, the two logical notions, contrary and contradictory, are used to distinguish a lexical negation marker from a sentential one. Teng (1978) uses these two notions to determine negations as lexical or sentential negation markers. For example, if a negative sentence denotes contradictory meaning, the negation marker is classified as a syntactic construction. Alternatively, a negative sentence indicating contrary meaning is considered as lexical facts. In other words, the negation in the former represents a sentential negation marker, while that in the latter behaves as a lexical one.

Also, Teng illustrates that only contrary terms can function as comparative predicates, like (26a) which specifies a definite property. By contrast, when contradictory terms occur in comparative constructions, negation must precede the comparative markers or preposition, as *gen* 'and' given in (26b); else the sentence will be ungrammatical, such as (26c). As a result, a negation marker in contrary terms is a negative prefix, being a part of the state verbs, formed as a lexicon.

(26) a. ZhangSan   meiyou   LiSi   neme   *bu*   young-gong

        ZhangSan   not   LiSi   that   not   studious

        'Zhang San is not as lazy (in study) as Li Si.'

  b. Ni   *bu*   gen   ta   yiyang   gao

      You   not   and   he   equal   gao

      'You are not as all as he is.'

  c. *Ni   gen   ta   yiyang   *bu*   gao

      you   and   he   equal   not   tall

'You and he are equally not tall.'   (cf. Teng, 1978 (6b) (7a) (8a)).

The studies of Taiwanese negation markers yield similar results upon examination by these two notions. Claire (1992) postulates that *m* with a state verb denotes either a contrary or a contradictory meaning. According to, Teng (1992) *m* occurring with adjectives denotes contrary meaning such as *m ho* 'not good = bad,' while *bo* occurs with adjectives, denoting contradictory meaning such as *bo ho* 'not good ≠ bad '. However, to examine negations through semantics is insufficient. It is difficult for us to interpret a sentence having a contrary or a contradictory meaning. This is especially so when the sentence does not have gradable predicate, such as (19) where Claire provides an incorrect classification. In fact, *m si goa kok phin* 'not a foreign movie' means the movie is not a foreign movie, and it must be a domestic movie. Hence, (19) denotes a contrary reading, but not a contradictory one. This kind of problem can be found in MC as well, as seen in Teng's opinions in (26a) and (26b) where *bu yong gong* 'not studious' and *bu gao* 'not tall' do not equally mean 'lazy' or 'short'. In other words, these predicates are gradable, and the sentences have contradictory meanings, but not contrary ones. Thus, the negation markers in (26a-b) are sentential markers.

From the sentences discussed above, defining *m* and *bo* as a lexical or sentential negations by the contrary or contradictory interpretation is not sufficient, especially, as the predicate does not have gradability. Thus, I propose an alternative to determine whether negation markers are lexical or sentential by the examination of comparative construction. If the negative predicate can occur in the comparative construction, the

negation marker represents as a lexical one, and the negation and the following element are considered as a lexical word. In the next chapter, the properties of Taiwanese negation markers will be presented first; then both semantic and syntactic methods will be used to determine negation markers as lexical or a sentential.

Chapter 4

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The Syntactic and Semantic Properties of Taiwanese Negation Markers

In order to investigate the number of primitive negation markers in TSM, I reexamine the basic properties of Taiwanese negation markers such as *m* 'not,' *bo* 'not,' *mai* 'not,' *buai* 'not,' *beh* 'not,' and *mmo* 'not' to generalize their distributions. From this analysis, the primitive marker will be determined. The properties of the negation markers are provided in this chapter.

4.1 The properties of negation *m*

The data concerning *m* can be divided into two subgroups based on the volitional and non-volitional readings of the negative sentences. When *m* occurs with either action verbs or certain adjectives, the 'intention of not to' meaning is interpreted, for example.

A. *m* + action verbs

(27) a. i   *m*   lai

he   not   come

'He did not want to come.'

b. i   *m*   khi   hahao

  he   not   go   school

    'He did not want to go to school.'

c. i   *m*   chia   ben

  he   not   eat   meal

    'He did not want to eat.'

B. *m* + adjectives

(28) a. i   *m*   lausit

  he   not   honest

    'He did not want to be honest.'

b. i   *m*   ching-gin

  he   not   decent

    'He did not want to be decent.'

c. i   *m*   kiam

  he   not   frugal

    'He did not want to be frugal.'
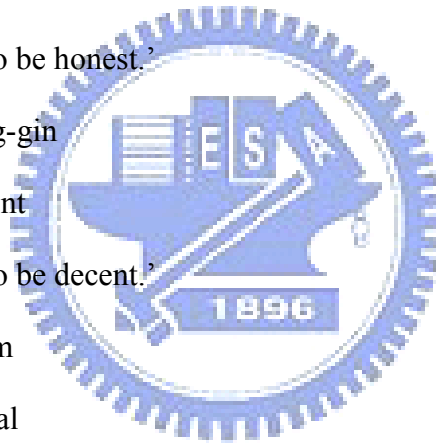
Lin (2004) proposes *m* is in an NEG node, subcategorizing a ModalP headed by either *beh* or an abstract modal (Huang 1988a), so that the volitional meaning is denoted from the attachment of *m* to a modal/modal verb with [+volition] feature. In addition to action verbs, *m* can precede auxiliary, non-gradable adjectives, state verbs, and [si/si…e] structures. When *m* occurs with these elements, the negative sentence does have volitional meaning. Examples are as follows.

C. *m* + Aux

(29) a. li   *m*   bien   hiao-yi

     you   not   have to   doubt

     'You have not to doubt.'

   b. li   *m*   thang   yiabie   laogang

     you   not   shoud   oppress   labors

    'You should not to oppress the labors.'

   c. i   *m*   khing   khi   haho

     he   not   willing   go   school

     'He is not willing to go to school.'

   d. i   *m*   ka   chia   hiam

     he   not   dare   eat   spicy

     'He dare not to eat spicy food.'

   e. woa   *m*   kia   kua

     I   not   afraid   cold

     'I am not afraid of cold weather.'

D. *m* + adjectives

(30) a. chi-e   yi-gian   *m*   ho

     This   suggestion   not   good

    'This suggestion is not good.'

   b. li   gong   e   ue   *m*   tio

     you   say   E   speech   not   correct

    'What you say is not correct.'

E. *m* + state verbs

(31) a. woa   *m*   cai-iann

      I   not   know

    'I did not know.'

    b. i   *m*   kam-sim

      he   not   willing

    'He is not willing.'

    c. i   lao   *m*   lienhun

      he   old   not   acknowledge

    'He did not acknowledge his old age.'

F. *m* + si

(32) a. i   *m*   si   haksing

      he   not   is   student.

    'He is not a student.'

    b. hit-cu   dianyian   *m*   si   woa-go   phi

      this   movie   not   is   foreign   flim

    'That movie is not a foreign film.'
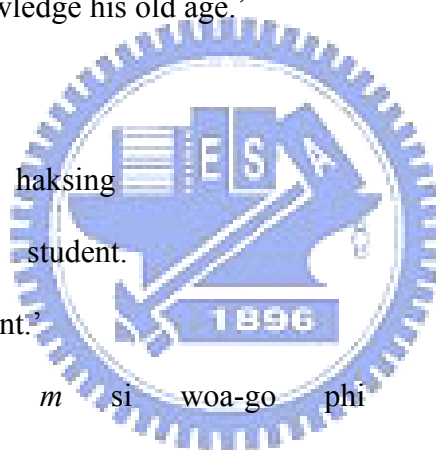
G. *m* + [si…e]

(33) a.   hit   rui   hue   *m*   si   ang   e

      that   CL   flower   not   is   red   E.

    'That flower is not red.

    b.   i-e   ming   *m*   si   o   e

      his   face   not   be   black   E

'His face is not black.'

4.2 The property of *bo*

Like *m*, *bo* can be followed by action verbs, auxiliary, statives, and adjectives. Yet, the meanings of the sentences negated by *bo* are different from those negated by *m*. For example, both of them can negate action verbs and certain adjectives such as *ho* 'good' and *lau-si* 'honest'. Yet, the sentences negated by *m* carry volitional meanings (27) or indicate that the situation is controllable, as shown in (28). *bo* is only used to express an event which is not carried out such as (34). Otherwise, both *m* and *bo* can co-occur with the adjective *an*g 'red,' as in (33a) and (37d), but the meanings of these negative sentences are different. In (33a), *m* negates a color type, specifying the opposite state of red; indicating the flower is not red, but other kinds of colors. Whereas, in (37d), there is a standard of color red, but the color of the flower does not reach that standard; so what *bo* negates is a degree sense, showing the flower is red but does not reach the standard of redness. This kind of distinction shows that although *m* and *bo* co-occur with the same adjective, their meanings are extremely distinct. The other distinct property separating *m* and *bo* is that the auxiliaries which are compatible with them are different. That is, *m* precedes the auxiliaries, *bien* 'not have to', *thang* 'should', *king/wan* 'willing', and *ka* 'dare' shown in (29), while *bo* co-occurs with the auxiliaries, *beh* 'want to,' as well as *yingkai* 'should' in (35). This contrast implies that there are at least two kinds of auxiliaries in TSM. One is compatible with *m* while the other is congruent with *bo*. In other words, TSM has different projections of modalities.

H. *bo*+action verbs

(34) a. i   *bo*   ying-sia

     he   not   reply

     'He did not reply.'

    b. i   cioo   ku   *bo*   tng   khi   tai-uan

      he   very   long   not   back   to   Taiwan

      'He has not gone back to Taiwan for a long time.'

    c. i   *bo*   chiang   sa   tio   cau   chu-khi   a

      he   not   wear   clothes   then   go   out   PL

      'He did not wear clothes before going out.'

    d. A-ming   *bo*   khi   hahau

      A-ming   not   go   school

      'A-ming did not go to school.'

    e. i   bo   cia   ku-bah

      he   not   eat   beef

      'He does/did not eat beef.'

I. *bo*+Aux

(35) a. woa   *bo*   beh   khi   taiba

     I   not   want   go   Taipei

     'I would not like to go to Taipei.'

    b. woa   *bo*   yingkai   coo   hi   kia   tai-ci

      I   not   shold   do   that   CL   thing

      'I should not do that.'

J. *bo* + state verbs

(36) a. i *bo* hua-hi

    he not happy

    'He is not happy.'

b. i *bo* liau-kai woa e siu-huah

    he not understand my Pos thinking

    'He did not understand my thinking.'

c. woa *bo* kayi hit e lang

    I not like that CL person

    'I do not like that person.'

K. *bo*+adjecive

(37) a. A-ming e biau-hian *bo* cing-cung

    A-ming Pos performance not usual

    'A-ming's performance is not as usual'

b. i e kanghu *bo* ho

    he Pos skill not good
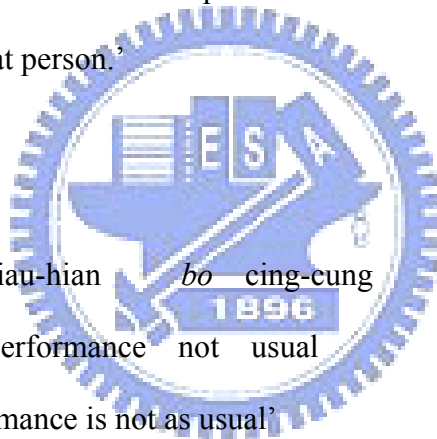
    'His skill is not good.'

c. hit e ko-niu *bo* sui

    that CL girl not pretty

    'That girl is not pretty.'

d. hit rui hue bo ang

    that CL flower not red

'That flower is not red.'

Another property of *bo* clamed by Teng (1992) is the generic interpretation which differs from *m*, as shown in (34e) where *cia ku-bah* 'eat beaf' can be interpreted as a generic reading or a episodic reading. However, the counter examples given in (38) indicate that the negation marker *m* also can have the generic reading. Hence, the generic property is not unique to *bo*.

(38) a. A-ming   tia-tia   *m*   sei   sing-khu

A-ming   usually   not   wish   bath

'It is often the case that Xiaoming does not want to take a bath.'

   b. A-ming   *m*   tia-tia   sei   sing-khu

A-ming   not   usually   wish   bath

'It is often the case that Xiaoming does not take a bath.'

Furthermore, Teng (1992) states that *bo* is only used for present and past generic situations. In fact, *bo* differs from this interpretation; it can be used for future situations as well, for instance:

(39) ming-a-cai   hue-chia   *bo*   kau   Taipah

tomorrow   train   not   arrive   Taipei

'Tomorrow, the train will not arrive at Taipei.

(39) means that the train will not arrive at Taipei tomorrow. Obviously, the adverb *tomorrow* manifests the future situation. Thus, *bo* is able to occur in a future situation as well.

4.3 The properties of *mai*, *buai*, *beh*, and *mmo*

The remaining four negation markers in Taiwanese are now discussed. First is *beh* 'not'. When *beh* precedes action verbs, state verbs, and adjectives, the negative sentence expresses the degree of 'unlikelihood' as shown in (40).

(40) a. min-a-chai   ing-kai   *beh*   lo-ho

    tomorrow   should   not   rain

    'It will not rain tomorrow.'

  b. lau-si   *beh*   pha   haksing

    teacher   not   hit   student

    'Teachers will not hit students.'

  c. A-mi   *beh*   ka-yi   A-ming

    A-mi   not   like   A-ming

  d. hit   cang   huei   cing   *beh*   sui

    that   CL   flower   cultivate   not   beautiful

    'That flower is not well-cultivated.'

mai signifies 'not,' which is used to advise, warn, threaten someone, or express an opinion about what should not happen, for instance:

(41) a. li   mai   kong-ka   hiap-phai   thiaN

    you   not   talk   nasty   listen

'You had better not talk so nastily!'

b. li   mai   lai   bo   woa   e   ka   li   kua   chu-khi

  you   not   come   or   I   will   ka   you   kick   out

  'You had better not come or I will kick you out.'

Third is *buai* 'not'. When the agent does not like something or does not want that event to happen, the negation marker *buai* 'not' will be used, such as (42).

(42) a. A-ming   *buai*   khi   hahau

    A-ming   not   go   school

    'A-ming would not like to go to school.'

b. i   *buai*   tua   Taipah

  he   not   live   Taipei

  'He would not like to live in Taipei.'

The last one is *mmo*, which is used to advise someone not to do something. The following elements are usually action or state verbs, as shown in (43).

(43) a. li   *mmo*   toa   peN-iN   la!

  you   not   stay   hospital   PL

  'Don't stay in the hospital.'

b. li   mmo   kua   tian-si

  you   not   watch   TV

  'Don't watch TV.'

4.4 The Sentential Negation Markers

Taiwan negation markers are divided into two types-the sentential negation marker and the lexical negation marker, according to their phonological composition, semantic interpretation, and syntactic distribution. In this section, the argument of *m* as a sentential negation marker is discussed.

M represents a sentential negation marker when it negates action verbs and certain adjectives; for example, what *m* negates in (27) and (28) is a predicate led by an abstract modal [+beh] which carries a volitional meaning. In fact, when *m* negates a covert volitional abstract or any abstract[4] phrase, *m* is located in Neg head and the scope of negation is wider than that of MP which is headed by the modal *beh* 'want to'. Moreover, *m* in [*m si/si…e*] constructions represented a sentential negation marker, as can be seen in (43).

(43) A-ming   *m*   dio   si   Taiuan   lang

    A-ming   not   dio   be   Taiwan   person

    'A-ming is Taiwanese.

In (432), the insertion between *m* 'not' and *si* 'be' is allowed; this proves that *m si* is not a lexical word; and *m* here serves as a sentential negation marker, negating the whole predicate *si* 'be'.   Comparative construction is also used to examine *m*. If the negative marker can occur after the comparative marker in the comparative construction, it is treated as a lexical word, but not a predicate. Taking (44) as an example, the negation marker *bo* 'not' in (44a) is unable to follow the comparative marker *ka* 'more,' while in (44c) the comparative marker *ka* 'more' can precede the

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[4] In addition to the explicit feature [+volitional] of modals, Ernst (1995) suggests that the abstract modal in habitual sentences may have the feature [+HAB].

negation marker *bo* 'not'. In other words, what (44a) compares is a predicate *bo sui* 'not pretty;' whereas what (44c) compares is a lexical word *bo huahi* 'unhappy'.

(44) a. i   *bo*   bi   woa   ka   sui

     she   not   than   I   more   pretty

     'She is not prettier than me.'

   b. * i   bi   woa   ka   *bo*   sui

     she   than   I   more   not   pretty

     'She is not prettier than me.'

   c.   i   bi   woa   ka   bo   huahi

     she   than   I   more   not   happy

     'She is not happier than me.'

   d.* i   bo   bi   woa   ka   huahi

     she   not   than   I   more   happy

     'She is not happier than me.'
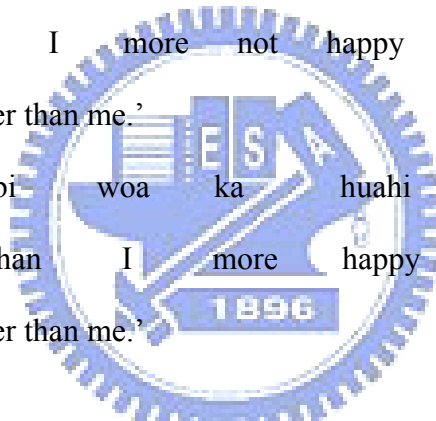
From this observation, it can be inferred that when the negation is a lexical one, it can occur in the comparative construction. The same examination is used to determine whether such negation can occur in the comparative construction. If so, the negation must be a lexical one. The examples are given below.

(45) a. *i   bi   woa   go-ka   *m*   si   haksing

     he   more   me   than   not   be   student

     'He is more unlike a student than me.'

   b.   i   bi   woa   go-ka   *m*   si   lang

| he | more | me | than | not | be | human |

'He is not like human more than me.'

(45a) shows that *m si* haksing 'not a student' cannot occur in the comparative sentence, whereas *m si lang* 'not be a human' occurs in the comparative sentence, and (45b) is grammatical. It seems that *m si* 'not be' can represent either a lexical or a sentential negation marker. In fact, (45b) is grammatical because *m-si lang* here is argued as the usage of idiom, so it can occur as a lexicon in the comparative construction. On the other hand, the ungrammaticality of (45a) indicates that *m si haksing* 'not be a student' is not a lexicon; therefore, it cannot occur in the comparative construction. Hence, *m* here is treated as a sentential negation marker which negates *si haksing* 'be a student,' a specificational copula sentence implying class membership (Huang 1988b) [5].

In Teng (1992), *m si* 'not be' is analyzed as a lexicon since *m* cannot stand alone to answer questions, as seen in (46). Yet, based on the following covert modal *beh*, I argue against this statement and attribute it to *m*, which behaves as a bound morpheme, and must attach to a stem or a word such as *si* 'be' so that the volitional *m* can stand alone.

(46) | li | si | *m* | si | haksing |
     | you | be | not | be | student |

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[5]   Huang (1988b) proposes that there are two kinds of *shi* in MC--one is transitive and the other one is intransitive; rather, the transitive *shi* and the following arguments form identificational or specificational copulative sentences. The intransitive *shi* is a raising auxiliary that subcategorizes a clause. Various "cleft sentences" are formed with the intransitive *shi* depending on whether subject raising has taken place. Applying this proposal to TSM, *si haksing* 'be a student' belongs to a specificational copula sentence, implying class membership. Thus when it is negated by *m*, what *m* negates is a copula sentence, forming a syntactic negation, but not a lexical negation.

'Are you a student?'

a. *m*   si.

   not   be

   'I am not.'

b. **m*.

   not

   'Not.'

(47) li   beh   khi   taipak   *bo*?

   you   want   go   Taipei   PRT

   'Do you want to go?'

a. *m*   khi.

   not-want   go

   'Do not want to.'

b. *m*.

   not-want

   'Do not want to.'

4.5 The Lexical Negation Markers

The date indicates that *m* not only functions as a sentential negation marker, but also represents a lexical one, especially when it co-occurs with adjectives. Examples are given in (48).

(48) a.   cng-kha   hakhao   *m*   ho.

   countrysie   school   not   good

   'The school in the countryside is not good.'

b. i   gong   e   wue   *m*   tio.

34

he   say   E   speech   not   correct

'What she says is not correct.'

The classification of the adjectives is based on their inherent properties: gradable (relative) and non-gradable (absolute) (Hamann 1991, Bolinger 1967, etc). [6] The truth value of adjectives, *ho* 'good' and *tio* 'correct' are determined independently; so they are classified as non-gradable adjectives and denote contrary meanings As the previous analyses have stated, if the combination of the negation marker and the following elements conveys a contrary reading, then the negation is sorted lexically. As a result, *m* in (48) represents a lexical negation. Otherwise, when *m* co-occurs with state verbs and auxiliaries, *m* is also analyzed as a lexicon. Comparative sentences are used to distinguish the lexical *m-* from the sentential *m*. In (49), *m* and the following state verbs can occur in the comparative construction; thus, *m* here is counted as lexical negation.
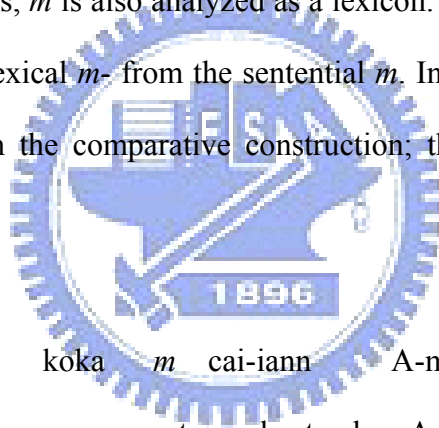
(49) a. woa   bi   li   koka   *m*   cai-iann   A-ming   e   siu-huak

     I   than   you   more   not   understand   A-ming   Pos   thinking

     'I did not understand A-ming's thinking any better than you.'

   b. bi –sai   su   a,   A-ming   bi   woa   ka   *m*   kam-wan.

     competition   lost   PRT   A-ming   than   I   more   not   willing

     'The competition lost, A-ming is not more willing to lose the game than me.

   c. li   bi   woa   ka   *m*   kia   kua.

     you   than   I   more   not   afraid   cold

     'You are not more afraid of the cold weather than me.'

---

[6] We assume Taiwanese Southern Min counterparts of the adjectives can be sorted in the same way as well.

Another way to determine *m* as a lexical negation marker is to determine whether the negative term carries a contrary meaning or not. When *m* precedes state verbs, such as *cai-iann* 'know,' *kam-sim* 'willing,' or *lienhun* 'acknowledge,' the contrary meaning is conveyed. Thus, *m* represents a negative prefix *m-*, attached to the following state verbs, and forming a negative lexicon. For example, *m cai-iann* 'not know =unknown', *m kam-sim* 'not be willing to =unwilling', and so on.

Besides *m-*, *bo-* can serve as a lexical negation maker as well. Taking (50a) for example, *bo hua-hi* 'unhappy' in the comparative construction does represent a lexicon. Thus, *bo-* is undoubtedly a lexical negation marker.

(50) a. i   bi   woa   ka   *bo*   hua-hi.

   he   than   I   more   not   happy

   'He is not happier than me.'

   b.*i   bi   woa   ka   bo   khi   hahau.

   he   than   I   more   not   go   shcool

   'He did not go to school more than me.'

4.6 The Derived Sentential Negation Markers

Unlike (49a), *bo* in (50b) is incompatible with the comparative construction. Therefore, *bo* here functions as a sentential negation marker. Along the same lines as Teng (1992), I consider *bo* to be a sentential negation marker which is derived from the fusion of the sentential negation marker *m* and the aspectual light verb *u*. Besides the phonological evidence given in Teng (1992) from the semantic interpretation, *bo* is proved to be a derived sentential negation marker as well. Examples are given below.

(51) a. *i　　*m*　　*bo*　　chia　　pn.

　　　he　　not　　not　　eat　　meal

　　　'He does not want to not eat.'

　　b.　i　　*bo*　　*m*　　chia　　pn.

　　　　he　　not　　not　　eat　　meal

　　　'It was not that he does not want to eat.'

Although both of (51a) and (51b) denote the volitional meanings, only (51b) is grammatical. This shows that unrealized situations cannot be intended and then negated, as (51a) shows. Yet, (51b) indicates that *bo* is the combination of *m* and *u*, and *m* here negates a realization of someone's unwillingness to eat; hence, the sentence is not ill-formed.

　　In addition to *bo*; *mai*, *buai*, *beh*, and *mmo* are also formed by fusing *m* to other elements such as the auxiliary *ai*, the aspectual verb *u* and verb *ai*, the auxiliary *e* 'will', and the auxiliary *ho*. Since they are derived forms, not primitive ones, all the negative forms, *mai*, *buai*, *beh*, and *mmo*, can be written as their positive counterparts, for instance.

(52) a. min-a-chai　　　e　　　lo-ho.

　　　tomorrow　　　will　　rain

　　　'It will rain tomorrow.'

　　b. min-a-chai　　beh　　lo-ho.

　　　Tomorrow　　　not　　rain

　　　'It will not rain tomorrow.'

E 'will' in (52a) defines 'likelihood', expressing that the raining event will happen tomorrow; while in (52b), *m* negates the raining event which is going to happen, and defines 'unlikelihood'.

(53)a. li   ai   lai   wn   tau.

     you   had better   come   my   house

     'You had better come to my house.'

  b. li   mai   lai   wn   tau.

     you   not   come   my   house

     'You had better not come to my house.'

The auxiliary *ai* is used to express an opinion about what should happen. As in (53a), the sentence indicates that the speaker advises or threatens the addressee to come to his/her house. By contrast, when *ai* and the following predicate are negated by *m*, it means that the addressee is advised or threatened not to do the event in (53b)

(54) woa   ai   chia   pN,   buai   chia   mi.

     I   like   eat   rice   not   eat   noodle

     'I like to eat rice, but not to eat noodles.'

Buai is derived from having the aspectual light verb *u* and the auxiliary *ai* negated by *m*. This argument can be proved from the meaning of (54), which means that when someone has choice, they will use *ai* to express preference, and use *buai* to show dislike of something/to do something. As in (54), it shows the speaker's preference for eating rice.

(55) a. li   ho   chu   mN   a.

     you   should   go   door   PL

'You should go out.'

b. li   mmo   chu   mN   a.

  you   not   go   door   PL

'You should not go out.'

The auxiliary *ho* is the positive counterpart of *mmo*. When *ho* is negated, /h/ in /mho/ is nasalized as /mmo/. In (55a), the speaker advises the addressee to go out, while in (55b) the addressee is advised not to go out.

To sum up, *bo*, *mai*, *buai*, *beh*, and *mmo* are derived sentential negation markers, as proved by the derivation of phonology and semantic interpretation shown above. On the other hand, other negation markers such as the sentential *m* and the lexical *m* and *bo* are primitive.

Chapter 5

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Analysis

There are three primitive negation markers. First is the sentential negation marker *m*. When *m* negates the predicate led by the verb *si* and an abstract volitional modal *beh*, it represents a sentential negation. Second is the negative prefix *m-*. *M-* represents a lexical negation marker, occurring with limited states and adjectives. Third is the negative prefix *bo-*. *Bo-* and the subsequent state verbs form a lexicon which can exist in the comparative construction. Besides these three, the others are derived, such as *bo, mai, buai, beh, mmo*.

Analysis of all the negation markers indicates that the sentential negation marker *m* must occur with other elements, and some of them are fused together with *m* via phonological processes. Thus, *m* must occur in a predicate with a structure like [m X predicate]. In other words, aspectual *u*, some modals, and the verb *si* represent X in such a construction.

The focus of this chapter is the [m X predicate] structure; particularly how X functions as a trigger for the θ-binding. Section 5.1.1 reviews the θ-binding Theory of Higginbotham (1985). Then, I extend his argument to argue that the three elements, *u*, modal, and the verb *si* 'be' occur as X, which triggers the aspect to bind the hidden arguments in 5.5.2.

5.1. The Function of X

5.1.1   Higginbotham (1985): The θ-binding Theory

In order to demonstrate the values of predicative expressions, Higginbotham (1985) illustrates that a word that assigns thematic roles to the arguments is analogous to the lexical entry that gives appropriate information about the number and nature of these arguments. Following Stowell (1981), he considers such information as the thematic grid of the word. The lexical entry of a verb includes its pronunciation, part of speech, and thematic grid, as shown in (56) where the verb *see* is taken as an example.

(56) a. John saw Mary.

     b. *see*, +V –N , <1,2,E>

John fills the thematic position 1, and position 2 is filled by Mary. The position *E* corresponds to the 'hidden' argument place for events, originally suggested by Donald Davidson in (1966). Extending Davidson's idea, Higginbotham illustrates that statives also have *E*-positions. The bundle of objects answering to these positions are called 'situations' (Barwise and Perry 1983).

The assignment of thematic roles in (56) matches up to the semantic closure of point S (sentence), given in (57).

(57) S is true ↔ (∃e) see (John, Mary, e)

The label *e* is the event of John's seeing Mary. The position marked by *E* in (56) ends up bound by an existential quantifier. The value of the predicate is defined at the linguistic level LF.

5.1.2. X Serves as a Trigger

Higginbotham (1985) proposes that each sentence has a hidden argument that must be properly bound. Thus, I propose that every negative sentence has a hidden argument, and X determines an aspect which functions as a θ-binder ∃ to bind the hidden argument of the predicate. In TSM, *u*, modal, and the verb *si* determine the aspect of the event by which the hidden argument of the predicate is bound. The bound arguments are variables such as an event, a situation, or a degree. Detailed information is provided in the following sections.

5.1.2.1. Modal (overt and covert)

The Taiwanese negation marker data indicates that the modals that follow *m* can be overt or covert. For example, the covert modal *beh* exists when the sentences indicate volitional meanings, and the abstract modal determines the aspect to be a state that binds the situation variable in situ, as shown in (58).

(58) i   *m*   khi   hahao.

   he   not   go   school

   'He did not want to go to school.'

   → ¬ [∃s: go (he, school, s)]

42

The primitive sentential negation marker *m* 'not' is shown as the symbol ¬, and the state (situation) aspect of the sentence functions as an existential operator ∃x, unselectively binding the hidden argument *s* (situation) in (58). If the event variable does not bind by a proper binder, it will cause the sentence to violate the Empty Category Principle (ECP) (Chomsky 1981) as stated below.

(59) The Empty Category Principle (ECP):

A nonpronominal empty category must be properly governed[7].

The structure for (58) is as follows.

(60)
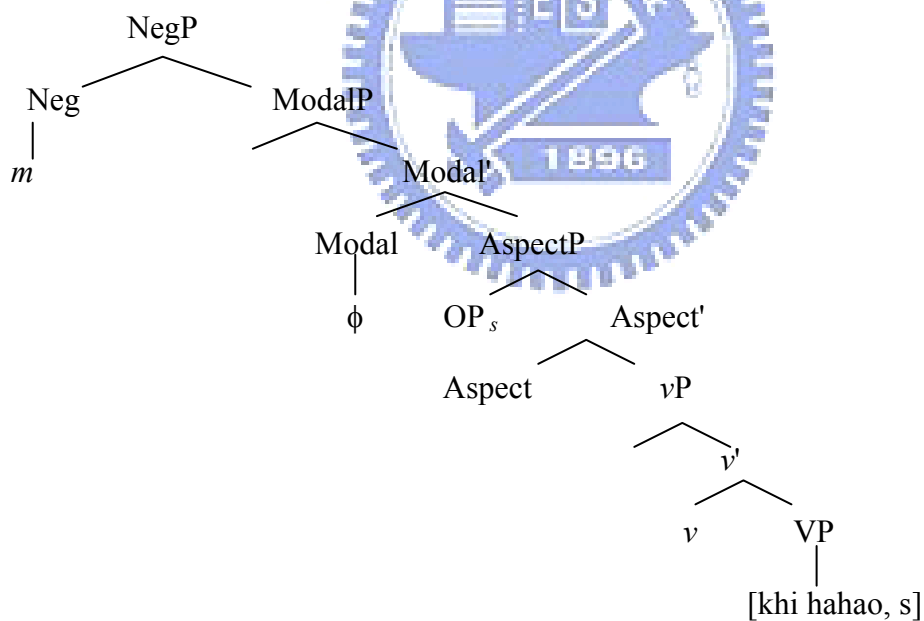
NegP
- Neg
  - *m*
- ModalP
  - Modal'
    - Modal
      - φ
    - AspectP
      - OP *s*
      - Aspect'
        - Aspect
        - *v*P
          - *v*'
            - *v*
            - VP
              - [khi hahao, s]

As can be seen in other overt modals, the binding mechanism is the same as that of

beh 'want'. The modal determines the aspect as a state that functions as a θ-binder ∃

to bind the situation argument of the predicate, shown as below.

(61) i   beh   lai.

    he   not   come

    'He will not come.'

    → ¬ [∃s: come (he, s)]

(62) li   mai   lai   wn   tau.

    you   not   come   my   home

    'You had better not come to my home.'

    → ¬[∃s: come (you, my house, s)]

(63) woa   buai   khi   lin   tau.

    I   not   go   your   home

    'I would not like to go to your home.'

    → ¬[∃s: go (I, your home, s)]

(64) li   mmo   chu   mN   a.

    you   not   go   door   PL

    'You should not go out.'

    → ¬[∃s: go out (you, s)]

(65)

```
                    NegP
               _____|_____
           Neg                  ModalP
            |              _____|_____
            m                           Modal'
                                   _____|_____
                               Modal            AspectP
                                 |          _____|_____
                                beh      OP_s          Aspect'
                                                  _____|_____
                                              Aspect            vP
                                                            _____|
                                                                  v'
                                                              ____|____
                                                             v        VP
                                                                       |
                                                                   [lai, s]
```
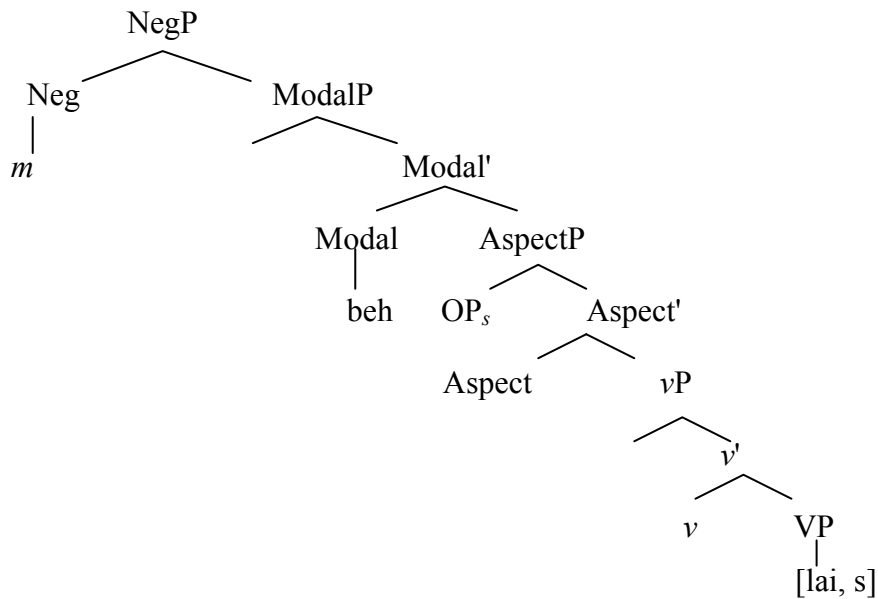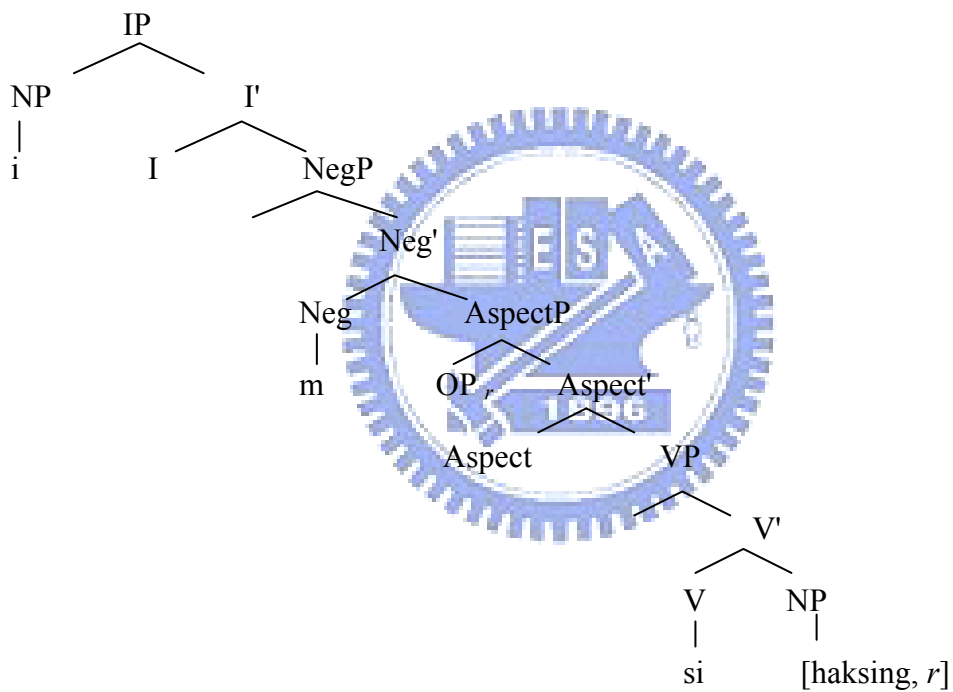
5.1.2.2. The Verb *si*

Furthermore, there is another kind of binding schema for different kinds of negative constructions such as [*m* s*i*] and [*m si…e*] in (32) as well as (33). In these two constructions, the predicates lack main verbs, only having NPs such as *haksing* 'student' and *ang-e* 'red kind'. The binding schema of these sentences can be described by a hidden argument *r* in the predicate, and it is used to show the coherence between the subject and the object NP. This follows the same line of reasoning as the *argument binding theory* in Higginbotham (1983).

(66)   Argument binding (Linking) (Higginbotham 1983):

An empty category, a formal variable, occurring in an argument position is linked to a nonargument; the operator to which a formal variable is linked will be called its binder. And the binder is required for completing the semantic coherence between subject and object NP.

Although the *argument binding* is referred to an NP in Higginbotham (1983), this argument can be extended to explain why *si* 'be' must trigger an aspect, which serves as an operator binding the referential argument, object NP and linking with subject to complete the coherence between subject and object NP. The binding mechanism for (32a) as well as (33a) is given below.

(67) a. =(32a)

b. =(33a)

```
                    IP
           ╱              ╲
        NP                  I'
         |            ╱          ╲
    hit rui hue    I              NegP
                            ╱          ╲
                                       Neg'
                                ╱            ╲
                            Neg               AspectP
                             |          ╱          ╲
                             m       OP_r           Aspect'
                                              ╱            ╲
                                          Aspect            VP
                                                       ╱         ╲
                                                                  V'
                                                             ╱         ╲
                                                           V             NP
                                                           |             |
                                                          si         [ang-e, r]
```
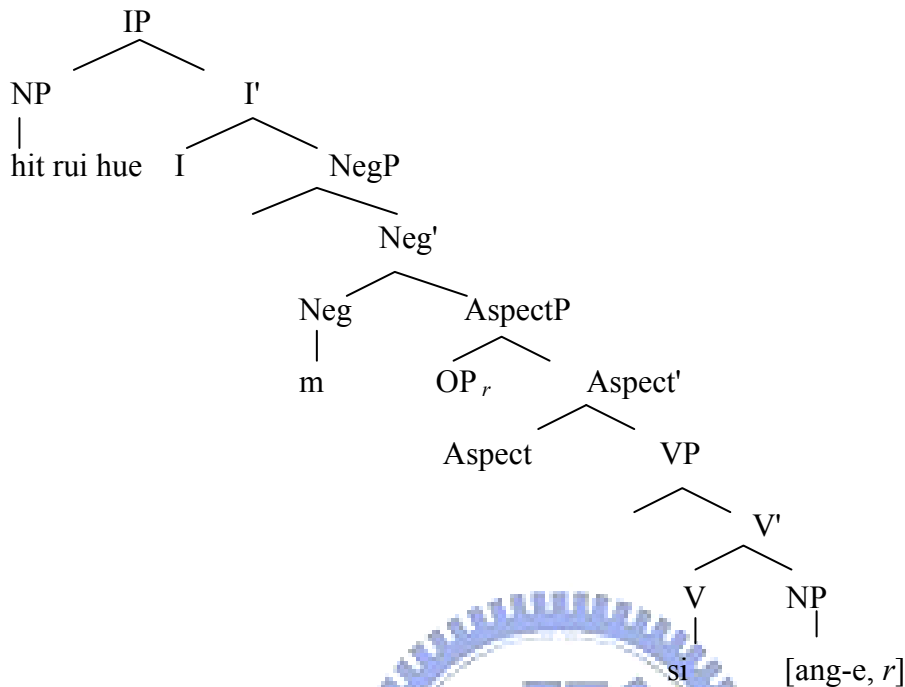
si 'be' in both sentences triggers an aspect to bind the hidden argument *r* (referential argument) and the binder is required to complete the semantic coherence between subject *i* 'he'/ *hit rui hue* 'that flower' and object *haksing* 'student'/ *ang-e* 'red-kind'. The logical structures for (67a-b) are as follows.

(68) a. ¬ [be *r*: student (*r*) & R (he, r)]

b. ¬ [be *r*: red-kind (*r*) & R (that flower, r)]

The meanings of these two sentences are completed by the binder *si* 'be' and the subject NPs, and the negative *m* here negates the relation between the subject and the object. This kind of binding also shows why *si* 'be' is named linking verb, further defined here as a default binder which is required for semantic coherence.

5.1.2.3. **The aspectual light verb *u***

A review of the previous studies on *u* in TSM will shed light on *u* as a light verb.

Tsao (1998) claims that, as opposed to as generally assumed, *–le* in MC corresponds to *u* in TSM. *U* is able to emphasize any present time points in the context while *–le* only occurs when the referential time is in the past. In fact, what corresponds to *–le* is the null form "φ" in TSM, not *u*. For example:

(69) a.   cang   ji-ki   sia   sa   tiam   ciang.

       yesterday   dairy   write   three   CL   clock

       'Yesterday, (he/she) kept diary covering three hours.'

    b. Zuo-tiang   ri-ji   xie   le   san   xiao-shi.

       Yesterday   dairy   write   PF   three   hours

       'Yesterday, (he/she) kept a diary for three hours.'

Occurring with action verbs, *u* asserts the event did happen or was realized, and the event need not be completed. Occurring with states, *u* affirms or emphasizes the states. In addition, *u* is considered to be a modal verb, forming A-not-A questions and negative sentences, combining with *m*, and appearing with '*teh/t*i,' which indicates progressive aspect. Also, Lin (1974) considers *u* to be an auxiliary verb which is used to assert the existence of a certain event or state expressed by a sentence such as (70). In Cheng (1997), *u* is treated as an auxiliary verb and functions as an operator which is similar to English 'do/did'; emphatically asserting the occurrence of an event such as the following (cf. Cheng, 1997 (9a) (13a)).

(70) gua   u   khi   bikok.

I   have   go   USA

'I did go to the United States.'

(71) a. Li   *u*   chiah   hun   bo?

      you   Op   smoke   cigarette   not

      '**Do** you smoke?'

   b. Cha-hng   kui-jit   long   *u*   loh-ho.

      yesterday   all-day   all   Op   rain

      'It **did** rain all day yesterday.'

Moreover, *u* is also called an aspect marker because it shows a certain relationship between the event and the time setting. Particularly, when preceding a verb, it is either an emphatic assertive of the existence of an event or an existential aspectual marker.

U is not a modal verb/auxiliary. Based on Li and Thompson (1981), an auxiliary verb can be negated, cannot take aspect markers, and so on. However, *u* cannot be negated, but can take aspect markers as shown in (72). The result contrasts sharply with how modal verbs represent action.

(72) a. *i   *bo/m*   *u.*

      he   Neg   aux

      'He does not have.'

   b. i   *u*   ti   cu   ne.

      he   aux   Asp   house   inside

      'He is at home.'

Furthermore, I think it is not correct to argue that *u* functions as an operator which is similar to English 'do/did', or even 'be'.

(73) a. A-ming   ***u***   kuan.

    A-ming   OP   tall

    *'A-ming **does** be tall.'
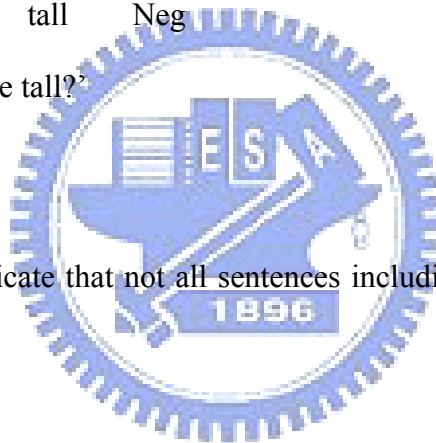
    'A-ming is tall.'

  b. A-ming   ***u***   kuan   bo?

    A-ming   OP   tall   Neg

    *'**Does** A-ming be tall?'

    'Is A-ming tall?'

The above instances indicate that not all sentences including *u* in TSM represent the English operator 'be.'

    u is neither a modal verb nor an operator as *do* is in English, it is an aspectual light verb according to Shen (2004)'s definition of light verbs, also stated by Huang (1997) and Lin (2001), and specified in (74).

(74) Light verbs:

    Light verbs are predicates of aspects of eventualities. Syntactically they are verbs, with or without phonetic realization; semantically they are predicates of aspects that compose eventualities.

As with the definition of light verbs, *u* represents the predicate of the aspectual event, and its meaning derives from its combination with the main predicate. Syntactically, it is a verb with the phonetic form; at PF it fuses with the sentential negation marker *m*. Semantically, it is a predicate of aspect composing eventuality. Being an aspectual light verb, *u* has substantial thematic functions, functioning as a trigger that determines the aspect based on the event type to bind an event or a situation variable which associates with aspects, as shown in example (75). In (75), *u* and the following predicate are negated by the primitive negative marker *m* 'not' shown as the symbol ¬, and the various aspects determined by *u* function as a existential operator ∃x, binding the hidden argument *e* (event) in (75a) as well as *s* (situation) in (75b).

(75)a. A-ming   bo   khi   hahau.

    A-ming   not   go   school

    'A-ming did not go to school.'

    →   ¬[∃s: khi hahau (A-ming, e)]

  b. woa   bo   kayi   hit   e   lang.

    I   not   like   that   CL   person

    'I do not like that person.'

   →   ¬[∃s: kahyi (woa, hit-e lang, s]

Besides event and situation variables, when preceding gradable adjectives such as *sui* 'pretty,' *guan* 'tall,' etc., *u* can trigger an aspect to serve as an affirmative operator that binds a degree variable, as in (76). [8]

(76) hit   e   ko-niu   *bo*   sui.

    that   CL   girl   not   pretty

    'That girl is not pretty.'

→   ¬[∃d: sui (hit-e ko-niu, d)]

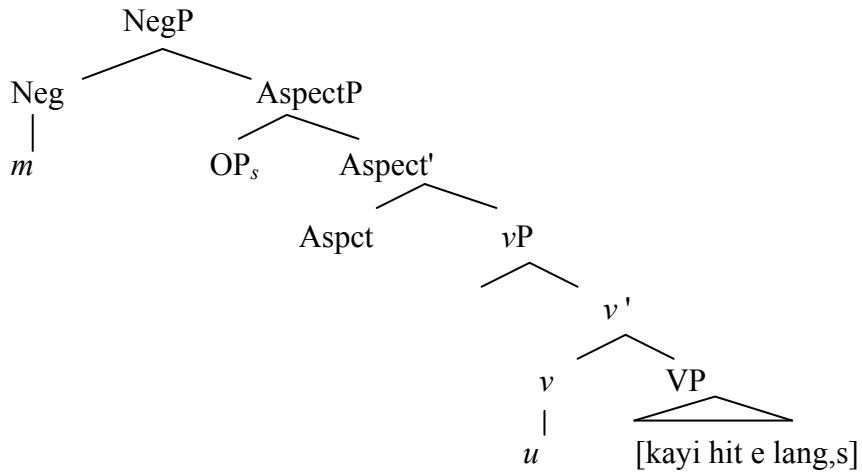The structures for (75) as well as (76) are given below.

(77) a. =(75a)

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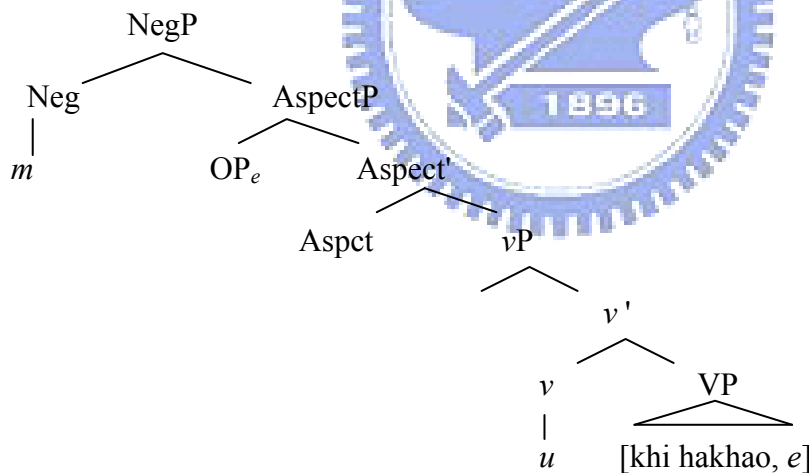
[8] Many linguists propose that gradable adjectives denote the relations between individuals and degrees as in Kennedy (1999), Kennedy & McNally (2005), etc. Semantically, a gradable adjective represents a function taking an entity as its argument and outputs its 'pretty' in terms of a degree on the scale associated with a gradable adjective. Therefore, the semantic function of a gradable adjective *sui* 'pretty' is shown below:
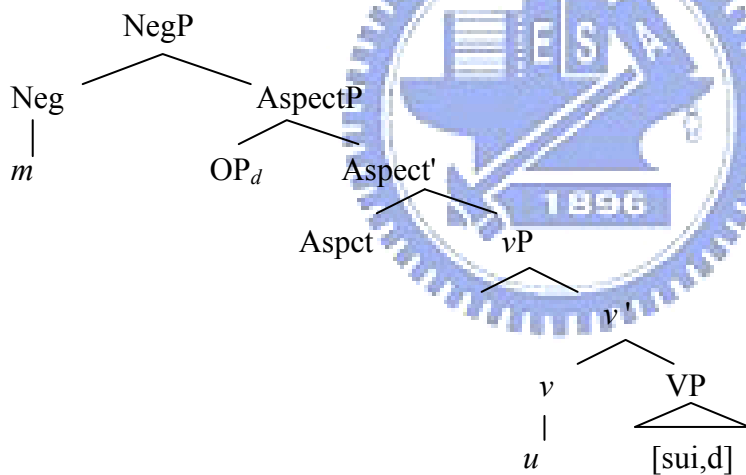
    i. $[[sui]] = \lambda d\, \lambda x.\ \text{pretty}\ (x) \geq d$

The semantic function of pretty is to indicate a relation between a degree of pretty and an entity such that the pretty is at least equal to that degree (cf. Liu 2006:11).

b. = (75b)

```
              NegP
         ┌──────┴──────┐
       Neg          AspectP
        │         ┌─────┴─────┐
        m       OPₛ         Aspect'
                        ┌──────┴──────┐
                      Aspct           vP
                               ┌───────┴───────┐
                                              v'
                                        ┌──────┴──────┐
                                        v            VP
                                        │        ┌────┴────┐
                                        u      [kayi hit e lang,s]
```

c. = (76)

```
              NegP
         ┌──────┴──────┐
       Neg          AspectP
        │         ┌─────┴─────┐
        m       OP_d        Aspect'
                        ┌──────┴──────┐
                      Aspct           vP
                               ┌───────┴───────┐
                                              v'
                                        ┌──────┴──────┐
                                        v            VP
                                        │        ┌────┴────┐
                                        u        [sui,d]
```

In (77), *u* represents an aspectual light verb, associating with the aspect and then determining the type of the aspect depending on the event type of the predicate. When the event, state, or degree has been determined, the aspect functions as an ∃e, ∃s, or ∃d, unselectively binding the hidden argument of the predicate. The argument could be an event, a situation, or a degree variable. Through the binding mechanism, the

value of the predicate is defined at the linguistic level LF, and after u combines with

the negative marker m, it spells out as *bo* at PF.

Chapter 6

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Conclusion

In Taiwanese Southern Min, there are six negation markers: *m* 'not', *beh* 'not', *bo* 'not', *buai* 'not', *mai* 'not', and *mmo* 'not'. Only three of them are primitive negative markers: the sentential negation marker *m*, the lexical negation *m-*, and the lexical negation *bo-*. The others are derived: *bo*, *beh* , *mai*, *buai*, and *mmo*. For instance, *bo* 'not' is derived by fusing the sentential negation marker *m* with the aspectual light verb *u*. *Beh* 'not' is the combination of the sentential negation marker *m* and the modal *e* 'will'. *Mai* 'not' is generated by fusing the sentential negation marker *m* with the auxiliary *ai* 'would like;' and *buai* 'not' is the combination of *m, u*, and *ai*. *Mmo* 'not' is the fusion of the sentential negation marker *m* and the auxiliary *ho* 'should.' From these derivations, I have determined that the sentential negation marker *m* must occur with *u* and modals. Otherwise, the sentential negation marker *m* is able to precede a covert abstract modal *beh* 'not' and the verb *si* 'be'. These elements following the sentential negation marker *m* show that *m* must occur in a structure such as [m X predicate] in which X could be *u*, covert/overt modals, and *si*. These three elements serve as triggers that trigger an aspect to bind the hidden argument of the predicate. For example, *si* 'be' triggers a state to bind the referential argument of the nominal expression that functions as the predicate. The covert or

overt auxiliary also determine the aspect as a state to bind the situation argument. u determines the aspect based on the event type; the bound variable can be an event, a situation, or a degree argument of the verbal or the adjectival predicate.

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