

The Grammaticalization of Hakka, Mandarin and Southern Min  
The Interaction of Negatives with Modality, Aspect, and Interrogatives

by

Hui-Ling Yang

A Dissertation Presented in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy

Approved April 2012 by the  
Graduate Supervisory Committee:

Elly van Gelderen, Chair  
Karen Adams  
Carrie Gillon  
Chaofen Sun

ARIZONA STATE UNIVERSITY

May 2012

## ABSTRACT

The primary topic of this dissertation is the grammaticalization of negation in three Sinitic language varieties: Hakka, Mandarin, and Southern Min. I discuss negative morphemes that are used under different modality or aspect contexts, including ability, volition, necessity, and perfectivity. Not only does this study examine Southern Min affirmative and negative pairs, but it also highlights the grammaticalization of negation and parametric differences in negation among the languages under investigation. This dissertation also covers the reanalysis of negatives into interrogatives.

I approach the investigation of Southern Min negation from both synchronic and diachronic perspectives. I analyze corpus data in addition to data collected from fieldwork for the contemporary linguistic data. For my diachronic research of Chinese negation, I use historical texts and etymological dictionaries.

Diachronically, many of the negative morphemes originate from full-fledged verbs and undergo an analogous grammaticalization process that consists of multiple stages of reanalysis from V to T (aspect; modality), and then T to C (interrogative; discourse). I explain this reanalysis, which involves head-to-head movement, using generative frameworks that combine a modified cartographic approach and the Minimalist Economy Principles.

Synchronic data show that Southern Min affirmative modals are characterized by a certain morphological doubling. These doublings consist of two near synonyms used in sequence, resulting from the loss of features in a verb and a second verb added as a renewal. In the negation paradigm, some negatives

project a negative phrase, while the others serve a dual function, occupying a modal/aspect head as well as a negative head. The latter system is gradually shifting to the former. This study uncovers evidence to counter the long-established paradigm, where negation is tied to its independent modality (abilitive, volitional and necessitive) or aspect (perfective and perfect). I observe a mismatch between the use of interrogatives and their modality/aspect and attribute this phenomenon to feature loss during their reanalysis from negatives to interrogatives. Results however show that consistency occurs in the grammaticalization of negation within Southern Min and intra-linguistically among the three Sinitic languages, and that parametric differences are found at the morphological level.

## DEDICATION

I am happy to know that the time to write acknowledgments has come. There are surely too many to whom I would like to express my deep gratitude. I thank Shing-Huei and Wei-Bin for handling my affairs during my absence from Taiwan. I am so fortunate to have a friend like Sonia, who always believes in me and who has been a good listening ear. I thank Virgil for bringing cheer and laughter to my life, and for providing me with an environment that featured English almost exclusively after school for six straight years. I shall never forget about the kindness given by Chu-Yu, who has been a very patient chauffeur. I thank Ben, Li-Chi, Paul, and Laohuang for always being there, however busy they themselves are. I enjoyed the wonderful exchanges on Chinese with George Oliver and Lauren Paschke. I am grateful to have met Daniela Kostadinovska; her many good qualities of character have exerted a positive influence on me. I thank Bonnie Quinn, Christian Thompson, James Berry, Jining Han, Mohammed AlRashed, and Victor Parra-Guinaldo. The many weekends spent in the computer lab alongside Ahmed Gul will always be a fond memory.

I owe my parents more than I can repay. I admire my mother's passion for linguistics; I appreciate my father, who never said no to my educational investment. I thank my siblings, nieces, and nephews, who have provided me with so many happy summers while back in Taiwan. I honor my grandfather, a man of wisdom who spoke five languages in his life time and who taught me what life is about. This dissertation is dedicated to him.

## ACKNOWLEDGMENTS

I am indebted to all four members of my dissertation committee, Drs. Elly van Gelderen, Karen Adams, Carrie Gillon, and Chaofen Sun, for their constant support and insightful comments on my work. My committee chair Elly is my Bole 伯樂, a good judge of talent, as the Chinese expression goes, who knows how to separate the wheat from the chaff. She has provided me with the best guidance by any means. Without the optimism and enthusiasm she has constantly provided, I would not have enjoyed my writing as much as I did. Elly has provided me with the best model of scholarship, and I heartily thank her. Thank you, Elly, for your non-negative feedback on my work on negation. Seven years ago, you planted the acorn of my academic career; thanks to your patient tutelage, it has grown into a vigorous sapling. Perhaps one day it will become, as you have proven yourself to be, a mighty oak. I owe a heartfelt debt to Dr. Adams, who has provided me with academic support in various ways and from whom I have also benefited for her suggestions on my work. My sincere thanks also go to Carrie for her critical and insightful comments on my prior manuscript. I thank Dr. Sun for his invaluable advice, particularly regarding the Chinese data.

I owe a debt of gratitude to Paul Jackson for his invaluable annotations on my dissertation draft, and for his constant and timely help. I am grateful for Robert LaBarge's willingness to spend time proofreading my final draft. My sincere thanks go to my fieldwork consultants for their time and patience. Thanks are also due to Dr. Chinfa Lien at National Tsing Hua University and Dr. Hsiu-

Fang Yang at National Taiwan University, who have provided me with countless resources on Southern Min as well as invaluable encouragement.

I thank the English faculty at ASU, particularly Drs. Claire Renaud, Elenore Long, Karen Dwyer, and Mark James for their encouragement. I appreciate Ruby Macksoud for her heartfelt conversations. My gratitude also extends to Demetria Baker, Manager of the Writing Programs, and to Ruth Johnston, for their years of support during my teaching at ASU. I thank Sheila Luna, Manager to the Graduate Program in English, for her willingness to stop in the middle of her work to answer my questions upon my every visit. I have made the best choice by selecting the Department of English at ASU, from which I have received various kinds of sponsorship, including but not limited to, a five-year scholarship and the University Graduate as well as Katherine C. Turner Dissertation Fellowships during the 2010-2011 academic year.

I would also like to thank several faculty members from the Chinese Program at ASU, including Zhang Laoshi (Dr. Xia Zhang) and Liu Laoshi (Dr. Qian Liu) for their support, and Wu Laoshi (Dr. Young Kyun Oh) for his introducing me to the world of Chinese historical phonology, which initiated my thought on researching the multiple Sinitic languages.

Last but not least, I appreciate the financial support from the Chiang Ching-Kuo Foundation for International Scholarly Exchange for the Doctoral Dissertation Fellowship for my academic year of 2011-2012.

All errors rest entirely with the author.

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## ABBREVIATIONS

|      |                         |
|------|-------------------------|
| 3pl  | first person plural     |
| 3sg  | first person singular   |
| Adj  | adjective               |
| Adv  | adverb                  |
| AspP | Aspect phrase           |
| ASST | assertive marker        |
| CL   | classifier              |
| COMP | complementizer          |
| CONJ | conjunction             |
| COP  | copula                  |
| CP   | complementizer phrase   |
| CRS  | current relevance state |
| DM   | discourse marker        |
| DP   | determiner phrase       |
| DISP | disposal marker         |
| EMP  | emphatic                |
| EX   | existential aspect      |
| EXP  | experiential marker     |
| FinP | finite phrase           |
| FOC  | focus                   |
| FUR  | future                  |
| GEN  | genitive                |

|      |                           |
|------|---------------------------|
| HAB  | habitative                |
| HPP  | head preference principle |
| i-F  | interpretable features    |
| ind  | indicative                |
| int. | intented                  |
| IP   | inflectional phrase       |
| LF   | logical form              |
| LMP  | late merge principle      |
| LOC  | locative marker           |
| MC   | Middle Chinese            |
| MNL  | moninalizer               |
| ModP | modal phrase              |
| MSC  | modern standard Chinese   |
| NEG  | negative marker           |
| NML  | nominalizer               |
| Obj  | object                    |
| OE   | Old English               |
| OED  | Oxford English dictionary |
| PAR  | particle                  |
| PASS | passive                   |
| PF   | perfect                   |
| PFV  | perfective                |
| Pol  | polarity                  |

|      |                          |
|------|--------------------------|
| POSS | possessive               |
| PREP | preposition              |
| PRES | present tense            |
| PROG | progressive              |
| PROH | prohibitive              |
| PRON | pronoun                  |
| PST  | past tense               |
| Q    | question marker          |
| REL  | relative marker          |
| Spec | specifier                |
| Subj | subject                  |
| SVC  | serial verb construction |
| TAG  | tag                      |
| TMA  | tense, mood and aspect   |
| TOP  | topic                    |
| TP   | tense phrase             |
| TSM  | Taiwanese Southern Min   |
| u-F  | uninterpretable features |
| VP   | verb phrase              |



## Chapter 1

### INTRODUCTION

This dissertation revolves around the grammaticalization of negation in three Chinese language varieties, namely Hakka, Mandarin, and Southern Min.<sup>1</sup> It also addresses several important related issues in syntax, such as the categorial status of negative morphemes and word order, and in the interface between syntax and semantics, such as negation and modality. The first chapter provides information about three questions: *what*, *how* and *why*?

#### **1.1. Purpose of study**

Negation has been discussed in a considerable number of studies in the field of Chinese Linguistics, such as Teng (1974), Tang (1994), Ernst (1995), Li (1999), Wang & Lien (2001), Huang (2009), among others. Some of these studies are descriptive, while others are more theoretical. The former group attempts to distinguish characteristics of Chinese negatives, while the latter group draws conclusions with respect to syntax, semantics and/or pragmatics. Despite the fact that several researchers adopt theoretical frameworks to account for the unique phenomena found in negation, a larger number of scholars approach Chinese negation in a descriptive fashion. There are also scholars who take a diachronic approach to explaining changes in Chinese negation using texts from different periods of Chinese history. Overall, recent research on negation has mainly addressed Mandarin negation with very few exceptions for other varieties within

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<sup>1</sup> The order is simply ranked alphabetically.

the Chinese language family, such as Li (2007) and Lien (2008) on Southern Min, and Fang (1994) on Hakka.

Except for the above two studies, Southern Min and Hakka, two other languages spoken in Taiwan, have been much less addressed in the field of linguistics. The literature shows that research on these two languages has only appeared sporadically over the past 15 to 20 years. Negation has been one of the best researched topics (see Fang 1994, He 1997, Yu 2002, and Wu 2009). Most of the Min and Hakka studies analyze synchronic negation data and pay little attention to diachronic changes. To the best of my knowledge, little research has associated Chinese negation with diachronic language change. Much work has been on synchronic descriptions. This dissertation addresses this big gap.

Previous research has failed to bridge the gap between historical linguistics and modern language usage. Most look into one or two negatives at a time in a single study; thus far, no research has addressed the full range of negation in one language, let alone three. Few studies on negation cover more than one Chinese language. The connection of negation to questions is even less addressed in the literature. Also little research has attempted to account for language internal change under the framework of generative grammar and together with grammaticalization. This current study attempts to fill these gaps.

## **1.2 Scope of Research**

This dissertation first answers the question, “How does negation evolve in the history of the Chinese language?” Attempts are made to answer two *what* questions: (a) what has been changed in the three Chinese languages under

investigation? and (b) what characteristics these languages share in expressing negation? I also investigate how negation interacts with modality and aspect, and how negatives are reanalyzed into interrogatives. Finally, I answer why these changes happen.

I begin my investigation with the use of *mei* 沒 and *bu* 不 as sentential negative markers, as in (1) and (2), respectively.

- (1) ta jintian **mei**-you ke. Mandarin  
 3sg today NEG-have class  
 ‘He doesn’t have school today.’
- (2) ta jintian **bu** shangke. Mandarin  
 3sg today NEG attend.class  
 ‘He isn’t going to school today.’

The first puzzle that arises is the fact that negation can be used in questions.

- (3) koushi-le **mei**? Mandarin  
 defense-ASP Q  
 ‘Have you defended your thesis?’

As stated in the literature (cf. van Gelderen, 2011), negative morphemes are reanalyzed as interrogatives in languages such as Latin, Arabic, Navajo and Mandarin Chinese. For instance, in non-standard Saudi-Najdi Arabic, negatives are also used in questions, as the past negative particle *ma* in (4) and (5) (Mohammed Al-Rashed, p.c.).

- (4) Mohammed **ma** ja'a. (Arabic; Saudi-Najdi dialect)  
 Mohammed NEG.PST come  
 ‘Mohammed didn’t come.’

- (5) **Ma** ja'a Mohammed? (Arabic; Saudi-Najdi dialect)  
*Q come Mohammed*  
 'Did Mohammed come?'

The second mystery is the interaction between negation and aspect/modality. Negation in Southern Min is connected to modality and aspect. For instance, *e* and *be* in (6), are affirmative and negative modality counterparts. The aspectual negative *bo* is the opposite of *u* in (7).

- (6) a. i      **e**      lai.      Southern Min  
           3sg    will    come  
           'He will come.'
- b. i      **be**            lai.  
           3sg    will.not    come  
           'He will not come.'
- (7) a. i      **u**      lai.      Southern Min  
           3sg    ASP    come  
           'He did come.'
- b. i      **bo**            lai.  
           3sg    NEG.ASP    come  
           'He did not come.'

There is a one-to-one relationship between the affirmative *e* and the negative *be*. In a question such as (8), *be* is used as the question marker in order to pair up with *e* in modality.

- (8) i      **e**      lai      **be?**      Southern Min  
           3sg    will    come    *Q*  
           'Will he come?'

However, modern Taiwanese Southern Min data show that *bo* can also be a candidate to substitute for *be* as in (9).

- (9)    *i*        *e*        *lai*    *bo?*    Southern Min  
      3sg    will    come    *Q*  
      ‘Will he come?’

However, the question marker *bo* in (9) is mismatched with the affirmative modal *e*. There is no modality/aspect relationship between the modal *e* and *bo*. Sentences (8) and (9) reveal a grammar that allows one to choose either *be* or *bo* as the question marker.

The interrogative *bo* in (9) is, by far, the most flexible. The other aspectual negative *bue* ‘not.yet’ is not a candidate for the question in (9). I am therefore interested to know the status of the one-on-one match mechanism in negatives when they are reanalyzed as interrogatives. Contra Cheng, Huang and Tang (1996), I will argue that a revision is required for Taiwanese Southern Min: some interrogatives are base-generated in C, whereas some are base-generated in a lower position, moving to C. The latter interrogatives have not entirely lost their former (aspectual/modality) features.

The above puzzles have brought up the other questions: (a) Is there an asymmetry in selection of the morphemes between negation and questions?; (b) Have the negative morphemes at sentential final position all lost their original features?; (c) Where are these words situated in the syntax of modern Taiwanese Southern Min?

A last puzzle accompanying my research along the way is the various lexical choices allowed among the Sinitic languages. For instance, Mandarin *mei* marks both perfective and perfect aspects, as in (10a) and (11a). However, Southern Min and Hakka distinguish these two aspects by using two different negatives.

- (10) a. wo    **mei**            chi-fan.        Mandarin  
       b. gua    **bo**                tsiah-png.     Southern Min  
       c. ngai   **mo**            sit-fan.        Hakka  
           *Isg not.ASP eat-rice*  
           ‘I did not eat (a meal).’

- (11) a. wo    hai    **mei**    chi-fan.        Mandarin  
       b. gua    iau    **bue**    tsiah-png.     Southern Min  
       c. ngai   han    **mang** sit-fan.        Hakka  
           *Isg yet not.yet eat-rice*  
           ‘I have yet not eaten (a meal).’

In this dissertation, I raise the following questions:

1. What are the basic negatives in these languages (Hakka, Mandarin and Southern Min)? How do they converge or diverge throughout the history of the Chinese language? What is the grammaticalization path of negation in each language variety?
2. What are the common and/or distinct characteristics of negation in these languages?
3. What role does modality or aspect play in negation?
4. How do interrogatives interact with negatives in each of the languages?
5. How does the framework of generative grammar account for linguistic change found in these languages?

### **1.3 Languages investigated**

This section introduces the languages investigated. I first address the topic on how the term Chinese is used, followed by a brief background on major Chinese language varieties. I then provide more detailed information about Southern Min.

#### **1.3.1 Major Chinese language varieties.**

Chinese can be broadly defined as people from China, a group of people who share a similar culture, a unified writing system, and a collection of languages spoken by ethnic Chinese persons, or a common language spoken by ethnic Chinese persons. Non-Chinese may also be included in the last entry. The word “Chinese” used in this dissertation primarily refers to the languages spoken by ethnic Chinese and secondarily to the history of Chinese.

There are seven major Chinese dialects, although most linguists consider them languages. Chinese is hypothesized to have split roughly as follows: Among the major Chinese dialects, Min was split from Old Chinese, whereas the other six, namely Mandarin, Wu, Xiang, Gan, Yue, and Hakka, were separated from Middle Chinese later (Norman 1988).

The languages under investigation include Hakka, Mandarin, and Southern Min, particularly the varieties spoken in Taiwan. Although Mandarin retains its official status as lingua franca in business settings, Southern Min is the most widely spoken vernacular language in Taiwan. The version of Southern Min spoken in the original areas in China where the ancestral Min speakers came from is different from that of Taiwanese Southern Min. The Min immigrants brought in

two major sub-dialects, Quan and Zhang. Since the 17<sup>th</sup> century, Southern Min has gradually developed its own linguistic patterns on the island, following, among other processes, contact with languages such as Japanese and Formosan languages. Today, Southern Min remains the most widely spoken vernacular in Taiwan due to its retention or use by 75-78% of population occupancy (Chung 2007: 220).

As my discussion in this dissertation centers around Taiwanese Southern Min along with a comparison with Mandarin and Hakka, I will provide more detailed background of Southern Min.

### **1.3.2 Characteristics of Southern Min.**

Because the Min language preserves archaic Middle Chinese sounds, it is often postulated to have been split before Middle Chinese prior to the Han Dynasty (206 BCE) (Norman 1988).

Southern Min differs from the other Chinese language varieties in many aspects. Like Mandarin, modern Southern Min is an analytical language. Nevertheless, a Southern dialect, Min is, first of all, not mutually intelligible with Northern dialects such as Mandarin. This may not be due to their syntax, however.

Secondly, Southern Min and Hakka preserved more archaic words and contain more monosyllabic words in their lexicons, whereas Mandarin possesses more multisyllabic words in its lexicon, as it has fewer tones (four) than these dialects (Sun 2006: 7; Norman 1988). There are seven tones in Southern Min, and tone sandhi can be commonly found in this language (Lü 2003).



Also, there is a distinction between the *colloquial* versus *literary reading* in today's Chinese dialects. That is, a morpheme may have two pronunciations: colloquial versus literary such as (12) and (13) in Southern Min.

(12) 無 'not.have'            *bu* (literary)            *bo* (colloquial)

(13) 未 'not.yet'            *bi* (literary)            *be* (colloquial)

Historical stratification gives rise to the two readings. Baxter (1992: 47) argues that literary items are later borrowings from other dialects occurring in the Tang Dynasty (618-907 CE). The literary reading was used in official settings, such as at the court or at school. Poetry was also read in the literary reading.

Lien (2001: 310) notes that Taiwanese Southern Min is abundant with “[a] rich repertoire of chronological strata”. Norman (1991) claims that Min dialects have incorporated three strata: (a) the Han dynasty stratum (206 BCE-220 CE); (b) the Nanbeichao stratum (420-581 CE); and (c) the Tang Chang’an stratum (7<sup>th</sup>-8<sup>th</sup> centuries). Lien (2001) further proposes that the colloquial reading of Min is built upon the first two strata, and the third stratum contributes to Min’s literary reading. Based on Lien (2005: 206), stratal differences may be realized in vowel contrast such as in the two negative words in modern Southern Min.<sup>2</sup>

(14) 無 'not.have'            *bu* (literary)            *bo* (colloquial)

(15) 未 'not.yet'            *bi* (literary)            *be* (colloquial)

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<sup>2</sup> Vowel distinction is not the only mechanism to distinguish one reading from the other. Scholars have tried to find out a systematic pattern for the two readings in Southern Min. Because of the complexity of historical strata and perhaps because of the lack of written data in this language, the two readings have remained less known to most of its speakers (cf. Lien 2001; 2005).

## **1.4 Methodologies**

This study includes both theoretical frameworks and empirical linguistic data. I address the theoretical frameworks in chapter two. For the collection of data, corpus analysis is the major method adopted in this study. However, I also conducted fieldwork for some parts of my research to further clarify certain issues.

### **1.4.1 Methods used by previous studies.**

Below is a discussion of the two major research methodologies adopted by Chinese scholars, corpus linguistics and dialectology. One research method that is robustly adopted by Chinese syntacticians is corpus linguistics. Studies using such a method include Xing (2003), Yang (2006), Ji (2007), Wei (2007), to name just a few. These studies are on contemporary and/or historical Chinese linguistics. Xing (2003) has one section on the diachronic change of the Chinese morpheme *bei*, meaning ‘sleeping clothes’, which is used as a passive marker in modern Chinese. Yang (2006) examines the grammaticalization of this Chinese passive marker from modern texts among three regions where Mandarin is spoken as an official language and where Chinese is used as the writing system. Ji (2007) uses both diachronic and synchronic corpora to explain the order of CP left periphery adverbs. Wei (2007) focuses on diachronic texts and examines the change of negation throughout the history of Chinese. Other than the above-mentioned studies on Mandarin, Lien (2002; 2003; 2008; 2009) has used corpora in his work on Southern Min.

More recently, an increasing body of research in Chinese has made use of dialectology to compare and contrast particular morphemes, such as the passive

marker, among different dialect variations for their etymology. This line of research is often associated with historical linguistics since the study of other Chinese language variations may provide insights into how some of the unique Chinese constructions have derived. Dialectal studies are particularly common among Chinese phonologists, whose research relies heavily on rhyme books from different periods in Chinese history. The oldest accessible rhyme book, the *Qie Yun* (切韻), discovered in 601 CE (and perhaps written long before), offers insights of Chinese phonology back to Middle Chinese. From these rhyme books, Chinese phonologists are able to reconstruct Old Chinese and trace cognates shared by different Sinitic language varieties. Since this dissertation is primarily about syntax, I do not follow such a research tradition. However, when necessary, I make use of the findings from this type of research as supplements.

#### **1.4.2 Research Methods.**

Since this study involves three languages, it is rather difficult to find one site that provides the data for all the relevant languages. To compensate, I use multiple sources such as corpora, literature reviews and fieldwork data.

##### *Primary research data*

The forms of primary research include corpus analyses and/or linguistic data from fieldwork. Fieldwork was conducted when my research questions couldn't be thoroughly or satisfactorily answered through online corpus data.

Primary research data mainly covers Hakka and Southern Min. I use previous studies on Mandarin negation for a comparison. However, when there is no literature about Mandarin on a certain topic, I conduct primary research.

I utilize contemporary corpora that are publicized, such as Min and Hakka storybook series, as well as the online modern Mandarin corpora provided by Taiwan Academia Sinica. The previous two provide synchronic data, while the latter source includes both diachronic and synchronic data.

As Southern Min is a living language, other sources included can range from TV shows, to popular music, and to biblical texts. There is no need to incorporate them all. Contemporary Taiwanese Southern Min data examined here are from the Southern Min story series (Hu 1992-2007). The most important reason is for comparison in that many previous studies have made use of these corpora.

#### *Data from other studies*

I include literature reviews as my major secondary research data. This is mainly for Mandarin to give a comparison with the other two languages under investigation since Chinese (in many studies, Chinese means Mandarin) negation is one of the hotly studied topics in Chinese linguistics. The research results are ample and impressive, and I look into literature on Chinese negatives/interrogatives (mainly on Mandarin). Research on modality is another focus. Literature on descriptive historical linguistics is an additional source I make use of. With abundant diachronic data and descriptive analyses, research in historical linguistics provides theoretical linguists with a good resource to interpret language change.

## Dictionaries

Chief among the dictionary resources I utilize here are *Shuowen jiezi* 說文解字 and *Hanyu da cidian* 漢語大詞典. *Shuowen jiezi*, literally meaning "Explaining Simple Characters and Analyzing Compound Characters", is edited to completion in 100 CE by *Xu Shen* 許慎 (58-147 CE) and is commonly referred to the *Analytical Dictionary of Characters*. Despite the fact that it is not the first Chinese dictionary, *Shuowen* dissects structures of Chinese characters and provides etymology of a good number of characters (9,353 character entries, plus 1,163 graphic variants, with a total length of 133,441 characters).<sup>3</sup> *Hanyu da cidian* 漢語大詞典, the contemporary Chinese dictionary (2010), is considered to be one of the most comprehensive and influential Chinese lexicographic reference books.<sup>4</sup> I also make use of the Archaic Chinese dictionary by Wang li: *Wangli gu hanyu zidian* 王力古漢語字典 (2000).

## 1.5 Terminology

### 1.5.1 Languages.

This dissertation mainly investigated three languages spoken in Taiwan. I use the term Taiwan Southern Min rather than Taiwanese mainly because the latter term is not precise enough to describe and to cover the linguistic facts. In a multilingual society like Taiwan, Taiwanese should cover all the languages that

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<sup>3</sup> I use this online version: <http://ctext.org/shuo-wen-jie-zi/zh>

<sup>4</sup> I utilize both the (2010) and the online bridged version, the latter of which is from the *Academia Sinica Words* at <http://words.sinica.edu.tw/sou/sou.html>.

local people speak. If I use Taiwanese, I would not be able to include Hakka, a distinct Chinese dialect spoken by approximately 15% people in Taiwan.

There are also more languages spoken throughout the island than the two languages of Southern Min and Hakka. Most current native speakers of Southern Min and Hakka are considered to be descendants of earlier immigrants. Those who came from China roughly about the end of World War II are regarded as late immigrants and may still speak their first languages in addition to Mandarin and/or the two earlier local dialects. Additionally, there are also aboriginal languages; some foreign languages are spoken by Southeast Asian immigrants. Due to these reasons, I feel that Taiwanese would be too vague a term to cover the version of Southern Min spoken in Taiwan.

Following some other scholars' definitions, I chose to use Taiwan Southern Min, abbreviated as TSM, henceforth. In the literature, it is often interchangeable with Taiwanese, Southern Min, Taiwan Southern Min, (Taiwanese) Min Nan, and, in some cases, Amoy, Hokien, or Hoklo.

With the same reasoning, the term Taiwanese should also be added to Hakka in order to distinguish it from the Hakka language spoken in China, where Taiwan Hakka originated from. To make it less complex, I use Hakka for short to stand for the Taiwanese version of Hakka throughout my research.

Unless stated otherwise, Mandarin examples provided by me also refer to Mandarin spoken in Taiwan. As a matter of fact, Mandarin in Chinese linguistic terms is regarded as a specific dialect (Norman 1988). The official lingua franca is modern standard Chinese, abbreviated as MSC in the Chinese linguistic literature.

In brief, wherever examples are specifically taken from Taiwanese version of Southern Min, I call it Taiwanese Southern Min. My fieldwork Hakka data or examples collected from Taiwanese speakers of Hakka are simply termed as *Hakka*. Mandarin data are marked as *MSC*.

I am also aware of regional or sub-dialectal differences in the other languages. Unless noted otherwise, I provide first-hand examples for TSM and MSC, of which I am a native speaker. However, all data are double checked with my consultants, the age ranging from the thirties to fifties. Data for Hakka, for which I only have passive knowledge, entirely rely on my consultants, who are in their mid-forties and mid-sixties. The checking is chiefly for syntactic issues.

### **1.5.2 Transcription systems.**

As Chinese characters are not phonetics-based, it is essential to incorporate a decipherable transcription system. I use a phonological rather than phonetic system for transcription. I use the Taiwanese/Hakka Romanization System for Southern Min and Hakka spelling.<sup>5</sup> For first-hand data, I transcribe in my own Southern Min accent, which is in most cases *Zhang* (漳州音), but may sometimes be a mix of *Zhang* and *Quan* (泉州音). Hakka is based on *Hailu* or *Hoiluk* (海陸腔) accents spoken by my consultants.

Following linguistic conventions, I use *Hanyu Pinyin* (漢語拼音) for modern standard Mandarin although this spelling system is different from that of

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<sup>5</sup> While another system called TLPA (Taiwanese Language Phonetic Alphabet) is also used by scholars, the system adopted in this study is officially used in Taiwan for elementary school language teaching.

[http://140.111.34.54/MANDR/content.aspx?site\\_content\\_sn=12693](http://140.111.34.54/MANDR/content.aspx?site_content_sn=12693)

Southern Min and Hakka in some aspects. I also ignore reflections upon spoken MSC from social linguistic markedness.

Tones are neglected throughout, however. Unless otherwise cited from previous studies, Southern Min and Hakka data are mainly transcribed without giving corresponding Chinese characters. Where no indication is given, the example sentences are based on my personal knowledge and double checked with my consultants.

### **1.5.3 Periodization of Chinese.**

As noted, the term “Chinese” may be used to cover all its varieties of modern times. However, when used for diachronic development, Chinese refers to the written records of the Chinese language, including both official and vernacular versions. For periodization of Chinese, I adopt Sun’s (1996: 3) divisions as follows:<sup>6</sup>

|     |                                           |
|-----|-------------------------------------------|
| OC  | Old Chinese (500 BCE – CE 200)            |
| MC  | Middle Chinese (CE 201-1000)              |
| EM  | Early Mandarin (CE 1001-1900)             |
| MMC | Modern Mandarin Chinese (CE 1900-present) |

I add the years to the time periods whenever an example from historical texts is given. Modern standard Mandarin (MSC) is used for contemporary Mandarin data.

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<sup>6</sup> Please refer to Tai and Chan (1998) for a review of different proposals for periodization.



#### **1.5.4 Historical texts.**

I also discuss major historical texts in this dissertation. Historical texts on Min are only available after the 16<sup>th</sup> Century. I mainly use examples from *Lijin ji* 荔鏡記 (published roughly 1566-1884 CE) and *Zhuzi yulei* 朱子語類 (compiled in 1270 CE), the latter of which is however a mix of *lingua franca* and Min during the Southern Song Dynasty (1127-1279 CE). The genre of these texts is however not the same. *Lijin ji* is a collection of plays, whereas *Zhuzi yulei* is spoken records as it comprises of conversations. To avoid repetition, in later chapters I will skip basic information for these texts.

#### **1.6 Organization**

There are nine chapters in this dissertation. The second chapter includes a discussion of theoretical frameworks. The third chapter presents some background information on Chinese negation as well as on aspect/modality. Chapters four through seven constitute my primary research; the first three chapters cover three modal negatives and the last chapter is on two aspectual negatives in Southern Min. Theoretical accounts are addressed in each chapter after its corpus analysis.

Chapters four through seven by and large adopt the same organization so as to include the five sets of basic negatives and affirmatives in Southern Min. A cross-linguistic comparison between Southern Min and the other two language varieties is included in each of the above chapters. Chapter eight is a review of Southern Min negation paradigms. Finally, chapter nine is the conclusion.

## Chapter 2

### THEORETICAL FRAMEWORKS

I use generative grammar and grammaticalization in this dissertation to account for internal language change. This chapter begins with generative grammar, with a focus on Cartography, the Economy Principles, and the Linear Correspondence Axiom (Kayne 1994). The second focus is the framework of grammaticalization. This chapter finishes with the grammaticalization of negation.

#### **2.1 Generative grammar**

Generative grammar began with Chomsky's Ph.D. dissertation in 1955. It has gone through many revolutionary changes along the way. The most updated framework, namely the Minimalist Program (MP) by Chomsky (1995 and later works), has two core components: *merge* and *feature checking*.

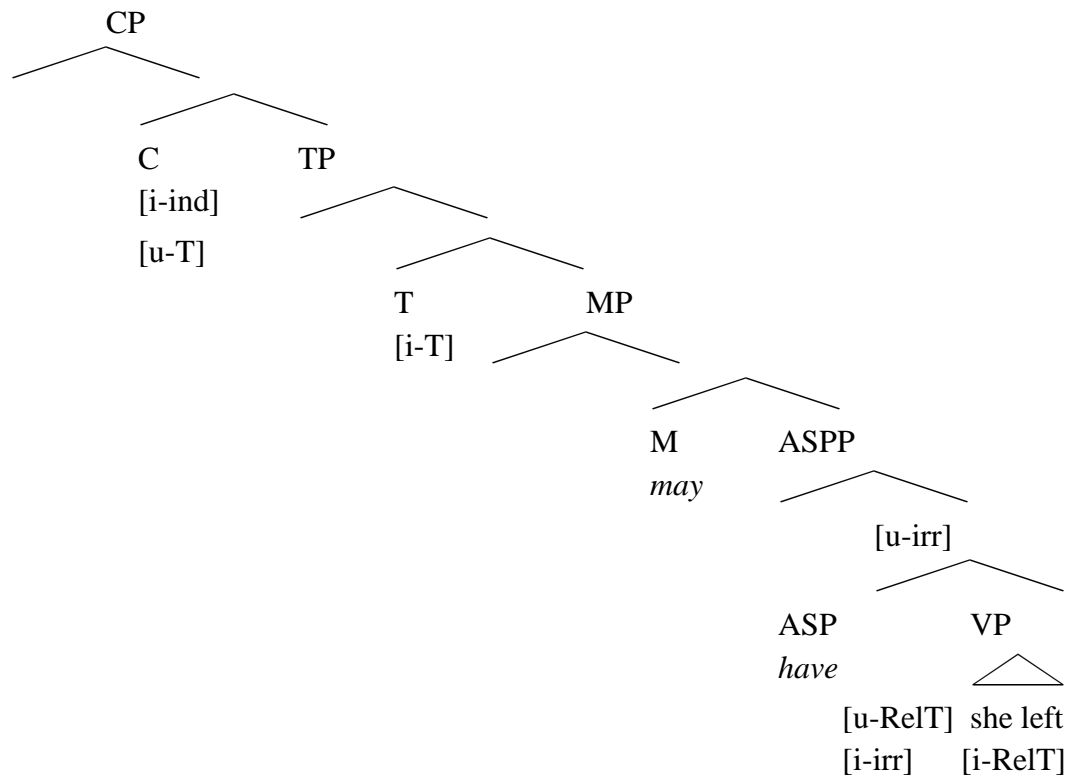
*Merge* is crucial in MP, and it is derivational, approaching syntax from the bottom-up, as opposed to representational theories, as in cartography, which approaches syntax from the top-down. The basic concept is that derivation takes place in the narrow syntax, where two components are merged (called *external merge*, often a verb and a *Theme*) and where another type of merge, *internal merge*, also participates. These processes take place at the VP layer, the TP layer, up to the CP layer, although more recently Chomsky has abandoned *labeling* so *bare phrase structures* are instead used. Participating in this derivation are mechanisms that put things together to make sense of an utterance.

*Feature checking* is central to MP. The most important features introduced in Chomsky (1995) are *interpretable* and *uninterpretable features*. The

uninterpretable features, often labeled as [u-F], have to be *valued* by checking off interpretable ones, as [i-F], and this *agree* mechanism begins with a *probe* (with uninterpretable features) looking down in its c-command domain for a *goal* that has properly matching interpretable features. This way, *case* and the subject-verb *agreement* in the traditional grammar sense (tense or finiteness) are explained.

I adopt feature checking for the head-to-head movement of V > Mod/Asp > NEG > C in negation of the Sinitic languages under investigation. For clausal relationships between TP and CP, I adopt the Minimalist feature checking modal proposed by van Gelderen (2012: 146-147) in (1) for ‘she may have left’.

(1)



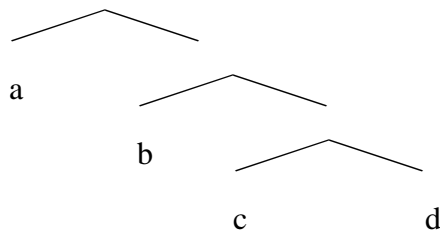
I explain feature checking of (1) from top-down for convenience; MP derivation is bottom-up. In (1), a declarative sentence has interpretable indicative

features [i-ind] in the mood head C, so this sentence is not read as a question. On the other hand, when there are uninterpretable features, as in [u-Q], sitting in the C, the features must find an [i-Q] to check their features.

While interpretable features can stand independently (van Gelderen 2012) as the [i-ind] in the tree diagram, un-interpretable features cannot. The [u-T] on the C probes down and finds the [i-T] on the T head, which values the un- interpretable features on the C. Same as the uninterpretable irrealis features on the Mod and the uninterpretable relevant time features on the ASP. Feature checking allows the derivation to take place, and is thus more economical.

Other than feature checking across Minimalist clauses (van Gelderen 2012), I also make use of Kayne's (1994) LCA to account for Chinese final particles that indicate mood, such as question markers. LCA stands for *Linear Correspondence Axiom*, which is responsible for the externalization or spell-out of the narrow syntax. The basic idea behind LCA is asymmetry of two components, one of which has to spell out before the other.

(2) asymmetry in LCA

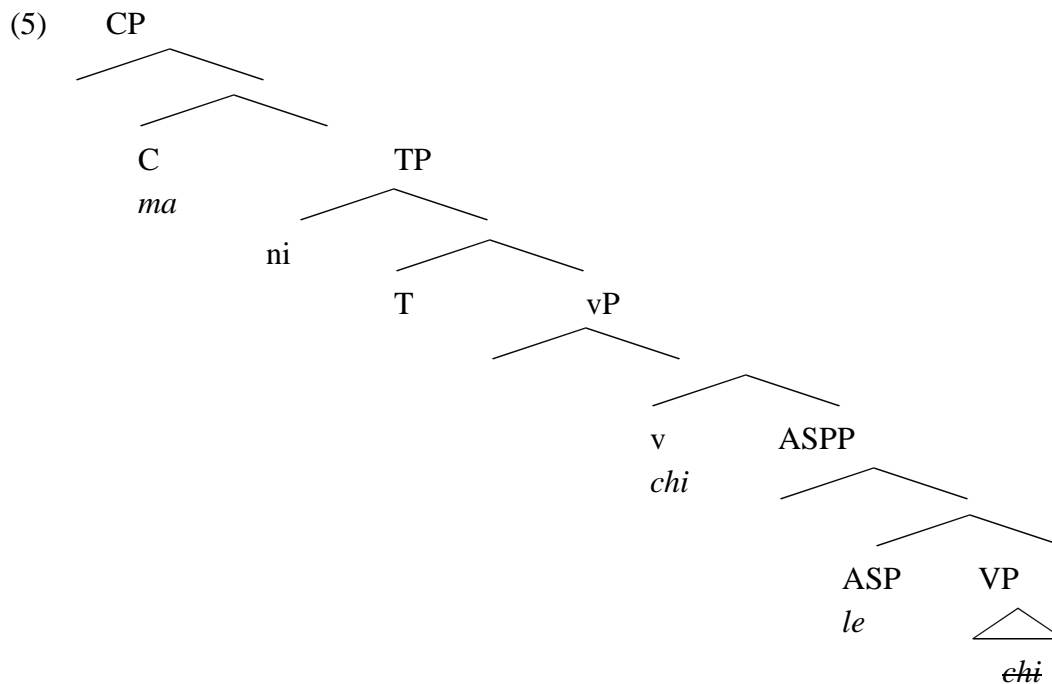


The linear order of (2) then becomes a-b-c, but there is a problem to externalize c and d as they are sisters to each other. The literature has used LCA for Chinese questions, suggesting a move of everything below TP to the Spec of

CP. The problem is then resolved. To linearize (3), the hierarchical structure is shown as (4) and (5). Compare (4) with (5), the portion of TP and below is now in the spec of CP.

(3) ni chi-le ma? MSC  
 2sg eat-ASP Q  
 'Did you eat?'

(4) [CP [C ma [TP ni [VP [v chi-le ]]]]]



## 2.2 Cartography

This section addresses two scholars' work: Rizzi (1997) and Cinque (1999).

The CP, VP and TP layers are investigated.

### 2.2.1 The framework.

*Cartography* is used to map clauses. This approach began roughly with the rise of the functional category coupled with the development in which researchers observed more than one head in the functional structure, such as the IP which can

be split into Agr (cf. Pollock 1989) and T, M, and /or Asp.<sup>7</sup> Rizzi and Cinque (2009) do not consider cartography to be a theory; neither do they think of it as a framework. They call it a project or a topic. I use the term *approach*.

The cartographic approach to syntax basically claims that each element in a sentence fills a specific spot. This line of study looks for a precise order from the top-down, namely a universal hierarchical order for multiple heads/specifiers within the same layer. Cartographic studies thus postulate multiple sub-layers in each traditionally defined layer, such as CP, TP, VP, and DP.

In the following two subsections, I mainly address Rizzi's *clausal hierarchy* and Cinque's *adverbial universal hierarchy* as these two scholars are the pioneers of cartography.

### 2.2.2 Rizzi's clausal hierarchy.

Under the cartographic approach, the CP has individual functional heads to host Force, Focus, Topic and Fin as in Rizzi (1997; 2000). According to his observation on Italian, English, and French, and the like, Rizzi suggests that each sub-layer has to be made available for its functional head to fill in even though some heads may be null in other languages.

He proposes a fixed order for the CP such as (6) where a Topic can occupy multiple places, as the asterisk shows.

- (6) Rizzi's clausal hierarchy in the CP (1997: 288)
- |        |         |       |         |          |    |
|--------|---------|-------|---------|----------|----|
| ForceP | (TopP*) | FocP  | (TopP*) | FinP     | IP |
| [+ind] | (DP)    | (who) | (DP)    | [+tense] |    |

---

<sup>7</sup> I do not mean that Pollock is a cartographer.

van Gelderen (2012: 31) demonstrates the categorial status and features for each projection in the discourse area, which is shown in the third line of (6). The indicative mood is abbreviated as ind. Focus asks *wh*-questions, so she uses *who* to represent that. She has DPs for the Topic Phrase, of which the topicalized *cigarettes* in (7) is an example.<sup>8</sup>

(7) **Cigarettes**, I don't smoke them.

Since Rizzi (1997), different models of cartography have been proposed in the literature. In Rizzi (2005), he proposes a hierarchy for the components in the left periphery, including INT (interrogative) as in (8); emphases are mine.

(8) Force > Topic\* > **INT** > Topic\* > Foc > Mod > Topic\* > **Fin** > IP

In Rizzi's modal, every clause is a ForceP and this includes embedded sentences. However, scholars have various views on the Force. Haegeman (2002) inserts a SD (Speaker Deixis) into Rizzi's modal, illustrated in (10), where Sub indicates the subordinate complementizer. She considers SD in the subordinate clause to be anchored to the speaker but not to the subject of the predicate. This shows that the speaker's mood can be expressed in embedded clauses too.

(9) Sub Top Focus SD Fin

Following Rizzi (1997), Roussou (2000) suggests different sub-layers for the CP domain, distinguishing among three types of C: a plain C to host pure subordinators without modal or illocutionary force, a C<sub>op</sub> (= ForceP) to host illocutionary force, and another head C<sub>m</sub>, which is equivalent to FinP; see (10).

(10) C [ Topic/Focus [ C<sub>op</sub> [ NegP [ C<sub>m</sub>...

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<sup>8</sup> Bare nouns are not always considered to be DPs.

Li (2006: 169) postulates a cartographic hierarchy for Mandarin “mood markers” as follows:

- (11) Discourse >> Degree >> Force >> Evaluative >> Mood >> Fin  
*a* 啊                      *ba* 吧, *ma* 嘛                      *ne* 呢

As seen, many different models are postulated under the cartographic approach or to argue again a strong version of cartography. We then may not want to take it for granted that any of these models is universally determined. For instance, the topic/focus concept in the CP layer is applicable to topicalization in Chinese, but not so useful in English as the latter language does not show as various topicalized or focalized components in its left periphery as does Italian.

Nevertheless, some set patterns can certainly be identified, such as the hierarchical order. For instance, Belletti (2004; 2005) exploits the left periphery of the VP in a similar fashion to Rizzi (1997), and concludes that “the VP shares a periphery which closely resembles the clause external CP left periphery”.

- (12) [<sub>TopP</sub> Top [<sub>Foc</sub> Foc [<sub>Top</sub> Top ... VP]]] (Belletti 2005: 9)

Chinese is commonly accepted as a topic-prominent language and presumably has a richer CP. There has been work on the left periphery of Chinese. Paul (2005) examines the architecture of the area between IP and vP in Mandarin, and argues against the existence of ModP and TopP below the external FocP.

- (13) CP(force) >> TopP >> ‘even’ **FocusP** >

IP >> inner TopP >> ‘even’ FocP >> vP

Compared Paul’s cartographic structure of (13) with Rizzi’s (8), one finds that there is no ModP, which would accommodate prepositional adverbs or TopicP to the left of FinP. One such example is below (Paul 2005: 119).



- (14) a. [<sub>CP</sub> [<sub>TopP</sub> xianran [<sub>FocP</sub>           lian   xiaohaizi [<sub>IP</sub> ta   ye   taoyan]]]]  
*obviously                   even   child           3sg   also   hate*  
 ‘Obviously, he hates even children.’
- b. \*lian           xiaohaizi       **xianran**           [<sub>IP</sub>   ta       ye       taoyan]  
*even           child           obviously           3sg   also   hate*

Paul concludes that the vP left domain parallels that of the clausal-external left periphery, the order in Chinese is not the same as postulated by Rizzi (1997) and Belletti (2003). Note that INT (interrogatives) and Fin (finiteness) are not discussed by Paul either, as her focus is on the Mandarin ‘even’.

Tsai (2008) examines Mandarin Chinese *how*’s and *why*’s, which are used as ‘instrument vs. manner’ and ‘reason vs. purpose’, respectively, and suggests the following for the order of each *wh*-adverbial type (Tsai 2008: 107).

- (15) Force Top\* INT Top\* Focus Mod\* Top\* Fin [<sub>TP</sub> Tense Mod\* [<sub>vP</sub>

From the above studies, we see discrepancies in the conclusions about the left periphery in Mandarin. Each project in fact emphasizes a different area. For instance, (96) only demonstrates how Chinese adverbials (*how*’s and *why*’s) resemble Rizzi’s model. The key point in Tsai (2008) is to suggest a split CP for different types of *zenme* 怎麼 ‘how’ and *weishenme* 爲什麼 ‘why’ as hierarchical functional projections. Paul (2005), on the other hand, investigates topicalization and Mandarin *even* focus (*lian* 連...*dou* 都) to decide on the order of Topic and Focus below and above the IP. I do not plan to pursue any of these issues in this current study, however. The review is to show what cartography is about and how it contributes to the literature.

### 2.2.3 Cinque's adverbials hierarchy.

Cinque (1999) proposes a hierarchical order for the aspectual phrases and of the adverbs within the lower IP area. According to Cinque, each of the different adverbs in the left periphery occupies a different sublayer; their cartography is given in (16) and the line below shows corresponding examples in English.<sup>9</sup>

(16) Cinque's left peripheral adverbs (1999)

|                            |    |                            |    |                            |
|----------------------------|----|----------------------------|----|----------------------------|
| Mood <sub>speech act</sub> | >> | Mood <sub>evaluative</sub> | >> | Mood <sub>evidential</sub> |
| <i>frankly</i>             |    | <i>fortunately</i>         |    | <i>apparently</i>          |
|                            | >> | Mod <sub>epistemic</sub>   |    |                            |
|                            |    | <i>Probably</i>            |    |                            |

With a strong claim about the cartographic approach to adverbs in syntax, Cinque (1999; 2004) argues that adverbs are specifiers of functional heads rather than verbal adjuncts. Cinque's argument, together with Pollock's, suggest that the traditional claim of the IP is over simplified and cannot explain the different elements in the CP.

Ji (2007) examines the CP left periphery of Mandarin Chinese. She finds that Chinese only needs two layers (17). In other words, Cinque's (1999) universal hierarchy does not hold for Chinese.

(17) Mood<sub>speech act/evaluative/evidential</sub> >> Mood<sub>evaluative/epistemic</sub>.

Briefly, Cinque and Rizzi are two of the pioneer scholars in cartographic studies. Their works are similar with an emphasis on the left periphery of the clause. Cinque, however, differs from Rizzi in that the former researcher works

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<sup>9</sup> This is a simplified version of Cinque (1999).

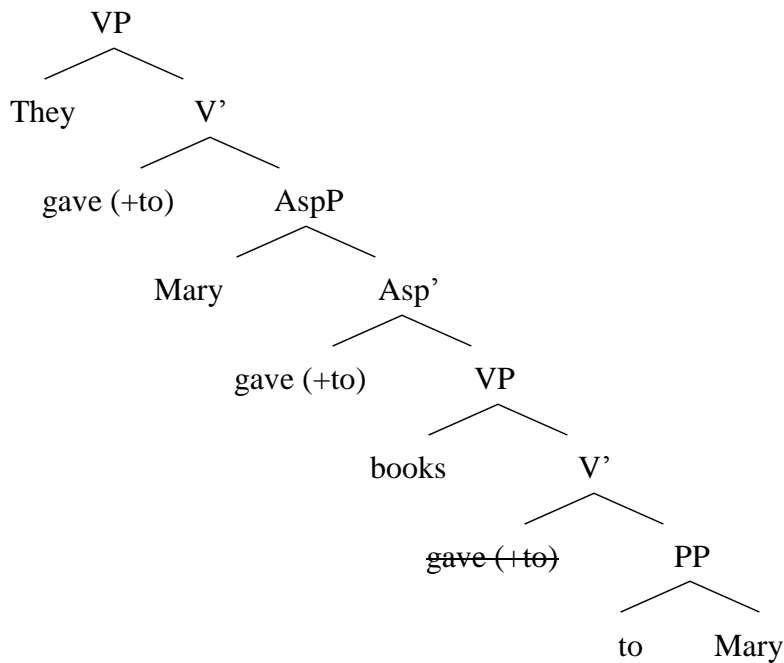
on accommodation of the different sentential adverbs in the lower IP, whereas Rizzi's work is on the order of the clausal phrases situated in the CP layer, left to FinP or TP.

#### 2.2.4 The VP cartography.

I address the issue of VP because the negatives under my investigation are mostly modals, including deontic modals. Deontic modal verbs are connected to event in the VP (more in chapter three).

Larson (1988) first split the VP for English ditransitive verbs. Baker (1997) proposes a modified VP-shell as in (18).

(18) They gave books to Mary.



As argued by van Gelderen (2012: 121), the advantage of (18) is the use of AspP for affectedness, for which she provides a pair sentences with a ditransitive verb *teach*. She argues that 'Chinese' in (19a) occupies the spec of AspP.

- (19) a. *Ivy taught James Chinese.*  
 b. *Ivy taught Chinese to James.*

Sybesma (1999: 157) holds a different view of the structure of the Mandarin VP. He treats the special constructions in Mandarin, such as the resultative, verb-*le*, prepositional dative, and *ba*- constructions, as SCs (small clauses), consisting of an NP and a predicate. The schema is given in (20).

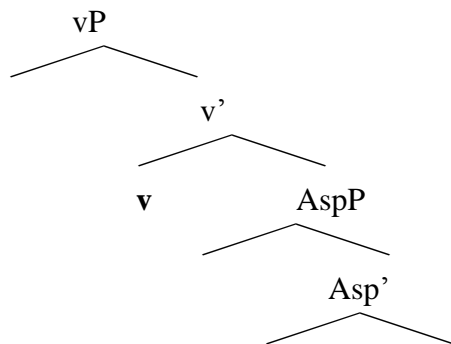
- (20) NP [VP V [SC NP XP ]]

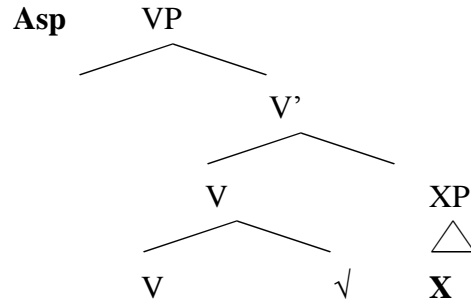
Take the *ba*-construction as an example. Sybesma argues that the *ba*-noun phrase is not base-generated in the preverbal position; instead, it is generated in the small clause. The trace shows that *shu* ‘book’ originates in the small clause.

- (21) wo ba [vp [ba-NP shu<sub>i</sub>] [VP nong [resultative SC e<sub>i</sub> zang le]]  
*Isg DISP book make dirty LE*  
 ‘I caused the book to become dirty.’

Multi-layered VPs with an additional AspP have also been pursued by Travis since her (1991) work. Travis (2005) argues for an inner aspect in the VP shell and proposes three places to encode (in her terms) telicity: v, Asp and X. This tree is particularly useful to describe aspectual sentences.

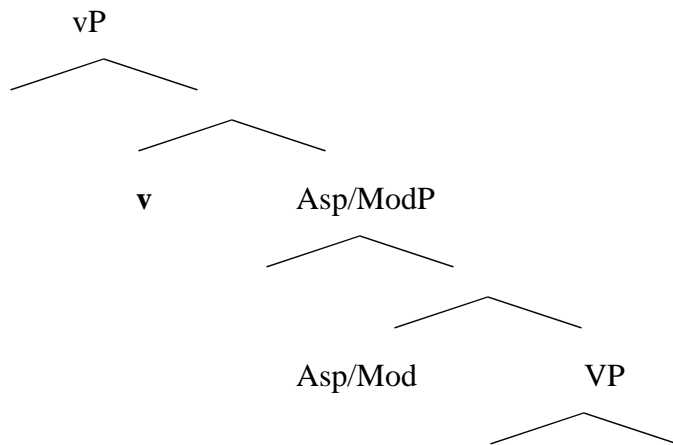
- (22) Travis’ (2005: 71) articulated vP structure





As modals are also important in this study, I then modify the AspP to Asp/ModP in order to accommodate both inner AspP and ModP in my Chinese data; see (23).

(23) An abridged VP structure



I make use of (23) when arguing for the interpretation of negation in the secondary predicate position (chapter seven).<sup>10</sup>

The evidence that we need an inner Asp/ModP comes from a special word order in which a modal verb follows the verb. I provide an example of Mandarin Chinese as in (24), where *de/bu* can provide modality.

<sup>10</sup> I am ingoring the order of Mod and Asp now; they are placed in one head only for convenience.

- (24) sanlunche pao **de/bu** kuai. MSC  
*tricycle run able/not.able fast*  
 ‘The tricycle [does/does not; can/cannot] run fast.’

In the Southern Min sentence below in (25), the aspectual *u* ‘have’ and its negation *bo* ‘have.not’ can also occupy the same inner position.

- (25) sann-lian-tshia tsau **e/be** kin. TSM  
*three-wheel-vehicle run able/not.able fast*  
 ‘The tricycle [does/does not; can/cannot] run fast.’

I analyze the modal in the other word order (26) (the canonical one) as a reanalysis into a higher position.

- (26) sann-lian-tshia **e-sai** tsai sann-e lang-kheh.  
*three-wheel-vehicle able accommodate three-CL passenger*  
 ‘This tricycle can accommodate three passengers.’

The aspectual secondary predicate is given in (25)’ and (27).

- (25)’ sann-lian-tshia tsau **u/bo** kin. TSM  
*three-wheel-vehicle run PF/not.PF fast*  
 ‘The tricycle did/didn’t run very fast.’

- (27) sann-lian-tshia iau **bue** kau. TSM  
*three-wheel-vehicle yet not.yet arrive*  
 ‘The tricycle has not arrived.’

To conclude, a VP cartography must take into account factors such as aspect, modality, and affectedness, by means of an additional inner phrase.

In the chapters where I address the movement of  $V > v$  in a modal, MP is adopted. I adopt a modified VP cartographic structure to accommodate the inner

aspect/modality sublayer. My VP analysis will emphasize on feature loss and the generative view on grammaticalization: moving upwards. I also make use of Minimalist perspectives when dealing with clausal relations between the VP and TP layers.

### **2.2.5 The TP cartography.**

We now move to TP. I address the order of TAM morphemes because many of the negatives discussed in this dissertation have a dual function as modal or aspect marking. Historically, modals are grammaticalized from lexical verbs in Chinese (see chapters three to seven).

One important work by Pollock (1898) is the split of the IP to accommodate more components, such as AgrP and T in French.<sup>11</sup> Here I investigate the hierarchical order for TAM (tense, aspect and modality); more is in chapter three.

The generative tradition treats epistemic modals as raising verbs as opposed to control verbs for deontic modals (such as Bošković 1997); also see Abraham (2002) for his view on the loss of Aktionsart properties in English.

However, in Minimalism, feature checking is the key and move/inner merge is only performed as a last resort. So, I assume that there is no raising versus control distinction for modal verbs in MP any longer. Presumably feature economy should account for the ordering of TAM, since future markers can be

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<sup>11</sup> The terms TP and IP are often used interchangeably. IP is split into TP and AgrP by Pollock (1989) and since then, TP has been used. To avoid confusion, I use IP in this dissertation as a general term for TAM but ignore tense in my data, as I adopt the notion that Chinese does not express tense by grammatical means.

reanalyzed from modals historically, and many modals were reanalyzed from full-fledged verbs.

Nuyts (2006: 19) suggests an ordering for modality and aspect, given in (28). She, however, admits that a precise ordering is far from settled.

- (28) > evidentiality  
 > epistemic modality  
 > deontic modality  
 > time  
 > quantificational aspect [frequency]/dynamic modality  
 > qualificational aspect [internal phases]
- V (parts of the ) STATE OF AFFAIRS

The ordering tells us the relationship between V and TAM. The order for three basic types of modality is epistemic > deontic > dynamic, and aspect is closer to the V.

I investigate proposals that make use of cartography in the IP/TP layer. First, Cinque's adverbial hierarchy is also associated with TAM. I summarize TAM-associated adverbs that are relevant to this study from Cinque (1999: 106).

- |      |                            |                      |
|------|----------------------------|----------------------|
| (29) | Mod <sub>epistemic</sub>   | <i>probably</i>      |
|      | T <sub>past</sub>          | <i>once</i>          |
|      | T <sub>future</sub>        | <i>then</i>          |
|      | Mood <sub>irrealis</sub>   | <i>perhaps</i>       |
|      | Mod <sub>necessity</sub>   | <i>necessarily</i>   |
|      | Mod <sub>possibility</sub> | <i>possibly</i>      |
|      | ASP <sub>habitual</sub>    | <i>usually</i>       |
|      | Mod <sub>volitional</sub>  | <i>intentionally</i> |
|      | ASP <sub>perfect</sub>     | <i>always</i>        |
|      | ASP <sub>proximative</sub> | <i>soon</i>          |



From (29), we learn that epistemic modality is higher than the other types of modality, with the volitional modality occupying the lowest position.

I now turn to Southern Min. I adopt the order for modality postulated by Hsin (1999: 66). The second line in (30) shows the XP layer the spec of which each modal adverb occupies.

- (30) discourse >> epistemic >> subject-oriented  
 CP IP ModP

Her example in (31) however does not correspond to (30) in that *e* ‘will’ is not a modal adverb (Hsin 1999: 70).

- (31) 早晚伊一定會知影你挑故意欲予歹看。<sup>12</sup> TSM  
**tsiah-ban** i **it-tng** e tsai-iann  
*sooner.or.later* 3sg *definitely* will know  
 li **tiau-koo-i** beh hoo (i) phai-kuan  
 2sg *purposely* want PREP (3sg) *embarrass*  
 ‘Sooner or later he will surely come to know (that) you purposely wanted to embarrass him.’

Hsin also claims that epistemic adverbs must precede epistemic modals and that subject-oriented adverbs must precede subject-oriented modals (Hsin 1999: 66-67). Hsin treats adverbs as in the spec and modals as heads of the same projection. Examples for these are (32) and (33).<sup>13</sup>

- (32) i **tai-khai** e lai Taipak. TSM  
 3sg *probably* will come Taipei  
 ‘It is probable that he will come to Taipei.’ (Hsin 1999: 66)

<sup>12</sup> The Chinese characters are provided by Hsin. Glosses and translation are mine.

<sup>13</sup> *Beh* ‘want’ is a modal in Southern Min.

- (33) i      **tiau-koo-i**    **beh**    hoo    li      phai-kuan.    TSM  
          3sg    on purpose    want    PREP   2sg    embarrass  
          ‘He purposely wanted to embarrass you.’ (Hsin 1999: 67)

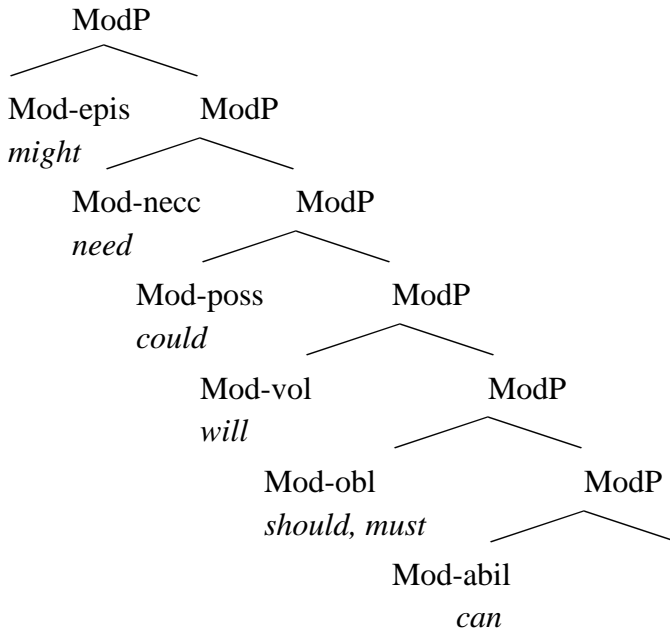
In principle, Hsin’s hierarchy for modality resembles Nuyts’ (2006) in (28). However, Hsin does not address the relative order for the various types of modal verbs, namely epistemic, deontic and dynamic, in Southern Min.<sup>14</sup>

We turn to the topic on where modals are situated in English. Typically, the order of TAM in the English TP layer is TMA as in (34).

- (34) *He **might have been** forgotten.*

Based on Cinque (1999), van Gelderen (2012: 148) postulates a hierarchy for English ModPs illustrated in (35).

- (35) The English modal sub-layers



<sup>14</sup> A more detailed discussion on modals is in chapter three where the modal classification may change.

Cormack and Smith (2002: 141) suggests two ModPs for English as summarized in Table 2.1.

Table 2.1  
LF positions for English modals

|                                |             |                                                                                           |
|--------------------------------|-------------|-------------------------------------------------------------------------------------------|
| Pre-Pol (Modal <sub>1</sub> )  | necessity   | <i>shall, should, must, will, would, ought + to, is + to, have + to</i>                   |
|                                | possibility | epistemic readings only:<br><i>may, might</i>                                             |
| Post-Pol (Modal <sub>2</sub> ) | necessity   | <i>need</i>                                                                               |
|                                | possibility | <i>can, could, dare</i> (only deontic)<br><br>deontic readings only:<br><i>may, might</i> |

The authors argue against the notion by which modals are merged under T or I, as noted by Pollock (1989) and Lightfoot (1999). Cormack and Smith's (2002: 141, 148) argument lies in the relative order between modals and negation.

(36) (Q) (Echo) C T (Modal<sub>1</sub>) Pol (Modal<sub>2</sub>) (Adv [NEG] )

Simply put, the polarity type of negation separates ModP<sub>1</sub> from ModP<sub>2</sub>.

For instance, two orders available for negation yield two readings (Cormack and Smith 2002: 136).

(37) *Edwin can not climb trees.*

- a. 'It is **not** permitted that Edwin climb trees. NOT [ CAN
- b. Edwin is permitted **not** to climb trees. CAN [ NOT

As seen, the position for modals is complicated. Both van Gelderen (2012) and Cormack and Smith (2002) attribute the relative order in English modals to a cognitive system, the new UG.

I adopt the two-layered ModP proposal. The hierarchy proposed by Cinque is not examined as I do not extend my research to double modals.

### **2.2.5 Cartography and Minimalism.**

Cartography and minimalism differ in that the former is a top-down mechanism, while the latter is bottom-up. Both approaches are by nature incompatible with one other, in that the minimalist approach is derivational, whereas cartography is representational.

What follows is a discussion of the application of these two approaches to Chinese studies. Because the Chinese language is morphologically poor, some find it easier to approach Chinese syntax within the framework of cartography. I have provided studies, such as Paul (2005), Ji (2007), and Tsai (2008), in which the cartographic approach is adopted or the hierarchy is examined.

Yet, the Cartographic approach is not flawless when applied to Chinese syntax. For example, Chinese syntax may not perfectly reflect the rigidly hierarchical fixed order. For example, we have seen various conclusions from Paul (2005) and Ji (2007). Yet, the fixed order under the modified Cartography can be a good guideline for investigating and accounting for some linguistic phenomena within Sinitic languages.

To summarize, these two lines of research (minimalism and cartography) can complement and compensate for each other with some modifications. Both

frameworks assume universal principles/computational efficiency across languages in relation to features and mapping order.

## **2.3 Grammaticalization**

This section covers the phenomenon and framework of grammaticalization, including several definitions, the generative “up the tree” notion, and ends with Chinese examples.

### **2.3.1 The framework.**

The term “grammaticalization” is thought to be first coined by Meillet in 1912. At first, grammaticalization was mostly pursued by grammarians and historical linguists. Not until in the 1980s, with the appearance of important work of (Lehmann 1982), did this line of linguistic research regain attention. The basic concept behind grammaticalization is the loss of phonology and the bleaching of semantics in some morphemes, and gain of a language’s syntactic complexity. This means that grammaticalization is often accompanied by phonological weakening and semantic bleaching as well.

Grammaticalization is observed “when a lexical item becomes a grammatical one, or when a less grammatical item becomes more grammatical” (Detges and Waltereit 2002: 188). A case for the former description is when a verb is reanalyzed as an auxiliary, such as ‘to go’ > ‘be going to’ (future) in English (Hopper and Traugott 2003: 3).<sup>15</sup> An example for the latter case is when ‘going to’ becomes reduced to ‘gonna’. English *for* from the status of a preposition to

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<sup>15</sup> The phrase *be going to* is not a full auxiliary yet.

complementizer is also an instance of the latter type. This definition is still questionable because C is not really more grammatical than P. It fits better with the notion of “moving upwards,” which is discussed in a later paragraph.

Hopper and Traugott (2003: 7) outline the cline of grammaticalization as (38). Zero or  $\emptyset$  is usually added in the literature.

(38) content item > grammatical item > clitic > inflectional affix ( > zero)

When the cline in (38) comes to an end, one cycle of change takes place. The end of a cycle motivates a renewal, for which van Gelderen gives an example of negation (2008; 2010; 2011). The term *renewal* may have been first addressed in Whitney (1870). It is sometimes called reinforcement (van Gelderen 2009).

One of the grammaticalization paths for English negation suggested by van Gelderen (2008: 193; 2010) mirrors the pattern of (38).

I summarize it as (39). I will come back to this change in section 2.5 on negation cycles.<sup>16</sup>

(39) *na wiht* OE ‘no creature’ > *not* > *n’t* > (zero; *never* as a renewal)

In the above case, it can be claimed that English negation is *renewed* by *never*. The renewal *never* is not commonly observed, possibly due to prescriptive reasons (van Gelderen 2011: 295).

In addition to renewal, *reanalysis*, *layering*, and *unidirectionality* are also important terminology in the grammaticalization framework. I explain below.

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<sup>16</sup> (39) is applicable to some dialects of English, but not standard English.

The term *reanalysis* is frequently seen in studies on grammaticalization. Langacker may be the first who uses reanalysis, defined by him as “a change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation” (1977: 58). Hopper and Trougott (2003) side with Harris and Campbell (1995: 61) in their view on reanalysis, which is “a change in constituency, hierarchical structure, category labels, grammatical relations, and cohesion (type of boundary)”. Below is an example of reanalysis from Hopper and Traugott (2003: 51). They discuss the phenomenon of reanalysis in terms of boundary change.

(40) [[*back*] *of the barn*] > [*back of* [*the barn*]]

Bisang regards reanalysis as “the occurrence in a particular position within a syntactic pattern” (Bisang 2008: 34). This definition is less broad than the above mentioned. van Gelderen uses reanalysis to explain a morpheme being used in a more grammatical sense. For instance, the complementizer *for* is a reanalysis of preposition *for* indicating location, time, or cause.

(41) *I would prefer **for** John to stay in the 250 class.* (van Gelderen 2011: 7).

Next, once grammaticalization takes place, the syntactic structure becomes more complicated and synchronically a morpheme can be observed occupying different categories, which phenomenon is called *layering* (Hopper 1991).

Another term “bridging contexts” by Evans and Wilkins (2000) is a similar notion. Hopper and Traugott (2003: 126) give an example of Latin from the periphrastic *cantare habet* ‘he has to sing > he will sing’ to morphological *cantabit* ‘he will sing’, both forms of which coexisted at some stage in Latin.

Taking Southeast Asian languages as empirical data, Bisang (2008) suggests that all layerings may be synchronically observed in a language. For instance, Khmer ‘come to have’ can be interpreted as ability, permission, obligation, past and emphasis of truth or factuality (Bisang 2008: 31). We shall see in later chapters that many Chinese morphemes follow this pattern.

The third concept often encountered in the grammaticalization literature is the *unidirectional* property. Scholars have claimed that grammaticalization is unidirectional although this notion has been hotly debated.<sup>17</sup> I assume that grammaticalization is unidirectional. Nevertheless, just like the claim made by Bisang, multiple layering is often observed in negation of the Sinitic languages under investigation.

Linguists have worked on grammaticalization from different theoretical frameworks and approaches.<sup>18</sup> Both the formal and functional work on grammaticalization. Scholars such as Traugott herself are in the functional camp and its basic reasoning is that pragmatic reasons trigger linguistic changes. On the other hand, the formal camp views grammaticalization as syntax-driven. The scholars in this camp, such as van Gelderen (2004) and Roberts and Roussou (2003), propose that grammaticalization involves moving higher up across the CP,

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<sup>17</sup> Newmeyer (1998) and Lightfoot (2006), for instance, argue against unidirectionality.

<sup>18</sup> Those scholars include, but are not limited to, Heine and Hünemeyer (1991), Lehmann (1986) and Heine and Claudi (1986), Hopper and Traugott (2003), Roberts & Roussou (2003), and Van Gelderen (2004).



IP and VP layers. Therefore, the phrase “up the tree” is generally used. I adopt this definition of reanalysis in this dissertation.

As van Gelderen points out, the concept is not the one where the lexical item “moves” to a higher position (head), given that under the Minimalist syntax is “inert and doesn’t change” and language change is associated to “the lexical items that are reanalyzed” (2008: 186). Therefore, the “up the tree” notion should not be confused with movement in the narrow syntax.

### **2.3.2 Grammaticalization in Chinese.**

Grammaticalization in Chinese has been adopted by many scholars as well. This approach of research has been used profitably by scholars in historical linguistics, such as Sun (1996) and Shi (2002), and by functionalists such as Xing (2003), as well as by minimalists, such as Z. Wu (2004) and Ting (2003; 2006).

I discuss the grammaticalization of *ba* 把 and *le* 了, given that they are among the most well-known examples. I then add *dao* 到 as a third example.

#### *The affected marker ba*

I first discuss the well-known Chinese *ba*-construction. The categorial status has been a hotly debated topic<sup>19</sup>. In principle, *ba* originates as a full-fledged verb, meaning ‘to hold; to take’ in archaic Chinese.

The grammaticalization path is shown in (42).

(42) *ba*: ‘to hold; to take’ > affected marker

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<sup>19</sup> Other terms are also used, such as disposal marker, object marker or case marker.

In the following instances, *ba* is a lexical verb that takes a single argument as its complement; examples are from Sun (1996: 61-62).<sup>20</sup>

(43) 左手把其袖 *Zhanguoce*, compiled in the 3<sup>rd</sup> to 1<sup>st</sup> centuries BCE

zuo-shou     **ba**     qi     xiu  
*left-hand     hold     his     sleeve*  
 ‘The left hand holds his sleeve.’

(44) 醉把花看益自傷                      *Bai Juyi* (772-846 BCE)

zui     **ba**     hua     kan     yi     zi     shang  
*drunk     hold     flower watch more self hurt*  
 ‘Drunk, I hold the follower and gaze at it, even more broken-hearted.’

However, *ba* in (45) does not mean ‘hold’. It is a grammatical marker. In (45), *qi* ‘deceive’ is the main verb that the negative *mo* ‘do not’ scopes over and *ba* can be seen as a light verb that indicates definiteness and affectiveness.

(45) 莫把杭州刺史欺 (Sun 1996: 62)

mo     **ba**     Hangzhou     cishi             qi  
*NEG   DISP   (place)     magistrate     deceive*  
 ‘Do not deceive the magistrate of Hangzhou.’

*Ba* is a grammatical marker in MSC (46).

(46) ta     **ba**     pingguo     chi-le.  
*3sg     DISP   apple     eat-LE*  
 ‘He ate the apple.’ (Sun 1996: 53)

---

<sup>20</sup> I change part of the translation in (44).

I would like to draw the reader's attention to the morpheme *jiang* 'to take' in (47), which is a renewal. In some Chinese languages, such as Hakka, *jiang* rather than the cognate of *ba* is used; see (48).

(47) 把聖賢說話將來學 Early Mandarin (1001-1900 CE); Sun (1996: 71)

**ba** sheng-xian shuo-hua **jiang** lai xue.<sup>21</sup>

*DISP* sage-worthy words take come learn

'Take the words of the Sages and worthy people, and learn them.'

(48) **ziong**/\*ba mun ta khoi. Hakka

*DISP* door hit open

'to push the door open'

### *The perfective marker -le*

The second case of grammaticalization is *le*, which is also one of the most researched and debated topics.<sup>22</sup> There are two *le*'s in MSC: the bound morpheme *-le*<sub>1</sub>, attached to the verb, and the free morpheme *le*<sub>2</sub>, often seen in sentential final position.<sup>23</sup> I only discuss the perfective marker *-le*<sub>1</sub> below. Let us first compare (49) and (50) in the two Sinitic languages.<sup>24</sup>

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<sup>21</sup> Sun (1996: 71) notes that this is a bi-clausal purposive construction and that *lai* is purposive.

<sup>22</sup> A general claim is that there are two *le*'s: one is marked as *-le* (*le*<sub>2</sub>; a bound morpheme) and the other *le* (*le*<sub>1</sub>; a free morpheme). A further distinction is made between the perfective *-le* and the sentence final particle *le*, often referred as Currently Relevant State (abbreviated as CRS) (Li and Thompson 1981: 240). While some scholars such as Sun (1996) hold the view of having two *le*'s, some see *le* as one morpheme (cf. Li 1989). Lin (2004) considers *le* to be denoting inchoativity. For other views, see Chao (1968) and Lin (2003).

<sup>23</sup> I do not agree this distinction because it is too simple; nothing hinges on this, however.

<sup>24</sup> These two are phrases and are only used parallel for comparison. In regular

(49) tsiah **liao** png a. TSM  
*eat finish rice PAR*

‘ate and finished rice’

(50) chi **-le** fan le MSC  
*eat -LE rice LE*

‘ate and finished rice’

Shi (2002: 136) argues that the disyllabification in the Chinese history gives rise to the reanalysis of *liao* as the modern perfective marker *-le*. The verb *liao* underwent semantic bleaching and became an aspect marker in modern Mandarin as in (50). Note that *liao* also underwent phonological reduction, from *liao* to *le*.

The general view on the grammaticalization path of *-le* is shown in (51).

(51) *liao* ‘to finish’ > *-le* = perfective marker

Xing (2003) classifies reanalysis into three types when discussing the grammaticalization of *le*.

Xing (2003: 37) argues that a reanalysis of a verb takes place in three steps.

(52) verb serialization > verb de-centralization > functionalization

The first stage is when *liao* is used as ‘to finish’ (52), and this process is serialization.

(53) 吃飯了也。 *Zutangji*; 10<sup>th</sup> century

chi fan **liao** ye

*eat food complete PAR*

‘ate and completed the food’ (Xing 2003: 37)

---

conversations, *chi-le fan le* ‘I had my meal.’ or *chi-le fan jiu qu* ‘I’ll go after my meal’ are more common. Also note that *le* does not necessarily mean completion.

Xing (2003) analyzes *liao* in (53) as part of a serial verb construction (SVC) and the verbal meaning is central to the sentence. If *liao* is analyzed as Asp in (53), the meaning is ‘one has finished eating the meal’. She claims that when *liao* in (53) is *decentralized*, it gradually becomes more grammaticalized; (54).

- (54) 軍官食了，便即渡江。 10<sup>th</sup> century, *Bianwen* (Xing 2003: 37)  
 junguan shi **liao** bian ji du jiang  
*officer eat complete then soon cross river*  
 ‘Soon after the officers finished eating, they crossed the river.’

The third type of reanalysis is functionalization; see *-le* in (55).

- (55) 他去了北京。 MSC  
 ta qu-le Beijing  
 3sg go-LE (place)  
 ‘She went to Beijing.’ (Xing 2003: 38)

In the cases for *ba* and *le* just discussed above, layerings and renewals are evident in the historical texts. *Ba* or *le* are no longer used as verbs, except in some set items, such as *bawo* 把握 ‘to seize’ and *liaoshi* 了事 ‘to finish something’.

- (56) *ba* ‘hold’ + *wo* ‘grasp’ = *bawo* ‘to seize’  
 (57) *liao* ‘finish’ + *shi* ‘matter’ = *liaoshi* ‘to finish something’

However, there are cases where the old layers co-exist with the newer layers. I show *dao* as such an example below.

The dictionary *Shuowen* has an entry for *dao*: ‘to arrive’. *Dao* was a verb ‘to go, to visit’ in archaic Chinese; see (58).

- (58) 蹶父孔武、靡國不到。 *Shi Jin*, 1046-771 BCE  
 Jue-fu kongwu, mi guo bu **dao**.

*Jue-fu martial NEG nation NEG arrive*

‘Jue-fu was very martial, and there was no State which he had not visited.’

Ma (2002: 134-135) shows that the use of *dao* to indicate the end point can be observed in the *Analects* as in (59), where *dao* is a verb and *yu* is a preposition.

Sentences are all from Ma; translation is mine.

(59) 民到于今稱之。論語 *Analects of Confucius*

min **dao** yu jin cheng zhi.

*people DAO till today praise them*

‘To this day, people still praise them.’

Ma further states that *dao* can be used for the starting point, as in (60).

(60) 到秋馬肥，變必起矣。（漢書）(*the Book of Former Han*)

**dao** qiu ma fei, bian bi qi yi.

*DAO fall horse corpulent rebel certainly arise PAR*

‘Rebels are sure to arise when fall comes and the horses become corpulent.’

The V-*dao* phrase has been documented back in the Han Dynasty (206 BCE - 220 CE); see (61).

(61) 惠王用張儀之計...，使之西面事秦，功施到今。（史記）*Shiji*

hui wang yong zhangyi zhi ji,

*hui king use (name) GEN strategy*

... shi zhi xi mian shi Qin,

*make them west fac worship Qin,*

kong shi **dao** jin.

*effect take.effect till today*

‘King Hui adopted Zhangyi’s strategy..., making (them) worship Qin from the west side, and this has worked to this day.’

Ma (2002) concludes that not until the Yuan Dynasty (1271-1368 CE) can one see the post-verbal *dao* such as (62).

(62) 直吃**到**銀燭暗，玉繩低，雪晴時人未歸。（全元散曲）(the loose melody of Yuan Dynasty)

zhi            chi    **dao**   yin    zhu    an,  
*continue    eat    DAO   silver   candle dark,*  
yusheng            di,  
*constellation    low,*  
                  xue   qing   shi    ren    wei    gui.  
                  *snow   bright   time   person not.yet return*

‘(someone) continued to eat until the silver candle became dark, and the stars went below; when the snow stopped [falling], the person had not yet returned.’

Different from *le* and *ba*, the use of *dao* as a verb, preposition and a telicity marker co-exists in modern Mandarin Chinese; see (63)-(65).

(63) qiutian **dao**    le. 秋天到了。 [*dao* as a verb]

*fall    arrive   PAR*  
‘Here arrives fall.’

(64) chi    **dao**            bao.    [*dao* as a degree indicator]

*eat    to.the.point    full(ness)*  
‘all-you-can-eat’

(65) wo    zhao-**dao**    che    yaoshi le.    [telicity marker]

*Isg    look.for-dao    car    key    PAR*  
‘I found the car key.’

In this subsection I have reviewed the phenomenon of grammaticalization and discussed several case studies on Chinese grammaticalization.

*Grammaticalization* is the framework I adopt for the VP and the ModP layers when discussing language change. I now move on to how grammaticalization is viewed under the generative approach.

## **2.4 Computational Economy**

I have addressed Cartography and grammaticalization as my major frameworks. Another important topic I will discuss is the *Computational Economy* under Minimalism.

As discussed, UG has a different definition since Chomsky (1995) under the new Minimalist framework. UG is now associated with computational efficiency, the third factor by Chomsky (2005; 2007), or the initial cognitive system in a language acquirer.

I do not pursue feature economy as it does not seem to be compatible with the empirical data in the Sinitic languages. Rather, I use Economy Principles from MP, to account for the reanalysis occurring in Southern Min negation.

Feature loss is taken from van Gelderen's (since 2008) feature economy model, which is revised from her (2004) work of the Late Merge and Head Preference Principles. Feature loss adopted in this dissertation is center to the Economy framework. According to van Gelderen, uninterpretable features are more economical than interpretable features in that the former ones keep derivation going. Likewise, interpretable features are more economical than semantic features (2011: 4). The concept can be conceptualized as (66).

(66) u-F >> i-F >> semantic features



Feature loss participating in this model has a reverse order, as in (67).

(67) semantic features > [i-F] > [u-F]

A lexicon has an array of features. Semantic features are in lexical items, typically in verbs or nouns. When a morpheme is taken out by the speaker with fewer features, [i-F] is at play. When it comes to the stage with [u-F], a renewal comes about and is often viewed as a linguistic cycle in the literature. As van Gelderen claims, feature economy motivates language change, as it is evident in diachronic language change as well as child language acquisition (2004; 2011: 6).

The term “economy” is used by van Gelderen in the sense that the syntactic derivation needs something uninterpretable to probe for another item that is interpretable, thus a speaker only needs lexical inputs into the course of derivation where agree and merge/move take place. The change of features in a lexical item derives different syntactic patterns in narrow syntax. It is economical given that the speaker does not use as much lexicon as s/he would have to.

I consider reanalysis in a higher head to be a result of feature loss. A reanalysis in the way reflects upon one step of feature loss in a grammaticalization cline. Take the Chinese morpheme *dao* as an example. The lexical verb *dao* means ‘to arrive’, but *dao* in (68) has lost its semantic features.

(68) ta      **dao**      Zhangguo      qu      le.      [*dao* as a locative]  
3sg    LOC    China            go      PF  
‘He went to China.’ (Heine & Kuteva 2002: 45)

van Gelderen concludes with a path with feature loss in *dao* as (69) and the verbal case cline is shown in (70), where she further shows that *dao* has undergone several reanalysis processes, thus having a shift from V to v and to P.

- (69) *dao* ‘arrive’ > *dao* ‘to’ (van Gelderen 2011: 188)  
 [move, direction] [i-direction] (or [i-T])
- (70) V > v > P (van Gelderen 2011: 191)  
 [move, finish] i-loc ??

Note that she uses [i-loc] for this use of *dao* in (68). Below I attempt to continued on the prepositional and telic uses of *dao*. The morpheme *dao* is often used as a preposition; (71) is repeated from (64) for convenience.

- (71) chi **dao** bao. [*dao* as a degree indicator]  
*eat to.the.point full(ness)*  
 ‘all you can eat’

I consider the reanalysis of *dao* applicable to the reanalysis of v [i-loc] > P in (70). Like many other instances, the use of *dao* extends from spatial to temporal as *dao* indicates telicity in (72), repeated from (65).

- (72) wo zhao-**dao** che yaoshi le. [telicity marker]  
*Isg look.for-dao car key PAR*  
 ‘I found the car key.’

What is more, the use of *dao* as a phase or telicity marker in modern Mandarin as in (73) and (74) is very much grammaticalized and is also a late

development.<sup>25</sup> Below are two more fascinating examples where *dao* is attached to telic verbs.

(73) 讓我學習到做事應有的態度。<sup>26</sup> MSC

rang wo xuexi-**dao** zuoshi  
*let Isg learn-DAO do.thing*  
 yingyou de taidu.  
*necessary GEN attitude*

‘Let me learn the attitudes in coping with things.’

(74) 這有沒有解決到你的問題。

zhe you-mei.you jiejie-**dao** nide wenti.  
*this Q solve-DAO your problem*

‘Did this solve your problem?’

With additional data from (71) to (74), a more complete cline of *dao* should look like (75), modified from (70). More research certainly has to be conducted from a diachronic perspective so as to determine where the telicity use of *dao* situates in the cline.

(75) V > v > P  
 [move, finish] i-loc/i-telicity [degree]

I adopt feature loss from van Gelderen’s feature economy model to account for the multi-functional morphemes in Chinese. A skeptic may argue for a possibility of many different *dao*’s. My brief answer here is that a path such as (75) is empirically evident in the literature of typology and grammaticalization. Feature loss is a better account than having multiple words for a language

<sup>25</sup> Li and Thompson (1981: 65-66)

<sup>26</sup> taken from the acknowledges of an MA thesis written in Chinese

acquirer to learn, the latter of which is not economical. We will see more applications in chapters four to seven.

## 2.5 Negation Cycles

The last section contributes to motivation for Chinese negation. According to van Gelderen, language change follows principles of Economy, one of which is the Late Merge Principle (LMP). In addition to feature loss, the LMP explains the grammaticalization pathway of negative words.

The LMP describes how children “build their grammar in a particular way” (p.12). In the case of negatives reanalyzed as interrogatives, children tend to place the interrogatives “higher [in the tree] rather than merge them early and then move” (van Gelderen 2004: 12). One example is the English *not*, which undergoes changes from a phrase, to Spec and to head (van Gelderen 2008: 193).

(76) *na wiht* ‘no creature’ > *ne* > *not*  
 negative object/DP > Spec > head of NegP

In a revised modal, namely Feature Economy, van Gelderen uses (77) to account for negative cycle instead.

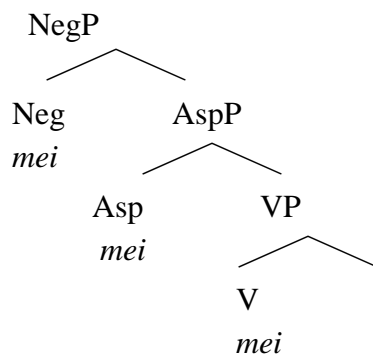
(77) Adjunct/Arg > Spec > head > Affix  
 Features [semantic] [i-F] [u-F] --

She argues that another grammaticalization process is responsible for Chinese negation (van Gelderen 2011: 292, 299). Similar to (77), a loss of semantic features as shown in (78) accounts for the reanalysis of a lexical head to a higher head for Chinese.

- (78) lexical head > (higher) head > (higher head)  
 [NEG] [i-NEG] [i-INT]

Chinese negation does not seem to have [u-F], as there is no renewal doubling as a negative concord language has; French *ne* and *pas*, for instance. The mechanism for the latter path is illustrated in (79).

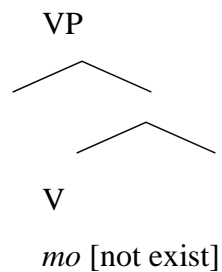
(79) The negative head cycle (van Gelderen 2011: 298)



van Gelderen (2008) uses Head-to-Head movement to explain the reanalysis of Chinese 沒 *mei*, which originates as a verb ‘to die/to sink’ (pronounced as *mo*) but is later used as an negative as well as aspectual marker(, and then an interrogative).

The tree in (80) demonstrates that the lexical *mo* has semantic features [to die; not exist; lack; not possess] and occupies the V head.

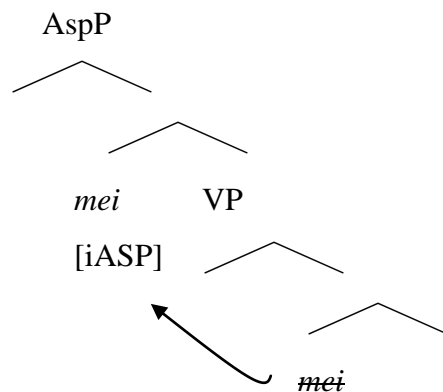
(80) the verbal *mo*: [die; not exist]



The features of lacking or not possession in *mei* lead *mei* to become reanalyzed as aspect, as possession to aspect is attested across languages. (81)

shows a reanalysis of *mei* into an aspectual marker.

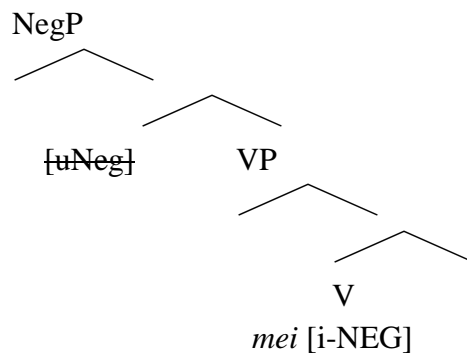
(81) the aspectual *mei*: [iASP] < [not exist; not possess]



The reanalyzed *mei* in a higher head has interpretable aspectual features, [i-ASP]. The LMP takes place when *mei* is reanalyzed as a new head in AspP. Note that the cross-out does not mean copy/delete, and neither does the arrow indicate movement, as reanalysis is a result of one head landing in another head.

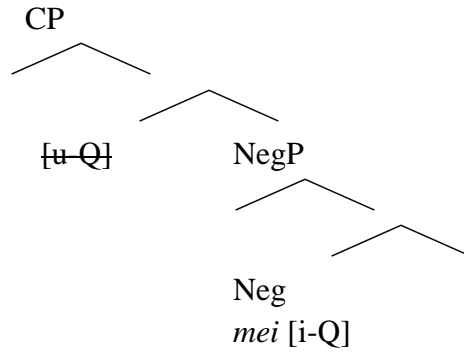
There is also a stage during which *mei* loses lexical features [lacking], leading to a reanalyzed *mei* with interpretable grammatical features [i-NEG]. This *mei* lands at the head of NegP.

(82) The negative *mei*: [i-NEG] < [lacking]



The negative *mei* carries *irrealis* features, easily reanalyzed as an interpretable question feature, i.e. [i-Q].

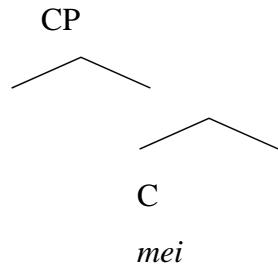
(83) the interrogative *mei*: [i-Q]



The i-Q feature in (83) agrees with the un-interpretable question features [u-Q] in the head of CP. Thus, *mei* moves from Neg to Q. This phenomenon is evident in the history of the Chinese language (cf. Wei 2007; Wei 2010).

Through the course of time, *mei* is further reanalyzed as an interrogative and is base-generated in C, in accordance with the LMP.

(84) the base-generated interrogative *mei*



The trees illustrate how *mei* is reanalyzed in each stage to a different head. The Principle of Economy is in play, as we observe features loss in *mei*, from lexical to grammatical ones. This triggers language change. Reanalysis takes

place through several generations. Whenever *mei* lands in a particular position without any movement, it is a *late merge*.

Van Gelderen's Late Merge Principle helps to explain language change in children's grammar through a reanalysis of *mei* to a higher up position (i.e. C in the CP) rather than undergoing several steps of movement because (external) merger is "cheaper" than movement/internal merge (Chomsky 1995; 1998). Through late merges, in the new grammar, the negative word *mei* is base-generated in C as an interrogative as shown in (84).

Next chapter discusses negation and modality/aspect as Southern Min negation interacts with modality and aspect.



## Chapter 3

### NEGATION AND TAM

This chapter focuses on negation and modality. I first address negation from a typological perspective. The second and third sections discuss Chinese negation in general and then specifically Southern Min negation. The remainder of the chapter centers around modality, as concepts of modality will be used in later chapters when negative modal verbs are introduced. Also touched upon is aspect.

#### 3.1 Cross-linguistic negation

##### 3.1.1 Negation strategies.

I address what strategies are used across languages to form negation and relate those to Chinese. As Dahl (1979) notes, three standard negation strategies can be found in natural languages, either through a negative particle, a negative auxiliary, or a negative affix.<sup>27</sup> Below are examples for each type.

- (1) ta    **bu**    he    jiu.    Mandarin  
3sg    NEG    drink    wine.  
'He/She does not drink wine.' (Whaley 1997: 228-229)
- (2) bi    dukuwun-ma    ə-cə-w    duku-ra.    Evenki  
1sg    letter-OBJ    NEG-PST-1sg    write-PAR  
'I didn't write a letter.' (Whaley 1997: 228-229)
- (3) **m-a-rany.**    Massai  
NEG-1sg-sing  
'I do not sing.' (Whaley 1997: 228-229)

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<sup>27</sup> Standard negation is interchangeable with clausal negation; lexical negation is not addressed here.

The negative particle has been the focus in the literature. Negative particles are independent and non-inflectional (Dahl 2020: 19). Payne (1985) suggests that in some languages, such as Russian, an invariant particle is used for any predicate type. Chinese, on the other hand, has different particles at the sentential level. Payne suggests three basic strategies in such languages that use different negatives. First, negation particles vary based on mood. For example, Hungarian employs *nem* and *ne* for statements and imperative sentences, respectively. Second, tense or aspect determines which particle to use, especially in Semitic languages (Payne 1985: 223). Third, the grammatical category of the predicate also determines the choice of negative particles. For example, in Baghdad Arabic *ma:/m* is used with verbal predicates, as opposed to *mu:*, which is for nominal, adjectival, and prepositional predicates” (Bakir 1970, in Payne 1985: 223).

Let us briefly examine Chinese negation based on Payne’s analysis. Mandarin utilizes different particles depending on the verb type and the mood of the sentence (Li and Thompson 1981). *Bu* 不, *mei* 沒 and *bie* 別 are the most commonly used negatives in Mandarin. The first and second strategies by Payne apply to Chinese. *Bu* is used for habitual negation and *bie* negates imperatives. Thus, mood is associated with negation. The choice between *bu* and *mei* is tied to aspect and modality.

Another typological characteristic of negation is the symmetric vs. asymmetric distinction (Miestamo 2005). Asymmetry refers to when affirmation changes to negation while being accompanied by structural changes in addition to

negative markers. Take Mandarin as an example. The affirmative sentence has an aspect marker *-le* in (4). When (4) is negated, ungrammaticality occurs if a negative such as *bu* or *mei* is simply added, as in (5).

- (4) ta      chi-**le**          fan.  
       3sg    eat-ASP        rice  
       ‘He ate.’
- (5) \*ta      **bu/mei**        chi-**le**          fan.  
       3sg    NEG          eat-ASP        rice  
       Int.: ‘He did not eat.’

The counterpart of (4) is shown in (6), where *mei* ‘not’ appears together with an optional aspect marker *you* ‘have’ and *-le* is dropped.<sup>28</sup>

- (6) ta      **mei(-you)**    chi    fan.    Mandarin  
       3sg    NEG(-ASP)    eat    rice  
       ‘He did not eat.’

Southern Min and Hakka differ however, in that these two languages make use of a symmetric affirmative and negative system.

Let us investigate another negative *bu* in Mandarin. *Bu* is considered to be a pure or habitual negator in the literature; see the examples below.

- (7) ta      chi    yu.  
       3sg    eat    fish  
       ‘He eats fish.’
- (8) ta      **bu**    chi    yu.  
       3sg    NEG    eat    fish  
       ‘He doesn’t eat fish.’

---

<sup>28</sup> Note that *mei* by itself can be aspectual too and glossed as NEG.ASP.

*Bu* is also used for modal verbs and stative verbs; see (9) and (10). I address the relationship between negation and predicate types immediately.

(9) ta    **bu**    hui    kaiche.  
3sg   NEG   can   drive  
'He doesn't know how to drive.'

(10) ta    **bu**    gao.  
3sg   NEG   tall  
'He is not tall.'

However, *bu* can express volition as in (11).

(11) ta    **bu**            chi    yu.  
3sg   not.want    eat    fish  
'He doesn't want to eat fish.'

### 3.1.2 Topics in the typology of negation.

I draw particular attention to three issues: (a) negation with non-verbal predicates; (b) negation in existential sentences; and (c) negation as interrogatives. These concepts will be encountered in later chapters individually.

*Negation with non-verbal predicates.* Negation is related to its predicate. For examples, in Indonesian, the negative particle *tidak* is used as a standard negator, as in (12); however, another negative *bukan* is used when the predicate changes to nominal, as in (13) (Dahl 2010: 19 & 27).<sup>29</sup>

(12) saya   **tidak**   tidur.   Indonesian  
3sg   NOT   sleep  
'I am not asleep.'

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<sup>29</sup> The gloss in (13) is modified.

(13) itu **bukan** jeruk. Indonesian  
that NEG orange  
'That is not an orange.'

(14) itu (**adalah**) jeruk. Indonesian  
that COP orange  
'That is an orange.'

Example (14) above is the affirmative counterpart of (13), where a copula verb *adalah* is optional (Dinny Aletheiani, p.c.).

Czech makes use of a special negator in copular constructions; a comparison between the affirmative and negative is shown below (Dahl 2010: 28). In later chapters, I will show that the Chinese language is similar in this respect.

(15) Jan **je** doma.  
Jan COP.3sg at.home  
'Jan is at home.'

(16) Jan **neni** doma.  
Jan NEG.COP.3sg at.home  
'Jan is not at home.'

***Negation in existential sentences.*** Another typological characteristic of negation is that the negative existential can be identical to the standard negator (Croft 1991: 11). I provide Mandarin examples to show that the Chinese language shares this typological characteristic.

As shown in (17), *you* is the existential verb 'to exist'; its negative form *meiyou* can be used as a negative existential as in (18) and a negator in (19).

(17) zheli **you** ren. Mandarin  
here exist person

‘There is a person here./ There are some people here.’

- (18) zheli            **mei(-you)**    ren.    Mandarin  
here            NEG.exist    person

‘There is nobody here.’

- (19) ta            **mei(-you)**    nian    yanjiusuo.    Mandarin  
3sg    NEG.ASP    attend    graduate.school

‘He did not attend graduate school.’

*Negation in interrogatives.* Palmer (2001: 12, 52) provides examples of Imbabura to show that languages may use the same negative marker for questions, as they are both “non-assertive” (Palmer 2001: 53). In (20) and (21), *chu* is used as ‘not’ and as a question marker.

- (20) ñuka-ka            mana    chay    llama-ta            shuwa-shka-ni-**chu**.  
1sg-TOP            NEG    that    sheep-ACC    steal-PF-2sg-NEG

‘I did not steal that sheep.’    Imbabura

- (21) mayistru-**chu**    ka-ngui?            Imbabura  
teacher-Q            COP-2sg

‘Are you a teacher?’

The use of negative markers to form interrogatives is not unknown; van Gelderen (2008) argues that in the world languages “many negatives develop into mood markers in C, in particular into interrogatives” (2008: 236). The reanalysis of negatives into interrogatives is addressed in chapter four to seven when I discuss negation of Southern Min.

## 3.2 A brief history of Chinese negation

### 3.2.1 Evolution of Chinese negatives.

Chinese has been abundant in negative expressions throughout its history. Djamouri (1991: 8), Pulleyblank (1990, Chapter 11) and Xu (2003: 2) show that there were four negatives in *Jiaguwen* 甲骨文 (oracle bone script) as in (22), and others, (23), emerged later in the Zhou-Qin Dynasties (1066-221 BCE).<sup>30</sup>

(22) 不 *bu*, 弗 *fu*, 勿 *wu*, 毋 *wu*

(23) 非 *fei*, 匪 *fei*, 微 *wei*, 無 *wu*, 蔑 *mie*, 未 *wei*

The various negatives in archaic Chinese serve different functions. Pulleyblank (1990, cited in Djamouri 1996: 291) and Sagart (1999: 84) suggest that some negatives function like verbs. For example, *wu* 無 means ‘not have’. Also discussed is the dual function in one morpheme, one such example is *fu* 弗, which is believed to be a fuse word of a negative *bu* 不 and an object pronoun *zhi* 之 (Pulleyblank 1995: 104).

Among these negatives, 不 *bu* is still productively used in modern Mandarin Chinese. The prohibitive 勿 *wu* also survives to this day, but mainly in written texts or as set expressions. The rest are no longer productive, with some lexicalized and others used in idiomatic expressions.

*Wu* 無 ‘not have’ is postulated by Shi and Li (2004) to be replaced by *mei* 沒. Neither seen in (22) nor (23), the morpheme *mei* developed later in the Chinese

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<sup>30</sup> The transcription is in modern standard Mandarin pronunciation. Some negatives may have been pronounced the same in or before Middle Chinese time.

history before early Mandarin, and is now another commonly used negative in Mandarin other than *bu* and the prohibitive *bei* 別, as noted in previous paragraphs.

How do the many negatives differ? According to Shi and Li (2004: 241), the use of various negatives between the Wei-Jin Periods (265-420 CE) and the Yuan-Ming Dynasties (1271-1644 CE) is determined by the predicate, as shown in (24) and (25).

(24) negative candidates for a VP or AdjP predicate:

不 *bu*, 未 *wei* ‘not yet’, 不曾 *bu.zeng* ‘never’, 未曾 *wei.zeng* ‘never’

(25) negative candidates for a NP predicate:

無 *wu* ‘not have’, 沒 *mei* ‘not have’

Below are examples.

(26) 今日做未得，且待來日做。朱子語類訓門人 *Zhuzi yulei*; 1270 CE

jinri zuo **wei** de, qie dai lairi zuo  
today do not.yet obtain just wait future do

‘Whatever hasn’t been done today will be kept until a later day.’

(27) 不見仙人，

**bu** jian xian ren,  
NEG see transcendent person

不可謂世間無仙人也。抱朴子內篇 *Baopuzi*; 371-420 CE

bu-ke wei shijian **wu** xian ren ye  
NEG.can say world not.have transcendent person PAR

‘One can’t conclude that there is no transcendent being in the world until he sees one.’



Shi and Li (2004: 262) suggests that *mei* replaced the functions of the negatives *wu* in (25) and *wei*, *buzeng*, and *weizeng* in (24). Only two out of these candidates, namely *bu* and *mei*, survive in modern Chinese to this day.<sup>31</sup>

### 3.2.2 Modality in Classical Chinese.

An important topic is that the incorporation of modality into negation is by no means an innovation of Southern Min. As noted in Dobson (1966: 282), Chinese had established a “symmetry of the modal paradigm in late Archaic Chinese [...by the third century].” Pulleyblank (1995: 122-123) addresses different types of modality in Classical Chinese, which I summarize in Table 3.1, showing examples that are related to my research.<sup>32</sup> As argued by Pulleyblank, the first four verbs can take clausal objects, but *de* ‘get’ is used in a verb series with another verb following.

There are some things to note in Table 3.1. First, in today’s Mandarin Chinese, only few of these morphemes can appear alone: *neng*, *gan*, and *ken*. Many others are combined with another modal; an example is the disyllabic modal *ke-neng* 可能 ‘maybe’. Another important point is the two uses of the same morpheme *ke* 可, which I demonstrate in different rows. The possibility modal *ke* has, in our terms, epistemic modality (possibility), whereas the other *ke* is in the

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<sup>31</sup> In Southern Min and Hakka, many archaic negative forms are preserved, such as *bue* 未 and *mang* 亡, both glossed as ‘not.yet’. I will visit this in chapters four to seven where Southern Min negatives are introduced.

<sup>32</sup> Transcription is in modern standard Mandarin.

deontic necessity paradigm.<sup>33</sup> This is crucial in grammaticalization and typology in that English makes use of *can* for epistemic (probability), abilitive, and deontic. In comparison, Mandarin uses *neng* and *ke* for the possibility (as opposed to necessity) modal paradigm. Additionally, some of these modal morphemes are related to one another and thus used in the same paradigm (possibility, necessity or volition). For instance, *bi* and *de* are in the necessity paradigm, equivalent to the use of English *need*. I address this in a later subsection of this chapter.

Table 3.1  
Modality in Classical Chinese

| modals  | categorial status                   | meanings                  |
|---------|-------------------------------------|---------------------------|
| neng 能  | verb                                | ‘can, be capable of’      |
| gan 敢   | verb                                | ‘dare’                    |
| ken 肯   | verb                                | ‘be willing to’           |
| yu 欲    | verb                                | ‘wish, intend, will’      |
| de 得    | verb                                | ‘get to do, can’          |
| ke 可    | adjective                           | ‘possible’                |
| ke 可    | adjective                           | ‘ought to, should’        |
| jiang 將 | adverb                              | Intentionality & futurity |
| bi 必    | adverb, verb, adnominal<br>particle | necessity, ‘must’         |

<sup>33</sup> Epistemic and deontic are introduced in this chapter.

Many of the archaic negatives are associated with modality too. They are 毋 (or 無) *wu* and 勿 *wu* (Pulleyblank 1995: 107-108, 124), which are prohibitives.<sup>34</sup>

(28) 王無罪歲 孟子 *Mencius* (372-289 BCE)

wang **wu** zui sui.

King WU blame harvest

‘Let your Majesty not blame the harvest.’

(29) 百畝之田，勿奪其時 孟子 *Mencius* (372-289 BCE)

bai mu zhi tian,

hundred (measure) GEN field

**wu** duo qi shi.

WU deprive GEN time

‘Do not deprive the hundred *mu* fields of their times (of cultivation).’

### 3.3 Southern Min Negation

Southern Min has a rather systematic periphrastic system of affirmatives and negatives. There are four pairs of affirmatives and negatives: (a) *e* vs. *be*, (b) *beh* vs. *m*, (c) *tioh* vs. *bian*, and (d) *u* vs. *bo*. The five basic negatives are thus *be*, *m*, *bian*, *bo*, and additionally *bue*. Table 3.2 shows the systematic negative auxiliaries and their affirmative counterparts in Taiwanese Southern Min. Intriguingly, each negative morpheme above is marked for aspect or modality, and these negatives can also be used as interrogatives.

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<sup>34</sup> 毋 and 無 are homophones in *Mencius* 孟子 (Pulleyblank 1995).

Table 3.2  
The affirmative-negative pairs in Southern Min

| Affirmatives                    | Negatives                                                                |
|---------------------------------|--------------------------------------------------------------------------|
| <i>e</i> 會 ‘will’; ‘able’       | <i>be</i> 袂 ‘will not’; ‘unable’ <sup>35</sup>                           |
| <i>beh</i> 卜 ‘want’             | <i>m</i> <sub>1</sub> 毋 ‘not-want’; <i>m</i> <sub>2</sub> : pure negator |
| <i>tioh</i> 著 ‘need’            | <i>bian</i> 免 ‘need not’                                                 |
| <i>u</i> 有 ‘have’ <sup>36</sup> | <i>bo</i> 無 ‘not-have’                                                   |
|                                 | <i>bue</i> <sup>37</sup> 未 ‘not yet’                                     |

This section is not meant for a thorough investigation of Southern Min negation. To avoid repetition, I simply present the basic information here to prepare my reader for a much detailed exploration in chapters four through seven. Except for cases otherwise indicated, all examples below are Taiwanese Southern Min generated by me.

### 3.3.1 The Basics.

Scholars have noticed that Southern Min negatives encode modality and/or aspect. For instance, Crosland (1998: 260) lists five negatives with their distinctive functions, as in (30), based on his fieldwork investigation in Xiamen, China, where Southern Min is spoken.

<sup>35</sup> Some studies transliterate *boe* as *be*; this is due to dialectal differences.

<sup>36</sup> I follow the most widely accepted Chinese characters for these Southern Min words. Other studies may use, 欲 for 卜, 唔 for 毋 and 勿會 for 袂.

<sup>37</sup> According to my fieldwork, *bue* can be pronounced as *be* in some sub-dialects, whereas in other sub-dialects, *be* ‘will.not; cannot; unable’ is pronounced as *bue*. In other words, *be* and *bue* are free variations for some speakers.

- (30) Southern Min negatives<sup>38</sup>
- |            |                                                    |
|------------|----------------------------------------------------|
| <i>m</i>   | negative of volition ( <i>m</i> <sub>1</sub> )     |
| <i>m</i>   | negative simplex ( <i>m</i> <sub>2</sub> )         |
| <i>bo</i>  | negative possessive/existential/affirmative aspect |
| <i>bue</i> | negative potential/possibility                     |
| <i>be</i>  | negative perfective aspect                         |

Crosland suggests that except for *m*<sub>2</sub>, which is devoid of any modality, the negative words have additional semantic properties. The negatives in (30) can also be found in Taiwanese Southern Min. I briefly comment on the use of each negative in Taiwanese Southern Min below.

### 3.3.2 The systematic pairs.

Below are examples with negatives occurring with activity verbs. All negatives are compatible with the verb *senn-kiann* ‘give birth’.

- (31) i     **be**           senn-kiann. (abilitive)  
       3sg   can.not       give.birth  
       ‘She is unable to reproduce.’
- (32) i     **m**            senn-kiann. (volitional)  
       3sg   not.want     give.birth  
       ‘She doesn’t want to have babies.’
- (33) i     **bian**         senn-kiann. (obligatory)  
       3sg   need.not     *give.birth*  
       ‘She is allowed not to give birth.’ (e.g. Her sister-in-law has children.)
- (34) i     **bo**            senn-kiann. (habitual)  
       3sg   not.have     give.birth  
       ‘She doesn’t have children.’

---

<sup>38</sup> I leave out his superscript numbers as tone markers. His negative potential vs. negative aspect are transcribed differently from those in Table 3.1, but it is not an issue, as explained in footnote 29.

- (35) i        iau    **bue**            senn-kiann.    (perfect)  
       3sg    yet    not.yet        give.birth  
       ‘She has not had children yet.’

Next, I show sentences with the same negatives but with stative verbs in (36) through (41). Stative verbs are adjectival. As shown, only the aspectual negatives *bo* and *bue* can occur with stative verbs; *be* is restrictive with stative verbs. This shows that negative particles vary depending on the predicate.

- (36) i        **be**    kuan    \*(a).  
       3sg    *BE*    *tall*    *PAR*  
       ‘He won’t grow any taller.’

- (37) \*i        **m<sub>1</sub>**    kuan.  
       3sg    *M*     *tall*  
       Intended: ‘He doesn’t want to be tall.’

- (38) \*i        **m<sub>2</sub>**    kuan.  
       3sg    *M*     *tall*  
       Intended: ‘He is not tall.’

- (39) \*i        **bian**    kuan.  
       3sg    *BIAN* *tall*  
       ‘He needs not be tall.’

- (40) i        iau    **bue**    kuan.  
       3sg    yet    not.yet *tall*  
       ‘He hasn’t yet grown taller.’

- (41) i        **bo**    kuan.  
       3sg    *BO*    *tall*  
       ‘He is not tall.’

### 3.3.3 Other negatives.

*The two m's.* The literature distinguishes between the two *m*'s in Southern Min (Crosland 1998, among others). The volitional *m* is conventionally labeled as *m*<sub>1</sub>, whereas the other function of *m* is labeled as *m*<sub>2</sub>. I provide examples in Taiwanese Southern Min.

- (42) i        **m**<sub>1</sub>            khi    hak-hau.        (volitional *m*<sub>1</sub>)  
      3sg   not.want        go    school  
      ‘He didn’t/doesn’t want to go to school.’
- (43) i        **m**<sub>2</sub>    si    khi    hak-hau.        (pure negative *m*<sub>2</sub>)  
      3sg   NEG   COP   go    school  
      ‘It is not the case that he went to school.’

The latter negator, namely *m*<sub>2</sub>, can only occur with a limited number of words, as listed in Table 3.3 (adopted from Crosland 1998: 261).<sup>39</sup> Table 3.3 is not an exhaustive list, however.

In brief, an investigation reveals that these verbs comprise mostly psych verbs, stative adjectives and modals. I consider the choice of *m*<sub>2</sub> as connected to the stativity and (a)telicity in the verb. More details about the distinction between *m*<sub>1</sub> and *m*<sub>2</sub> is addressed in chapter six.

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<sup>39</sup> It seems problematic that the pure negator *m*<sub>2</sub> is so restricted in its verbal choice. Lin (2004) proposes that *m*<sub>2</sub> together with the above verbs are lexicalized as one unit, whereas *m*<sub>1</sub> and other negatives remain in the grammatical category. Lin uses “syntactic” instead of “grammatical.” What she meant by ‘syntactic category’ is that the other negatives are free morphemes.

Table 3.3  
Words compatible with  $m_2$

|    |                     |                                                     |
|----|---------------------|-----------------------------------------------------|
| a. | <i>si</i> 是         | copula                                              |
| b. | <i>tsai-iann</i> 知影 | ‘to know something’                                 |
| c. | <i>kann</i> 敢       | ‘to dare to’                                        |
| d. | <i>tih</i> 搵        | ‘to want something’                                 |
| e. | <i>thang</i> 通      | ‘to be permissible’                                 |
| f. | <i>sa/sio</i> 相+V   | ‘to mutually V’                                     |
| g. | <i>siong sin</i> 相信 | ‘to believe’                                        |
| h. | <i>ho</i> 好         | ‘to be good’ (m6 ho3 ‘to be sick’)                  |
| i. | <i>kiann</i> 驚      | ‘to fear’                                           |
| j. | <i>tioh</i> 著       | ‘to be correct’                                     |
| k. | <i>bat</i> 捌        | ‘to know a person, a character, the way to a place’ |
| l. | <i>bat</i> 捌        | experiential aspect                                 |

**Prohibitives.** Li (2007: 147) suggests three common prohibitives used in different dialects of Southern Min: *tai*, *mai*, and *mmo*. The second and third are more commonly heard in Taiwan. Sentences (44) and (45) show prohibitives; the sentences are mine.

(44) li      **mmo** kong-ue.  
2sg    *MMO* speak  
‘Do not talk./Be quiet.’

(45) li      **mai** luan kong-ue.  
2sg    *MAI* mess speak  
‘Do not make things up.’



*Mmo* is argued to be the fusion of *m* ‘not’ and *hoo* ‘good’, and *mai*, of *m* and *ai* ‘love; like’ (Wu 2009). This *m* is *m*<sub>2</sub>. Prohibitive is related to deontic, which topic I address in another subsection.

**Two readings.** In contemporary TSM, one can hear two pronunciations in the same morpheme: *literal* vs. *colloquial* or *wendu* 文讀 vs. *baidu* 白讀. In principle, the former pronunciation is used in official settings. This phenomenon is commonly found in non-Mandarin dialects. For example, the character 不 is read as *put*. *Put* is considered to be the literal reading, as opposed to its colloquial counterpart *bo*. *Put* is a loan from historical stratification (Lien 2005). Below I provide three examples with the use of *put*. (46) is from a popular song, and (47) is mostly likely to appear in a formal speech read in TSM. The last example (48) is a poetic line read in TSM. The choice of *put* over *bo* is stylistic.

- (46) 不見中秋又逢冬<sup>40</sup>                      TSM  
**put**    kian    tiong-tshu    u    hong            tang  
 NEG   see    mid-Autumn   again   encounter    winter  
 ‘(I) did not see mid-Autumn (reunion) and now it is winter again.’
- (47) 不知不覺            TSM  
**put**    tih        **put**    kap  
 NEG   know   NEG   feel  
 ‘without noticing’
- (48) 春眠不覺曉    poem by Meng Haoran 孟浩然詩; 689-740 CE  
 tsun    bian    **put**    kat    hiau  
 spring sleep   NEG   feel    dawn  
 ‘I slept so well, without noticing spring dawn.’

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<sup>40</sup> A line taken from a Taiwanese popular song 雪中紅 *suat tiong ang*.

### 3.3.5 Negation and Modality.

Previous studies on Southern Min have either focused on negative or affirmative modals/modal expressions, thus separating negation from modality in their discussions.<sup>41</sup> This study incorporates these two topics. As stated, there are five basic negatives in Southern Min: *be*, *m*, *bian*, *bo* and *bue*, the first three of which are used as negative modals. The last two negatives are aspectual.

The negation of Southern Min modal verbs is rather complex. There are two ways of looking at Southern Min negation. For one, Southern Min modal verbs can be seen as negative auxiliaries. For instance, the volitional *m*<sub>2</sub> ‘not want’ plays a dual role as negation and modality. I call this a dual-function morpheme.

The other way is to consider the pure negative *m*<sub>1</sub> to be the invariant negative particle (like English *not*) from which the other negative forms are derived (Teng 1992; Tang 1994; among others). Below are examples:

- (49) *bo* ‘not.have’ = *m*<sub>2</sub> + affirmative *u* ‘have’  
(50) *be* ‘cannot; will.not’ = *m*<sub>2</sub> + affirmative *be* ‘can; will’  
(51) the volitional *m*<sub>1</sub> ‘not.want’ = *m*<sub>2</sub> + affirmative BEH ‘want’<sup>42</sup>

In other words, the other negative modals are phonetic fusion of *m* plus their affirmative counterparts (Lin 2004: 115-116). I name this the fusion

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<sup>41</sup> Scholars who have worked on Southern Min modal verbs or modality include, but are not limited to, Zhang (1999), Hsin (1999), and Lien (2008). I would also like to refer my reader to Yu (2007) for a comparison of modal verbs of Mandarin and Southern Min, and Cheng (2003) for a comparison of Mandarin, Southern Min and Hakka.

<sup>42</sup> *Beh* ‘want’ is the affirmative counterpart of the volitional *m*. Lin (2004: 115) argues that there is a phonetically unpronounced BEH. Therefore, the formula *m* = *m* + BEH is applicable to *m* as well.

hypothesis. This approach sees SM negatives as particles. This analysis sounds appealing; however, it is not perfect. How do we account for the two negatives that are left out, namely *bian* ‘not need’ and *bue* ‘not yet’, for their morphology or phonology does not look like *m* plus their affirmative counterparts? Despite the fact that *bian* and *bue* both share bilabial features with *m*, they do not use the same system, as in (52) and (53). I will show in chapters four through seven that different strategies are used in expressing negation.

(52) \**bian* ‘need.not’ =  $m_2$  + affirmative *tioh* ‘need’

(53) \**bue* ‘not.yet’ =  $m_2$  + affirmative ? ‘yet’<sup>43</sup>

To conclude, either the dual-function morphology or the fusion hypothesis points to the fact that these negative modals belong to functional categories.

### 3.4 Aspect and Modality

As stated previously, Southern Min negation is associated with aspect or modality. It is therefore necessary to address this issue in more detail.

Traditionally, *tense*, *aspect* and *modality* are treated together as one major system called TAM. Some scholars use TAME, with E standing for *evidential*; many however consider evidential to be the same as evidentials are often expressed by means of modals. The term tense-aspect-modality (TAM) is recorded in Givón (1984; 1990). It has been widely used to refer to the above three categories.

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<sup>43</sup> The ? morpheme may be zero marking or *a*, which is represented as 矣 and is believed to be inchoative.

Palmer (2003: 5) defines tense as “time of the event or situation referred to”, aspect as “the nature of the event or situation”, and modality as “the status of the proposition that describes the event or situation.” These three systems are highly related in that they are all associated with the verb in a sentence.

Tense is not addressed here, as Chinese is often considered a non-tensed language. Aspect is discussed in chapter seven. What follows is a discussion of modal expressions in typology, followed by the classification of modality.

### 3.4.1 The typology of modality.

De Haan (2006: 27-69) proposes eight different ways to mark modality, one of which is by modal auxiliary verbs such as in (54) and (55).

(54) John **may** go to school.

(55) John **must** go to school.

The second type is by mood. I skip the other means of marking modality as they are less relevant to my research. De Haan defines mood as the grammaticalized expression of modality. Although there is no consensus among linguists about the distinction of mood, the indicative-subjunctive distinction is commonly accepted. The Latin example below is cited in de Haan from Palmer (2001: 133). As seen in (56), the main verb in the matrix clause is marked for the indicative mood, whereas the verb in the subordinate clause is marked for the subjunctive mood.

(56) time-o                      ne      labore      auge-am.  
fear-1sg.**IND.PRES**    COMP work.ACC    increase-1sg.**SUBJ.PRES**  
'I am afraid that I shall increase my work.'

Languages use different devices to express modality. For instance, English makes use of grammatical auxiliaries as well as lexical items, such as adverbs, adjectives, and main verbs (Nuyts 2005: 15). Table 3.4 shows the relations between categories and modality types, which I summarize from Nuyts (2005: 15) and Portner (2007: 154).

Table 3.4  
Modality expressed by lexical items

|                              | dynamic                                | deontic                                      | epistemic                      |
|------------------------------|----------------------------------------|----------------------------------------------|--------------------------------|
| <b>adverb</b>                | <i>possibly;</i><br><i>necessarily</i> | <i>(had) better;</i><br><i>unfortunately</i> | <i>maybe; certainly</i>        |
| <b>predicative adjective</b> | <i>be able</i>                         | <i>be compulsory; be advisable</i>           | <i>be probable; be certain</i> |
| <b>main verb</b>             | <i>hope; deplore</i>                   | <i>require</i>                               | <i>think; believe</i>          |
| <b>noun</b>                  | <i>possibility</i>                     | <i>necessity</i>                             | <i>possibility</i>             |

Take English epistemic modality as an example. We shall see the following possible categories: modal verbs (*may, could*), adverbs (*maybe, surely*), adjectives (*probable, certain*), and full verbs (*think, believe*) (Nuyts 2006: 13). I show English auxiliaries in the next subsection.

### 3.4.2 Classifications of modality.

I discuss several proposals on modality classifications and explain what I adopt. The classification of modality is extremely complex. As described by Nuyts, “there is no unanimity regarding what the list of participating categories should look like” and also “no unanimity about each of the [categories] should be

characterized in detail” (Nuyts 2005: 7). Even the same author uses modality in various ways. For instance, Palmer (1974: 100-103) and Palmer (1990: 36) hold different views on the classification of modality, as shown in Table 3.5. In Table 3.5, epistemic, deontic and dynamic are the three major modal subsystems in Palmer’s (1990) system.<sup>44</sup>

Table 3.5  
Palmer’s classification of modality

| Palmer (1974)      | Palmer (1990) |                                        |
|--------------------|---------------|----------------------------------------|
| epistemic          | epistemic     | opinions of the speaker                |
| discourse-oriented | deontic       | attitudes of the speaker               |
| subject-oriented   | dynamic       | the ability or volition of the subject |

However, Palmer (2001) further distinguishes *event* modality from *propositional* modality. These two newly introduced categories correspond to the above three types of modality (epistemic, deontic and dynamic), plus evidential, in the following way.

(57) event modality = deontic + dynamic

(58) propositional modality = epistemic + evidential

In other words, deontic and dynamic modality is for events, whereas epistemic or evidential is related propositions.

This event versus proposition distinction has its advantages. Event modality is part of the VP with arguments and theta-roles involved, whereas propositional modality simply denotes modality outside of the VP. Below are

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<sup>44</sup> von Wright (1951: 1-2)

explanations and examples of each subtype (epistemic, deontic and dynamic) modality.

**Epistemic modality.** Epistemic indicates “the estimation [and] chances that the state of affairs applies to the world” (Nuyts 2006: 6). Below are two such examples. *Will* in (59) is a modal verb, whereas *maybe* in (60) is an adverb.

(59) *Someone is knocking at the door. That **will** be John.*

(60) *This manuscript is damned hard to read. **Maybe** some more light can help.*

Palmer’s (2001: 8) working definition for epistemic modality is “speakers express their judgment about the factual status of the proposition.”

(61) *Kate **may** be home now.*

(62) *Kate **must** be home now.*

Both *may* and *must* in (61) and (62) are modal verbs. The former expresses possibility and the latter necessity. The speaker’s judgment of the proposition “that Kate is at home” is made clearer through the logical forms as in (61)’ and (62)’ (Palmer 2001: 7).

(61)’ *It is possible/possibly the case **that Kate is at home now.***

(62)’ *It is necessarily the case **that Kate is at home now.***

**Deontic modality.** Deontic modality denotes “the degree of moral desirability of the state of affairs expressed in the utterance, typically, on behalf of the speaker” (Nuyts 2006: 4-5). This subsystem thus covers what Kratzer (1978: 111) and Palmer (1986: 96-97) list as permission and obligation. Examples are shown in (63) through (65) (Nuyts 2006: 4-5); boldface and parentheses are mine.

- (63) We **should** be thankful for what he has done for us, so we **must** find a way to show our gratitude to him. (obligation)
- (64) You **may** come in now. (permission)
- (65) I **demand** that you come in immediately. (obligation)

As seen, the instances above make use of use modal verbs to express modality; yet, one could see the speech act verb ‘demand’ in (65) expresses modality. So, modality is a broader term than modal verbs.

The following two sets of examples from Palmer (2001) provide a contrast to sentences (61) and (62), which are epistemic.

- (66) Kate **may** come in now. (permission)
- (66)’ It is possible **for** Kate to come in now.
- (67) Kate **must** come in now. (obligation)
- (67)’ It is necessary **for** Kate to come in now.

According to Palmer, (66) and (67) expresses “the speaker’s attitude toward a potential future event, *that of Kate coming in*” (2001: 7). (66) is to show permission, while obligation is expressed through the modal *must*. As seen in (66)’ and (67)’, the complementizer is *for* instead of *that* as in (61) and (62).

This distinction in syntax is connected to the deonticity in the speaker over the event. The CP with *for* as its C is infinitive, which is tighter in relationship with the embedded event ‘Kate comes in’. The same is in the deontic verb ‘want’, which has an infinitival CP as a complement. Thus, the subject in the matrix clause can have influence over the event in the embedded clause. In comparison, the epistemic verb *think* has a looser relationship with its complement.



(68) *I wanted [for him to leave.]*

(69) \*I **think** for him to leave.

Two other terms are often used in the literature: *directive* and *commissive*. For Palmer, deontic modality covers both directives and commissives (2001: 70-71). These two concepts are overlapping. By definition, *directives* are expressions/words by which “we try to get others to do things” (Searle 1983: 166). Some uses “the morally good possible worlds” to refer to the deontic *must* (Potner 2007: 154). Directives includes both *Permissive* and *Obligative*.

Palmer (2001: 72-73) uses the term commissive from Searle: “where we commit ourselves to do things” (1983: 166).

(70) *John shall have the book tomorrow.*

(71) *You shall do as you are told.*

**Dynamic modality.** Dynamic modality is “an ascription of a capacity to the subject-participant of the clause” (Nuyts 2006: 3). Terminology varies greatly among scholars. For the same system, Goossens (1985) uses the term *facultative modality* and Hengeveld (1988) names it as *inherent modality*. See (72) as an example where adjective *able* is used to indicate dynamic modality.

(72) *Pete is perfectly **able** to solve this problem if he wants to.*

Palmer (2001: 10) classifies dynamic modality as the conditional factors being “internal” to the relevant individual, as opposed to being “external” for deontic modality. Thus, he also includes volitional into dynamic modality. His examples are (73) and (74). I will show later a different classification by van der Auwera and Plungian (1998).

- (73) *John can speak English. (abilitive)*  
(74) *John will do it for you. (volitive)*

A quick comparison of these three types of modality can be captured in (75) through (78) where the modal *can* covers all kinds (Palmer 2001: 10).

- (75) *He can't be in his office now. (epistemic)*  
(76) *He can go now. (deontic: I give permission)*  
(77) *He can run a mile in five minutes. (dynamic: he has the ability)*  
(78) *He can escape. (dynamic: the door's not locked)*

Note that some authors distinguished (77) from (78) using participant-internal versus -external (cf. van der Auwara and Plungian 1998).

I have discussed the three-way distinction of modality, mainly adapting Palmer (2001): epistemic, deontic and dynamic. Other terms, such as *root modality* and *volition/intention*, have also been used in the literature regarding modality. As pointed out by Nuyts (2006: 7), researchers such as Hofmann (1976) and Coates (1983) use root modality to cover both deontic and dynamic modality, as opposed to epistemic.

Palmer (1986) regards volition and intention as a subcategory of deontic, whereas in Palmer (2001) it is under the category of dynamic modality, as have seen in (77) above. Sentences (79) and (80) are from Nuyts (2006: 9).

- (79) *I want you to tell the truth. (volition)*  
(80) *I promise I will never lie to you again. (intention)*

I summarize the nine central English modals in Table 3.5. Examples are from Depraetere and Reed (2006) and Li (2003). The semi-modals such as *have to*, *ought to* or *need* are left out however.

Table 3.6

English modal verbs and their modality<sup>45 46</sup>

| modals        | examples                                                                                                                                                                                                                                  |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>can</i>    | (a) They say Bill <b>can</b> cook better than his wife. (ability; p48)<br>(b) <b>Can</b> they be serious? (uncertainty; p44)<br>(c) Even though this is my rock you <b>can</b> use it sometimes. (permission; p55)                        |
| <i>could</i>  | (d) <b>Could</b> you please make less noise? (ability; p49)<br>(e) There <b>could</b> be something wrong with the light switch. (uncertainty; p44)<br>(f) You <b>could</b> answer these letters for me. (permission; p56)                 |
| <i>may</i>    | (g) You <b>may</b> be right. (uncertainty; p43)<br>(h) You <b>may</b> borrow my bicycle if you wish. (permission; p53)                                                                                                                    |
| <i>might</i>  | (i) Of course, I <b>might</b> be wrong. (uncertainty; p43)<br>(j) You <b>might</b> try nagging the Abbey National again. (permission; p54)                                                                                                |
| <i>will</i>   | (k) John <b>will</b> be in his office now. (probability; p47)<br>(l) Why <b>won't</b> anyone believe them (volition) &&                                                                                                                   |
| <i>would</i>  | (m) I think it <b>would</b> be Turner as well. (probability; p47)<br>(n) <b>Would</b> you get the Fairground Attraction album (on CD) for me?&&                                                                                           |
| <i>shall</i>  | (o) We shall be away on holiday for a fortnight from Wednesday 29 August. (epistemic)&&<br>(p) You <b>shall</b> do exactly as I say. (permission; p61)                                                                                    |
| <i>should</i> | (q) The letter <b>should</b> be in the mail. (probability; p46)<br>(r) Did you know that smiling might make you feel better? Read our article on why you <b>should</b> smile to find out even more interesting facts! (root necessity) && |

<sup>45</sup> Page numbers from Li (2003) are shown after the category of each example sentence, indicating as “p48,” for example.

<sup>46</sup> Examples taken from Depraetere and Reed (2006: 276-277) are marked as &&.

|             |                                                                                                                                                                                                                                                                               |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | (s) The floor <b>should</b> be washed at least once a week. (obligation; p62)                                                                                                                                                                                                 |
| <i>must</i> | (t) <i>The Smiths <b>must</b> have a lot of money.</i> (epistemic probability; p45)<br>(u) <i>To be healthy, a plant <b>must</b> receive a good supply of both sunshine and moisture.</i> (need; p51)<br>(v) <i>You <b>must</b> be back by ten o'clock.</i> (obligation; p58) |

With regards to modal classifications, van der Auwera and Plungian (1998) hold a different view. Like most scholars, they differentiate *possibility* from *necessity*; they however leave out volition. Under each of the categories, they further distinguish participant-internal modality from participant-external modality.

By their definition, the former refers to “a kind of possibility or necessity **internal** to a participant engaged in the state of affairs” and the latter to “circumstances that are **external** to the participant ...engaged in the state of affairs and that make this state of affairs either possible or necessity” (van der Auwera and Plungian 1998: 80; boldface is mine). Examples below are from them.<sup>47</sup>

(81) *Boris **can** get by with sleeping five hours a night.* (possibility; internal)

(82) *Boris **needs** to sleep ten hours every night for him to function properly.* (necessity; internal)

(83) *To get to the station, you **can** take bus 66.* (possibility; external)

(84) *To get to the station, you **have to** take bus 66.* (necessity; external)

Below is a set of examples showing that the English modal verb *may* can be used in four different categories (van der Auwera and Plungian 1998: 90).

(85) *She deals with it as best she **may**.* [participant-internal]

(86) *To get to the station, you **may** take bus 66.* [participant-external]

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<sup>47</sup> (83) and (84) are participant-external modal verbs but non-deontic.

- (87) *John **may** leave now.* [deontic]  
 (88) *John **may** have arrived.* [epistemic]

I found their classification system easier to follow. I will adopt theirs when discussing Southern Min modals. Putting together their examples, Table 3.7, adapted from Li (2003: 64), provides a clearer view on the two-way distinction. The highlighted modals are used relatively more frequently in a particular category.

Table 3.7  
 English modal verbs and their classifications

|                                       | possibility            | necessity                                                            |
|---------------------------------------|------------------------|----------------------------------------------------------------------|
| epistemic                             | <i><b>may</b>; can</i> | <i><b>must</b>; should; will;</i>                                    |
| Participant-internal                  | <i><b>can</b></i>      | <i><b>need (to)</b>;</i>                                             |
| Participant-external<br>(non-deontic) | <i><b>can</b>; may</i> | <i><b>have to</b>; <b>must</b>,</i>                                  |
| Deontic                               | <i><b>may</b></i>      | <i><b>must</b>; <b>should</b>; <b>shall</b>;<br/><i>ought to</i></i> |

bold: prominent markers; non-bold: often used, but not prominent markers

### 3.4.3 Mood.

Finally, we turn to the last category—mood. There are various definitions for mood as well (Nuyts 2006: 8). Some researchers classify mood based on the utterance types, such as declarative, interrogative, imperative, and the like. Others prefer the *realis* vs. *irrealis* distinction or the indicative vs. subjunctive distinction. Still others such as de Haan (2006) consider mood to be a grammatical device to express modality. I side with him.

How does modality interact with mood? Modal verbs are used in declaratives, negation, and interrogatives, which are moods. In Southern Min, negation and modality can be fused into one morpheme, and the necessity modal verbs can be used as imperatives or prohibitives. Also in this language, modality is connected to questions by means of a affirmative-negative matching, which will become clearer in the chapters where modal negatives are discussed.

#### **3.4.4 Aspect.**

This subsection addresses different ways of expressing aspect, particularly perfectivity and anterior aspect. Related concepts such as completive and resultative are also introduced here. Chapter seven provides a more thorough discussion of Sinitic aspectual negation.

*Perfective* is defined as a temporally bounded event, as opposed to *imperfective* (Whaley 1997: 210). English makes use of simple past tense to indicate perfectivity of an event. In contrast to perfective, the progressive in English is used to “make reference to the internal temporal structure of an event” (Whaley 1997: 210).

(89) *I ate.* (perfective)

(90) *I am eating.* (imperfective)

*Anterior aspect* is also known as *perfect*. The terminology, perfect versus perfective, is rather confusing; therefore, anterior aspect is often used. Whaley refers anterior aspect to aspect “signal[ing] a past event that has enduring relevance to a set of reference time” (1997: 211). Below is an example.

(91) *I have already done the dishes, so now I don't have to.*

The lexical verb ‘to have’ expresses possession and existence, and it also serves as a grammatical means to mark aspect cross-linguistically. For anterior aspect, English uses ‘have’ together with a past participle, the latter marked as V<sub>pp</sub>. Tense is shown in the auxiliary ‘have’, as in (93).

(92) have + V<sub>pp</sub> (English anterior aspect)

(93) *By the time John **came**, I **had cleaned** the entire house.*

The verbal *have* is not the only source for anterior, Bybee et al. (1994: 105) propose three lexical sources for anterior aspect. I explain each and relate it to Chinese.<sup>48</sup>

(94) ‘be/have’ > resultative > anterior (> perfective/past tense)

(95) ‘finish’ > completive > anterior (> perfective/past tense)

Resultatives show “a state that exists as a result of a past action” (Bybee et al. 1994: 54), and are thus compatible with telic verbs.

The concept of resultative is diachronically based. Traugott (1972) provides evidence for the reanalysis of the OE *habb-* ‘have; take; get’ into a resultative. The categorial status of the V<sub>pp</sub> initially in OE is adjectival. Thus, the syntactic boundary should look like (96).

(96) have + [V<sub>pp</sub> + NP] Old English

Conceptually, if one has/possesses something or if something exists, that concept can easily become resultative. Anterior aspect comes about when the

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<sup>48</sup> A third type lexical source is ‘come’, but I’ll ignore it here as I don’t find it applicable to the Chinese language.

structure is reanalyzed from (96) to (97), where  $V_{pp}$  is no longer a modifier of the nominal phrase.

(97) [have- $V_{pp}$  + NP]

Resultative can be further grammaticalized into anterior. According to Bybee et al. (1994: 65), resultative focus on “the state resulting from the action” and anterior on “the action itself.” The two concepts can be captured from (98) and (99), respectively.

(98) *He pushed the door **open**.* (resultative)

(99) *He **has pushed** open the door.* (anterior)

Next, Bybee et al. define completive as “to do something thoroughly and to completion” and their examples are “to shoot someone dead” or “to eat up” (1994: 54). English makes use of lexical verbs like ‘finish’ as its source of *completive*. The *completive* aspect can be observed in (100), where a lexical verb ‘finish’ participates, together with the non-finiteness in the main verb ‘read’.

(100) *I **finished** reading...* (Whaley 1997: 213).

Bybee et al. also suggest that completive often has dynamic verbs as their sources and that typical lexical sources are ‘finish’ and ‘to be finished, ready, complete’. They point out the Cantonese auxiliary *yun* ‘finish’ signaling the completion of an action (Bybee et al. 1994: 60). The Mandarin equivalent to *yun* is *wan* 完, as in (101).

(101) fan     chi-**wan**     le.     MSC  
rice     eat-finish     LE  
‘I ate up/finished the rice.’



Verbs of direction are possible for completive too; see (102) where *qi-lai* provides telicity to the psych verb *xiang* ‘think’.<sup>49</sup>

- (102) wo    xiang-**qilai**            le.    MSC  
       1sg    think-up.come        LE  
       ‘I remembered (now).’

Completive can turn into anterior. Bybee et al. (1994: 64, 70) analyze ‘pass by’ and ‘finish’ as the sources to convey anterior in Chinese. I have addressed the grammaticalization of *liao* 了 from ‘to finish’ into the aspect marker *-le* in chapter two. I provide two examples below, one of Southern Min and the other of Mandarin.

- (103) gua    png    tsiah    **liao**    thiah    khi.            TSM  
       1sg    rice    eat    finish then    go  
       ‘I will take off after I have finished the meal.’

- (104) wo    fan    chi-**le**    zai    qu.            MSC  
       1sg    rice    eat-LE then    go  
       ‘I will take off after I have finished the meal.’

Li, Thompson and Thompson (1982) relate Mandarin sentence-final particle *le* to a perfective from anterior aspect. The authors believe that *liao* ‘finish’ first developed into anterior before its use of *current relevance of state* (often abbreviated as CRS) at the sentence-final position sentence.<sup>50</sup> I show two different *le*’s in (105) and (106).

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<sup>49</sup> The marker *le* here indicates a change of state. Its transcription varies from one scholar to another. I simply mark it as LE. *Qilai* 起來 can be read as inceptive ‘beginning to...’.

<sup>50</sup> There are other words in Middle Chinese that express ‘to complete, to finish’,

(105) wo gaosu **le** ta. (perfective)  
 3sg tell PFV 3sg  
 ‘I told him.’

(106) wo gaosu ta **le**. (anterior)  
 1sg tell 3sg CRS.  
 ‘I have told him.’

Another source of anterior from completives suggested by Bybee et al. (1994: 64) is ‘to pass by’ in Cantonese, however, with no examples provided. Its equivalent in Mandarin is the experiential marker *-guo* 過. Before *guo* came into existence, *ceng* 曾 ‘once’ was largely used (Shi and Li 2004).

(107) ta qu-**guo** Shanghai. (anterior)  
 3sg go-EXP Shanghai  
 ‘He has been to Shanghai.’

(108) ta **ceng** qu Shanghai. (anterior)  
 3sg once go Shanghai  
 ‘He has been to Shanghai.’

Likewise, Southern Min uses a preverbal marker *bat* 識, often with *-kue* ‘pass by’. *Guo* or *kai* in these examples show a reanalysis from V to ASP.

(109) ta **bat** khi-**kue** Siong-hai. TSM  
 1sg ever go-EXP Shanghai  
 ‘He has been to Shanghai.’

---

such as *yi* 已 (cf. Sun 1996: 86). The finial particle *le* in Mandarin has a different counterpart in Southern Min, for which *a* 矣 is used. The TSM counterpart sentence is given below.

gua kah i kong a.  
 1sg with 3sg tell CRS  
 ‘I have told him.’

The difference between resultative and completive is conceptualized below, based on Bybee et al. (1994).

(110) Sources of resultative and completive

Stative verbs: ‘be/have’ > resultative  
> anterior/perfect > perfective  
Dynamic verbs: ‘finish, pass by’ > completive

Completion can be expressed by means of lexical and grammatical words across languages. Chinese makes use of both resultative and completive, while English adopts the former method.

Mandarin has fairly abundant lexical sources for resultatives or completives, many of which are becoming more dependent on the main verb, on the way to become grammatical markers. For instance, in (111), *kai* is the resulting state of the action *tui* ‘to push’. *Kai* can be a verb too, as in (112).

(111) men tui **kai** le. MSC  
door push open LE  
‘The door was pushed open.’

(112) qu **kai** men! MSC  
go open door  
‘Go get the door.’

Verbs as such are called phase markers by Chinese scholars.<sup>51</sup> The markers are largely from unaccusative verbs. Carrying some lexical meanings, the phase markers such as *luo* ‘fall’ in (113) and *hao* in (114) are between full-fledged verbs and grammatical markers.

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<sup>51</sup> Phase markers indicate verbal inner aspect or lexical aspect, equivalent to Aktionsart. See Li and Thompson (1981: 65-66) and Sun (2006: 54).

- (113) shuye diao **luo** le man-di. MSC  
 leave drop fall LE entire-floor  
 ‘The leaves fell all over on the ground.’
- (114) wo zuoye xie **hao** le. MSC  
 1sg homework write good LE  
 ‘I am done with my homework.’

### 3.5 Conclusion

This chapter covers typological negation and the negation system of Southern Min. Modality and aspect are also discussed because Southern Min negatives are also modals or aspectual markers.

The following four chapters discuss Southern Min negation, in random order, beginning with the abilitive *e/be* pair in Chapter Four, the volitional *beh/m* pair in Chapter Five, the necessity pair *tioh/bian* in Chapter Six, and the two aspectual negatives (*bo* and *bue*) in Chapter Seven. Terminology introduced in this chapter will be revisited.

## Chapter 4

### THE ABILITIVE MODALS E AND BE

The primary focus of this chapter is the grammaticalization of *e* and *be* in Southern Min. I argue that the original verb *e/be* has become grammaticalized into a modal verb, being used to express dynamic ability, deontic possibility and epistemic probability. This phenomenon is also found in much evidence cross-linguistically, such as in English *can*. I account for this type of language change using the minimalist approach. Also addressed are Hakka and Mandarin data.

#### 4.1 Introduction

The negative morpheme *be* has been argued to be the fusion of the negative *m* ‘not’ and its positive counterpart *e* (Li 2007: 146; Lien 2008: 2). Different Chinese characters have been given to *be*. Whereas Lien uses 袂 as a representation for *be/boe*, Li uses *be/bue* 勿會, which character combines the negative 勿 with the modal 會 ‘can; will’.

This chapter is organized as follows: I discuss the synchronic status of *e/be* in section 4.2, followed by its diachrony in section 4.3. I account for the grammaticalization of *e/be* in section 4.4, using Minimalist Economy Principles. This chapter closes with a typological comparison.

Chapters four through six are organized in a similar fashion, given that three Southern Min modal pairs are discussed: abilitive *e/be* in this chapter, volitional *beh/m* in chapter five, and necessitive *tioh/bian* in chapter six. Modal paradigms are investigated in addition to corpus analyses in these chapters. The other two aspectual negatives: *u/bo* ‘have/not.have’ and *bue* ‘not.yet’ are placed

together in chapter seven, where Southern Min negation paradigms are reviewed to prepare the reader for chapter eight on the reanalysis of negatives as interrogatives.

In these chapters, I make use of the Southern Min story series (Hu 1992-2007) for contemporary Taiwanese Southern Min (TSM) data, most of which include Chinese characters. Wherever necessary, I add examples from my personal knowledge and also consult other speakers. My examples are presented without characters to distinguish from those from the corpus.

#### 4.2 Synchrony of *e/be*

Although previous research on the affirmative *e* has been fruitful (cf. Huang 2007), there is no corpus analysis of *be*. I examine the occurrence of *be*, *be-hiau*, *be-sai*, *be-tang*, and *be-ing*, and compare my findings with those of *e*.

Table 4.1 shows the categorial status of the negative *be* in modern TSM. The table reveals that *be* is typically not a verb. The abilitive *be-hiau* is both a verb and a modal. The permissive *be-sai*, *be-tang*, and *be-ing* are modals without lexical verb counterparts. All are used as negatives, but the category of interrogative only applies to *be*. I discuss each immediately following.

Table 4.1

Categorial status of *be*

|                                | <i>verb</i> | <i>TAM</i> | <i>NEG</i> | QM |
|--------------------------------|-------------|------------|------------|----|
| <i>be</i>                      | (√)         | √          | √          | √  |
| <i>be-hiau</i>                 | √           | √          | √          |    |
| <i>be-sai; be-tang; be-ing</i> |             | √          | √          |    |

#### 4.2.1 *e/be* as a verb.

Yang (2001) provides examples where *e* (the affirmative counterpart of *be*) serves as a verb, as shown in (1). Yang claims that this usage can be found in the Quan sub-dialect of Min.

- (1) 伊解英文。 (Yang 2001: 286)  
i e ing-bun.  
3sg can English  
'He understands English'.

However, neither *e* or *be* is treated as a full-fledged verb in the TSM corpus I used. Thus, (2) is considered ungrammatical.

- (2) \*i e/be ing-bun.  
3sg can/cannot English  
Int.: 'He (does not) understand(s) English'.

Li (2007) also does not list *be* as a lexical verb. Additionally, Lien (2008) found no single verbal instance of *be* from a large-scale TSM corpus.<sup>52</sup> My analysis on *be* is also consistent with theirs.

This change in *e* from a lexical verb to a modal follows the pattern of English *can*. The results are not exactly the same, however. For instance, a doubling can be observed to be accompanied with *e*, such as *e-hiau*. This doubling *hiau* 曉, meaning 'to know; to understand', is a near synonym of *e*.

The new disyllabic *e-hiau* yields the meaning, 'to comprehend', and is used as a verb in (3) and (4).

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<sup>52</sup> Li's research is based on his fieldwork on Southern Min in Fujian, China, whereas Lien analyzes modern TSM corpora.

- (3) i        **e-hiau/ be-hiau**                ing-bun.  
       3sg    *can-know/ can't-know*        *English*  
       ‘He (does not) understand(s) English’.
- (4) 這我袂曉，你去叫別人。  
       tsit    gua    **be-hiau**,  
       this    1sg    not.know  
               li    khi    kio    pat    lang.  
               2sg    go    ask    other person  
       ‘As for this, I know nothing about it; go and ask someone else.’

*Be-hiau* in (5) is an adjectival stative verb.

- (5) 較憨較袂曉。  
       khah    gong    khah    **be-hiau**.  
       more    stupid    more    incapable  
       ‘(someone) is less smart and less capable.’

#### 4.2.2 *e/be* as a modal.

As shown below, *e* receives three modal interpretations: dynamic, deontic and epistemic.<sup>53</sup>

Table 4.2  
*e* and TAM

| Usage                       | category                      | notes                                                                                                   |
|-----------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------|
| <i>e(-hiau)</i>             | dynamic modal<br>(abilitive)  | The form <i>e-hiau</i> is less ambiguous and thus preferred over the monosyllabic <i>e</i> .            |
| <i>e-sai; e-tang; e-ing</i> | deontic modal<br>(permissive) | The double modal combination of <i>e-sai/e-tang/e-ing</i> does not have a lexical counterpart in verbs. |
| <i>e</i>                    | epistemic modal               | When used in a declarative sentence, <i>e</i> can be ambiguous between dynamic or epistemic use.        |

<sup>53</sup> Lien (2008) classifies the three types of modality of *be*, which correspond well to those of Tsao (1993) on *e*: dynamic, deontic and epistemic, respectively. I follow these scholars’ classification.



1. *e/be as dynamic ability*. The first category is the dynamic *e/be*. Both *e* and *e-hiau* are dynamic modals. When used alone, *e* can be a dynamic/abilitive modal.

- (6) i e kiann a.  
 3sg able walk PAR  
 ‘He can walk (now).’

In addition to its lexical verbal usage in (3), *e-hiau* can be used as a modal, as in (7). The instances in (6) and (7) could be used in cases where one re-gains his capability. For instance, this person may have temporarily lost the capability of walking due to an accident, but it could also be a newly learned ability of ‘walking’.

- (7) i e-hiau kiann a.  
 3sg able walk PAR  
 ‘He can walk (now).’

The two modals, *e* and *e-hiau*, are not always interchangeable. For instance, (8) and (9) have distinct meanings: *e* is epistemic, but *e-hiau* is abilitive.<sup>54</sup>

- (8) i e khui tshia lai. (epistemic)  
 3sg FUR drive car come  
 ‘He will drive (to get here).’
- (9) i e-hiau khui tshia. (dynamic)  
 3sg able drive car  
 ‘He knows how to drive a car.’

In brief, *e* is ambiguous as shown above, between prediction and abilitive, whereas *e-hiau* only denotes the abilitive reading. This shows grammaticalization,

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<sup>54</sup> I will discuss later in this chapter that the shared morpheme *e* does not mean the same as English epistemic *can*.

as a reanalyzed word *e-hiau* has clearer semantic features than its origin *e* whose semantics has bleached.

Both pre-verbal and pre-resultative positions are possible for *be-hiau*.

(10) 含老師這都袂曉解說啦

ham lau-su tsit long **be-hiau** kai-sue la  
 even teacherthis FOC not.able explain PAR  
 ‘This, even the teacher is not able to explain it.’

(11) 學麼學袂曉

oh ma oh **be-hiau.**  
 learn and learn not.able  
 ‘(Someone) is unable to learn.’

Like *e*, the negative *be* also can be epistemic or abilitive. Below are examples of the negative *be*.

(12) 毋過愛緊煞袂緊

m-ko ai kin suah **be** kin  
 but need fast then not.able fast  
 ‘But (they) have to move fast but they were unable to.’

(13) 煞袂記得來煮這個中晝飯啦

sua **be** ki-tit lai tsu  
 then not.able remember come cook  
 tsit e tiong-tau-png la  
 this CL middle-day-meal PAR  
 ‘(They) then forgot to make lunch.’ (unable to remember)

Examples (14) and (15) are instances where *be* negates the resultative of the main verb.<sup>55</sup> Interestingly, *be* in this position is almost always abilitive.<sup>56</sup> Unlike the preverbal *e/be*, there is less ambiguity (16).

(14) 想袂出這個答案

siunn **be**                    tshut   tsit   e   tap-an  
 think not.able            out   this   CL   answer  
 ‘(someone) cannot think of this answer.’

(15) 連三頓飯亦食袂飽

lian   sann   tng   png   ia   tsiah   **be**            pa  
 FOC   three   meal   rice   also   eat   not.able   full  
 ‘(The cat) can’t even have enough food to eat.’

(16) \*siunn **be**                    tshut   tsit   e   tap-an  
 think not.able            out   this   CL   answer  
 Int. ‘(someone) will not think of this answer.’

**2. *e/be* as deontic necessity.** The second category of *e/be* is deontic. The monosyllabic *e/be* cannot indicate permission; it needs another morpheme. There are three reanalyzed deontic variations: *e-sai*, *e-tang*, or *e-ing*, as in (17).

(17) li            **e-sai/e-tang/e-ing**            tsiah   a.  
 3sg   can                                    eat   PAR  
 ‘You can/may eat now.’ (permission)

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<sup>55</sup> This construction is sometimes called post-verbal negation although the term is rather confusing.

<sup>56</sup> *Be* in (14) and (15) can be read as pure negation too.

The three renewals all indicate permission as their original meanings. For instance, *sai* 使 meant ‘to demand; to cause’, *thang* 通 meant ‘to pass through’, and *ing* 用 meant ‘to designate; to use’.<sup>57</sup> These are now bound morphemes.

Despite the fact that the three modals in (17) can all be used as deontic, speakers of TSM prefer one over another. Huang’s (2007) corpus analysis points to an interesting fact that *e-tang* (about 500 tokens) figures more prominently than the other two, namely *e-sai* and *e-ing* (approximately 200 tokens for each).<sup>58</sup>

My corpus analysis of *be* shows both similarities and differences, compared to Huang’s; see (18) and (19) as examples. However, the preference finding is different from Huang’s: *be-sai* outnumbers the other two negative modals.

(18) 我無生你就卜共我娶細姨哦？彼袂當！

|     |     |       |                 |    |     |       |           |  |     |
|-----|-----|-------|-----------------|----|-----|-------|-----------|--|-----|
| gua | bo  | senn  |                 |    |     |       |           |  |     |
| 1sg | NEG | birth |                 |    |     |       |           |  |     |
|     | li  | tioh  | beh             | ka | gua | tshua | se-i      |  | oh? |
|     | 2sg | then  | want            | KA | 1sg | marry | concubine |  | PAR |
|     |     | he    | <b>be-tang!</b> |    |     |       |           |  |     |
|     |     | that  | can.not         |    |     |       |           |  |     |

‘Because I can’t give birth, you then want to get concubines. That is not allowed!’

(19) 袂用得心急啦

|                   |       |         |  |     |
|-------------------|-------|---------|--|-----|
| <b>be-ing-tit</b> | sim   | kip     |  | la  |
| can.not           | heart | anxious |  | PAR |

‘(One) cannot be impatient.’

<sup>57</sup> Lien (1997) analyzes *e-tang* as a fusion from *e-thang-tit* 會通得, literally ‘can-obtain-pass through’.

<sup>58</sup> Huang seems to treat these three interchangeable. Zhang (1999), however, claims that *e-sai* and *e-tang* are semantically different. Zhang (1999: 81-82) refers to Teng (1980), addressing a subtle difference: *e-sai* is associated with permission by law and *e-tang* by capacity.

Interestingly, 袂當 *e-tang* not only expresses deontic modality but is also used as a dynamic modal; see (20). This usage is however absent in the other two counterparts, namely 袂用 *be-ing* and 袂使 *be-sai*.

(20) 鹿仔走袂當過去 (dynamic)

lok-a kiann **be-tang** kue-khi  
 deer walk cannot cross-come

‘The deer is unable to walk across (to somewhere).’

**3. *e/be* as epistemic probability.** The third use of *e/be* is epistemic.

(21) i bin-a2-tsai e lai Tai-pak.

3sg tomorrow FUR come Taipei

‘He will come to Taipei tomorrow.’

(22) 應該啊袂攔來漏氣呀才著

ing-kai a **be** koh lai lau-khui tsiah-tioh  
 should PAR NOT.FUR again come lose then-right

‘It should be that (someone) will not lose face again.’

Interestingly, *lai* ‘to come’ as in (22) is often accompanied with *be* to express futurity. *Khi* ‘to go’ is used in third person situations; see (23). Typically, when *be* is used together with the deictic *lai* ‘come’, *be* is only interpreted as epistemic.

(23) i be **khi** kah lang kong.

3sg not.FUR go with person speak

‘He will not tell anyone.’

Note that the gloss of *e/be* is will(not), but not ‘can(not)’. *E* expresses futurity ‘will’ instead of deduction ‘may/can’. I come back to this in section 4.5.

### 4.2.3 The ambiguous *e/be*.

*E* alone in modern TSM is never associated with deontic meanings (Lien 2008; Huang 2007). However, as previously stated, *e* can be read either ability or futurity. For example, (24) has two interpretations.

- (24) i        e        kiann-loo    lai.  
      3sg    E        walk-road    come  
      a. ‘He can walk here (now).’        (ability)  
      b. ‘He will come here on foot.’        (futuraity)

Based on my fieldwork, the abilitive reading (24a) is less preferred. The epistemic future reading wins out over the dynamic abilitive one. This coincides with Huang’s (2007) analysis of *e*. He found a pattern, given in (25), for the occurrence and frequency of the modal *e* in modern TSM (2007: 96). The data show that the epistemic use of *e* accounts for 80 percent in his modern TSM corpus. The overlapping or layering in use is not unusual in the process of grammaticalization.

(25) epistemic (80.24%) ; dynamic ability (8.38%); generic (10.78%)<sup>59</sup>

### 4.2.4 *be* as an interrogative.

As noted, negatives are often used as interrogatives in the Chinese language. Despite the fact that TSM *e* can be used alone or with *-hiau* or *-sai* in a declarative sentence to indicate different modality types, as shown in (26) through (28), the typical corresponding interrogative is *be* without an additional morpheme.

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<sup>59</sup> I do not discuss the generic category here. Southern Min uses *e/be* in sentences such as ‘Birds can fly’/‘Birds fly.’

- (26) i      **e-(hiau)**      kiann (a)      **be?**      (dynamic: ability)  
       3sg    able                walk    PAR    Q  
       ‘Can he walk (now)?’
- (27) gua    **e-sai**    tsiah    png    **be?**      (deontic: permission)  
       1sg    allow eat    rice    Q  
       ‘Can/May I eat my meal?’
- (28) i      **e**      khi    **be?**      (epistemic: futurity)  
       3sg    FUR    go    Q  
       ‘Will he go?’

This, however, does not reveal the whole story of *be* as an interrogative. The topic of *be* being used in questions is discussed in chapter seven together with other negatives.

To conclude, *e/be* is no longer a full-fledged verb in modern TSM. Despite the fact that *e-hiau* can be a lexical verb, it is losing its verbhood and primarily read as a dynamic modal. There are three deontic modals: *e-tang*, *e-sai*, and *e-ing*, each preferred by different TSM speakers. The monosyllabic *e* is primarily epistemic, but at times abilitive. Table 4.3 provides my conclusions.

Table 4.3  
Modality in *be*

|                                | verb | Mod         |         | Q                |
|--------------------------------|------|-------------|---------|------------------|
|                                |      | ability     | deontic | epistemic        |
| <i>be</i>                      |      | √           |         | √ (primary)    √ |
| <i>be-hiau</i>                 | √    | √ (primary) |         |                  |
| <i>be-tang; be-sai; be-ing</i> |      |             | √       |                  |

#### 4.2.5 Other categories of *e/be*.

I would also like to discuss two new issues discovered in my corpus analysis. *Be* can also be used in suggestions, as in (29) and (30), but such usage is not found in the affirmation *e*.

(29) 你袂曉尋您阿姐仔?

li     **be-hiau**     tshue     lin     a-tsi-a  
2sg   be-hiau     look.for     your     sister

‘Why don’t you look for your older sister?’

(30) 煞袂曉掌頭仔愛 tok4 起來

sua     **be-hiau**     tsing-thau-a     ai     tok     khi-lai  
then   be-hiau     finger     must   chop   -up-come

‘Why don’t you chop off your fingers?’

This type of question, in spite of its expectation of an assertive answer, reveals a connection between negatives and interrogatives; the reanalysis from negatives to interrogatives is evident in synchronic data.

The other issue is when *be* shows volition; (31) and (32).

(31) 我一定袂來反對

gua     it-ting     **be**     lai     huan-tui  
1sg     definitely     not.FUR     come     oppose

‘I will not have an opposing opinion.’/

I am willing not to go against your ideas.’

(32) 你袂曉想講從做囡仔

li     **be-hiau**     siunn     kong     tiong     tsue     gin-a.  
2sg   not.able-able     think     say     again     do     child

‘You will not want to be a child again.’



As a matter of fact, there is an extra modality marking in the above two sentences: the adverb *it-ting* ‘definitely’ and the modal *siunn*, both of which express volition, a point I return in chapter six on *beh* ‘want’ or ‘will’.

The above instance is connected to the fact that TSM *e* can mean *will*. The English possibility paradigm has *can* in all the sub-categories (epistemic, abilitive and deontic). Southern Min abilitive *e(-hiau)* and deontic *e-sai* are within the possibility paradigm defined by van der Auwera and Plungian (1998); however, the epistemic *e/be* is not placed in this paradigm. *E* means ‘will’, which indicates prediction and volition under certain contexts. I address volition in chapter five.

### 4.3 Diachrony of *e/be*

There have been several studies on *e* from historical perspectives. Mei (1999) and Yang (2001), among others, trace the origin of the SM word *e* as 解.<sup>60, 61</sup>

Yang (2001) gives an historical account for 解. According to her, the original meaning for 解 is ‘to cut off bull horns with two hands’, and it is a pictophonetic character in Chinese (Yang 2001: 265). She then demonstrates eight semantic uses of *e*, with five relevant to the modern meanings of *e*.<sup>62</sup>

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<sup>60</sup> Note that some scholars may use the Chinese character 會 to replace 解, as the word 會 *hui* in Middle Chinese functions very much the same as *e* in Southern Min. Yang (2001) claims that 解 was colloquial, and 會 was used in formal documents.

<sup>61</sup> Not every word in SM can be traced to its origin. Scholars working on this topic include, but are not limited to, Mei 梅祖麟 (1999) and Yang 楊秀芳 (2001).

<sup>62</sup> The example sentences are taken from her paper, while the transcriptions and translations are mine.

### 4.3.1 The history of *e*.

1. *e* = ‘to take something apart’. The character first appeared in oracle bone scripts, meaning ‘to dissect’. The first example with 解, however, appeared in *Zhuangzi* 莊子 (368-286 BCE) as ‘to use a physical instrument to take something apart’.<sup>63</sup>

- (33) 庖丁爲文惠君解牛。 (Yang 2001: 266, (2))  
Pao.Ding wei Wenhui jun **jie** niu  
(name) PREP (name) lord dissect ox  
‘Cook Pao Ding was cutting up an ox for Lord Wen Hui.’

2. *e* = ‘to explain in words’. Yang (2001) claims that this second meaning is very likely derived from the original usage, but with the object of dissection changing from concrete objects to abstract ‘words’. Example (34) appears in *Xun Zi*’s 荀子 (313-238 BCE) works.

- (34) 閉約而無解。 (Yang 2001: 280, (50))  
bi yue er wu **jie**  
close agreement and not explain  
‘They have come close to an agreement, but there is no resolution.’

3. *e* = ‘to understand; to know’. Yang believes that this meaning came from the item noted above, i.e. ‘to explain in words’ becomes ‘to understand’, as in (35), which is found in *Zhuzi Yulei* dating back to the 12<sup>th</sup> and 13<sup>th</sup> centuries.

- (35) 有所不解，因而紀錄。 (Yang 2001: 284)  
you suo bu **jie**, yiner jilu.

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<sup>63</sup> Following conventions, I use modern Mandarin pronunciation for all transcriptions of examples in historical texts.

exist PRON not understand therefore record  
'If there is something which is not resolved, then it should be noted.'

4. *e* = 'capable'. Yang explains that this meaning of 解 involves 'capability' for "doing," as opposed to the previous one which means ability for "things to be understood". This instance is also from *Zhuzi*.

(36) 有人...不解讀書。 (Yang 2001: 285, (71))  
you ren... bu jie dushu.  
exist person not capable read  
'There are some who... do not know how to read.'

5. *e* = modal 'can'. The last developed usage of 解 is its modality. Yang distinguishes this modal use into three sub-uses: abilitive, deontic and epistemic. Sentences (37)-(39) provide examples of each.<sup>64</sup>

(37) 菊解制頽齡。 dynamic (Yang 2001: 286, (74))  
ju jie zhi tue ling.  
chrysanthemum can ameliorate decline age  
'Chrysanthemums can ameliorate the decline due to my age.'

(38) 誰使女解緣青冥。 deontic (Yang 2001: 287, (79))  
shei shi ru jie yuen qing ming  
who cause 2sg permit fate blue vastness  
'Who causes you to untangle the skein of your fate and enter the blue vastness?'

(39) 無人解愛蕭條境。 epistemic (Yang 2001: 287, (81))  
wu ren jie ai xiao.tiao jing

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<sup>64</sup> Examples (37)-(39) are poetic lines from *Tao Yuanming* 陶淵明 (365-427 CE), *Han Yu* 韓愈 (768-824 CE), and *Bai Juyi* 白居易 (772-846 CE). I am transliterating these sentences using MSC Pinyin out of convenience only.

no person FUR love desolate environment  
'No one will love in a desolate environment.'

To summarize, Yang (2001) claims that, by the Southern Song Dynasty (1127-1279 CE), the above five uses of *e* co-existed and the modal use of *e* had stabilized. She postulates a grammaticalization path for 解 *e* as follows (Yang 2001: 285):

(40) 解 *e*: 'to explain in words' > 'to understand' > 'capable' > modal 'can'

In modern TSM, the monosyllabic *e* is unable to receive the above meanings. We observe *e* with a renewal (*-hiau* or *-sai*) in today's TSM speakers. I discuss the latter two usages in the following two sections. I review related findings in Huang (2007) and provide my interpretation of them in terms of grammaticalization.

#### 4.3.2 The emergence of *e-hiau*.

First, *hiau* 曉 'to understand' provides a key to interpreting the grammaticalization of *e*. The use of disyllabic *e-hiau* in modern TSM is not accidental. Both *e* and *hiau* are near synonyms, meaning 'comprehend; know'. Huang (2007) observes a coexistence of the lexical verb *e* and other combinations such as *e-hiau* 解曉 and the reversed *hiau-e* 曉解 in *Zhuzi*. Huang notes that another form 曉得 *hiau-tit*, literally 'understand-obtain', is also documented in the same text. I associate the significance of his findings with regard to grammaticalization below. The frequency of each entry in *Zhuzi yulei* is illustrated in Table 4.4, adapted from Huang (2007: 124-126).

Table 4.4  
Frequency of *e*-related words in *Zhuji Yulei*

|                    | Number of tokens |
|--------------------|------------------|
| 解 <i>e</i>         | 14               |
| 解曉 <i>e-hiau</i>   | 2                |
| 曉解 <i>hiau-e</i>   | 6                |
| 曉 <i>hiau</i>      | over 1000        |
| 曉得 <i>hiau tit</i> | 200              |

The data presented in Table 4.4 indicate that *e* in *Zhuji Yulei* shows a different paradigm than that of modern TSM.

First, *e* rarely occurred as a verb at that time. It is consistent with Yang's (2001) findings: *e* was well established as a modal between the 12<sup>th</sup> and 13<sup>th</sup> centuries. There must have been change in *e* regarding its verbhood. Second, *hiau* alone was the most dominant verb that expressed 'to know' or 'ability'; modern TSM *-hiau* is however a bound morpheme.

Based on Table 4.4, *hiau*, a near synonym of *e*, might have been competing with *e* and taking the role of the original lexical verb *e*. In Table 4.4, we also see three combinations: *e-hiau*, *hiau-e*, and *hiau-tit*, with the last one surpassing the other two competing forms in frequency. The disyllabic verb 曉得 does not exist in modern TSM, but *e-hiau* has continued its use to this date.<sup>65</sup>

A skeptical reader may argue that the disyllabic words may have sounded the same but been recorded in different characters. I do not deny this possibility as

<sup>65</sup> Yet, 曉得 *xiao de* is used in modern Mandarin with a different meaning: 'to know (how to)'. What is more interesting is that Hakka uses *hiau-tet* as a dynamic (modal) verb expression modality (see the comparison section of this chapter).

Chinese characters are not phonetic-based. Nonetheless, the fact that morpheme doubling did appear suggests a feature loss in one of the morphemes, resulting in grammaticalization. Note that *tit* 得 ‘to obtain’ is also a synonym of *e* and *hiau*. There are at least three morphemes (*e*, *hiau*, and *tit*) at play in this text.

The words in Table 4.4 from *Zhuzi* behaved as full verbs or modals before the emergence of a new paradigm, where some of them became extinct and others were reanalyzed. However, scholars hold different views on this. For instance, Yang (2001) claims that *e* and *hiau* in the combination *e-hiau* in this text were both verbs, whereas Huang (2007) considers *e-hiau* to be a modal at that time.

Either way, there must have been a transition stage before *e* underwent the loss of semantic features and *hiau* came to assist as a renewal. We see *e-hiau* being used as both a lexical verb and a modal today.

A corpus analysis of modern TSM reveals distributional characteristics of *e-hiau*. A striking fact is that *e-hiau* shows rare lexical usage, accounting for only about 1% of in Huang’s (2007) data (498 tokens). Suffice it to say that *e-hiau* is losing its verbhood and is signaling a change toward modal auxiliary behavior.

Recall that when *e* was still possibly a verb, its status as a modal was also established in the 12<sup>th</sup> and 13<sup>th</sup> centuries. In contemporary TSM, *e* no longer acts as a lexical verb, however. These above facts provide evidence for two grammaticalization paths of *e*.

(41) V ‘know; comprehend’: *e* > *e-hiau*

(42) V: *e* > V: *e-hiau* > Mod: *e-hiau* ‘capable’

### 4.3.3 The emergence of *e-sai*.

I discuss *e-sai* in place of all three: *e-sai*, *e-tang*, and *e-ing*. The development of the three disyllabic deontic modals is relatively new.

Huang (2007) found only one instance of *e sai* and two of *e ing* in *Zhuzi yulei*. He claims that *e* was used with another verb *sai* 使 or *ing* 用 to mean ‘able to use’, which meaning is different from the modern meaning. He may mean that the lexical sense was still strong in *sai* and *ing*. That is, these originally lexical morphemes become attached to *e* when *e* lost its semantic features.

Huang (2007: 144) concludes that these multi-syllabic deontic models did not come into use until the 20<sup>th</sup> century and a development path looks like (43).

(43) *e-hiau* (abilitive) >> *e-sai* (permissive) >> *e-tang*; *e-ing* (permissive)<sup>66</sup>

### 4.3.4 Closing remarks.

To sum up, the abilitive *e-hiau* and the deontic *e-sai* come from the same origin *e*, and so does the epistemic *e*. The major difference is that the epistemic *e* does not change its form, while the dynamic or deontic usage has a renewal, making it disyllabic: *e-hiau* or *e-sai*. The diachronic development of *e* suggests a feature loss in *e* accompanied by several renewals.

## 4.4 Grammaticalization of *e* and *be*

This section discusses the reanalysis of the multi-syllabic words, such as the dynamic abilitive *e-hiau* and the deontic permissive *e-sai*. Following

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<sup>66</sup> >> indicates time order instead of A deriving from B.

Minimalist Economy Principles and the cartographic approach described in chapter two, I provide theoretical accounts for the diachronic development of *e*.

#### 4.4.1 *E* in Different Contexts.

As discussed, *e* has undergone a series of reanalyses. Recall that there are three types of modality of *e*: epistemic futurity, dynamic ability, and deontic permission. In TSM, *e* is typically epistemic, *e-hiau* is abilitive, and *e-tang*, *e-sai*, and *e-ing* are deontic modals. I review different uses of *e* in brief.

Table 4.5  
TSM *e* in different contexts

|                               | possibility                                                  |                                        |
|-------------------------------|--------------------------------------------------------------|----------------------------------------|
| epistemic                     |                                                              | <i>e</i> 解 ‘will’ (future; prediction) |
| participant-internal          | <i>e-hiau</i> 解曉 (ability)                                   | <i>e</i> ‘will’ (volition)             |
| Participant-external; deontic | <i>e-sai</i> 解使; <i>e-ing</i> 解用; <i>e-tang</i> (permission) |                                        |

(44) i kinn-ni e pit-iap. (epistemic; prediction)  
3sg this.year FUR graduate  
‘She will graduate this year.’

(45) i e-hiau kong ing-bun. (dynamic; ability)  
3sg know speak English  
‘She can speak English.’

(46) lausi kong i kinn-ni e-sai pit-iap. (deontic; permission)  
teacher say 3sg this.year can graduate  
‘The teacher says that she can/may graduate this year.’



I do not gloss *e* in (44) as ‘can’ or ‘may’. To express *can* (or *may*) in the epistemic sense, the adverbial expression *ko-ling* 可能 is used. *Ko-ling* is the literate pronunciation of TSM, which is the same as *keneng* ‘maybe; possibly’ in MSC.

- (47) i      **ko-ling**      e      pit-iap. (epistemic; probability)  
 3sg    maybe            FUR   graduate  
 ‘She may graduate this year.’

#### 4.4.2 V-*tit* as a cycle.

First, I would like to address a morphological issue, where *tit* 得<sup>67</sup> is often found attached to *e/be*. Scholars have pointed out that the deontic *e* is optionally followed by *tit* 得, whose original meaning is ‘to obtain’.

- (48) i      e-sai            (**tit**)    khi    Tai-pak. Yang (2001: 289)  
 3sg    can-can            TIT    go    Taipei  
 ‘He can go to Taipei.’

- (49) 我麼袂用得出來赫久 TSM (Lien 2008: 11)  
 gua    ma    be-ing            **tit**    tshut-lai        hia    ku  
 1sg    PAR   not-allow        TIT    out-come       so    long  
 ‘I can’t be out for so long. (I need to go now).’

The use of *tit* is worthy of attention. As noted in chapter three, 得 (*de* as Mandarin pronunciation) as modality has been attested in Classical Chinese appearing in verb series.<sup>68</sup> For instance, Sun (1996) suggests a grammaticalization path as (50) for *de*.

<sup>67</sup> The use of 得 may be manifest in one Sinitic variation but not in another; see further discussion in the comparative studies section.

<sup>68</sup> Some scholars use the term *serial verb construction* (SVC).

(50) 得 *de*: ‘obtain’ > ‘attain’ > ‘possible’ (Sun 1996: 143)

Wu (2006: 57) traces the lexical use of *de* back to the pre-Qin era (two centuries BCE), but claims that its aspectual usage did not evolve until the Tang dynasty (618-907 CE).

(51)  $V + de > V-de$ , where  $-de$  is to mark aspect<sup>69</sup>

Wu (2006) and Yang (2001) propose that the grammaticalization of *tit* may have taken place earlier than that of *e*. Before the Song dynasty, pre-verbal modals such as *neng* 能, *ke(yi)* 可(以), and *de* 得 co-existed with  $V + (bu) de$ , as in (52). This means that the post-V *de* has lost its semantic features.

(52) *neng/ke(yi)/de + V + (bu) de* (Wu 2006: 54-55)

A close look-up shows a similar pattern in TSM *e/be V-tit*; see (53).

(53) *e/be + V + (-tit)* .

A relevant discussion here is the occurrence of *tit* with *e/be*. Lien (2010) argues that *tit* 得 (i.e.  $V-tit$ ) is a case of post-verbal modality. He concludes that when a loss of modality in *tit* takes place, the pre-verbal *e/be* is attached to  $V-tit$ . Below I show a grammaticalization path, based on his findings.

(54)  $V + tit > V-tit > e/be + V-tit > e/be + V-\emptyset$

This development of *tit* in (54) apparently follows the general grammaticalization chain, from a full-fledged verb, a clitic, and to zero. I see (54) as a *cycle*.

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<sup>69</sup> The term phase marker is also used to mean lexical aspect, aka Aktionsart.

Unlike Wu (2006), Lien (2010) regards *tit* 得 as denoting modality in this position.<sup>70</sup> Historically, both the first verb and *tit* initially are both lexical verbs (V + *tit*). At the second stage, the semantics of *tit* gets weakened, becoming a modal. I represent it in (54) as V-*tit*.

The third stage in (54) is when -*tit* is losing its modality, the modal *e/be* began to appear before V-*tit*, resulting in *e-V-tit*. I call *e/be* renewals. The post-modal *tit* can then be eliminated. Therefore, the verbal string becomes *e/be* + V. The above phenomenon is typically seen as a linguistic cycle.

Modifying Lien's conclusion, I analyze *tit* as telic and *e/be* as the renewal in the modal string *e/be-hiau-tit*.

#### 4.4.3 Reanalysis of *e-hiau*.

I show that *e* was a lexical verb and *e-hiau* is a reanalysis of two verbs: *e* and *hiau*. As evident in the historical data, *e* originates as a lexical verb, featuring 'to know; to comprehend' (55).<sup>71</sup>

(55) 薰也解，酒也解。 SM (Yang 2001: 286)

|           |      |      |         |      |      |
|-----------|------|------|---------|------|------|
| hun       | ia   | e,   | tsiu    | ia   | e.   |
| cigarette | also | able | alcohol | also | able |

'(He) not only smokes but drinks.'

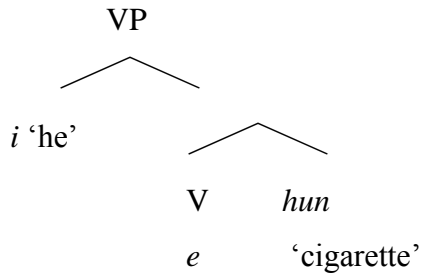
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<sup>70</sup> I side with Lien although I also believe that *de* can be aspectual.

<sup>71</sup> The translation would be 'He can not only smoke but drink', but I modify it and ignore the modal 'can' in the translation.

The tree diagram is illustrated as (56)<sup>72</sup>.

(56) *e* as a full-fledged verb



In accordance with the Economy Principle, I postulate a bundle of semantic features in *e*, as in (57). This is also evident in typology; see section 4.5.

(57) *e*: [know; comprehend; able to do; able to use; permission; futurity]

**1. Reanalysis of *hiau-tit* 曉得.** Recall that Huang (2007) notes the co-occurrence of *hiau-tit*, *e-hiau*, and *hiau-e* in *Zhuzi*, where these words were used interchangeably.

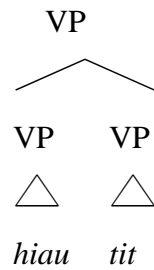
I first show the reanalysis of *hiau-tit*, with *-tit* presumably the same as *de* 得. Features of the morphemes are given below the tree.<sup>73</sup>

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<sup>72</sup> The tree doesn't show the topicalization of the logical object *hun* 'cigarette'. I simply place *hun* in its base-generated position. The adverbial *ia* 'also' is omitted in the tree too.

<sup>73</sup> The position of Spec is ignored for convenience.

(58) *hiau* and *tit* as individual lexical verbs<sup>74</sup>

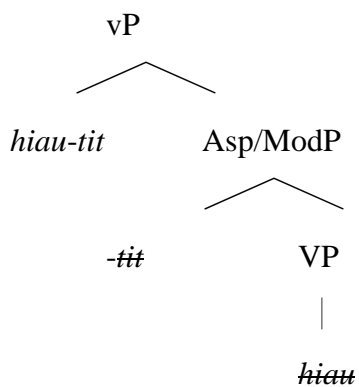


*hiau*: [know; comprehend]

*tit*: [obtain]

I suggest that these verbs appeared as serial verbs. Over the course of time, *hiau-tit* became lexicalized as one unit. In *Zhuzi*, *hiau* 曉 was a lexical verb and not used as a modal (cf. Huang 2007). As in (51), *tit* has undergone grammaticalization, and one of its usages is as lexical aspect. I therefore postulate *tit* as marking telicity in *hiau-tit*. I assume an inner aspect phrase between vP and VP (chapter two).

(59) *-tit* as aspect



*hiau*: [comprehend] (semantic features)

*tit*: [iF: aspect]

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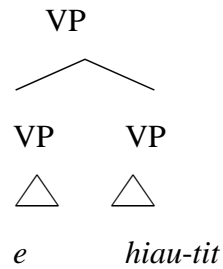
<sup>74</sup> I use the models of Baker and Stewart (1999) and of Stewart (2001) for serial verbs.

I analyze *hiau-tit* ‘know’ as occupying little v. It is further reanalyzed in the ModP.

Huang (2007) argues that *hiau-tit* disappeared and did not survive in modern TSM. As discussed in (54), the unit *hiau-tit* is combined with *e* and further reanalyzed as *e-hiau-tit*.

Next, I investigate how *e-hiau-tit* possibly developed.

(60) *e* and *hiau-tit* as in a sequence

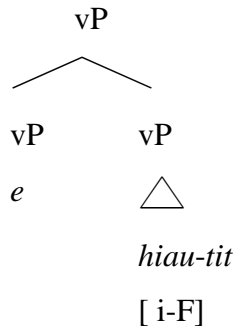


*e*: [comprehend]

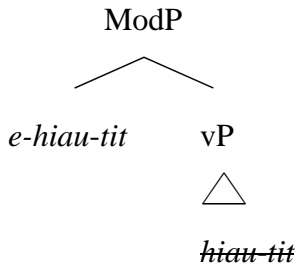
*hiau-tit*: [comprehend]

*E* and *hiau-tit* may have initially occurred in a sequence as (60). Yet, when *e* is reanalyzed as a modality marker, the structure changes to (61). The next step is (62), where *e-hiau-tit* becomes a new reanalysis in the modal head position.

(61) *e* as a renewal



(62) *e-hiau-tit* as Mod



The tree in (61) shows the lexical verb of *hiau-tit* 曉得, whereas (62) represents *e-hiau-tit* as a modal. I side with Yang (2001), who considers *hiau-tit* to be a verb in *Zhuzi*. *Hiau-tit* is not preserved in TSM, but in modern Hakka, *hiau-tet* 曉得 is used as a lexical and modal verb, meaning ‘can, capable of’.

I also found supporting evidence in Huang (2007: 127), where the use of *hiau-tit* has a pre-modal as in the text *Zhuzi*. This combination can be conceptualized as (63), where *hiau-tit* serves as a verb and the pre-verbal morpheme expresses modality.

(63) *ling* 能/*su* 需/*iao* 要 + *hiau-tit* + NP<sup>75</sup>

Huang suggests that the instances of *e-hiau* in the historical text always occur with *-tit*. However, it may also be that *hiau* first appears with *tit*, and the modal *e* was reanalyzed and merged into the lexicalized item: *e-hiau-tit*.

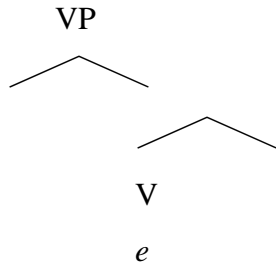
**2. Reanalysis of *hiau-e*.** Huang (2007: 125) notes that in *Zhuzi*, *hiau-e* does not have an obligatory *tit*, whereas *e-hiau* is always accompanied by *-tit*. This finding together with the development of *tit* is crucial in the reanalysis of *e*.

<sup>75</sup> *Ling* is possibility, and *su/iao* are necessity modals.

*Hiau* is a near synonym of *e* 解. As stated in the diachrony section of this chapter, the lexical use of *hiau* was much more prevalent, and the modality system in *e* was well established in the same historical text *Zhuzi*. This means that for some speakers the lexical *e* was losing its semantic features, which triggered the appearance of *hiau*.

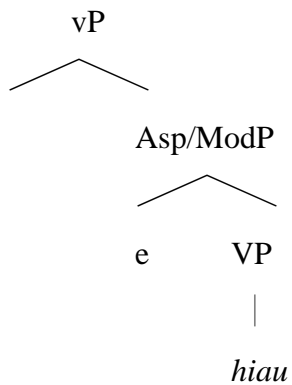
For the abilitive *hiau-e* ‘can’ order, *e* is aspectual just like *tit* ‘obtain’, and *hiau* is a renewal.

(64) *e* as a lexical verb



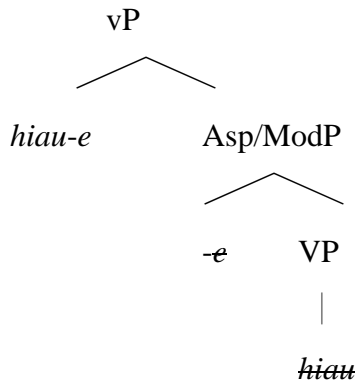
*e*: [understand; know] (semantic features)

(65) loss of features in *e*; *hiau* as a renewal





(66) *-e* as aspect in *hiau-e*



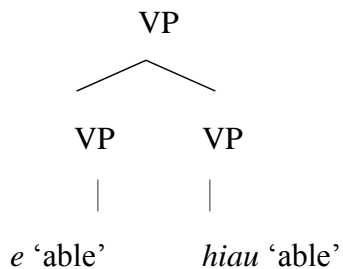
*hiau*: [comprehend] (semantic features)

*e*: [iF: aspect]

The advantage of my analysis is that it also accounts for the fact that *hiau-e* didn't occur with *tit* because *hiau-e* is already aspectual, which does not necessitate a telicity marker *tit*.<sup>76</sup>

**3. Reanalysis of *e-hiau*.** I show a possible analysis in (67).

(67) *e* and *hiau* appear in a verb sequence



Initially, the lexical semantics are equally weighted in *e* and *hiau*. The intermediate stage is when *e* is in the little v: the lexical verb *e* becomes reanalyzed as a abilitive modal, sitting in v.

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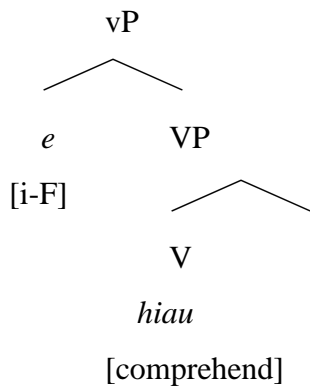
<sup>76</sup> The notion that *e-hiau* is accompanied by *tit* is not accurate, given that *hiau-tit* is mostly likely one unit before *e* occurred in the string *e-hiau-tit*.

(69) 我想袂曉你那會那麼虛華。<sup>77</sup>

gua siunn **be**-hiau li na **e** hiani hihua.  
 1sg think not.able 2sg how FUR that ostentatious  
 ‘I can’t understand how you can be so ostentatious.’

I suggest that the reanalyzed *e* sits in *v*, and the renewal *hiau* makes it a head in the *V*.

(68) feature loss in *e*



A renewal 曉 *hiau* as an abilitive modal is the key to interpreting the grammaticalization of *e*. Note however that the reanalysis process under Economy is not accomplished through one generation.

The loss of features also accounts for the vagueness of *e*, in that *e* may have undergone another feature loss process in a higher head position, that is: [i-F] > [i-F], the latter [i-F] resulting in an epistemic reading in *e*. I discuss this in section 4.4.5. Note that [i-F] indicates features loss and the features are different.

<sup>77</sup> The sentence is a line from a popular Taiwanese song. I analyze *e-hiau* ‘able to comprehend’ as a verb here in a sequence with *siunn* ‘think’. Both abilitive and epistemic *e/be* are used in this line. The characters assigned to each are not random, as song writing does not follow a transcription system.

Briefly, *e* began as a lexical verb, meaning ‘know, comprehend’. Over the course of time, *e* is taken out of the lexicon with fewer or different features. That is *e* began to lose its semantic features, leading *e* to be reanalyzed. Gradually an additional synonym *hiau* ‘to know’ came into being as a renewal of abilitive *e*. When *e-hiau* becomes base-generated in the modal head, the reanalysis in a new grammar is completed.

#### 4.4.4 Reanalysis of *e-sai* as deontic.<sup>78</sup>

As noted, *sai* 使, *thang* 通 and *ing* 用 were lexical verbs, each of which means ‘make’, ‘pass’ and ‘use’, respectively. The new deontic modal paradigm in TSM is that *e* is accompanied by either one of these three bound morphemes, to form a multi-syllabic modal.

Under Economy Principles, the loss of permissive features in *e* results in a necessity of a renewal such as *sai* to mark deonticity. *E-sai* is then reanalyzed as one unit in the grammar of the new generation. We thus observe *e-sai* in TSM. I do not discuss in detail the reanalysis process of *e-sai*, to which I assume a resemblance of *e-hiau* applies.

One last issue is that the deontic modal string *e-X-tit* is still undergoing changes in modern TSM. Lien (2010) claims that the *tit* 得 is often fused, which I present as follows:

(70) *e-ing-tit* > *e-ing-Y*, where Y can be *li*, *leh*, *cit*, *e* or  $\emptyset$

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<sup>78</sup> According to van der Auwewa and Plungian (1998), the deontic doublings may also belong to their participant-external non-deontic sub-category. I do not intend to go into details for this issue. I focus on the reanalysis of *e* from abilitive to deontic (participant-internal to participant-external in their terms).

I show some examples below in (71)-(73) from the corpora I make use of.

(71) 安呢袂用 li0

an-ne            **be-ing**            **li**  
 this-way        not.allow        PAR

‘It cannot be done this way.’

(72) 無共教袂用咧

bo    kah    ka    **be-ing**        **leh**  
 NEG   PREP   teach   not.allow        PAR

‘(We) must teach him.’

(73) 袂用 e0 啦，我卜合你鬥陣啦

**be-ing e**        la,        gua    beh    ham    li        tou3-tin        la.  
 not.allow        PAR    1sg    want    with    2sg    be-together    PAR

‘I cannot agree/No way. I want to be with you.’

My corpus findings on *be* show that fusion often takes place when *tit* is placed at the end of the sentence, accounting for 65-73% of the *e-ing-X* and *e-sai-X* data.<sup>79</sup> Presumably, the sentential final position makes *tit* less noticeable phonologically and thus it is where semantic features are gone eventually.

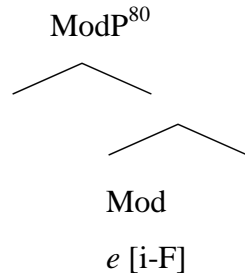
#### 4.4.5 Reanalysis of *e* as an epistemic modal.

Let us examine the third category of *e*. Recall that *e* can be ambiguous between an abilitive and epistemic reading. There are two grammars. In one grammar, where speakers exclusively use the monosyllabic *e* as epistemic, *e* is base-generated in Mod; *e* has [i-F: ‘will’].

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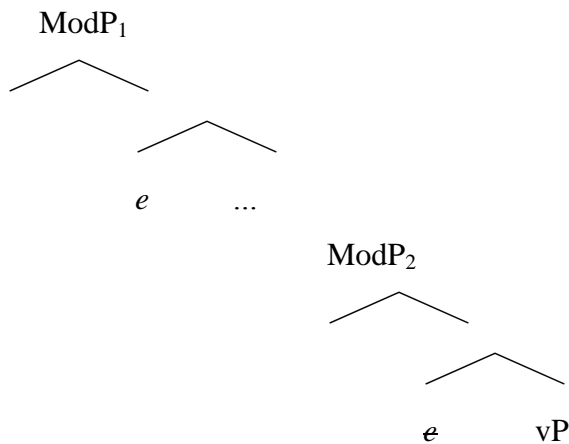
<sup>79</sup> While Lien and I use the same corpus, I analyze *be* and *tit*.

(74) The epistemic *e* as a reanalysis



On the other hand, *e* has two separate entries for some speakers. Under the minimalist approach, the same morpheme *e* is hypothetically taken from the lexicon with different features. When *e* is taken out of the lexicon with the features [i-F: ability, futurity], the learner sees it as abilitive first. When *e* moves to a higher Mod head, it is epistemic (futurity); see (75). I am agnostic about this futurity *e* future moving up to T.

(75) The unspecified case of *e*



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<sup>80</sup> I only present one ModP projection for convenience. I adopt the two ModPs (chapter two), but do not put T, as most accept that the Chinese language does not express tense through grammatical means.

#### 4.4.6 Concluding Remarks.

To sum up, *e* ‘know’ originated in the big V as a full-fledged verb, and was reanalyzed as occupying the little v when it became grammaticalized. With the occurrence of *hiau*, a renewal, we see *e-hiau* as indicating abilitive modality.

Not only is *e* reanalyzed from a V to a modal, expressing ability, but it also undergoes a similar path to express deonticity. Possible renewals are *sai*, *tang* and *ing*. Thus, the multi-syllabic modals *e-sai*, *e-tang* and *e-ing* are used to express permission or deontic possibility.

Finally, *e* is no longer in the VP. This *e* is not attached by any morpheme. *E* with an *ability* meaning shows that *e* has reanalyzed into a modal, whereas the so-called epistemic *possibility e* exhibits further grammaticalization, located higher up in the tree.

Theoretically, van Gelderen’s (2008; 2011) feature economy predicts such a change with some modifications. Renewals are evident in the grammaticalization of *e*. However, the root morpheme *e* never disappears; rather, it combines with a renewal and forms a doubling: abilitive *e-hiau* or deontic *e-sai*. English however uses a single modal *can* for all the various types of modality: ability, permission and probability.

The literature on typological modality (Bybee et al. 1991, among others) suggests a path as V > ability > possibility. The unidirectionality of grammaticalization is apparent by the fact that *e* is reanalyzed in each stage “higher up in the tree” (van Gelderen 2004; Roberts and Roussou 2003).

## 4.5 Comparative Studies

I first address a typological account on the grammaticalization of abilitive sources. I then compare Southern Min *e* with English *can*; Mandarin and Hakka are also investigated. Nonetheless, I do not attempt to discuss all modals of these Sinitic language varieties in this dissertation. My comparison focuses particularly on divergence as well as issues less addressed in the literature.<sup>81</sup>

### 4.5.1 Cross-linguistic data.

A similar typological pattern to Southern Min *e/be* can be found in other languages as well. For instance, Bybee, Perkins, and Pagliuca (1994: 188) point out two routes for the grammaticalization of ability concepts as follows:<sup>82</sup>

(76) ability > root possibility > epistemic possibility

(77) ability > root possibility > permission

This is also evident in Southern Min *e*. Historically, the category of *e* changes from the verb of ‘knowing’, to the verb of ‘being able to comprehend’, and to the modal ‘can’ with abilitive, deontic and epistemic denotations in *Zhuzi*.

As addressed in Section 4.4, the monosyllabic abilitive *e* has lost its semantic features, leading to the emergence of a reanalyzed form *e-hiau*. The deontic sense in *e* also becomes weakened to the point that it is accompanied by another verb *sai*, forming *e-sai*. *E* maintains the same form for its epistemic use. The

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<sup>81</sup> I refer my reader to previous studies such as Hsieh (2002) for a more comprehensive modal system in Mandarin, and to Huang (2007) for a comparison between Mandarin 會 *hui* and Southern Min 解 *e*, to Hsin (1999) and Zhang (1999) for Southern Min modality, and to Lieu (2000) for Hakka modals.

<sup>82</sup> Chapter three defines root modality.

permissive use *e-sai* does not seem to be historically derived from abilitive *e-hiau*. All of these show a divergence among the three types of modality in *e*: abilitive, deontic and epistemic.

The lexical sources of ‘ability’ often come from verbs like *finish*, *know* (how to), *get*, *obtain*, or *arrive* (Bybee et al. 1994: 188). This is also true in the Southern Min case. There are three such morphemes involved in dynamic abilitives: 解 *e*, 曉 *hiau* and 得 *tit* in TSM. *Hiau* ‘to know; to understand’ is a near synonym of 解 *e*. The third morpheme 得 *tit* means ‘to get; to obtain’, which often appears after the verb.<sup>83</sup>

#### 4.5.2 The English *can*.

The development of modern English *can* is analogous to Southern Min *e*. English *can* has an origin in Old English as a lexical verb: *cunnan* ‘know; be able’.

(78) hwæt þær foregange, oððe hwæt þær æfterfylige, we ne **cunnun**. Bede  
 ‘What came before, or what comes after, we do not **know**.’ (Lightfoot 1979: 98)

(79) ne **con** ic noht singan. Bede  
 ‘I cannot sing.’ (Lightfoot 1979: 99)

As *can* is no longer a verb in modern English, (77) is thus ungrammatical.

(80) \**He can Hakka*.  
 Int.: ‘He knows about Hakka./He understands Hakka.’

As Lightfoot notes, “*cunnan* (> NE *can*) used to mean ‘to have the mental or intellectual capability to, to know how to’” (Lightfoot 1979: 100). *May* needs attention too, as *may* and *can* both are used as possibility modals. Lightfoot points

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<sup>83</sup> 得 means ‘to get; to obtain’; see Sun (1996: 108-162) for its grammaticalization.



to another interesting fact: in contrast to *cunnan*, *magan* meant ‘to have the physical capability to’, yet a permission reading has developed for modern *may* (Lightfoot 1979: 100). This shows that in English abilitive and permissive modality are connected. Similarly, MSC epistemic *ke.neng* 可能 ‘may; maybe’ and permissive *ke.yi* 可以 share *ke* 可.

The English possibility modals are shown below, within which *can* and *may* are almost interchangeable.<sup>84</sup>

Table 4.5  
English possibility modality paradigm

|                                       | possibility     |
|---------------------------------------|-----------------|
| epistemic                             | <i>may; can</i> |
| participant-internal                  | <i>can</i>      |
| participant-external<br>(non-deontic) | <i>can; may</i> |
| deontic                               | <i>may</i>      |

An brief overview is demonstrated in (81)-(84), where the English modal *can* is used for four types of modality (Palmer 2001: 10).<sup>85</sup>

- (81) *He **can't** be in his office now.* (epistemic)
- (82) *He **can** run a mile in five minutes.* (dynamic; participant-internal)
- (83) *He **can** escape.* (dynamic; participant-external non-deontic)
- (84) *He **can** go now.* (permissive; participant-external deontic)

<sup>84</sup> Collins (2009) argues that *may* is replacing *can* for deontic uses in American English.

<sup>85</sup> Sentences are Palmer’s; however, the classification is based on van der Auwera and Plungian (1998).

### 4.5.3 Dynamic abilitives.

I show next how abilitive modals in modern Chinese languages differ from one another. I also examine English *can*. Let us discuss the lexical uses first.

*E* is not a lexical verb in TSM; (85) is not found in my corpus.<sup>86</sup>

|      |     |                                                   |         |     |
|------|-----|---------------------------------------------------|---------|-----|
| (85) | *i  | <b>e/be</b>                                       | keh-ue. | Min |
|      | 3sg | can/cannot                                        | Hakka   |     |
|      |     | Int.: 'He understands/does not understand Hakka.' |         |     |

Example (86) illustrates abilitive verbs in the three Sinitic languages.<sup>87</sup>

|      |     |                                |            |       |
|------|-----|--------------------------------|------------|-------|
| (86) | i   | <b>e-hiau; be-hiau</b>         | keh-ue.    | TSM   |
|      | ki  | <b>voi; m-voi</b>              | kak-ka-fa. | Hakka |
|      | ki  | <b>hiau-tet; m-hiau(-tet)</b>  | hak-ka-fa. | Hakka |
|      | ta1 | <b>hui; bu-hui</b>             | kejiahua.  | MSC   |
|      | 3sg | know                           | Hakka      |       |
|      |     | 'He understands/speaks Hakka.' |            |       |

Southern Min uses a disyllabic *e-hiau* as its dynamic lexical verb. Hakka has a different system, which patterns with MSC. The Hakka lexical verb *voi* can be used the same way as MSC *hui*; however, another verb *hiau-tet* functions the same in Hakka. *Hui* and *voi* can still be used as verbs. The verbal use in MSC and Hakka differs from English *can* and TSM *e*, neither of which is a verb.

Nevertheless, Hakka *voi* is equivalent to MSC *hui* 會 and TSM *e* 解 in modality. In spite of same semantics, they have different origins.

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<sup>86</sup> Yang (2001), however, argues for the survival of lexical uses in *e* in some Min sub-dialects.

<sup>87</sup> For convenience, I leave out the positive/affirmative comparison for the rest of the examples.

Lieu (2000) argues that Hakka *voi* is not phonologically associated with Mandarin *hui*. Yang (2001) analyzes the writing of 解 and 會 as used in colloquial and formal documents, respectively. Lien (1997: 174), however, claims that 會 is a loan character for the meaning of Southern Min *e* 解. This means that these morphemes may come from different historical or linguistic strata. Yang (2001) suggests that TSM abilitive *e* has preserved the use of 解, while other dialects including MSC *hui* and Hakka *voi* have adopted the modal 會.

Unlike TSM abilitive *e-hiau* and permissive *e-sai*, *hui* and *voi* did not develop into multiple syllabic modals. Also note that the negative form for each language is different (86). While TSM uses *be* as the negative counterpart of *e*, Mandarin and Hakka use *bu* or *m* to negate their modals.

We now turn to abilitive modality among the three languages. The disyllabic *e-hiau* is used in TSM. Hakka, however, uses both *voi* and *hiau*. MSC again uses a monosyllabic *hui*. They are equivalent to English abilitive modal *can*. The modal use in these languages resembles their lexical verb counterparts in (86).

|      |     |                 |                              |             |       |
|------|-----|-----------------|------------------------------|-------------|-------|
| (87) | i   | <b>e-hiau</b>   | kong                         | keh.ue.     | TSM   |
|      | ki  | <b>voi/hiau</b> | kong                         | hak.ka.fa.  | Hakka |
|      | ta1 | <b>hui</b>      | shuo                         | ke.jia.hua. | MSC   |
|      | 3sg | know            | speak                        | Hakka       |       |
|      |     |                 | ‘He <b>can</b> speak Hakka.’ |             |       |

Note that Hakka and MSC are at intermediate stage where *voi/hui* can be inserted in V (86), or in Mod (87).<sup>88</sup>

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<sup>88</sup> MSC has another abilitive *neng* 能, but its semantics differs from *hui*, and *neng*

In Hakka, *hiau-tet* 曉得 is another form other than *voi* for abilitive modality.

- (88) 佢曉得看地理 Hakka; Lieu (2000: 36)  
 ki **hiau-tet** khon thi-li.  
 3sg can see geomancy  
 ‘He can understand geomancy.’

It is not surprising for *hiau-tet* to be used as ‘capability’, as we recall the different abilitive verbs discussed in *Zhuzi yulei*; 曉得 *hiau-tit* (TSM pronunciation) is one of them. Different historical strata reflect in the three Sinitic languages of modern times. In addition to phonology, each language variation may have adopted different morphology or syntax.<sup>89</sup> *Hiau* also serves as a modal.

- (89) 佢曉聽頭牲講話啦 Hakka; Lieu (2000: 36)  
 ki **hiau** then theu-sang kong-fa la  
 3sg can listen livestock speak PAR  
 ‘He can understand what the livestock speaks.’

However, the use of *hiau* 曉 in Hakka differs from that of TSM or MSC.<sup>90</sup>

- (90) \*i **hiau** (曉) kong keh.ue. TSM  
 \*ta **xiao** (曉) shuo ke.jia.hua. MSC

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can’t be lexical. Nothing hinges on this, as the primary topic of this dissertation is negation and my research on modality is only descriptive.

<sup>89</sup> The choice of *e-hiau* in Min or *hiau-tet* in Hakka is an example of morphological differences, but initially it may be related to syntax in verb series (SVC) such as 解-曉 and 曉-得; see section 4.3.

<sup>90</sup> 曉得 *xiaode* is used differently in MSC than Hkka *hiau-tet* ‘able.to’.  
 wo **xiaode** zhe jian shi. 我曉得這件事。  
 1sg know.about this CL matter  
 ‘I know/knew about this matter.’

3sg can speak Hakka  
 Int.: ‘He can speak Hakka.’

#### 4.5.4 Hakka deontic.

This section contributes to our knowledge about Hakka deontic modals, given that previous research has not fully addressed this topic from a historical or typological perspective.

Unlike TSM, Hakka deontic modals are not derived from an ability source such as *voi*. Nevertheless, the shared root is permission-related morphemes.

There are at least five permissive negative deontic modals in Hakka: *mo-ho* 無好, *m-tet* 毋得, *sii-m-tet* 使毋得, *m-sii-tet* 毋使得, and *tso-m-tet* 做毋得 ‘cannot’, as in Table 4.6.<sup>91</sup>

Table 4.6  
 Hakka permissive deontic modals

| affirmative       | negative                                 |
|-------------------|------------------------------------------|
|                   | 無好 <i>mo-ho</i> ‘not-good’               |
|                   | 毋得 <i>m-tet</i> ‘not-obtain’             |
| 使得 <i>sii-tet</i> | 使毋得 <i>sii-m-(tet)</i> ‘make-not-obtain’ |
| 使得 <i>sii-tet</i> | 毋使得 <i>m-sii-(tet)</i> ‘not-make-obtain’ |
| 做得 <i>tso-tet</i> | 做毋得 <i>tso-m-tet</i> ‘do-not-obtain’     |

I address some interesting observations from the above table. First, *mo* or *m* are negative markers of the permissive modals.<sup>92</sup> There is no positive form for the

<sup>91</sup> I analyzed *sii-tet* and *m-sii-tet* as an affirmative and negative deontic pair and *tet* being omitted in some cases although Lieu (2000: 30) claims that *m-sii* has no affirmative counterpart in Hakka. For the clitic-like *tet*, see Sun (1996) on Chinese 得 *de* and Lien (2010) on TSM 得 *tit*.

first two entries; *ho* or *tet* individually is not an affirmative modal in Hakka.<sup>93</sup>

Next, there are two orders for *m*: *m-sii-(tet)* or *sii-m-(tet)*.

Also, Hakka relies on *tet* 得, initially meaning ‘to obtain’, for both abilitive and permissive uses. As noted previously, the bound morpheme *tet* in these words used to be a full-fledged verb. Recall that *hiau-tet* is used as an abilitive (modal) verb in Hakka, which suggests that *tet* alone may have once been used as abilitive and/or permissive modal. This then leads to a postulation that *tet* follows the same grammaticalization path as TSM *e*. Their features are like (91) and (92).

(91) TSM *e* 解: [ability; permission; futurity]

(92) Hakka *tet* 得: [ability; permission]

The last items, *sii-tet* 使得 and *tso-tet* 做得, are interesting. I first examine the third entry in the table: *sii-tet*. Hakka *sii* 使 ‘to make; to order’ shares the same origin as *sai* in TSM permissive *e-sai*. Yet, the morphology of these two languages differs. *Sii* is the first element in Hakka *sii-tet*, whereas *sai* is a renewal in in TSM *e-sai*.<sup>94</sup>

(93) *sii* ‘make’ + *tet* ‘to obtain’ > *sii-tet* (Hakka permissive modal)

(94) *e* ‘know’ + *sai* ‘make’ > *e-sai* (TSM permissive modal)

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<sup>92</sup> The Hakka *mo* functions like Southern Min *bo*; chapter seven.

<sup>93</sup> Yet, *ho* ‘good, alright’ can be used to allow/agree with somebody to do something.

<sup>94</sup> TSM *e* is the root, while *tet* is the root in Hakka.

There are two negative counterparts for *sii-tet* 使得: *sii-m-tet* or *m-sii-tet*, where the negative morpheme is either an infix or prefix. Examples of the use of *sii-(m)-tet* are as follows (Lieu 2000: 40):

(95) **sii-tet** chia ngai hiet jit jia mo? Hakka  
 can borrow 1sg rest one night Q  
 ‘Is it possible for me to take a rest here for a night?’

(96) lia kai van **sii-m-tet** piang phet o. Hakka  
 this CL bowl cannot throw PHET PAR  
 ‘It is not possible (for you) to throw away this bowl.’

Historically, *sii* ‘to make’ and *tet* ‘obtain’ may have been individual lexical verbs in a sequence, and the infixal negation *m* may have appeared before the prefix *m*, based on Shi’s (2002) analysis.<sup>95</sup>

(97) *sii m tet* > *m sii-tet*

I also investigate *tso-tet* 做得. The reanalysis of *tso-tet* is similar to that of *sii-tet*. *Tso* 做 means ‘to do’; therefore, *tso-tet* means ‘allowed to do something’.

(98) *tso* ‘to do’ + *tet* ‘to obtain’ > *tso-tet* ‘allowed (to do something)’

The negative counterpart for *tso-tet* is either *tso-m-tet* or *m-tso-tet*; this resembles the previous Hakka deontic modal *sii-tet*.

(99) *tso* 做 ‘to do’ + *m* + 得 *tet* ‘to obtain’ > *tso-m-tet*: ‘not allowed’

Examples are provided below in (100) through (102).

(100) ngai m-hi **m-tso-tet**. Hakka; Hashimoto (1973)  
 1sg not.go not.possible

<sup>95</sup> I return to this topic in word order change of negation; chapter seven.

‘That I don’t go is not allowed.’ (I must go.)

- (101) **m-tso-tet** sit to. Hakka; Hashimoto (1973)  
 not.allow eat too.much

‘(You) are not allowed to eat too much.’

- (102) **tso-m-tet** ngip hi? Hakka; Lo (1988)  
 not.allow come in

‘(I am) not allowed to come in?’

Table 4.7 summarizes the system just discussed.

Table 4.7  
 Hakka modal systems

| verb              | modal                                       |                    |                                              |
|-------------------|---------------------------------------------|--------------------|----------------------------------------------|
|                   | Dynamic abilitive                           | Epistemic futurity | Deontic permission                           |
| <i>voi</i> ‘know’ | <i>voi</i> ‘can’<br><i>hiau(-tet)</i> ‘can’ | <i>voi</i> ‘will’  | <i>sii-tet</i> ‘can’<br><i>tso-tet</i> ‘can’ |

There are two sub-systems of Hakka modals: *voi* and *V-tet*. Recall that when acting as a lexical verb, *voi* means ‘know’. *Voi* can also be used as abilitive ‘can’; *voi* can express futurity ‘will’. However, *voi* does not yield deontic modality; the *V-tet* system is used, instead, such as *sii-tet* or *tso-tet*. Note that *V-tet* also expresses ability, as in *hiau-tet*. Yet, *tet* in abilitive *hiau-tet* is optional, but is obligatory in the deontic permission *sii-tet/tso-tet*.

Table 4.8 shows the negative counterparts of the modals in Table 4.7. As seen, the negative *m* is used for both *voi* and *V-tet* systems in Hakka.



Table 4.8  
Hakka negative possibility modals

| verb         | modal                     |                    |                             |
|--------------|---------------------------|--------------------|-----------------------------|
|              | Dynamic abilitive         | Epistemic futurity | Deontic permission          |
| <i>m-voi</i> | <i>m-voi</i>              |                    | <i>sii-m-tet; m-sii-tet</i> |
|              | <i>m-hiau; m-hiau-tet</i> | <i>m-voi</i>       | <i>tso-m-tet; m-tso-tet</i> |

Two more issues need to be addressed in Table 4.8. The first topic centers around the use of one deontic modal over another. The literature has treated *sii-tet* and *tso-tet* as alternatives. Interestingly, there were only three examples with *sii-tet* and nine instances of *sii-m-tet* in Lieu's (2000) corpora, where 303 tokens of Hakka modals from his fieldwork were recorded, and where *voi* accounts for the largest portion. While Hashimoto (1973) and Lo (1988) list both uses (*sii-tet* and *tso-tet*), Lieu (2000) does not address the use of *tso-tet* or *tso-m-tet*.

My Hakka consultants do not use the *sii-tet/sii-m-tet* set as modals. *Sii* 'use' is still used as a verb.

- (103) qien    **sii** 使/rhung 用            m        **det.**    Hakka  
           money use                            NEG    able  
           'The money, you cannot use it.'

One consultant pointed out the slight phonological difference in *det*. This reflects the degree of grammaticalization, in that *det* 得 has not become a fixed unit with the verb *sii* or *rhung* 'to use' and the negation *m*. *Det* is different from *tet* in the negative abilitive modal *sii-m-tet* 'can.not'. The online dictionary of Hakka shows that *sii-tet* is used in one sub-dialect (*Xixian* 四縣) whereas *tso-tet* is

used in another (*Hailu* 海陸).<sup>96</sup> It was consistent with my findings, as my consultants speak Hailu Hakka.

The other point is the affixation of negation. My consultants did not use the prefix *m* version; the infixal *tso-m-tet* is the only option. Diachronically, infixal negation is developed earlier than the pre-fixal type.<sup>97</sup>

In some cases, the fronting of *m* may not have taken place in syntax, thus making the infixal (*tso-m-tet*) the only option in morphology when these morphemes became one unit. This fact results in parametric differences among the Sinitic languages in their modal morphology. As explained, this morpho-syntax is only parametric, since the morphemes used in each language share the same or a similar origin.

#### 4.5.5 A comparison of deontic modals.

Before moving to a larger scale of comparison among the three languages, I first address the fact that the pattern in Hakka deontic pair *sii-tet/m-sii-tet* can also be found in the other two languages, which I summarize in Table 4.9.

Table 4.9  
A comparison of permissive deontic modals

| TSM                       | Hakka                | MSC                  |
|---------------------------|----------------------|----------------------|
| 會使(得) <i>e-sai-(tit)</i>  | 使得 <i>sii-tet</i>    | *使得 <i>shi-de</i>    |
| 袂使(得) <i>be-sai-(tit)</i> | 毋使得 <i>m-sii-tet</i> |                      |
|                           | 使毋得 <i>sii-m-tet</i> | 使不得 <i>shi-bu-de</i> |

<sup>96</sup> The online Hakka dictionary: <http://hakka.dict.edu.tw/hakkadict/index.htm>

<sup>97</sup> Same as Footnote 87.

Two morphemes are crucial in Table 4.10. As previously discussed, 得 can be the source of abilitives. 使 means ‘to make’ and is pronounced as *sai*, *sii*, and *shi* in Southern Min, Hakka and Mandarin, respectively.

I first address the affixation of *tit*, *tet* or *de*, three of which share the same character 得. Historically, this morpheme as a lexical verb means ‘to get, to obtain’. *De* has undergone changes (Sun 1996; Wu 2006). In its modern use, *de* behaves like a clitic.<sup>98</sup>

Below I first investigate Southern Min data. As noted, *e* 解 ‘know; comprehend’ and *tit* 得 ‘obtain’ are sources of ability in typology. TSM has two abilitive modals: *e-hiau* and *e-hiau-tit* although *tit* is often dropped. The same affixation applies to its deontic modal alternatives: *e-sai* and *e-sai-tit*.

In the middle column of the table, we see the Hakka modal *sii-tet* 使得. TSM and Hakka are alike in composing their deonticity. One similarity is that the deontic use of TSM *e* and Hakka *tet* develops from their abilitive origins. The apparent difference lies in affixation. TSM has *sai* 使 as a renewal attaching to *e*, making *e-sai*, whereas Hakka uses *sii* 使 as a prefix in *sii-tet*.

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<sup>98</sup> The word 得 in Mandarin is now used as a potential complement. *De/Bu* is placed postverbally but it precedes the resultative complement; see examples below. This special word order certainly has to do with the diachrony of 得 (Sun 1996; Wu 2006).

- |      |                                          |      |           |     |       |           |      |
|------|------------------------------------------|------|-----------|-----|-------|-----------|------|
| (i)  | zhongwen                                 | bu   | nan,      | wo  | xue   | <b>de</b> | lai. |
|      | Chinese                                  | NEG  | difficult | 1sg | learn | DE        | come |
|      | ‘Chinese is not too difficult to learn.’ |      |           |     |       |           |      |
| (ii) | zhongwen                                 | hen  | nan,      | wo  | xue   | <b>bu</b> | lai. |
|      | Chinese                                  | very | difficult | 1sg | learn | NEG       | come |
|      | ‘Chinese is too difficult to learn.’     |      |           |     |       |           |      |

- (104) *e* ‘to know’ + *sai* ‘to make’ > *e-sai* (deontic) TSM  
 (105) *sii* ‘to make’ + *tet* ‘to obtain’ > *sii-tet* (deontic) Hakka

Another difference between TSM and Hakka is the additional preverbal *e* in TSM *e-sai-tit*, probably due to the loss of features in the post-verbal element *tit* (Lien 2010). In contrast, there is no such prefix in Hakka.

We now turn to MSC in the rightmost column of Table 4.8. MSC has a comparable term 使不得 *shi.bu.de*, with no affirmative like \*使得 *shi-de*.<sup>99</sup>,<sup>100</sup>

- (106) 使不得給她太大的壓力。 MSC  
 shibude      gei      ta      tai      da      de      ya.li  
 cannot      give      3sg      too      big      GEN      pressure  
 ‘(We/You) cannot give her too much pressure.’
- (107) 這萬萬使不得。 MSC  
 zhe      wanwan      shibude.  
 this      definitely      cannot  
 ‘This (definitely) cannot be done this way.’

In brief, we learn that the MSC phrase 使不得 *shi.bu.de* patterns like its counterpart *be-sai* and *sii-m-tet* in TSM and Hakka, respectively.<sup>101</sup> The literature, however, has not addressed this topic. Rather, much has been written about MSC modals such as *hui* 會, *neng* 能, and *keyi* 可以, which are in general equivalent to

<sup>99</sup> The affirmative form *shi-de* in Mandarin is causative. To express ‘you can give her pressure’, the modal *keyi* is used.

<sup>100</sup> Note that for my MSC consultants, *shi.bu.de* is too formal or old-fashioned. Some have rarely heard of the use of (107) in everyday speech.

<sup>101</sup> The deontic *shi.bu.de* 使不得 is less colloquial than the other modals that express permission such as *bu.ke.yi* 不可以 or *bu.eng* 不能 ‘cannot’

the permissive deontics of TSM or Hakka. I show MSC modal system in Table 4.10. However, I do not intend to include all complexity.<sup>102, 103</sup>

Table 4.10  
Mandarin possibility modal systems

| verb       | modal             |                    |                    |
|------------|-------------------|--------------------|--------------------|
|            | dynamic abilitive | epistemic futurity | deontic permissive |
| <i>hui</i> | <i>hui</i>        | <i>hui</i>         |                    |
|            | <i>neng</i>       |                    | <i>bu-neng</i>     |
|            | <i>keyi</i>       |                    | <i>keyi</i>        |

In a nutshell, the morphology of Hakka deontic modals provides evidence of diachronic similarities among the Chinese languages. Despite that the three languages make use of a different morphology to mark deonticity, their sources and grammaticalization paths are similar. Three patterns are found:

(108)  $V > V-V_2$ , where  $V_2$  is a renewal, e.g. *sai* in TSM deontic *e-sai* 解使

(109)  $V_1+V_2 > V$ -clitic, where *tit* is the clitic, as in Hakka deontic *tso-tet* 做得

(110)  $V_1 + \text{Neg} + V_2 > V$ -Neg- $V$  as a compound; e.g. Hakka *sii-m-tet* and MSC *shi-bu-de* 使不得

<sup>102</sup> I refer my reader to Lin (2003) on Mandarin and Hsin (1999) on Southern Min for further readings.

<sup>103</sup> When *neng* 能 is used as deontic, it can only be used in the negative form *bu-neng*. Other alternatives are *bu-xing* 不行 *bu-cheng* 不成. The three morphemes are typically not used as modals:

\*ni     **neng/xing/cheng**     likai   le.  
2sg    can                        leave   PAR  
Int.: ‘You can leave now.’

#### 4.5.6 Deontic modals.

Finally comes a review of the deontic modals in the three Sinitic languages. As discussed, *e-sai* 解使 is a deontic modal in Southern Min, much like the English permissive *can*. However, Hakka *voi* 會 does not express deonticity. Similarly, there is no permissive deontic modality in MSC *hui* 會. Instead, *keyi* 可以 is a possible candidate.<sup>104</sup>

|       |     |                  |           |      |       |
|-------|-----|------------------|-----------|------|-------|
| (111) | li  | <b>e-sai</b>     | li.khui   | a.   | TSM   |
|       | ngi | <b>*voi</b>      | hang.khoi | leh. | Hakka |
|       | ni3 | <b>*hui/keyi</b> | li.kai    | le.  | MSC   |
|       | 2sg | can              | leave     | PAR  |       |

‘You **can** leave (now).’

#### 4.5.7 Epistemic modals.

The last category I shall also address is epistemic modality. The epistemic use of *e* is similar to that of Mandarin *hui* and Hakka *voi*.

|       |          |            |      |       |              |
|-------|----------|------------|------|-------|--------------|
| (112) | suisi    | <b>e</b>   | loh  | hoo.  | Southern Min |
|       | suisi    | <b>voi</b> | lok  | shui. | Hakka        |
|       | sue.shi  | <b>hui</b> | xia  | yu.   | Mandarin     |
|       | any.time | FUR        | fall | water |              |

‘It will rain any time soon.’

Below are two more examples for Hakka epistemic *voi* or *m-voi*.

|       |      |      |          |            |      |      |      |       |
|-------|------|------|----------|------------|------|------|------|-------|
| (113) | tsii | jiu  | sa-shiak | <b>voi</b> | jie  | lok  | loi. | Hakka |
|       | just | have | grit     | FUR        | toss | fall | come |       |

‘There will be grit thrown down.’ (Lieu 2000:57)

<sup>104</sup> The negator *bu* 不 is typically used for modals in MSC, and thus the negative counterpart of *ke.yi* is *bu-ke.yi*.

- (114) phet-sa        jian    **m-voi**        shiau la.    Hakka  
 others        just    NEG-FUR    laugh PAR  
 ‘(You) will not be laughed at by others.’ (Lieu 2000:57)

Interestingly, the epistemic sense of *voi* comprises the largest portion of Lieu’s (2000) corpora, accounting for 80% of his *voi* tokens. Recall that TSM *e* is mainly used as epistemic too. The grammaticalization pace of both languages is comparable.

I summarize my findings in Table 4.11. The morphemes of *e*, *voi*, and *hui* are used in Southern Min, Hakka and Mandarin, respectively.<sup>105</sup>

Table 4.11  
 Possibility modals in Southern Min, Mandarin and Hakka

|         | verb          | modal                                        |             |                                          |
|---------|---------------|----------------------------------------------|-------------|------------------------------------------|
|         |               | dynamic                                      | epistemic   | deontic                                  |
| English | --            | <i>can</i>                                   | <i>will</i> | <i>can/may</i>                           |
| TSM     | <i>e-hiau</i> | <i>e or e-hiau</i>                           | <i>e</i>    | <i>e-sai, e-tang,</i><br><i>or e-ing</i> |
| MSC     | <i>hui</i>    | <i>hui</i>                                   | <i>hui</i>  | <i>*hui</i>                              |
| Hakka   | <i>voi</i>    | <i>voi</i><br><i>hiau</i><br><i>hiau-tet</i> | <i>voi</i>  | <i>*voi</i>                              |

There are some similarities and differences. The similarity is that the epistemic modals are all monosyllabic in the three Sinitic languages. I compare each modal system below.

<sup>105</sup> This table only shows the previously noted abilitive modals in the three languages. The fact that MSC *hui* and Hakka *voi* are not used as deontic does not mean that these two languages do not have deontic modals.

TSM is special in its full range of sub-categories, as seen in Table 4.11. TSM has *e* ‘know; comprehend’ as a lexical source and exhibits three major types of modals: abilitive, deontic and epistemic, with renewals observed in its abilitive and deontic modal uses such as *e-hiau* and *e-sai*. As for negation, *be* is the negative counterpart of *e*. The negative marker *bu* ‘not’ is used in MSC, and *m* ‘not’ for Hakka.

Unlike TSM, Hakka deontic modals are not morphologically associated with the abilitive *voi*. In Mandarin there are only two types of usage in *hui*: dynamic and epistemic.<sup>106</sup> Likewise, Hakka uses *voi* for these two. In other words, deontic modality is lacking in Mandarin *hui* and Hakka *voi*. These two languages use other words for deontic modals. In contrast, English *can* covers the three types.

In addition to *voi*, *hiau-tet*, is another candidate for Hakka abilitive modals. Their negative counterparts are *m-voi* and *m-hiau-tet*, respectively. Similar to Hakka *m*, MSC makes use of a grammatical marker *bu* to express negation of its modals, such as *bu-hui* 不會 ‘not-able’ and ‘will.not’.

As seen, there is not necessarily a one-to-one relationship in modal expressions among the investigated languages; nevertheless, their grammaticalization path is nearly identical and the lexical sources are typologically similar. The English possibility modal system shares similarities with TSM *e* in that *can* originates as a verb, meaning ‘know’ and the modal *can* is used in three types of modality: abilitive, permissive and epistemic. However, *can*

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<sup>106</sup> There are other modals in MSC, but I do not intend to cover them all.



as epistemic is not the same as TSM *e* ‘will’ as well as its counterparts *voi* and *hui* in the other two Sinitic languages.<sup>107</sup>

#### 4.5.8 Differences in word order.

The last topic covered in this comparison section is word order of the modals. First, let us examine abilitive modals. Like English *can*, the Sinitic abilitive modals appear before the verb.

(115) abilitive modals; pre-verbal

|     |                             |       |     |       |
|-----|-----------------------------|-------|-----|-------|
| i   | <b>be</b>                   | kiann | a.  | TSM   |
| ki  | <b>m-voi</b>                | hang  | leh | Hakka |
| ta  | <b>bu-hui</b>               | zoulu | le  | MSC   |
| 3sg | cannot walk                 | PAR   |     |       |
|     | ‘He can’t walk any longer.’ |       |     |       |

However, there is another word order for abilitive modals. The negative is placed between the verb and the resultative complement; negation only scopes over the resultatives.<sup>108</sup>

(116) abilitive modals; between V and resultative

|     |                             |           |           |      |       |
|-----|-----------------------------|-----------|-----------|------|-------|
| i   | kiann                       | <b>be</b> | ting-tang | a.   | TSM   |
| ki  | hang                        | <b>m</b>  | tet       | leh. | Hakka |
| ta  | zou                         | <b>bu</b> | dong      | le.  | MSC   |
| 3sg | walk                        | not       | move      | PAR  |       |
|     | ‘He can’t walk any longer.’ |           |           |      |       |

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<sup>107</sup> As will be introduced in the next chapter, the epistemic use of TSM *e/be* is used as English ‘will’ rather than ‘can’.

<sup>108</sup> I use *zuolu* instead of *zuo* in (115) simply because *zuo* can also mean ‘to leave’, which will result in another reading ‘He will not leave’.

Despite the fact that the examples (115) and (116) can express a loss of walking ability, only the latter can mean that a person can't walk, for instance, due to temporary fatigue.

Also, note that the structure of MSC example in (116) is not V + *bu-hui* + resultative; the abilitive modal *hui* has to be eliminated, leading to a V-*bu*-resultative string. The negative *bu* here is not a pure negative; it is associated with abilitive modality. Same as the Hakka *m*. That is, *bu* or *m* in this specific construction carries both negation and modality.<sup>109</sup>

There are also two word orders for deontic modals. They can be preverbal or occupy the final position of a sentence.<sup>110</sup>

(117) deontic modals; pre-verbal

|                                    |                 |     |       |      |       |
|------------------------------------|-----------------|-----|-------|------|-------|
| li                                 | <b>be-sai</b>   | bo  | tsiah | png. | TSM   |
| gni                                | <b>tso-m-te</b> | m   | sit   | fan. | Hakka |
| ni                                 | <b>bu-neng</b>  | bu  | chi   | fan. | MSC   |
| 2sg                                | not.possible    | NEG | eat   | rice |       |
| 'You cannot not eat/You must eat.' |                 |     |       |      |       |

(118) deontic modals stranded

|                                    |     |       |      |                   |        |
|------------------------------------|-----|-------|------|-------------------|--------|
| li                                 | bo  | tsiah | png  | <b>be-sai.</b>    | TSM    |
| gni                                | m   | sit   | fan  | <b>tso-m-tet.</b> | Hakka  |
| ni                                 | bu  | chi   | fan  | <b>bu-neng.</b>   | MSC(?) |
| 2sg                                | NEG | eat   | rice | not.possible      |        |
| 'You cannot not eat/You must eat.' |     |       |      |                   |        |

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<sup>109</sup> This modality *bu/m* is in contrast to the traditional view that *bu/m* are pure negatives for stative verbs and modals.

<sup>110</sup> Note that single negative sentences do not work as well as the double negative ones, shown above, particularly the word order in (118). I leave the question as to why for future research.

The pre-verbal modal verb position and the fronting of the clause are both observed. However, preferences differ among three languages. In (118), the Southern Min and Hakka data are just as good as their preverbal counterparts of (117); however, the MSC example *bu-neng* 不能 in (118) is less preferred. My consultants chose other words such as *bu-keyi* 不可以, *bu-cheng* 不成 or *bu-xing* 不行, for the stranded modal cases.<sup>111</sup>

There is only one word order for epistemic modals. The epistemic *e* in TSM is always preverbal and so are Hakka *voi* and MSC *hui*.

|       |     |               |     |          |                                |
|-------|-----|---------------|-----|----------|--------------------------------|
| (119) | i   | <b>be</b>     | tso | kong.ko. | TSM                            |
|       | ki  | <b>m-voi</b>  | tso | kong.ko. | Hakka                          |
|       | ta  | <b>bu-hui</b> | zuo | gong.ke. | MSC                            |
|       | 3sg | not.FUR       | do  | homework |                                |
|       |     |               |     |          | ‘He will not do his homework.’ |

Note that there is an ability interpretation in Hakka and MSC (119) as ‘He doesn’t know how to do his homework’, given that Hakka *voi* and *hui* are less grammaticalized than *e*. To get the abilitive reading, TSM *be-hiau* is used.

However, with an additional *qu* ‘go’ between the modal and the verb *zuo* in the MSC example, *hui* only means ‘will’. The deictic *qu* reinforces the futurity reading.<sup>112</sup> The same applies to TSM and Hakka (120), as *be* and *m-voi* also serve as futurity.

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<sup>111</sup> *Bu-cheng* and *bu-xing* are not modal verbs.

<sup>112</sup> MSC directional words *lai* ‘come’ and *qu* ‘go’ express futurity just like the English infinitive *to*, but the use of *lai/qu* as ‘to’ is restrictive. The same applies to the other two languages under investigation.

|       |     |               |     |     |          |                                |
|-------|-----|---------------|-----|-----|----------|--------------------------------|
| (120) | i   | <b>be</b>     | khi | tso | kong.ko. | TSM                            |
|       | ki  | <b>m-voi</b>  | hi  | tso | kong.ko. | Hakka                          |
|       | ta  | <b>bu-hui</b> | qu  | zuo | gong.ke. | MSC                            |
|       | 3sg | not.FUR       | go  | do  | homework |                                |
|       |     |               |     |     |          | ‘He will not do his homework.’ |

#### 4.6 Conclusion

This chapter covers a comprehensive list of topics regarding *e* and its negative counterpart *be* in Southern Min from both synchronic and diachronic perspectives. Southern Min *e* originates as a lexical verb ‘to know, to comprehend’, which is often one of the sources for ability-related modals cross-linguistically. The other modals derived from *e* include abilitive *e-hiau*, and deontic *e-tang*, *e-ing* or *e-sai*. The negative of *e* is *be*, which is believed by many to be the fusion of *m* ‘not’ and the affirmative modal *e*.

In this chapter I first reviewed previous research on *e/be* and then presented my corpus analysis on *be* in order to prepare my reader for the theoretical account for the grammaticalization of *e/be*. Based on the diachronic development, I explain the grammaticalization of Southern Min abilitive *e/be* modal pair using Minimalist Economy Principle, particularly feature loss, which results in the reanalysis of an element in a higher head position. Last, I provide a sentence-to-sentence comparison of possibility-based modals (ability, permission, and probability) among the three Sinitic languages, focusing on parametric divergence that is under-researched.

Much morphology and syntax is observed in the Southern Min *e/be* pair in its formation of abilitive and deontic modals. Also witnessed yet less addressed in

the literature is the rich historical stratification in the morpho-syntactic process of TSM abilitive *e/be* and its Hakka counterparts. This polysyllabic phenomenon is distinctive from other Sinitic languages, particularly MSC, which basically utilizes monosyllabic modals. For example, MSC doesn't have the combinations of *jiexiao* 解曉 or *xiaode* 曉得 as abilitive modals. Neither does MSC use *jieshi* 解使 or *shide* 使得 for deontic modals.

The epistemic paradigm is not as simple as it first looks: TSM *e*, Hakka *voi* and MSC *hui*. These abilitive modals do not behave the same as English *can*. *Can* moves quite freely between epistemic, abilitive, and deontic interpretations, and may be interchangeable with *may* in some cases. Sinitic abilitive modals typically are used for ability and permission, but also extends its uses to futurity, the latter use of which is equivalent to English *will*.

My major contributions in this chapter are as follows: I discuss a full range of reanalyses found in Southern Min abilitive *e/be* pair. I provide a theoretical ground for the multi-morphemic modals derived from *e/be*. I suggest a different gloss for epistemic *e/be* in TSM as FUR. I show how the Hakka deontic paradigm relates to the other two Sinitic languages from a historical perspective. I include modality and negation into morphology.

## Chapter 5

### THE VOLITIONAL MODALS BEH AND M

This chapter centers around the grammaticalization of the volitional modal pair *beh* and *m*, meaning ‘want’ and ‘not.want’, respectively. Multiple categories can be applied to *beh/m*, ranging from lexical verbs, modals (both deontic and epistemic), to discourse markers.<sup>113</sup> The Economy Principles are adopted to account for linguistic change in *beh/m*. Results show that the Sinitic languages have similar grammaticalization processes for volition markers.

This chapter is divided into five parts: I first provide basic information about the affirmative/negative volitional pair *beh/m*. Section 5.2 discusses the synchronic status of *beh/m*, followed by its diachronic development in Section 5.3. I account for the grammaticalization of *beh/m* in Section 5.4. The last section covers key parametric differences for the volition markers among three Sinitic languages. English *will* and *want* are also discussed.

#### 5.1 Introduction

Southern Min negative *m* has received extensive attention in the literature. A fascinating fact about this morpheme is that *m* bears both volition and negation; however, *m* can also be a pure negator; compare (1) and (2).

- (1)    i            beh/m            tsiah    png.  
         3sg    want/not.want eat    rice  
         ‘He wants/doesn’t want to eat (meals).’

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<sup>113</sup> Note that the title “volition” is used for convenience, as we shall see in this chapter that more categories are applied to *beh/m*.

- (2) i        m-si        m        tsiah   png.  
       3sg   not-COP   not.want   eat   rice.

‘It is not the case that he doesn’t want to eat (meals).’

Whether there are two *m*’s or only one *m* remains debatable. Some linguists (Teng 1992; Tang 1994; Lin 2004) suggest that *m* is the default negative in Min, and other forms are the result of the phonetic fusion of *m* and another element. Others propose that there are two *m*’s (Li 1971; Lin 1974). In this study I assume that *m*<sub>1</sub> is the negative modal of *beh* ‘want’, whereas *m*<sub>2</sub> is a pure negator.

Before I conduct a more in-depth investigation of volition *beh/m* in Southern Min, I provide English data below, some of which will be further visited in the section of comparative studies. The concept of *desire* expresses “internal volitional conditions in the agent with respect to the predicate action” (Bybee et al. 1998: 178). The authors provide an example from Coats (1983: 212), where *would* means ‘wanted to’.

- (3) *Juan Ortiz called to them loudly in the Indian tongue, bidding them come forth if they **would** save their lives.*

Tracing further back, Bybee et al. (1998: 178) suggest the diachrony of modern English *want* as: Old Norse ‘to lack or miss’ > ‘need’ > ‘desire’ (since 18<sup>th</sup> century). Interestingly, English *will* is also from a ‘desire’ source in Middle English.

## 5.2 Synchrony of *beh/m*

Both *beh* and *m* have been discussed in the literature (Lien 2008; Chang 2009). I focus on what has not been addressed or has received less attention. A negator can be added to *beh* ‘want’, giving rise to the negative *bo-beh/bo-ai* ‘not-want’. Another modal auxiliary *ai* 愛 (originally, ‘desire; love’) is discussed here, as it is also used in the volition paradigm. Table 5.1 shows the categorial status of the negative *m* in modern Taiwanese Southern Min. For instance, *m* is not a verb and another option *bo-beh* or *bo-ai* is used both as a verb and a modal. All the three words on the leftmost column are also used to express negation, but only *m* can be used as yes/no interrogative markers.

Table 5.1  
Categorial status of *m*

|                          | <i>verb</i> | <i>TAM</i> | <i>NEG</i> | <i>QM</i> |
|--------------------------|-------------|------------|------------|-----------|
| <i>m</i> ‘not.want’      |             | √          | √          | √         |
| <i>bo-beh</i> ‘not-want’ | √           | √          | √          |           |
| <i>bo-ai</i> ‘not-want’  | √           | √          | √          |           |

Traditionally, *m* ‘not.want’ and its positive modal counterpart *beh* ‘want’ form a systematic pair to denote volition. However, asymmetry is observed in the contemporary TSM corpora.

### 5.2.1 *beh/m* as lexical verbs.

There are three key points in the lexical use of volition in contemporary Southern Min. I have observed an interesting asymmetry between *beh* and *m* in their usage as a verb. In (4), *beh* is a verb, meaning ‘to want’, while the negative



*m* does not serve as a verb. Instead, a negation *bo* and verb *ai* are used to contrast with the affirmative volitional verb *beh*, as shown in (5).

- (4) i beh lingo; \*m kam-a.  
 3sg want apple not.want tangerine  
 Int. ‘He wants apples, but not tangerines.’
- (5) i beh lingo, bo ai kam-a.  
 3sg want apple not want tangerine  
 ‘He wants apples, but not tangerines.’

There are other changes in the lexical verb *beh* too, to which I will come back in section 5.3, when diachrony of *beh/m* is addressed.

### 5.2.2 *beh* as a modal.

The affirmative modal *beh* is multi-functional as opposed to the negative *m*. Lien (2008) suggests three meanings for *beh*: (a) ‘want’ as in (6), (b) ‘approach’ as in (7), and (c) ‘approximate’ as in (8). Lien points out that *tih beh* in (7) and *beh oa* in (8) clarify ambiguity.

- (6) **beh** tshoa boo. 卜娶某 TSM; Lien (2008: 1)  
*want marry wife*  
 ‘(He) wants to get married.’
- (7) (tih) **beh** am a. TSM; Lien (2008: 1)  
*about approach dark PAR*  
 ‘It’s approaching dusk.’
- (8) **beh** (oa) tsap kin. TSM; Lien (2008: 1)  
*approximate close ten half-kilogram*  
 ‘It’s almost 5 kilograms.’

The use of *beh* is not this simple, however. *Beh* can also be used for immediate future ‘going to’; see (9), which is modified from (6). Note that there are two changes: the semantics of *beh* and the additional *a*, which marks inceptiveness.

- (9) i        **beh**            tshoa boo a.  
       3sg    going.to        marry wife PAR  
       ‘He is going to get married.’

Chang (2009: 70) associates the future sense in *beh* with an inanimate sentence subject and glosses it as ‘will’. I disagree with this analysis. Example (9) shows that *beh* can be used with a human subject *i* ‘he’, and ‘will’ does not show the immediate feature of *beh*. With the marker *a*, *beh* is forced to read as future. Sentence (9) shows how aspect interacts with modality.

*Beh* can induce a necessity reading too, as in (10).

- (10) ma    m        tsai **beh**    to        tsit    hang    sing    pan.  
       also NEG know need which one CL first do  
       ‘I don’t know which I need to do first.’ (Chang 2009: 73)

In addition to *beh*, *ai* 愛, originally ‘love’, is also used as volitional. *Beh* and *ai* are often interchangeable, but they differ both in category and interpretation, less so in syntax.

Briefly, whereas *beh* has epistemic readings, *ai* doesn’t, as in (7)’.

- (7)’ \*(tih) **ai**                    am a.        TSM; Lien (2008: 1)  
       about approach        dark PAR  
       int. ‘It’s approaching dusk.’

On the other hand, *ai* yields deontic necessity ‘should, ought to, must’, but *beh* doesn’t, as in (11).

- (11) li      **ai**                    tshoa boo.  
       2sg    ought.to        marry wife  
       ‘You ought to get married/have a wife (speaking to a male).’

Two other forms, *siunn-beh* 想欲 and *siunn-ai* 想愛 (literally think-want/think-like), are also heard among speakers of modern TSM.

- (12) *siunn-beh* ‘think-want’/ *siunn-ai* ‘think-desire’ > ‘want’

Table 5.2 summarizes a list of words derived from *beh* or *ai*. I adopt van der Auwera and Plungian’s (1998) modal classification. Note that *ai* overlaps in both ‘need’ and ‘want’ systems, which I address in chapter six.

Table 5.2  
 The distinction between *beh* and *ai*

|                                    | <i>beh</i>                          | <i>ai</i>                                                                             |
|------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------|
| epistemic                          | <i>beh</i> ‘going to’               |                                                                                       |
| participant internal               | ( <i>siunn-</i> ) <i>beh</i> ‘want’ | <i>ai</i> ‘want’<br><br>( <i>siunn-</i> ) <i>ai</i> ‘want’<br><br>[ <i>ai</i> ‘need’] |
| participant external (non-deontic) | * <i>beh</i>                        | [ <i>ai</i> ‘need’]                                                                   |
| participant external (deontic)     | * <i>beh</i>                        | [( <i>tioh-</i> ) <i>ai</i> ‘should, must’]                                           |

### 5.2.3 *m* as a modal.

Lien (2008) suggests that *m* is volitional when followed by a dynamic verb or a stative verb, as in (13) and (14). (Translation and glosses are mine.)

- (13) 卜食摺毋討趁。 Lien (2008, p.11, (125))  
 beh tsiah ko **m** to-tan.  
 want eat but unwilling earn  
 ‘(He) wants to make a living but is unwilling to make effort.’
- (14) 你攏毋對我好。 Lien (2008, p.11, (128))  
 li long **m** tui gua hoo.  
 2sg LONG not.willing PREP 1sg good  
 ‘You are not willing to treat me well.’

Lien notes that *m* can be substituted for by *bo-beh* or *bo-ai*. A closer look reveals that the disyllabic negatives each consist of a negative and a desiderative modal. A phonetic fusing of *bo-ai* (*bai*) can also be used; see (16).

- (15) *bo-beh* = *bo* ‘not’ + *beh* ‘want’  
 (16) *bo-ai* = *bo* ‘not’ + *ai* ‘desire; love’ > *bai*

These three negative modals (*m*, *bo-beh* and *bo-ai*) are thus competing forms (Lien’s term) in modern TSM, although they are not completely interchangeable. I provide two examples below. The following question to be asked is how the three negative modals differ.

- (17) i **beh** khi Taipak. (affirmative)  
 3sg want go Taipei  
 ‘He wants to go to Taipei.’
- (18) i **m/bo-beh/bo-ai** khi Taipak. (negative)  
 3sg not.want go Taipei  
 ‘He doesn’t want to go to Taipei.’

To show the differences, Lien (2008: 13) demonstrates the occurrence of the three alternative negative volitional modals, which I summarize in Table 5.3. The left-most column shows the verbs following the negative marker.

Table 5.3  
The competing forms for ‘not.want’ in TSM

|                       | monosyllabic    | disyllabic       |                   | Total     |
|-----------------------|-----------------|------------------|-------------------|-----------|
|                       | 毋 <i>m</i>      | 無卜 <i>bo-beh</i> | 無愛 <i>bo-ai</i>   |           |
| 食 <i>tsiah</i> ‘eat’  | <b>12 (67%)</b> | 2 (11%)          | 4 (22%)           | 18 (100%) |
| 搵 <i>tih</i> ‘to get’ | <b>6 (43%)</b>  | <b>7 (50%)</b>   | 1 (7%)            | 14 (100%) |
| 共 <i>ka</i> ‘with’    | <b>27 (54%)</b> | 8 (16%)          | 15 ( <b>30%</b> ) | 50 (100%) |
| 去 <i>khi</i> ‘to go’  | <b>19 (70%)</b> | 3 (11%)          | 5 (19%)           | 27 (100%) |

I discuss three topics left unaddressed by Lien (2008). First, *m* still remains as the most frequently used negative volitional modal, based on Lien’s data. Frequencies however vary depending on the verb. For instance, the distribution of *m tih* and *bo-beh tih* (the 2<sup>nd</sup> entry) is approximately of ratio 1 to 1 in his data.

I provide examples below to demonstrate the alternatives. Recall the lexical ‘want’; contrasting examples in (4), *m* cannot appear alone as a verb.

- (4) i beh lingo; \***m** kam-a.  
3sg want apple not.want tangerine  
Int. ‘He wants apples, but not tangerines.’

(19) and (20) show that both *m tih* and *bo-beh tih* are equally acceptable.

- (19) i beh (-tih) lingo, **m** tih kam-a.  
3sg want get apple not.want get tangerine  
‘He wants apples, not tangerines.’

(20) i        beh (-tih) lingo, **bo-beh**        (-tih) kam-a.  
       3sg    want    get    apple not.want        get    tangerine  
       ‘He wants apples, not tangerines.’

Although the percentage of another alternative *bo-ai* with *tih* is relatively low (7%) in Table 5.3, *bo-ai-tih* in (21) sounds as good as (19) and (20) for my consultants. One consultant pointed out that when *tih* is not attached in the second phrase, *bo-ai* sounds better than *bo-beh*.

(21) i        beh(-tih)        lingo; **bo-ai** (-tih)        kam-a.  
       3sg    want (-get)    apple not.like(-get) tangerine  
       ‘He wants apples, not tangerines.’

Second, according to my consultants, *m* and *bo-beh/bo-ai* are not entirely interchangeable. One needs further information to know which word is more appropriate. For instance, in (22), with *m*, the sentence means that someone does not have the intention of eating beef.

(22) i        **m**                tsiah    gu-ba.  
       3sg    not.want        eat    beef  
       ‘He doesn’t intend to eat beef.’

The above can be also used in a complaint, where someone doesn’t eat beef although his mother cooks beef well. The sentence can also give rise to a habitual reading, indicating that this person chooses not to eat beef, such as for religious beliefs; ‘he doesn’t eat beef’. *Bo* can be used to replace *m*, as in (23).

(23) i        **bo**        tsiah    gu-ba.  
       3sg    not        eat    beef  
       ‘He doesn’t eat beef.’

(23) i        jit        tng        **bo**        tsiah    gu-ba.  
       3sg    this    meal    not    eat    beef  
       ‘He didn’t eat beef for this meal.’

With *bo-beh* as in (24), the meaning is similar to that of (22), but for a particular instance. For example, today for a particular meal, a person does not feel like having beef.

(24) i        jit        tng        **bo-beh**        tsiah    gu-ba.  
       3sg    this    meal    not-want    eat    beef  
       ‘He doesn’t intend to eat beef for this meal.’

Lastly, when *bo-ai* is used, the ‘liking’ of *ai* is very strong for several of my consultants. Example (25) means that a person tends to avoid eating beef for preference reasons, perhaps because beef to this person is not tasty.

(25) i        **bo-ai**        tsiah    gu-ba.  
       3sg    not.like    eat    beef  
       ‘He doesn’t like to eat beef.’

The above-mentioned slight differences among (22)-(25) can be explained by the fact that the positive counterpart *beh* and the word *ai* ‘love; like; desire’ are undergoing change as well. Consequently, some ambiguity may arise as in (26). *Beh* shifts between desire and futurity, the latter of which is more grammaticalized.

(26) gua    **bo**    beh    khi    Taipak.        TSM; Wu (2009: 26)  
       1sg    not    BEH    go    Taipei  
       a. ‘I don’t want to go to Taipei.’ (Wu’s translation)  
       b. ‘I’m not going to Taipei.’

To disambiguate between the interpretations, *siunn* ‘think’ is often added to make the volitional reading more clear; see (27). *Siunn* forces a volitional reading.

- (27)    *gua*    *bo*    **siunn**-*beh*    *khi*    *Taipak*.  
           1sg    NEG    think-want    go    Taipei  
           ‘I don’t want to go to Taipei.’

The two interpretations of *bo-beh* in (26) echoes Chang’s (2009) findings about the grammaticalization of *beh*: its loss of volition and gain in futurity. Crucially, when the meaning of *beh* shifts, the system of its negation *m* changes accordingly.

The shift can also be observed in questions. For example, in (28), the affirmative volitional modal *beh* is used in questions, and *m* is used to negate *khi* ‘go’ in the answer in (28a).<sup>114</sup> *M* can appear alone as an answer, but *bo-beh* cannot, as shown in (28b) and (28c). While *bo-ai* can be used as an answer, *bo-beh* has to be accompanied by the verb *khi* ‘go’; see (c) and (d). This means that *bo-beh* is less modal-like.<sup>115</sup>

- (28)    *li*        **beh**    *khi*    *Taipak bo?*    Wu (2009: 34)  
           2sg    want    go    Taipei Q  
           ‘Do you want to go to Taipei?’

- |    |                 |                       |    |                    |
|----|-----------------|-----------------------|----|--------------------|
| a. | <b>m</b>        | <i>khi</i> .          | b. | <b>m.</b>          |
|    | <i>not.want</i> | <i>go</i>             |    | <i>not.want</i>    |
|    |                 | ‘I don’t want to go.’ |    | ‘I don’t want to.’ |

<sup>114</sup> The question marker *bo* in (28) is not canonical; typically, *m* is chosen over *bo*. We thus see multiple ways in the answer.

<sup>115</sup> Note that a TSM modal can serve as an answer.



- |    |                              |    |                     |
|----|------------------------------|----|---------------------|
| c. | <b>*bo-beh./ bo-beh</b> khi. | d. | <b>bo-ai</b> (khi). |
|    | <i>not-want/ not-want go</i> |    | <i>not-want go</i>  |
|    | ‘I don’t want to go.’        |    | ‘I don’t want to.’  |

#### 5.2.4 The pure negative *m*.

Among the five basic negative elements in TSM, *m* is unique in its  $m_1$  versus  $m_2$  distinction. The pure negative *m* is often labeled as  $m_2$  in the literature, as opposed to  $m_1$  ‘not.want’, discussed previously. There has been a lot of discussion on  $m_2$  and its verbal selection restrictions. For instance, Li (2007) suggests that  $m_2$  is used to negate a fact or status. Crosland (1998: 261) demonstrates that only a limited number of verbs occur with  $m_2$  (chapter three).

Lien (2008) shows that there are three major categories with which the pure negative  $m_2$  is compatible. I chose examples from Lien, shown in (29)-(32) for further explanations; transcriptions and translation are mine. These three are in principle parallel to those in Crosland’s (1998) system.

1. *m* with stative verbs: 是 *si* ‘be’, 著 *tioh* ‘correct’, or 知 *tsiann* ‘to know’

- (29) siah    **m**    tioh    khi    a. 寫毋著去啊Lien (2008: 9, (108))  
 write   NEG   correct go    PAR  
 ‘(someone) wrote (something) incorrectly.’

2. *m* with the experiential marker *bat*

- (30) 師傅仔根本毋捌共講過這句話    Lien (2008: 10, (118))  
 su-fu-a kun.bun        **m-bat**  
*master basically*        *NEG-EXP*  
                          ka    kong    kue    tsit    ku    ue.  
                          *PREP say    EXP this    CL    sentence*

‘Our master did not ever say such a thing.’

3. *m* with modals, such as 通 *thang* ‘can’, 肯 *khing* ‘willing’, or 敢 *kann* ‘dare’,<sup>116</sup>

(31) 千萬毋通用手去摸                      Lien (2008: 10, (119))  
 tsian.bam      **m**-thang      iong   tsu      khi      bong.  
 certainly      NEG-allow      use      hand      go      touch  
 ‘Definitely do not touch (this) with (your) hands.’

(32) 伊麼毋敢倒轉去                      Lien (2008: 10, (120))  
 i      ma      **m**-kann      to      tnn      khi.  
 3sg      PAR      NEG-dare      back      return      go  
 ‘He did not dare to return (home).’

We need to treat *m* in the above modal cases, as the pure negative *m*<sub>2</sub>, in that the following combinations are simply unavailable.

(33) \**beh-tang*      intended: ‘allow’  
 \**beh-kan*      intended: ‘allow’  
 \**beh-kenn*      intended: ‘willing’ (*beh* is the affirmative counterpart of *m*.)

It is problematic that *m*<sub>2</sub> only negates a limited selecting verbs. As a pure negator, *m*<sub>2</sub> should be relatively free with whatever accompanies it. Another puzzle is that if *m*<sub>2</sub> is pure negation for modals in TSM, why is *bo-beh* or *bo-ai* with a different negative *bo* also possible? I address this topic in chapter seven, when *bo* is discussed.

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<sup>116</sup> *Khing* and *kann* are modals in TSM; the translation is for semantics only.

### 5.2.5 Other categories.

This section addresses other uses of *m* and *beh*. *M* can also be found in the CP level, such as to confirm, to call attention or to assert. There is no specific meaning in *m* in (34); *m* may be translated as ‘and this is it’ or ‘you know’. I am agnostic about if this *m* is the same morpheme.

- (34) 啊就彼个囡仔掠去關啊毋  
 a-to hi e gin-a liah khi kuain a **m**  
 PAR that CL kid catch go prison PAR M  
 ‘That..it is that the kid was sent to prison, you know.’

Also, one can find *m* attached to a modal or adverb for emphatic purposes.

Examples are (35) through (37).

- (35) tsit.si sit tsi **m** **bian** uan.than.  
 temporarily lose hope M need.not sadden  
 ‘You need not feel saddened due to your temporary loss of hope.’

- (36) 你做人的牽手，  
 li tso lang e kuan-tshiu, ang-sai  
 2sg do person GEN wife husband  
 翁婿若有做啥物毋著的代誌，  
 na u tso m-tioh e tai-tsi,  
 if ASP do not-correct REL thing  
 你毋就小可共伊苦勸一下  
 li **m-tioh** sio-khua kah i khoo-khng tsit-e  
 2sg M-tioh a bit PREP 3sg advise a bit  
 ‘As a wife, your husband, if he does something wrong, you should give him a bit of advice.’

- (37) 啊毋才轉世來予彼个先生做子毋  
 a **m-tsiah** tsuan-se

CONJ M-then reincarnate  
 lai hoo hit e sian-sinn tso kiann **m**  
 come PASS that CL sir do son M  
 ‘(someone) then reincarnated and became son to that sir.’

*M* in (35)-(37) does not give rise to a negative reading. Lien (2008) suggests the use in (35) as negative concord. I, however, argue against his negative concord proposal; see chapter six.

Now, we examine *beh*. *Beh* can be a C. Examples (38) and (39) show how the conditional *beh* ‘if’ is used. Note that *beh* is often used in the form *na-beh* 若 卜 and/or together with a copula *si*.

(38) **beh** gua tsiah sann kang to thiam a.Chang (2009: 76)  
 if 1sg eat three day then tired PAR  
 ‘If it were me, I’d get sick after eating (...) for three days.’

(39) **na-beh(-si)** gua, (gua) tsiah sann kang to thiam a.  
 if-if(-COP) 1sg, 1sg eat three day then tired PAR  
 ‘If it were me, I’d get sick after eating (...) for three days.’

*na* 若 and *beh* 卜 can be separable as in (40), where we also see a contrast between *bo-ai* and the pure negative *m<sub>2</sub>*.

(40) 有人若講卜  
 u lang na kong **beh**  
 exist person if say want/if  
 叫你做啥物工課，  
 kio li tso siann-mih khang-khue,  
 ask 2sg do what work  
 你就無愛做，毋願意啊，  
 li tloh **bo-ai** tso, **m-guan-i** a.  
 2sg then NEG-want do NEG-willing PAR

‘If someone asks you to do some work, you often do not want to do, with no intention (at all).’

### 5.2.6 Concluding remarks.

In conclusion, *beh* and *m* are a volitional pair, meaning ‘want’ and ‘not.want’. *Beh* has a near synonym *ai*, which functions as a substitute in some cases, but not always. Southern Min distinguishes  $m_1$  from  $m_2$ , with  $m_1$  serves as volition negation ‘not.want’ and  $m_2$  as a pure negative. However,  $m_2$  only occurs with copular and stative verbs or modals. In addition to *m*, two other forms, *bo-beh* and *bo-ai*, are used as negative volitions. Finally, *m* also functions as a discourse marker, and *beh* can appear as a conditional complementizer, often in the form of *na-beh* ‘if-if’.

## 5.3 Diachrony of *beh/m*

This section begins with the origin of *beh* and *m*, followed by a review of previous studies on the affirmative *beh* and its near synonym *ai*, meaning ‘love, desire’ originally. Corpus data are examined to provide additional evidence to argue against existing findings.

### 5.3.1 The origin of *beh/m*.

*1. on beh.* The affirmative *beh* ‘want’ is from a different origin than 欲 and 要. The MSC *Pinyin* for the latter two morphemes are *yu* and *yao*. The historical text *Zhuzi yulei* consists of six volitional verbs as in Table 5.4.<sup>117</sup> As

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<sup>117</sup> The number of tokens is in brackets; I added modern TSM pronunciation and English translations.

seen in the transcription, no word in this table shares a similar pronunciation as *beh* in modern TSM.

Table 5.4

Volitional verbs in *Zhuzi* (adapted from Wu 2004a: 74-76)

|                                              |                              |
|----------------------------------------------|------------------------------|
| 肯 [56] <i>khing</i> ‘be willing’             | 要 [212] <i>iau</i> ‘want’    |
| 欲 [143] <i>iok</i> ‘want’                    | 要得 [2] <i>iau-tit</i> ‘want’ |
| 願 [2] <i>guan</i> ‘hope, desire, be willing’ | 敢 [10] <i>kann</i> ‘dare’    |

The table shows that *iok* 欲 and *iau* 要 comprise of the most frequently used volition words in this text. TSM *beh* is not close to either in terms of pronunciation. Also, in modern TSM, the morpheme 欲 in 欲望 *iok-bong* ‘desire’.<sup>118</sup> Nonetheless, the character 欲 is suggested by Taiwan Ministry of Education to represent *beh*, for semantic reasons. Yet, another character 卜 may be chosen by scholars too.

Chang (2009: 57; footnote 5) clarifies that *beh* is not a cognate to the Chinese 欲 or 要 ‘to desire, to want’. What is the source of *beh*? There are two lines of postulation (Chang 2009: 79). One postulation points to a result from dialectal contact. The other possibility is that *beh* is a borrowing.

2. *on m* 毋 The character 毋, pronounced as *wu* in modern Mandarin, is often chosen by scholars to represent the concept of Southern Min *m* ‘not.want’. However, I didn’t find any entry from the available sources that corresponds to volition for 毋. Pulleyblank (1995) notes the *m/w* initials in negation modality. As

<sup>118</sup> The writing for Mandarin Chinese is 慾望.

*m* does not have a vowel, any *m/w* negative in archaic Chinese can be a candidate for *m*; however, none of the *m*- negatives in his list means ‘not.want’.

The dictionary *Shuowen* defines 毋 as ‘to stop (it)’, and thus it can be used for advising or prohibitives, ‘not to; do not’.<sup>119</sup> This prohibitive 毋 may carry deonticity, but it is not volition. In other cases 毋 is a negator, equivalent to *bu* 不 ‘not’, or to *wu* 無 ‘not have’.

The morpheme 毋 is not a common negative in MSC, as it is mostly used in frozen expressions (41). The prohibitive 毋 does not survive to this date, either.

- (41)    **wu**    yong            zhi    yi    毋庸置疑  
          NEG   use/need        place    doubt  
          ‘without doubt’

One of the dictionary definitions for 毋 is ‘nobody’; see (42). This instance is interesting, as the English negative *not* comes from ‘no creature’.

- (42)    郡中毋聲，毋敢夜行。《史記》 *Shiji* (109-91 BCE)  
          jun    zhong   **wu**            sheng,  
          place center not.have        sound  
                  **wu**            gan    ye    xing  
                  nobody        dare    night    walk

‘There is no sound (somewhere), and nobody dares to walk at night.’

The last use of 毋 from the dictionaries appears in the beginning of a sentence and it does not carry semantics. This point is crucial as we have seen *m*

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<sup>119</sup> 《說文》：“毋，止之也。人 人女，有奸之者。”

as emphatic without a specific meaning. This phenomenon is also found in TSM *be* (chapter 4) and *bo* (chapter 7).

### 5.3.2 Development of *beh*.

The morpheme *beh* is by no means an unfamiliar topic for researchers. Many have worked on either the categorial status or the diachrony of *beh*, such as Cheng (2003), Chang and Chen (2003), Lien (2008), and Chang (2009). I use Chang's (2009) summary, illustrated in Table 5.5, as an overview of the diachrony of *beh* (classifications are hers; highlights mine.) Chang provides good examples; I however look at the categorial shift of *beh* and its system of affirmation and negation.

Table 5.5  
Diachronic development of *beh* (Chang 2009: 77)

|                                        | 16-19 <sup>th</sup> cy. | late 19 <sup>th</sup> -early 20 <sup>th</sup> cy. | 1995-1997          |
|----------------------------------------|-------------------------|---------------------------------------------------|--------------------|
| 1. <i>want</i> of an entity            | 46 (6.3%)               | <b>43 (11.6%)</b>                                 | 1 (0.5%)           |
| 2. <i>want</i> for something to happen | <b>440 (60.3%)</b>      | <b>240 (64.5%)</b>                                | <b>132 (64.7%)</b> |
| 3. future                              | 65 (8.9%)               | <b>35 (9.4%)</b>                                  | <b>34 (16.7%)</b>  |
| 4. necessity                           | <b>76 (10.4%)</b>       | 14 (3.8%)                                         | 13 (6.4%)          |
| 5. proximative                         | 11 (1.5%)               | 8 (2.2%)                                          | 18 (4.8%)          |
| 6. conditional                         | <b>85 (11.6%)</b>       | 23 (6.2%)                                         | 6 (1.6%)           |
| 7. others                              | 7 (1%)                  | 9 (2.4%)                                          | 0 (0%)             |
| Total                                  | 730                     | 372                                               | 204                |

The table shows that *beh* has been used for various meanings during the three time periods chosen by Chang, with her 1995-1997 representing modern



TSM. The use of *beh* has shifted from one period to the next, yet the modal usage of *beh* (item 2) has remained the most prominent. *Beh* as a verb ‘to want something’ (item 1) has become less frequently used in modern days, but its use as futurity marking ‘going to’ (item 3) has been maintained. The decrease in the use of necessity *beh* (item 4) is associated with the rise of necessity *ai*, whose development is discussed immediately after this subsection. The conditional use (item 6) of *beh* ‘if’ has dropped throughout the past five decades.

Lien (2008) uses modern Taiwanese Southern Min databases for an investigation of *beh*. The categories covered for modern *beh* in the two scholars’ work are much alike, except that Chang adds necessity and conditional usages.

Table 5.6. shows that negation of *beh* is shaped in different forms.

Table 5.6  
Affirmative and negatives of *beh*

|             | affirmative           | negative                                      |
|-------------|-----------------------|-----------------------------------------------|
| volition    | <i>beh</i> ‘want’     | <i>m</i> ‘not want’; <i>bo-beh</i> ‘not-want’ |
| necessity   | <i>beh</i> ‘need’     | <i>bian</i> 免 ‘need.not’                      |
| futurity    | <i>beh</i> ‘going.to’ | <i>bue</i> 未 ‘not.yet’                        |
| conditional | <i>na-beh</i> 若欲 ‘if’ | --                                            |

For instance, the negation for volitional *beh* ‘want’ can be either *m* ‘not.want’ or *bo-beh* ‘not-want’, but other uses of *beh* cannot be negated the same way. For instance, *bue* is the negation of future *beh*, and *bian* ‘not.need’ serves as the negation for necessity *beh*.

The negation system of *beh* is demonstrated in the table. First, *beh* and *m* are initially considered to be affirmative and negative volition counterparts (Li 2007 and Lü 2003), and now *bo-beh* ‘not.want’ comes into the system. I have explained this phenomenon in previous sections.

Secondly, *tioh* ‘need’ and *bian* ‘need.not’ are a necessity pair (chapter six), but now *beh* can have *bian* as negation. In other words, the paradigm of volition (*beh/m*) is interacting with that of necessity (*tioh/bian*).

- (43) *beh/bian*    *pan*            *to*    *tsit*    *hang?*  
           need/need.not deal.with    which one    CL  
           ‘Which one does (not) have to be dealt with?’

Thirdly, ‘future’ *beh* cannot be negated by *m* or *bo-beh*. A possible candidate is *bue*, which is an aspectual negative morpheme for perfective; see (44) and (45).

- (44) *thinn beh kng*            a.    天卜光矣  
           sky    around brighten    PAR  
           ‘It’s around daybreak.’
- (45) *thinn (iau) bue*            *kng.*    天猶未光  
           sky    yet    not.yet    brighten  
           ‘It’s still dawn.’

The above three examples point to an existing asymmetry between the affirmation and negation systems; I demonstrated in Table 5.7. The original affirmative-negative counterparts are highlighted. No research has addressed this asymmetry before.

Table 5.7  
The complex of *beh* and its negation

| modality  | affirmative                             | negative                                              |
|-----------|-----------------------------------------|-------------------------------------------------------|
| volition  | <i>beh</i> ‘want’                       | <i>m</i> ‘not.want’<br><i>bo-beh</i> ‘not-want’       |
| necessity | <i>beh</i> ‘need’<br><i>tioh</i> ‘need’ | * <i>m-beh</i> ‘not-need’<br><b>bian</b> ‘need.not’   |
| futurity  | <i>beh</i> ‘about to, going to’<br>--   | * <i>m-beh</i> ‘not-about to’<br><b>bue</b> ‘not.yet’ |

### 5.3.3 Development of *ai*.

The morpheme *ai* 愛 is now taking some of the same roles as *beh* in contemporary Taiwanese Southern Min. *Ai* originates as the word for ‘love’ in Classical Chinese; see (46).<sup>120</sup>

(46) 愛人者人恆愛之 (孟子 *Mengzi*; the 4<sup>th</sup> cy. BCE)

**ai**    ren    zhe    ren    heng    **ai**    zhi  
love   person NML   person foreverlove   PRON  
‘He who loves others is constantly loved by them.’

While the lexical use (both verb and noun) of *love* in *ai* has been preserved to this date, *ai* can also express modality: volition and deontic necessity. The development of *ai* can be captured in Table 5.8.

<sup>120</sup> Translation is James Legge’s; glosses are mine.

Table 5.8  
Diachronic development of *ai* (Chang 2009: 65)

|                | 16-19 <sup>th</sup> cy. | late 19 <sup>th</sup> -early 20 <sup>th</sup> cy. | 1995-1997            |
|----------------|-------------------------|---------------------------------------------------|----------------------|
| love/like/hope | 184 ( <b>92.9%</b> )    | 127 ( <b>76.5%</b> )                              | 63 (30.3%)           |
| prediction     | 13 (6.6%)               | 1 (0.006%)                                        | --                   |
| necessity      | 1 (0.005)               | 38 (22.9%)                                        | 145 ( <b>69.7%</b> ) |
| Total          | 198                     | 166                                               | 208                  |

As seen, the *love/like/hope* sense of *ai* is decreasing in numbers through the course of time, from 93%, 77%, to 30% in contemporary TSM. About 70% of tokens of *ai* in the most recent data (dated 1995-1997) are used in the necessity sense. The prediction notion by Chang is futurity. *Ai* is no longer used to express future. I show examples from Chang below for each use in Table 5.8.<sup>121</sup>

### 1. ‘love/like/hope’

- (47) 阮是愛月來到只      Chang (2009: 60); 1615 AD  
       guan si ai gueh lai kau tsia  
       1sg COP love moon come arrive here  
       ‘I came here because I love the moon.’

### 2. future

- (48) 啞公莫急, 愛易老      Chang (2009: 61); 1566 AD  
       a-kong mok kip, ai i lo.  
       grandpa NEG hurry will easy age  
       ‘Sir, don’t be in such a hurry. (Otherwise), (you) will get old easily.’

Note that Chang cites Bybee et al. (1991: 32) about the future sense in SM volition. She relates the prediction use of ‘will’ to futurity in *ai* and *beh* (Chang 2009: 61-62, 70-71).

<sup>121</sup> I provide TSM transcription for (47)-(51) and (59).

(49) *beh/ai*: ‘want’ > intention > prediction [+future] (Chang 2009: 55)

### 3. necessity

The necessity use of *ai* is important. I use Chang’s examples in (50)-(52) to show its diachronic development.

(50) 治家法各愛尊卑 Chang (2009: 63); 1566 AD

ti ke huat kok ai tsun pi  
manage family rule each need superior inferior

‘(When speaking of) rules to keep a family, (an important rule is that) the inferior need to respect the superior.’

(51) 君子報冤愛三年 Chang (2009: 64); late 19<sup>th</sup>-early 20<sup>th</sup> cy.

kun-tsu po-uan ai sann ni  
gentleman revenge need three year

‘It takes a gentleman three years to take revenge.’

(52) 後日愛上班 Chang (2009: 64); modern TSM

au-jit ai siong-pan  
the.day.after.tomorrow need work

‘(He) has to work the day after tomorrow.’

Chang states that (52) may yield a liking reading although she does not explain why. Her other examples of *ai* ‘need’ such as (53) are interesting data.

(53) 牽許台車就愛保養費 ne Chang (2009: 64); modern TSM

khan hit tai tshia  
drag that CL car

‘(If you) buy that car,’

tioh ai poiong hui ne!  
need need maintenance fee PAR

‘you will need to pay for the maintenance fee!’

Note that example (53) has double necessity marking: *tioh* and *ai*.

Wherever *tioh* ‘need’ and *ai* co-occur, *ai* can only express necessity, a topic to which I come back in chapter six.

I now address the negation of *ai*. In modern times, the negative *bo* is to negate *ai* only in the sense of ‘want’; the negation of necessity *ai* is *bian* ‘not.need’. Again, this asymmetry has not been discussed in the literature.

Table 5.9  
Affirmative and negative uses of *ai*

|           | affirmative      | negative                |
|-----------|------------------|-------------------------|
| volition  | <i>ai</i> ‘want’ | <i>bo-ai</i> ‘not-want’ |
| necessity | <i>ai</i> ‘need’ | <i>bian</i> ‘need.not’  |

Finally, let us investigate the relationship between *ai* and *beh*. Chang (2009: 78) suggests that *ai* and *beh* are complementary. She points out that necessity accounts for the major use of *ai*, and that *beh* is not often used as necessity ; rather, *beh* is mainly for volition. Her claim for the complementary distribution between *ai* and *beh* is too simple, given that both *ai* and *beh* still overlap in volition.

To conclude, I add the morpheme *ai* to Table 5.7 (on *beh*), resulting in a more complex system (Table 5.10).

Table 5.10  
The complex *beh* and its negation

| modality  | affirmative                                                 | negative                                                                   |
|-----------|-------------------------------------------------------------|----------------------------------------------------------------------------|
| volition  | <i>beh</i> ‘want’<br><i>ai</i> ‘want’                       | <i>m</i> ‘not.want’<br><i>bo-beh</i> ‘not-want’<br><i>bo-ai</i> ‘not-want’ |
| necessity | <i>beh</i> ‘need’<br><i>ai</i> ‘need’<br><b>tioh</b> ‘need’ | <i>bian</i> ‘need.not’                                                     |
| futurity  | --<br><i>beh</i> ‘going to’<br>* <i>ai</i>                  | <i>bue</i> ‘not.yet’                                                       |

### 5.3.5 Development of *beh-ai/ai-beh*.

Historically, the volition negatives (*bo-beh* and *bo-ai*) have appeared in the 16-17<sup>th</sup> century Min play *Lijing ji*. There are six instances of *bo-beh* and 30 of *bo-ai*. Out of the six cases of *bo-beh*, only one use is connected to volition ‘want’; the other five are for discourse marking, in which cases *bo* and *beh* are not a phrase.

(54) *bo* ‘or; otherwise’ + *beh* ‘if’

*Bo-ai*, on the other hand, shows two instances of ‘love’ usage and the rest carry a sense of ‘liking’. In other words, *ai* is still associated with ‘desire/love’ meaning in the text dated in the 16-17<sup>th</sup> century. This means that the volition sense of ‘want’ in *ai* has not yet evolved. From these facts, I assume that the negative forms *bo-beh* and *bo-ai*, as opposed to *m* ‘not.want’, are developed later.

In the next section, I investigate other volitional uses.

### 5.3.5 Development of *beh-ai/ai-beh*.

Recall that *bo-beh* and *bo-ai* ‘not-want’ are competing forms of *m* ‘not.want’ in volition. *Beh* and *ai* seem to be interchangeable. Below I show evidence to

support this analysis and to associate it with the grammaticalization of volitional modals in Southern Min.

Examining synchronic TSM data, I found instances of both *beh-ai* and the reverse order *ai-beh*, with the former (38 tokens) outnumbering the latter (11 tokens).

(55) 你卜愛啥，我予你

li      **beh-ai**          siann, gua    hoo    li.  
 2sg    want/need    what    1sg    give    2sg  
 ‘What do you need/want? I’ll give it to you.’

(56) 愛卜娶某的人家己去尋對象

**ai-beh** tshua-boo    e      lang  
 want    get.married    REL    person  
          ka-ki    khi    tshue            tui-siong  
          self    go    look.for        partner

‘For those of you who want to get married, go look for your significant other by yourselves.’

The first order *beh-ai* is associated with two deontic meanings: volition and necessity. 30 out of 38 instances of *beh-ai* mean ‘want’ in the *beh-ai* with a nominal phrase construction; see (55). Five out of the eight remaining cases are used as modal auxiliary ‘want’: *beh-ai* + VP. The other three sentences express *beh-ai* as necessity, an example of which is given in (57).

(57) 伊講卜愛較緊 e

i      kong    **beh-ai**          kah    kin    e.  
 3sg    say    must            more    quick    PAR  
 ‘He said it had to be quick.’



On the other hand, the second order *ai-beh* mainly expresses modal ‘want’ (58).

- (58) tse     **ai-beh** cuann kong. 這愛卜 cuann9 講?  
 this    want    how    say  
 ‘What do you want me to explain?’

Back to the categories of *ai*, *ai* can be used in both volition and necessity meanings, with various forms, as shown in Table 5.11.

Table 5.11  
 The categorical distributions of *ai* in modern TSM

|                       |           | lexical        | modal  |
|-----------------------|-----------|----------------|--------|
| <i>ai</i>             | volition  | ‘love’, ‘want’ | ‘want’ |
| <i>beh-ai, ai-beh</i> | volition  | ‘want’         | ‘want’ |
| <i>(tioh-)ai</i>      | necessity | --             | ‘need’ |

One may ask how has *ai* used in earlier days? Interestingly, the historical Min play *Lijing ji* records the use of *ai-beh*, but not *beh-ai*. The use of *ai-beh* in this text is mainly for ‘want’, with only few instances (34 tokens) out of the 338 tokens of *ai*. Below is an example of *ai-beh*.

- (59) 心中愛卜共你相結義            Chang (2009: 60); 1566-1884 CE  
 sim    tiong   ai     beh    kah    ni  
 heart center **love**   **want**   with   2sg  
           siong            kiat-gi  
           each.other    become.sworn.brothers  
 ‘I’d love to become a sworn brother of yours from the heart.’

From these facts, I postulate that *beh-ai* or *ai-beh* is relatively more recent forms to express ‘want’. This path follows grammaticalization, as one morpheme

becomes reanalyzed from a lexical to a functional category, moving from semantics to interpretable features, [i-F], another near synonym appears as reinforcement or renewal, such as *beh* and *ai* for each other.<sup>122</sup>

In the previous chapter, the ability *e-hiau* ‘can’ and the deontic possibility *e-sai* (i.e. the permissive ‘can’) are observed. More such as the *tioh-ai* (literally ‘need-need’) doubling in the paradigm of deontic necessity will be discussed.

To conclude, despite that Chang (2009) briefly notes a compound *beh-ai* as ‘want’ in contemporary Taiwanese Southern Min, but nothing hinges. I compared modern data with the 16<sup>th</sup>-17<sup>th</sup> century Min play texts, coming up with a conclusion that *beh-ai* and *ai-beh* are the byproduct of the diachrony of *beh* and *ai*. The choice of *beh-ai* over *ai-beh*, or vice versa, may have to do with sub-dialects, also noted by Cheng (2003). My consultants and I favor *beh-ai* over *ai-beh*.

### 5.3.6 Development of *beh-tih*.

The following paragraphs attribute to syntactic changes in the lexical verb *beh* ‘to want’. For some speakers, *tih* 搵 ‘to obtain’ is usually added between *beh* and the nominal phrase, as shown in the first part of the sentence in (60), where *beh-tih* and *m-tih* are matched.

- (60) i        **beh**    **(-tih)**    lingo, **m**                    **tih/\*(-tih)**    kam-a.  
           3sg    want    get    apple not.want            get                    tangerine  
           ‘He wants to get apples, but not tangerines.’

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<sup>122</sup> I do not mean that modals don’t have semantics. The term “semantic features” are used to associate semantic bleaching from lexical use of verbs/nouns to a grammatical category.

While *beh* is relatively freer (it can occur with or without *-tih*), *m* has to be accompanied by *-tih*. This again indicates that *m* is not a full-fledged verb, on the one hand. On the other hand, under the circumstances in which *-tih* is attached to *beh*, *beh* can be a verb or a modal. Semantically and syntactically, *beh* loses its verbhood when another morpheme *-tih* is added, as in (60).

As *beh* is more likely to be used as a modal, based on previous literature, I examine the use of *beh* 卜 together with *tih* 得 ‘to obtain’. Surprisingly, there are only ten tokens of *beh-tih* in the contemporary Southern Min corpora. Below are two examples of such. In all cases containing *beh-tih*, a nominal phrase is often followed. This means *beh-tih* is a verb.

(61) 卜得彼的錢

**beh**    tih    i        e        tsinn.  
 want   get    3sg    POSS   money  
 ‘wanting his money’

(62) 如果伊若是卜得著這塊地裡，卜發展

ju-ko   i        na-si  
 if       3sg    if-COP  
          **beh**    tit        tioh    tsit    te        te-li,  
          want   get    attach   this    CL     land  
          **beh**    huat-tian  
          want   develop

‘If he wants this piece of land for development’

Below is the search result for another writing 卜搵 *beh tih*. There are only 23 tokens of *beh-tih*, a fairly small number in the contemporary TSM corpora. My assumption for the less frequent co-occurrence of *beh* and *tih* is that *beh-tih*,

literally ‘want to get’, is more specific. There may be other factors such as age or regional differences, which is however beyond the scope of this study.

Diachronically, the combination of 卜得 also appears in *Lijing ji*. One out of the eight instances contains the ‘obtain’ reading; see (63). The other seven are the same line as (64), where 得 *tih* can be read as either ‘obtain’ or telicity.

Sentence (64) is interesting, as 卜 can be read as either ‘want’ or ‘if’. *Tih* ‘obtain’ adds telicity to the verb ‘know’. As noted previously, the conditional complementizer is one of the categories developed later for *beh*.

(63) 再卜得桃是來年      S. Min; 16<sup>th</sup>-17<sup>th</sup> cy.  
 tsai    beh                    tit    tho    si    lai    ni  
 again about/want    obtain peach COP    comingyear  
 ‘The next time to obtain peaches will be next year.’

(64) 爹媽若卜得知      S. Min; 16<sup>th</sup>-17<sup>th</sup> cy.  
 tia-ma            na    beh    tit    tsai  
 parents            if    if    obtain know  
 ‘If (my) parents know this, ...’

If we look further back, only two instances of *yaode* 要得, literally ‘want-obtain’, *Zhuizi yulei* were attested, compared to *yao* 要, which consists of 212 tokens (Wu 2004a: 74-75). I show one example below; translation and transcription are mine. Recall that 要 is the writing for Chinese ‘want’, and 卜 often serves as a substitute for Min ‘want’.<sup>123</sup>

(65) 他只是要得恁地虛靜 (13<sup>th</sup> cy.; Wu 2004a: 75)  
 ta      zhi-shi            yao-de            zhendi xuxing

<sup>123</sup> MSC transcription is provided for (65).

3sg only-COP want-obtain freely peace  
'He only wants to obtain a peaceful mind.'

The relatively rare use of *tih* with *beh* in the historical texts reveals that *beh* was stronger in its verbhood at the time than its contemporary use. The attachment of renewal *-tih* to the morpheme *beh* typically in present-TSM further indicates that *beh* is experiencing grammaticalization from a full-fledged to a modal auxiliary.

### 5.3.7 Development of *siunn-beh/siunn-ai*.

There are various ways in English to express volition, including *desire, feel like, long for, love, want, would like* and so forth. Likewise, *siunn beh* 想欲 or *siunn ai* 想愛 (*siunn* literally 'think') is also heard among speakers of Taiwanese Southern Min, along with the use of *beh-ai* or *ai-beh*. Out of 1350 tokens of *siunn* 想 'think' in the contemporary TSM corpora, *siunn-beh* 'want' accounts for 119 tokens and *siunn-ai* for 9 tokens.

Let us look further into examples with *siunn-beh*. First, the volitional *beh* can be replaced by *siunn-beh* 'think-want', the latter of which is however used as a modal in most cases. Below is a case where *siunn-beh* is used as a lexical verb, the only case out of the 119 *siunn-beh* tokens in the contemporary TSM corpora. The rest of *siunn-beh* are modals; see (67)-(68).

(66) 心肝想卜彼間廟

sim-kuann **siunn-beh** hit king bio.  
mind think-want that CL temple

'Someone wants that temple. / (Someone's) mind is on that temple.'

Second, the conversation lines in (67) show that *beh* and *siunn-beh* are interchangeable expressions. *Siunn-beh* in (68) can be translated as ‘in order to’.

- (67) 想卜過來共提安呢，  
**siunn-beh** kue-lai kah the an-ne  
 think-want cross-come PREP get PAR  
 卜過來共提啦，  
**beh** kue-lai ka the la.  
 want come PREP get PAR  
 ‘thinking of coming to get (it)...wanting to get (it)’

- (68) 去日本讀冊，想卜做醫生  
 khi Jit.pun thak-tshet, **siunn-beh** tso i-sing  
 go Japan study think-want do doctor  
 ‘Going to Japan to study, and wanting to become a doctor’

Example (69) shows that *siunn-beh* can take an adjectival complement.

- (69) 你有想卜好額無？  
 li u **siunn-beh** hoo-iah bo?  
 2sg ASP think-want rich Q  
 ‘Do you want to become rich?’

The other use, *siunn-ai*, differs more in semantics than in syntax in comparison with *siunn-beh*. Not only does *siunn-ai* place more limitation on the verb following it, but it is not used as often. For example, *siunn-ai* is usually followed by a verb such as ‘eat’, ‘sleep’, or ‘laugh’ in the corpora; see (70) as an example. This means that the desire meaning is still preserved in *ai*.

- (70) 我想愛食竹筍仔啦  
 gua **siunn-ai** tsiah tik-sun-a la.

1sg think-desire eat bamboo.shoots PAR  
 ‘I feel like eating bamboo shoots.’

However, one common characteristic for *siunn-beh* and *siunn-ai* is that they are mostly used as modals, thus less compatible with nominal complements. The combination of *siunn-beh-ai* is also possible.

(70)’ gua **siunn-beh-ai** tsiah tik-sun-a la.  
 1sg think-want-desire eat bamboo.shoots PAR  
 ‘I feel like eating bamboo shoots.’

I have so far addressed the possible candidates for volition ‘want’ in TSM: *beh*, *ai*, *beh-ai*, *ai-beh*, *siunn-beh*, *siunn-ai*, and perhaps *siunn-beh-ai*. Their categorial status or compatible complement is not exactly the same, nor is their semantics, which involves different degrees of volition. I provide two examples below; however, I do not intend to delve into this puzzle in this dissertation.

(71) li u **beh** khi Taipak bo?  
 2sg ASP BEH go Taipei Q  
 a. ‘Are you going to Taipei?’ (futurity)  
 b. ‘Do you want to go to Taipei?’ (volition)  
 (72) li u **siunn-beh/siunn-ai** khi Taipak bo?  
 2sg ASP think-want go Taipei Q  
 ‘Do you want to go/think of going to Taipei?’ (volition)

We turn to the discussion of negation. As noted previously, *beh* ‘want’, *siunn* ‘think’, and *ai* ‘desire’ are often combined to form disyllabic volitional modals. Given that *bo-beh* and *bo-ai* are used among speakers of TSM, *bo-siunn-*

*beh* or *bo-siunn-ai* should be possible as well. Below is one example from the corpora.

(73) 較早要的囡仔伴

khah-tsa      sng    e      gin-a-phuann  
early          play   REL   childhood-friend

攏麼無想卜合伊耍啊

long   ma   **bo**   **siunn-beh**   hah   i      sng    a  
all      PAR   NEG   think-want   PREP 3sg   play   PAR

'His childhood friends no longer want to play with him.'

I found no *bo-siunn-ai* in the corpora, but one of my consultants provided a sentence below.

(74) gua    tsit-ma          **bo**    **siunn-ai**      tsiah    mi.

1sg    now                  NEG   think-desire    eat    noodle

'I don't feel like having noodles now.'

Note that *bo* in the cases just discussed above in (73) and (74) is used as a pure negator; however, *m<sub>2</sub>* has been widely considered a generic/pure negator for stative verbs in Southern Min, just like Hakka *m* or Mandarin *bu*. What is going on here on *bo*? I leave this topic in chapter seven, where the grammaticalization of *bo* is investigated.

### 5.3.8 Concluding remarks.

To sum up, *beh* and *ai* are used together to represent volitionality although they have different sources. The grammaticalization paths for *beh* and *ai* look like (75) and (76).

(75) *beh*: 'like/want' > 'intend to' > 'going to/about to'

(76) *ai*: 'love' > 'want' (volition); 'need' (necessity)



Table 5.12 summarizes my findings for *beh/ai* and their negation. The complexity first comes from the cross-categorical modality in *beh* or *ai*, going vertically (to participant internal/deontic from epistemic, in the case of *beh*) and horizontally (volition to necessity, in the case of *ai*), based on van der Auwera and Plungian’s (1998) modal system.<sup>124</sup>

Table 5.12  
*beh/ai* in TSM

|                      | volition                                                | necessity                                             |
|----------------------|---------------------------------------------------------|-------------------------------------------------------|
| epistemic            | <i>beh</i> ‘going to’                                   | [ <i>tiann-tioh</i> ‘must’]                           |
| participant internal | ( <i>siunn-</i> ) <i>beh</i> ‘want’<br><i>ai</i> ‘want’ | <i>ai</i> ‘need’<br>[ <i>tioh</i> ‘need’]             |
| participant external |                                                         | [( <i>tioh-</i> ) <i>ai</i> ‘need’/‘should/ought to’] |

In the affirmative paradigm, another morpheme may be used to shift one category to a different one. One example is the epistemic *tiann-tioh* ‘must’, which is a combination of *tiann* 定 ‘definitely’ and *tioh* 著 ‘need’ (initially ‘to attach’). Another case is the deontic necessity *tioh-ai* 著愛 ‘need’, where *ai* is cross-listed in volition ‘want’ and necessity ‘need’. With the additional *tioh*, the participant-internal meaning of ‘need’ is no longer available in *tioh-ai*. Details about the words in the brackets are provided in chapter six.

Secondly, negation of *beh* is also complex. Overall, other than the fused form *m*, volitional modals have developed their independent negation marking, using the negative *bo*, such as *bo-beh*, *bo-siunn-beh* or *bo-siunn-ai* ‘not-want’.

<sup>124</sup> I use the terms vertically and horizontally to explain the interactions.

When it comes to the necessity modals, negation may be from another system, such as *ai* ‘need’ vs. *bian* ‘need.not’, the latter of which has an affirmative counterpart *tioh* ‘need’, however.

Next, the cross-categorical modal verbs are also intertwined with tense, such as *beh*, which can mean both ‘want’ (volitional) and ‘going to’ (futura). The newly developed compounding forms, such as *beh-ai*, *ai-beh*, and *siunn-beh*, are more specific than *beh* in expressing volitional modality. The deontic necessity in *beh* is much less preferred than *ai*.

Lastly, a near synonym *ai* is more specific than *beh*, and may serve as a substitute for *beh* ‘want’ from time to time. *Beh-ai* ‘want-want’ is used more often than *ai* alone. Likewise, within the necessity system of *ai*, the same change occurs: the morpheme *tioh* is often accompanied by reinforcement *ai* ‘need’ to ensure necessity. The doubling phenomenon, which occurs in TSM positive modals, indicates a move from semantic to interpretable features in the morpheme involved. This feature loss-regain phenomenon is part of grammaticalization.

#### **5.4 Grammaticalization of *beh/m***

I explain the grammaticalization of *beh/m* using the Minimalist Economy Principles to account for the verb serials in the TSM affirmative-negative volitional words. Also accounted for is the categorial shift in *beh* and *m*.

Table 5.13  
TSM volitional paradigm

| Affirmative volition ‘want’                | Negative volition ‘not want’                                |
|--------------------------------------------|-------------------------------------------------------------|
| <i>beh(-ai); ai(-beh); siunn(-beh/-ai)</i> | <i>m</i><br><i>bo-beh, bo-ai, bo-siunn-beh, bo-siunn-ai</i> |

#### 5.4.1 *beh*: V > T.

While *beh* ‘want’ can be lexical and modal, its negative *m* ‘not want’ is only modal in contemporary TSM. Based on its historical development, *beh* has the following features.<sup>125</sup>

(77) *beh*: [desire/liking, intention, volition, proximity]

The change from V to T in *beh* takes shape in two ways. One is when *beh* changes from a lexical verb to a modal auxiliary ‘want’, and the other is *beh* as indicating temporal proximity ‘going to’.<sup>126</sup>

The Economy Principles provide a good device to explain the reanalysis from v to V in syntax. The framework of grammaticalization also speaks for the reanalysis, “up the tree”, phenomenon (van Gelderen 2004).

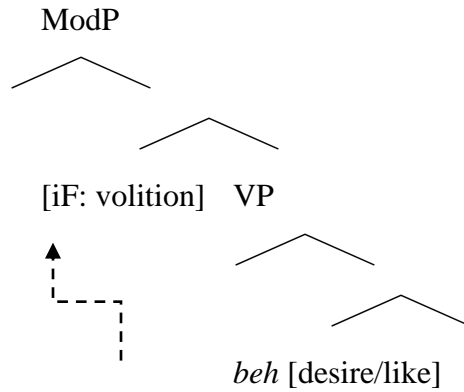
First, I assume that the semantic features of desire/like sets *beh* in the V (I ignore the VP shell for now). When *beh* gradually loses its lexical features, it becomes reanalyzed higher in the modal head, carrying [i-F: volition].<sup>127</sup>

<sup>125</sup> Some may see the features in (77) as denotations. I however use the term feature in the same way as Feature Economy.

<sup>126</sup> Note that TSM *beh* ‘want’ is not the same as English *want*.

<sup>127</sup> I use [i-F] only to represent that the verbhood of *beh* is lost; I do not mean that

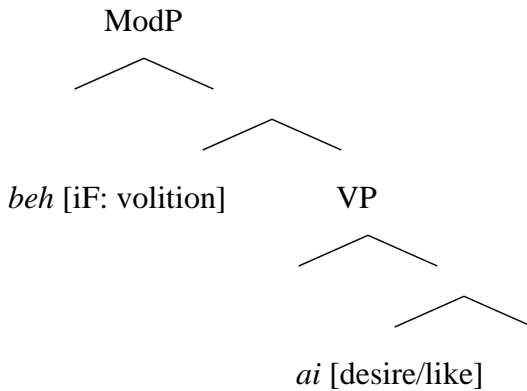
(78) Reanalysis of *beh* as a modal



When the V position is empty after *beh* is reanalyzed, another stronger semantic verb (e.g. *ai*) fills in, thus giving rise to a doubling *beh-ai* ‘want’; see

(79). *Ai* presumably is base-generated in V, and moves to v.

(79) Reanalysis of the lexical *beh-ai*



(80) i      **beh-ai**      kam-a.  
 3sg    want-want    tangerine  
 ‘He wants/wanted tangerines.’

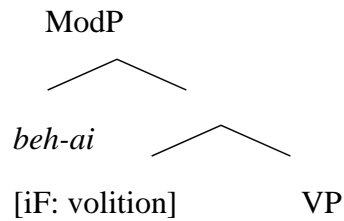
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modals carry no semantics.

The choice of *ai* is not random, given that *ai* is a near synonym of *beh*. Also, the ordering can be vice versa. That is *ai* can be placed in the ModP head, inverting *beh*, and thus make another format: *ai-beh*.<sup>128</sup>

I assume that moving from V to T the volitional modal *beh-ai* follows the same grammaticalization path as *beh* in Figure 5.1.<sup>129</sup> Thus, *ai* is left-adjoined to *beh*, forming a disyllabic modal verb *beh-ai*. The V position can be filled by a verb such as *tih* ‘to obtain’ as in (82), which takes a nominal phrase.

(81) Reanalysis of modal *beh-ai*



(82) i      **beh-ai**      tih      kam-a.  
 3sg    want-love    get    tangerine  
 ‘He wants/wanted tangerines.’

The verb head can possibly be occupied by another volitional synonym if we begin with *siunn* ‘think’ and stack *beh* and *ai* below in the linear order. Other combinations include *siunn-beh* with a verb *ai* or *siunn-beh-ai* plus another verb.

<sup>128</sup> For this order, I assume that *beh* is a verb for some speakers. As my consultants and I do not have *ai-beh* in our lexicon, this issue needs further researching.

<sup>129</sup> I use T in a general term. That is, I see Mod or Asp as in the T. adopting the notion that Chinese does not express tense by grammatical means, I simply ignore TP in the tree.

- (83) i        **siunn-beh-ai** tsiah kam-a.  
       3sg    want            eat    tangerine  
       ‘He wants to eat tangerines.’

For this order, I assume that *siunn* ‘think’ is in another (higher) ModP, given that *think* is epistemic (I adopt the cartography of two ModPs; chapter two). The composition of *siunn-beh* or *siunn-ai* is possibly different from that of *beh-ai* or *ai-beh*. I postulate that *siunn-beh* is a reduced form of two verbs from a matrix and subordinating clause containing a complementizer *kong*. The evidence comes from (84).

- (84) gua    siunn **kong** beh    ka    i        khi.  
       1sg    think say    want PREP 3sg    go  
       ‘I wanted to go with him.’

When the C *kong*, literally ‘say’, is reduced, *siunn* and *beh* become adjoined, both of which are further reduced into one unit. *Siunn-beh* is more likely to be a case of lexicalization; nothing hinges on this.

- (85) [VP siunn        [CP kong        [TP beh...]]]  
       > [VP siunn [TP beh...]]  
       > [TP siunn-beh...]

I have shown possible developmental paths for verb doublings in Southern Min. To summarize, the serial doubling or tripling can be accounted for by means of the Economy Principles. In the Southern Min cases presented here, the first element loses semantic features becoming [i-F] (interpretable features), but the second element (often newer) has semantic features. Evident is that *beh-ai* has a stronger sense in *ai* ‘desire’ than *beh*. The word *siunn-beh* ‘want’ has a core focus

on *beh* ‘want’ than *siunn* ‘think’. This in a way indicates that the first (often older) verb is weakening and likely has [i-F] as a modal auxiliary, instead. As is evident diachronically, *beh* as ‘want’ appeared before *ai*, and when *ai* later became grammaticalized from to volition ‘want’, *beh-ai* or *ai-beh* came into existence.

The above paragraphs discuss the use of *beh* as a volitional modal. I assume it is located in the lower TP, closer to the VP, as volition is participant-internal and highly connected to agency of the (animate) grammatical subject. I assume that this lower ModP is closer to the VP. There should be different projections for the two types of T (*beh* as modal and future): the former is more verb-like, whereas the latter is tense-like. So, ‘future’ *beh* occupies a higher position.

We shall proceed to discuss the projection for the other T (*beh* as future). As mentioned, *beh* as temporal proximity cannot be negated by *m* or *bo-beh*. The negation of this *beh* is the aspectual *bue* ‘not yet’. In a way, this *beh* may be in T, assuming a split TP, accommodating T, Mod and Asp.<sup>130</sup>

(86) thinn **beh** am a.  
 sky about.to dark PAR  
 ‘It’s getting dark.’

(86)’ \*thinn **m/bo-beh** am a.  
 sky not.going.to/not-going.to dark PAR  
 intended: ‘It is not going to get dark.’

(87) thinn iau **bue** am.  
 sky yet not.yet dark  
 ‘It has not become dark yet.’

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<sup>130</sup> I do not intend to answer the question whether or not ‘future’ *beh* is a modal, moving to T. Under the general notion that Chinese does not express tense by means of T, I leave this topic open now.

I assume that the temporal *beh* is higher than the volitional ModP, based on the English data. See the relative position of deontic and epistemic modals in (88) and (89). These show that when aspect is involved such as (89), a modal is most likely to be read as epistemic. Hsin (1999) has also noted the same in TSM.

(88) *She **should** eat beef.* (deontic)

(89) *She **should** be eating beef.* (epistemic)

Along the same lines, *beh* in (90) is higher than the progressive aspect *tih*, thus this temporal *beh* should be reanalyzed higher than its volitional counterpart.

(90) 天欲慢慢哪 *tih* 變暗 a.

|       |            |            |            |        |      |     |
|-------|------------|------------|------------|--------|------|-----|
| thinn | <b>beh</b> | bangbangna | <b>tih</b> | binn   | am   | a.  |
| sky   | beh        | slowly     | ASP        | become | dark | PAR |

‘It’s going to slowly get dark.’

Another reason to assume a higher position for the temporal *beh* is from (91). There are two *beh*’s in (91), where the temporal *beh* and the volitional *beh* occupy a different position. I tentatively assign T and Mod to each.

(91) i        **beh**                ma.siong        siunn-**beh**        li.khui.  
          3sg    going.to            immediately    want                leave  
          ‘He is going to want to leave right away.’

The sentence (91) is not ungrammatical, but (92) is more likely uttered by speakers of TSM.<sup>131</sup>

(92) i        **e**                ma.siong        **siunn-beh**        li.khui.  
          3sg    will    immediately    think-want        leave  
          ‘He will want to leave right away.’

---

<sup>131</sup> The interaction between the paradigms of *beh* and of *e* is demonstrated in the next subsection.



Briefly, the V to T in *beh* can be conceptualized as follows:

- (93) *beh*: V (volitional verb)  
> Modal (volitional modal)  
> Tense (future)

#### 5.4.2 *m*: V > T > C.

The grammaticalization of *m* resembles that of *beh*, but differs in the fact that *m* is further reanalyzed in the CP layer. I assume that *m* is a fused form of negation and volition. Tang (1994) treats *m*<sub>1</sub> as a fusion from *m*<sub>2</sub> and *beh*, just like the other negatives; (94) and (95). Under such a proposal, *m*<sub>2</sub> is treated as a pure negator; the phonetic twins *m*<sub>1</sub> and *m*<sub>2</sub> have different semantics.

- (94) *m*<sub>1</sub> ‘not.want’ < *m*<sub>2</sub> + *beh* ‘want’

- (95) *be* ‘cannot’ < *m*<sub>1</sub> + *e* ‘can’

I focus on the volitional *m*<sub>1</sub> ‘want’. There is no evidence for which character is used for *m* in Chinese, but the combination of a negative and a volitional verb such as (96) can be found in historical texts.

- (96) 己所不欲，勿施於人。《論語》 (the *Analects*; 475-221 BCE)

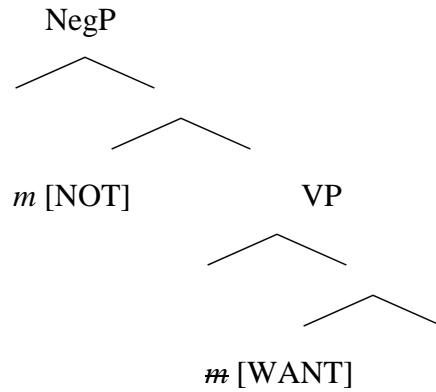
ji suo bu yu, wu shi yu ren.

self SUO NEG want NEG do PREP person

‘Don't do unto others what you don't want others do to you.’

Recall that the lexical use of *m* is not attested in contemporary TSM, but its affirmative counterpart *beh* is. If *m* were a lexical verb before, the tree should look like (97).

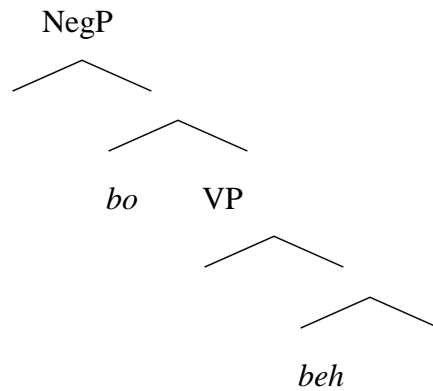
(97) The negative *m*



The competing negative *bo-beh* or *bo-ai* ‘not-want’ has two projections

(NegP and ModP); see (98).

(98) The negative *bo-beh*



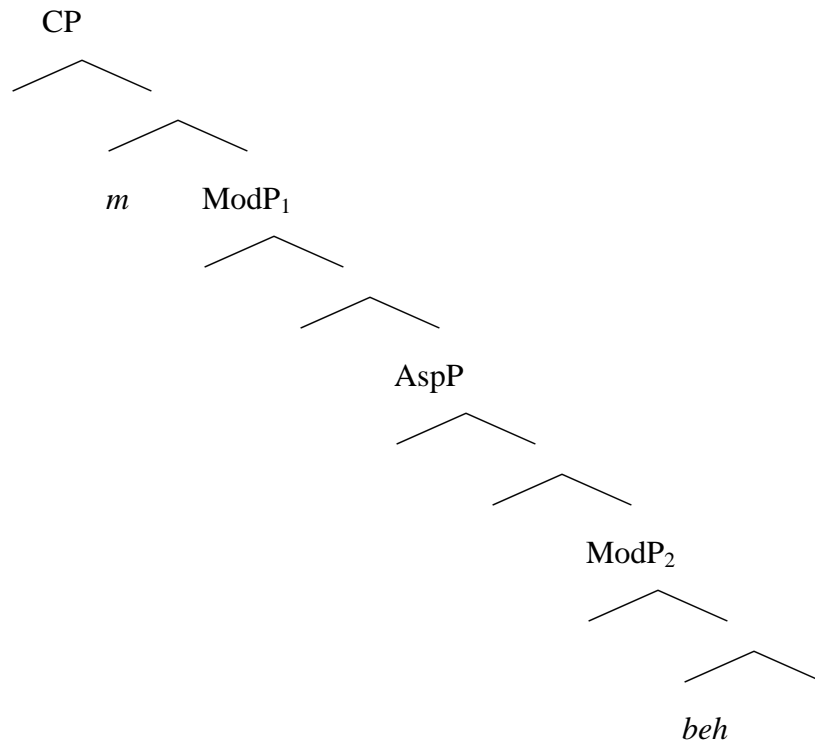
The VP projection changes to ModP for the modal use of *m* or *bo-beh*. The reanalyzed *m* in the CP layer can at least take two directions: one is in questions and the other is in discourse, with *m* being in the left periphery of an utterance marking speakers’ mood.

One special note about *m* in C is that *m* has to check its modality in the ModP, as the question marker *m* often matches with the affirmative *beh* ‘want’, as in (99). This matching mechanism is also observed in other interrogatives.

(99) i      **beh**   khi   **m?**   TSM  
 3sg   want   go   Q  
 ‘Does he want to go?’

How is matching in (99) presented? I adopted a modified cartography as (100), where ModP<sub>1</sub> accommodates epistemic modals, AspP is in between, and ModP<sub>2</sub> is for volitional *beh*.

(100) *m* in C



The old paradigm for *m* as a question marker requires the positive counterpart *beh* in the declarative clause. This indicates that *m* carries interpretable modal features that have to be checked off. I assume that C [u-Mod; u-Int] probes down the tree and finds the Goal of *m*.

(101) *m*: [iF-modality; iF-interrogative]

However, a shift has taken place in the *m* interrogative paradigm. In many cases, *bo* can substitute for *m* in yes/no questions, so (102) is observable in contemporary TSM. This means that the interrogative *bo* is base-generated in C, serving as a non-modal question marker.<sup>132</sup> I revisit this topic in chapter eight.

- (102) i        **beh**   khi   **bo?**  
          3sg   want   go     Q  
          ‘Does he want to go?’

The use of *bo* in questions with volitional modality is not a coincidence. Crucially, the negation of *beh* can take the shape of *bo* plus the affirmative modal *beh*. It is intriguing that the participation of the aspectual *bo* in both the negation and questions of the volitional *beh/m* system, given that *m*<sub>2</sub> is believed by many to be the universal negator for modal verbs. In contemporary TSM, the negative form *bo-beh* exists in the volitional system rather than *\*m-beh*. But now, *bo* can be a pure negative for volitional *beh*, and an interrogative marker in the C, with no uninterpretable modality features needed to be checked.

In this section, I ignore the other *m* (labeled as *m*<sub>2</sub>) as it is a negative with no modality. I do not intend to discuss whether or not *m*<sub>2</sub> participates in the grammaticalization of *m*<sub>1</sub>. I assume that it is a functional category projecting a NegP or IntP.

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<sup>132</sup> Bo is an aspectual negative ‘not.have’, and is often paired with *u* ‘have’ when *bo* is used as an interrogative.

## 5.5 Comparative Studies

This section begins with a volitional typology and proceeds to each subcategory to which Southern Min *beh* applies. Like other types of modality, volition in general can be expressed across various categories, including words/phrases such as *want, intend, desire, love, like, feel like, would like, will, be willing, will power, and dare* in English. In this study, I limit volition to modal verbs. This section revolves around the use of Southern Min modal verbs *beh* and *ai* ‘want’, with a comparison with their counterparts in two other Chinese languages. Also included are English *want* and *will* as both of which can convey volition, according to the literature.

### 5.5.1 Volition.

Verplaetse (2003: 152) views volition as “interconnected with two other categories [possibility and necessity].” With his propositional versus event modality, Palmer (2001) groups volition and ability as dynamic, together with the traditional deontic system, under the event category. This makes sense as volition and ability involve agency. Bybee and Fleischman (1995) also classify *desire* and *ability* as agent-oriented modality. Lyons (1977), however, regards volition as part of deontic necessity, assuming that desideratives (e.g. ‘*I want to have the book*’) comes from directives (e.g. ‘*Give me a book*’). van der Auwera and Plungian (1998) mainly address modal distinctions between possibility and necessity, but exclude volition.

In this study, I classify volition as a third category, because volition has many overlapping areas shared with the possibility or the necessity system, based

on van der Auwera and Plungian (1998), introduced in chapter three. I do not, however, intend to say that this three-way distinction is better. The main purpose here is to provide empirical data to show that Chinese has a different volitional paradigm than English.

Bybee et al. (1994: 240) suggest typological grammaticalization paths for the concept of *desire*. I adopt two lines that are relevant to my study.

(103) desire > intention > future > come to want, order

(104) desire > intention > future > probability > come to think; concessive

I address the use of English *will* and *want* for two reasons. For one, Li (2003) translates Mandarin *yao* as ‘will’, ‘need’, and ‘must’, but never ‘want’; however, *yao* in many of his examples are in fact equivalent to English *want*.<sup>133</sup> The other reason is that English *want* and *will* (and/or be going to) are frequently discussed by scholars, as these words share overlapping functions. For example, based on his corpus findings, Verplaetse (2003: 155) proposes that volition in English is shaped in three forms: the modal *will*, the quasi-modal *be going to*, and modal verb *want to*. Below I provide the grammaticalization path for the morphemes to be discussed in the following sections, including English *will* and *want*, and Chinese *yao* 要.

**English will.** The English *will* originated as *\*willan* in Old English. The online OED defines *will* as “desire, wish for, have a mind to, ‘want’ (something) [, and]; sometimes implying also ‘intend, purpose’.” Many other words based on

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<sup>133</sup> I do not see this as a dialectal difference in that ‘want’ is the core use of *yao*. I assume that Li does not include the meaning of ‘want’ in his discussion of modal *yao* because *want* in English is still verb like.

this meaning come about in modern English, such as the adjective *willing* and the noun *will-power*.

The lexical verbal use of *will* only takes a fairly small portion in modern English, and is typically in a mental sense. The instance of (100) also shows a use of *want*.

(105) *I will him to do what I want him to do.* (James Berry, p.c.)

In present-day English, *will* is used as a modal in two major ways: prediction and volition; see (106) and (107). For other uses, see Coats (1983) and Gotti (2003: 285-289).

(106) *Will you marry me?* (Do you want to marry me?)

*Of course, I will.* (I really want to.) Gotti (2003: 286)

(107) *John will mend the hole in the pipe.* Gotti (2003: 288-289) (the reading ‘I predict that John will mend the hole’, rather ‘John is willing to mend the hole’)

Note that the deontic reading is also crucial to *will*, as in (108) and (109).

(108) *Will you stop talking!* (Stop talking, please) (Gotti 2003: 287)

(109) *The successful candidate will have a university degree and be fluent in French.* (*will* = is required to) (Gotti 2003: 288)

Diachronically, the deontic use of *will* used to take up a large proportion, roughly about a half of the Middle English, but decreased to smaller than one third in early Modern English (Gotti 2003: 290-291). The prediction use in *will* however becomes the most prominent, accounting for 60% of Gotti’s data, compared to the 24% of volitional use. This distinction generally matches with

Coats' (1983) modern English data, where a half of *will* is for prediction and one third is for volition.

**English want.** The categorial status of English *want* is controversial. Some agree that *want* is a modal auxiliary, while others don't. *Want* is often classified as a deontic verb, as opposed to *think*, which is often considered an epistemic verb. The modern definition for *want* in the OED is: 'to desire, wish for, often with an infinitive as object' or 'to desire (a person) to (do something)'. According to the online OED, the etymology of English *want* probably comes from Old Norse *vanta* 'to be lacking or missing'. The sense of lacking is still in use in present-day English; see (110) and (111) (George Oliver, p.c.).

(110) *There's something **wanting** in her verbal communication.*

(111) *As a father of ten, he works hard so that his children are free from **want**.*

Boudin (2009: 333) suggests that *want* bears dual semantics between volition and necessity, and that the distinction is contextually sensitive; see his examples below.

(112) *You **want** to see her again, right?* (want = wish; volition)

(113) *You **want** to be careful.* (want = ought, need; deontic)

The following sentences show the use of *want* in the deontic necessity realm in a fairly strong sense.

(114) *I **want** the homework to be typed and stapled.* (order)

(115) *I **want** that the homework be typed and stapled.* (subjunctive mood)

However, under certain situations such as (116) and (117), *want* is used as a hedge. By using 'want', the utterance is less strong in terms of directiveness.



(116) *You will **want** to study hard, or you'll regret it.* (James Berry, p.c.)

(117) *You're going to **want** to make a first left at the intersection.* (George Oliver, p.c.)

My consultants feel that using *want* in (116) is to provide advice, which is less strong than the use of 'ought to' or 'should', or even 'must' in terms of deonticity. In the case of (117), *want* is used to soften the directiveness of the imperative sense in 'Make a first left'.

*Want* is commonly used. In his study on English volition where sentences with the first person as the subject are examined, Verplaetse (1999: 111) found two thirds of data from *will* and the rest shared equally by *be going to* and *want to*. Verplaetse (2003: 179) concludes that "the expression of volition with the form *want to* is becoming more internalized in the grammar and taking an increasingly important place in contemporary English".

**Chinese yao** 要. One of the meanings in Southern Min *beh* 欲 and *ai* 愛 is 'want'. I discuss *yao* here because the two TSM morphemes are somewhat equivalent to Mandarin *yao* 要 and Hakka *oi* 愛. Among the three Chinese languages, Mandarin *yao* and Hakka *oi* behave more alike in their usage, whereas Southern Min makes use of both *beh* and *ai*, and of disyllabic morphemes, such as *beh-ai* 'want' and *tioh-ai* 'should, must'. I have addressed *beh-ai* in this chapter; *tioh-ai* will be discussed in chapter six. The grammaticalization of *yao* is discussed below.

Cheng (2003: 124) suggests that *yao* originates as a noun, meaning ‘essence and key point’, as in (118).<sup>134</sup>

- (118) 不可爲典要 11<sup>th</sup>-6<sup>th</sup> cy. BCE  
bu ke wei dian **yao**  
NEG can serve.as book essence  
‘(They) cannot be essential rules.’

Chang and Chen (2003: 8-9) provide a more detailed categorial status for *yao*, shown below in (119) and (120).

- (119) pre-Middle Chinese (2<sup>nd</sup> BC-3<sup>rd</sup> CE)  
noun: ‘waist’, ‘essence; key point; ‘contract’  
Adj: ‘destitute’  
Verb: ‘to pursue a goal; to get’; ‘to ask somebody to do something’; ‘to threaten’; ‘to invite/to sign a contract with’; ‘to have to’
- (120) early Middle Chinese (3<sup>rd</sup>-6<sup>th</sup> CE)  
noun: ‘essence; key point  
Adj: ‘destitute’  
Verb: ‘to invite’; ‘to ask; pursue’; ‘to have to’; ‘want’  
Aux: ‘be going to’

As seen, the verbal *yao* carries deontic necessity as it is used to indicate ‘to have to’. The *be going to* sense in *yao* is interesting in that in modern TSM the volitional *beh* can also be used as immediate future ‘be going to; about to’.

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<sup>134</sup> I changed her glosses into Pinyin.

- (121) 陶又自要起同坐      Cheng and Chen 2003: 9; 3<sup>rd</sup>-6<sup>th</sup> cy. AD  
 Tao    you    zi    **yao**            qi    tong            zuo  
 (name) again self want/going.to rise together sit  
 ‘Tao was going to stand up and sit with (him).’

As pointed out by Chang and Chen (2003), the meaning of ‘want’ and ‘be going to’ in *yao* 要 appeared in the early Middle Chinese ear. The hypothetical ‘if’ for *yao* emerged in the late Middle Chinese era (7<sup>th</sup>-13<sup>th</sup> cy. CE) and was predominantly used in the Ming-Qing Dynasties (14<sup>th</sup>-17<sup>th</sup> cy. AD).

- (122) 要不做底事，便不做  
**yao**    bu    zuo    de    shi,    bian            bu    zuo  
 if    NEG do    DE    thing therefore    NEG do  
 ‘If he doesn’t want to do something, then he won’t do it.’

*Chinese ai* 愛. Although Hakka *oi* is likely a cognate to Chinese 愛, 愛 *ai* in modern Standard Chinese (Mandarin) is mainly a lexical verb ‘love, like’ and not used the same way as does Mandarin *yao*. Based on Chang (2009: 65), Southern Min *ai* has undergone a development path, from lexical ‘love/like/hope’ to deontic necessity, despite the fact that these two usages co-exist in modern TSM.

The following subsections investigate each category covered by Southern Min *beh* and its counterparts in Mandarin and Hakka.

### 5.5.2 The lexical *beh*.

TSM *beh*, Mandarin *yao* and Hakka *oi* can all be used as verbs.

- (123) gua    **beh(-tih)**      kam-a.      TSM  
           wo    **yao**                ju-zi.      MSC  
           ngai   **oi**                kam-e.     Hakka

1sg want tangerine  
 ‘I **want** tangerines.’

As mentioned, *-tih* ‘to obtain’ can be added to *beh* ‘want’ to show one’s desire, but no equivalent is found in the other two Chinese languages. In the English cases, *want* expresses verbal volition in present-day English and *will* is not a lexical verb; see the ungrammatical sentence in (124).

(124) \*I **will** tangerines.

The negation of (123) is (125) where a negator scopes over the verb.

(125) gua **bo**-beh(-tih) kam-a. TSM  
 wo **bu**-yao ju-zi. MSC  
 ngai **m**-oi kam-e. Hakka  
 1sg NEG-want tangerine  
 ‘I **don’t** want (to eat) tangerines.’

### 5.5.3 The epistemic *beh*.

The epistemic system shows a parallel consistency among *beh*, *yao* and *oi*, yet the other volitional source *ai* 愛 in Southern Min cannot be used, as the second line of (126) shows. Mandarin *yao* may be replaced by an adverb such as (*ji-*)*jian* (即-)將 ‘about to’, the latter of which is much less common in everyday speech.

(126) **beh** loh.hoo a. TSM  
 \***ai** loh.hoo a. TSM  
**yao** xia.yu le. MSC  
**oi** lok.sui leh. Hakka  
 about drop rain PAR  
 ‘It’s going to rain (pretty soon).’

Southern Min *ai* does not have epistemic meanings. It is, rather, a deontic necessity modal expressing obligation.

- (127) #**ai** loh.hoo. TSM  
 must rain  
 intended: ‘(You) must rain.’

We shall also examine how English *want* or *will* behaves as epistemics. *Want* contains both lexical and modal categories, but only in the deontic sense. As seen in (128), *want* cannot be used as immediate future.

- (128) \**It wants to rain.*  
 Intended: It’s going to rain (soon).

The agency in *want* is strong, and the theta role of Agent in *want* cannot be assigned to the inanimate subject ‘it’ in (126). On the contrary, the epistemic *beh* is compatible with a human subject *gua* ‘I’ or inanimate non-human subject *hue* ‘flower’; see (129) and (130) in which *beh* cannot be glossed as ‘want’. In a way, English *want* is less grammaticalized than *beh*.

- (129) *gua* masiong **beh** likui a. TSM  
 3sg immediately going.to leave PAR  
 ‘I’m leaving immediately.’
- (130) *hue* masiong **beh** kui a. TSM  
 flower immediately going.to bloom PAR  
 ‘Flowers are going to bloom.’

On the other hand, English *will* is not equivalent to epistemic *beh*, either. The modal *will* in (131) shows prediction, and the most likely translation in Southern Min is *e*, as in (132).

(131) *It will rain tomorrow.* (prediction)

(132) bin-a-tsai    **e**    loh.hoo.    TSM  
tomorrow    will    rain  
'It will rain tomorrow.'

Moving from the use of *beh* to *e*, we are now facing a puzzle. Considering Southern Min *e* is in the possibility paradigm (chapter four), how can *e* come into the volitional system, assuming *will* as a source of volition in English?

Example (133) shows that just like Southern Min *e*, Mandarin ability *hui* 會 and Hakka *voi* also occur in a similar fashion. We need to account for the use of *e*, *hui* and *voi* in the three Chinese languages to express prediction 'will'.

(133) bin-a-tsai    **e**    loh-hoo.    TSM  
mingtian    **hui**    xiayu.    MSC  
tian.kong.ngit    **voi**    lok-siu.    Hakka  
tomorrow    will    rain  
'It will rain tomorrow.'

I see the diachronic development of *hui* 會 as a reference for a possible source of volition in the Chinese language, as Southern Min *e* and Mandarin *hui* share a similar grammaticalization path, and *hui* and Hakka *voi* are considered cognates.

As Liu (2003) suggests, Chinese *hui* 會 originates as 'to meet, to merge' in *Shiji*, compiled by Sima Qian (ca. 145 or 135 BCE – 86 BCE). The sense of 'comprehension' and of 'futuraity' emerged in *Shishuo xinyu* 世說新語 (roughly CE 420-589). In *Zutang Ji* (the Nantang period, 937-975 CE), the lexical use of *hui* 'knowing/understanding' takes the largest proportion (97%), compared to the

lower frequency in the ‘merge’ meaning, futurity and modal use of *hui*. Not until *Zhuizi Yulei* (13<sup>th</sup> cy. CE) did the use of ‘understanding’ (as in *li-hui* 理會) and ‘ability’ in *hui* begin to receive more attention.

(134) *hui*: ‘merge’ > ‘comprehend’ > future

Liu (2003) does not address the use of *hui* as volition. Intriguingly, *willan* once gained the meaning of ‘potentiality, capacity, or sufficiency: can, may, able to, is capable of –ing; is (large) enough or sufficient to’ in the 14<sup>th</sup> century (Li 2003: 82). I regard this point as relevant in explaining the intertwined relationship between the volition and possibility systems.

Note that English immediate future *be going to* and prediction *will* are closely related. It is then not surprising to see that Mandarin *yao* and *hui* are somewhat interchangeable.

(135) *huiqu yao*            *bei wo ma ma de.*    MSC  
 return going.to        PASS 1sg    mom scold PAR  
 ‘I’m going to be scolded by my mom once I get back home.’

(136) *huiqu hui*            *bei wo ma ma de.*    MSC  
 return going.to        PASS 1sg    mom sold PAR  
 ‘I’m going to be scolded by my mom once I get back home.’

With these data, I disagree with Li’s (2003) treating Mandarin epistemic *yao* as equivalent to English *will*. Mandarin epistemic *yao* is immediate future, while English prediction *will* is more like Mandarin *hui*. However, Li treats *hui* as ‘may’ in the possibility modal system, which I think is also problematic (see chapter 4).

In brief, the epistemic use in Chinese is parallel among SM *beh*, Mandarin *yao* and Hakka *oi*. English *want* has no epistemic usage and therefore is not

equivalent to SM immediate future *beh*. English *will* is more often used as an epistemic than volitional, but it differs from *beh*, as the former is for prediction and latter for immediate future. English *will* is not equivalent to *beh*; rather, *e* from the possibility paradigm should be used as the gloss for ‘will’.

I have presented the interaction between volition and the possibility paradigms. We shall soon see how volition is intertwined with the necessity paradigm in the next subsection.

#### 5.5.4 The volitional *beh*.

The volitional ‘want’ in TSM is expressed by means of *beh*, *ai*, *beh-ai*, *ai-beh* or *siunn-beh*. The words listed are not terribly interchangeable and neither are they an exhaustive list, however.

The two basic volition forms for Southern Min ‘want’ are *beh* and *ai*, to which Mandarin *yao* and Hakka *voi* are equivalents; see (137).

|       |      |                                |     |           |                          |
|-------|------|--------------------------------|-----|-----------|--------------------------|
| (137) | gua  | <b><i>beh</i></b> /* <i>ai</i> | khi | seh-ke.   | TSM                      |
|       | wo   | <b><i>yao</i></b> /* <i>ai</i> | qu  | guangjie. | MSC                      |
|       | ngai | <b><i>oi</i></b>               | hi  | rhiu-kai. | Hakka                    |
|       | 1sg  | want                           | go  | shopping  |                          |
|       |      |                                |     |           | ‘I want to go shopping.’ |

Note that Mandarin *ai*, although written as 愛, is not in the system shown above. Mandarin *ai* basically means ‘love’ or ‘liking’.

We shall also examine the use of *e/be* as volition and its counterparts in Mandarin and Hakka. The volitional use of *will* often comes about in first person in declarative, such as (138), or second person in questions.



(138) gua e pang li sia. TSM  
 wo hui bang ni xie. MSC  
 ngai voi pong ngi sia. Hakka  
 1sg will help 2sg write  
 ‘I will help you write (something).’

For third person, *e* as ‘will’ may not be as clear as it can. For instance, the ‘will’ in the translation line may indicate volition or prediction.

(139) i e pang li siah. TSM  
 3sg will help 2sg write  
 ‘She will help you write (something).’

The ‘will’ paradigm is not that simple. For instance, *e* in (138) cannot be volitional, possibly due to the effect of passivization. English is the same.

(140) gua e hoo gunn ma ma. TSM  
 1sg will PREP my mom nag  
 ‘I’ll be nagged by my mom.’

The interpretation of *will* also involves verb types. To express a statement such as ‘I am a teacher’, the copula *shi* is used in Mandarin, as in (141).

(141) wo shi laoshi. MSC  
 1sg COP teacher  
 ‘I am a teacher.’

However, with a modal *will* an English sentence may be read in two ways. MSC makes use of two words, however. (143) and (144) are possible translations for the English sentence (142).

(142) *I will be a teacher in the future.*

- (143) wo yihou **yao** dang laoshi. (volition)  
 1sg future will COP teacher
- (144) wo yihou **hui** shi laoshi. (prediction)  
 1sg future will COP teacher

*Yao* in (143) expresses volition, whereas *hui* in (144) denotes futurity. The copula *dang* in (143) has the dynamics of ‘to be/to become’, while *shi* in (144) is simply a linking verb without semantics. Notice that *dang* and *shi* are used with different modal verbs.

Again, Mandarin *hui* is not necessarily prediction, *will* in promise involves volition; see (145). The promise ‘I will’ can be translated as (146).

(145) A: *Say hello to John.* B: *I will.*

(146) wo **hui** de. MSC  
 1sg will DE.  
 ‘I will’

Lastly, under certain situations, *will* may tend to be read as volition, as in (147).

(147) A: **Will** you marry me? B: **I will.**

The above issues regarding volitional *e* have not been fully addressed in the literature. To the best of my knowledge, Zhang (1999: 43-44) may be the only study listing the volitional use of TSM *e/be*. Nevertheless, he does not go into any in-depth discussion. The topic of English *will* as volition is debatable; I leave this issue to future research.

### 5.5.5 The deontic necessity in *ai*.

We have so far seen *beh* as epistemic and volitional as well as its counterparts in the other two Sinitic languages. However, *beh* is not the same as Mandarin *yao*, particularly in the respect of necessity. For instance, *beh* does not

express deontic necessity as in (148), but *ai* does. Hakka *oi* functions similarly to Mandarin *yao*.

- (148) li      **ai/\*beh**      tshing kah kao e.      TSM  
           ngi      **oi**            tsok ha heu e.      Hakka  
           2sg need          wear more heavy PAR  
           ni      **yao**          chuan hou yi.dian.er.      MSC  
           2sg need          wear heavy a.bit  
           ‘You need to wear warmer (clothes).’

Within Southern Min, the morpheme *beh* is used across two categories in the system: epistemic and internal participant volitional. *Ai* differs from *beh* in at least two ways. First, *ai* does not have epistemic usage. Second, whereas *ai* can express deontic necessity, *beh* cannot. *Ai* can be accompanied by another deontic necessity modal *tioh* ‘need’ (chapter Six). In other words, *ai* can express both participant internal volition and external deontic necessity.

Table 5.14  
*Beh vs. ai* in TSM

| SM                      | <i>beh</i>                              | <i>ai</i>                                                     |
|-------------------------|-----------------------------------------|---------------------------------------------------------------|
| epistemic               | ( <i>tih-</i> ) <i>beh</i> ‘going to’   | --                                                            |
| Participant<br>internal | <i>beh(-ai)/(ai-)</i> <i>beh</i> ‘want’ | ( <i>beh-</i> ) <i>ai/ai(-beh)</i> ‘want’<br><i>ai</i> ‘need’ |
| Participant<br>external | --                                      | ( <i>tioh-</i> ) <i>ai</i> ‘should, must’                     |

Li (2003) glosses Mandarin *yao* as ‘will’ (for epistemic use), and ‘need’ or ‘should’ for deontic use. He does not include the use of ‘want’ in *yao*. As demonstrated in Table 5.14, TSM *beh* does not cover all usages that Mandarin

*yao* or Hakka *oi* contains. Yet, TSM *ai* complements some categories lacking in *beh* in its system but available in Mandarin *yao* or Hakka *oi* 愛.

As for English, the morpheme *desire*, *love* or *like* does not extend to the deontic necessity sense as the Chinese languages do. There is however some tendency, as shown in (149), although the phrase *would love* or *would like* is polite and sounds more like an invitation.

(149) *I would love/would like you to do that.*

Another interesting topic in English is its deontic sense in *want*. Compare the following sentences (James Berry, p.c.).

(150) *You (will) want to study hard (, or you'll regret it.)*

(151) *You should study hard.*

(152) *You must study hard.*

The deonticity differs in degree. With *want* in (148), the speaker, often someone who has the authority, is in principle offering advice: 'I want you to study hard, but I can't force you'. The use of *want* here is in a way for hedging. Next, *should* in (149) is stronger than *want*, and *must* in (150) has an even stronger demand, close to an order. I do not find a close connection between (*tioh-ai*) and the three deontic modals listed above in Table 5.14. The degree distinction in TSM is typically made by tones or reinforced by an additional deontic adverb.

This English deontic use of *want* is often seen in second person as illustrated above, more examples below, where *want* is used as a hedge; George Oliver, p.c.

(153) *You're going to want to make a left at the intersection.*

(154) *You may want to do this.*

This strategy can be seen in the Chinese languages, yet one may or may not find Mandarin *yao* in every such sentence, however. My Mandarin consultants feel that *yao* has a strong volitional meaning.

Below are Mandarin translations for (153) and (154), where *yao* only occurs in (155), but *bu.feng* is a hedge in Mandarin as in (156). Using *yao* in (155) makes one feel a strong necessity. In other words, *yao* may not be a hedge word like English *want*. Yet, changing it to interrogative *yao.bu.yao* softens the tone, as in (156)ʹ.

(155) ni     **yao**     zai     shizilukou     zuo     zhuan.  
2sg   want   LOC   intersection   left   turn  
‘You’re going to **want** to make a left at the intersection.’

(156) ni     **bufang**     zheme   zuo.  
2sg   not.hurt     this   do  
‘You may **want** to do this.’

(156)ʹ ni     **yao.bu.yao**     zheme   zuo?  
2sg   want.not.want   this   do  
‘Would you like to do this?’

### 5.5.7 Concluding remarks.

The Southern Min necessity paradigm cannot do without *ai*, if one wants to see a system with (a) epistemic, (b) participant internal volition, and (c) participant external deontic necessity. Mandarin or Hakka simply makes use of one morpheme for all the three categories.

Table 5.15  
Comparison of volition

|                         | SM                                                                           | MSC                                                                | Hakka                                                            |
|-------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------|
| epistemic               | ( <i>ti-</i> ) <i>beh</i> ‘going to’                                         | ( <i>kuai-</i> ) <i>yao</i> 快要<br>‘going to’                       | <i>oi</i> 愛 ‘going to’                                           |
| Participant<br>internal | <i>beh(-ai)/ai(-beh)/siunn-<br/>beh</i> 想欲 ‘want’<br><i>su-iau/ai</i> ‘need’ | <i>yao/xiangyao</i> 想要<br>‘want’<br><br><i>yao/xuyao</i> 需要 ‘need’ | ( <i>siong-</i> ) <i>oi</i> 想愛<br>‘want’<br><br><i>oi</i> ‘need’ |
| Participant<br>external | ( <i>tioh-</i> ) <i>ai</i> 著愛 ‘ought to,<br>must’                            | <i>yao</i> ‘ought to, must’                                        | <i>oi</i> ‘have to, ought<br>to, must’                           |

One issue that I skipped in the previous paragraphs is the modal use of ‘need’ in *yao*. Li (2003) does not address the use *yao* as volitional ‘want’ although he touches upon *yao* as ‘need’ in expressing participant internal necessity.

The expression for ‘need’ in TSM is in fact the same as that of Mandarin, but pronounced in the literature reading as *su.iau* ‘need’ in TSM. As in (157), *ai* is also a possibility, but not *beh*.

- (157) *gua*    **su-iau/ai/\*beh**            *khi*    *be-tshai*                            (a).  
           1sg    need                                go    grocery.shopping            PAR  
           ‘I need to do the shopping.’

Just like English *want* and *will*, Southern Min *beh* and *e* both involve volition. This also means that *e* is across the possibility and another paradigm. I single out the use of *e* as ‘will’ in the middle for convenience of comparison.

Table 5.16

Two systems: possibility and volition

|                         | possibility                    | <i>e</i>                    | volition                          |
|-------------------------|--------------------------------|-----------------------------|-----------------------------------|
| epistemic               | <i>ko-ling e</i><br>'may, can' | prediction: <i>e</i> 'will' | <i>beh</i><br>'going.to/about.to' |
| Participant<br>internal | <i>e-hiau</i> 'can'            | volition: <i>e</i> 'will'   | <i>beh; ai</i> 'want'             |
| Participant<br>external | <i>e-sai</i> 'can'             |                             | <i>ai</i> 'want'                  |

Table 5.16 shows the Southern Min modal systems go vertically as modality does (across both epistemic and deontic). However, *e* is also found in the horizontal direction, which is cross-listed in both the possibility and another system. For instance, the English modal auxiliary 'can' can be epistemic, participant-internal (ability) and participant external (permission). TSM *e* behaves similarly, but it also goes to the English 'will' system, as shown in Table 5.16. Also, unlike TSM *e*, English *will* is not in the possibility system, under which another modal *can* plays an essential role. TSM *e* does not mean epistemic 'may' or 'can'; instead, the adverb *ko-ling* from the literate linguistic layer is used.

Another difference is that *want* cannot be epistemic, thus not appearing in Table 5.17. I am agnostic about the categorial status of *will* as volition, and I distinguish *will* from *want* because they behave differently.

Table 5.17

English *will* and *want*

|                      | will                                         | want                                             |
|----------------------|----------------------------------------------|--------------------------------------------------|
| epistemic            | I <b>will</b> eat soon. (prediction)         | --                                               |
| Participant internal | I <b>will</b> do this for you.<br>(volition) | I <b>want</b> to eat. (volition)                 |
| Participant external | --                                           | You will <b>want</b> to make a left. (to advise) |

|  |  |                                                                                                                                             |
|--|--|---------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | I will <b>want</b> to listen<br>carefully. (weak deontic)<br>I <b>want</b> that this paper be<br>finished by Monday.<br>(deontic necessity) |
|--|--|---------------------------------------------------------------------------------------------------------------------------------------------|

Cross-linguistic studies have been conducted on volitional modal systems. This study focuses on the differences between English and the three Sinitic languages under investigation. In principle, like English *will* and *want*, Chinese has two source lines for volition from words equivalent to ‘will’ and ‘want’. However, there are two important differences. Chinese words for ‘want’ are more grammaticalized than English *want*, and the Chinese ‘will’ related words also appear in another modal system (possibility, chapter 4).

## 5.6 Conclusion

This chapter focuses on the use of *beh/m* in Taiwanese Southern Min. Volition is only one of the categories in *beh/m*. Doublings such as *beh-ai* ‘want’ and *siunn-beh* ‘want’ derive from the affirmative *beh*, just like *e* in the previous chapter. These doublings arise in language change: when the semantic features in a morpheme become interpretable [i-F], and a near synonym comes about, a disyllabic word is made. *Beh* can be used as marking immediate future, and can serve as a conditional complementizer too. The grammaticalization path shows the reanalysis moving upwards in the tree, as evident cross-linguistically. The reanalysis shows that the epistemic modal is higher, and the volition one is lower but higher than the VP.

There is a distinction between  $m_1$  ‘not.want’ and  $m_2$  ‘not’. The former is to negate *beh* ‘want’, whereas  $m_2$  is for copular or stative verbs, including other



volitional modals. The negation of volition does not rely on *m* ‘not.want’ solely. The other way to look at volitional negation is the alternative forms, *bo-beh* and *bo-ai*, although they are not completely interchangeable with *m*<sub>1</sub>. *Bo* in these cases is a pure negative, perhaps this *bo* should be labeled in the same fashion as *bo*<sub>2</sub>, as opposed to *bo*<sub>1</sub>, the latter of which is aspectual negation ‘not.have’ (chapter seven).

My etymological research for the origin of *m* 毋 is not successful. From the use of *bo-beh* just noted, we can only postulate that *m* ‘not.want’ has an abstract Neg head projecting right up the VP or ModP, where a verbal head ‘want’ is situated.

Not only is negation, but the interrogative system is also undergoing changes. The interrogative *m*<sub>1</sub> usually checks *beh* in the declarative utterance, but this question marker has been replaced by *bo*. Nevertheless, the newly developed negative *bo-beh* or *bo-ai* has not yet reanalyzed as an interrogative.

Mandarin *yao* 要 (initially ‘essence, waist’) is more similar to Hakka *oi* 愛 (initially ‘love, desire’) than TSM *beh*; however, three words originate from different sources. Ranging from the immediate future ‘going to’, participant internal volition ‘need’, to deontic necessity ‘ought to’, the above two morphemes cover more categories than does Southern Min *beh*. In principle, *beh* has no deontic necessity usage, and *ai* (initially ‘love, desire’) fills this gap, and can be cross-listed in both the necessity and volition systems.

The English data are interesting too. I compare *will* and *want*, as they both express volition. Originating from *willan* in Old English, *will* is the source for

‘desire’ and functions as a volition modal, just like Southern Min *ai*. While the volition meaning in *will* exists, the prediction use is much more prominent in *will* in Present-day English. The two-way use of *will* is not captured by the Southern Min volitional modal *beh* ‘want’ or *ai* ‘want’, but *e* ‘can’. *E* is the main morpheme in the possibility paradigm, as introduced in chapter 4. In other words, *e* can mean ‘can’ and ‘will’.

*Want* originates as the Old Norse ‘lacking, missing’ and becomes a volition verb in English. This ‘desire’ source is interesting as it comes from ‘not.having’ to ‘wanting (something)’. The English *want* is not equivalent to TSM *beh* ‘want’. With regards to categories, *beh* is more modal than lexical, while *want* is the other way around. English *want* cannot be used to express immediate future as does TSM *beh* ‘be going to’. *Beh* has no deontic necessity, but English *want* does, despite that *want* is now often used as a hedge. Briefly, TSM *beh* differs from *want*, although semantically they are both volitional.

To conclude, the modal system in Southern Min is complex. I have visited the volition and possibility systems in this and previous chapters. Some topics addressed in this chapter will also be revisited in the following chapter.

## Chapter 6

### THE NECESSITIVE MODALS TIOH AND BIAN

This chapter is on the last modal pair in Southern Min: *tioh* ‘need’ and *bian* ‘need.not’. I have introduced two types of modal negation, namely abilitive and volitional in previous chapters, and this current chapter deals with a third type: necessity modality.

This chapter is structured as follows: the synchrony and diachrony of *tioh/bian* are presented in sections 6.2 and 6.3. I discuss the grammaticalization of *tioh/bian* in section 6.4, where theoretical accounts are laid out. Section 6.5 is on cross-linguistic necessity modality, followed by a concluding section.

#### 6.1 Introduction

The third modal pair includes *tioh* 著 ‘need’ and *bian* 免 ‘need.not’. The affirmative *tioh* has been well studied in the Chinese literature, yet its negative counterpart *bian* has often been neglected.

*Tioh* has an original meaning as ‘to attach’. The necessity modality occurred in middle Chinese time when *tioh* was used as a verb or modal ‘need’. In contemporary TSM, *tioh* is not used as a verb, and its modal use is often accompanied by a renewal *ai*, originally meaning ‘love’. Both *tioh* and *ai* are discussed in this chapter.

The negative *m*, when attached to the affirmative *tioh*, *\*m-tioh*, does not bear the meaning of ‘not-need’. The negative counterpart of *tioh* is, rather, a different lexical entry: *bian*. *Bian* 免 has an origin in meaning ‘to exempt; to escape’. Like

the other two negatives (*be* ‘cannot’ and *m* ‘not.want’) introduced in chapters four and five, modality and negation are fused in this signal morpheme *bian* ‘need.not’.

In addition to *tioh* and *bian*, I also discuss other Southern Min modals in the necessity paradigm that are equivalent to English ‘should’, ‘have to’, or ‘must’.

## 6.2 Synchrony of *tioh/bian*

This section discusses the use of affirmative *tioh* ‘need’ and *bian* 免 ‘need.not’.<sup>135</sup> I only introduce the necessity modality use of *tioh*, and ignore other categories in which *tioh* occupies a post-verbal syntactic position. Unless noted otherwise, all sentences are contemporary Taiwanese Southern Min in this section.

### 6.2.1 The lexical *tioh*.

*Tioh* as a lexical verb does not exist in TSM. There are 4,400 tokens of 著 from the TSM corpus.<sup>136</sup> I checked the first two hundred token among which I found no lexical use. I expected sentences such as (1), where *tioh* as a verb ‘need’ is predicated by a nominal phrase.

- (1) \*tse    **tioh**    tsinn.  
      this    needs    money  
      ‘To buy this, one needs money.’

My consultants supplied other verbs for the same sentence; see (2), where *ai* 愛 or *su-iau* 需要 ‘need’ is used.

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<sup>135</sup> I gloss all cases of *tioh* as ‘need’ for convenience although they may mean ‘should’, ‘have to’, or ‘must’ under different contexts. I treat the glosses of *bian* in the same fashion.

<sup>136</sup> 著 has a wider range of usage with different pronunciations; section 6.3.

- (2) tse     **ai/ su-iau**     tsinn.  
       this    needs            money  
       ‘To buy this, one needs money.’

*Siu-iau* is from the literate linguistic layer of the Chinese language. There are only 11 tokens of *su-iau* found in the corpus, including nouns, verbs and modals. *Ai* is a renewal for necessity modality; I discuss this function of *ai* in section 6.2.3.

Yang (1992) provides an example in which *tioh* functions as a verb, meaning ‘need’, as in (3). However, this use of *tioh* is in a question, co-occurring with its negative counterpart *bian* ‘not.need’.

- (3)    **tioh**    sann            ia     **bian?** 著衫也免?  
       need    clothes or     need.not  
       ‘Do (you) need clothes?’ (Yang 1992)

One of my consultants thought that he might use (3) and heard it spoken by others, yet, he provided two other versions, as (4) and (5). In (4), he uses the disyllabic *tioh-ai* as the verb, whereas *bo* replaces the interrogative *bian* in (5).

- (4)    **tioh-ai**        sann    ia     **bian?**  
       Need-need    clothes or     not.need  
       ‘Do (you) need clothes?’
- (5)    **tioh/ai**        sann            **bo?**  
       need/need    clothes        Q  
       ‘Do (you) need clothes?’

Sentence (6) with another verb *su-iau* 需要 ‘to need’ is another option too.

- (6)    **su-iau** sann    bo?  
       need    clothes Q  
       ‘Do (you) need clothes?’

Briefly, the fact that *tioh* appears in a restrictive environment indicates that *tioh* ‘need’ is losing its verbhood. We observe grammaticalization taking place in necessity *tioh*; alternative necessity *ai* 愛 is often used.

### 6.2.2 The modal *tioh*.

Another category of *tioh* is necessity modal, yet this use of *tioh* is not productive, either. There is nearly no modal use found among the first hundred tokens of *tioh* in the corpus. Checking 100 more tokens, I only discovered three instances of modal *tioh*, with two cases appearing as *tioh-ai*; see (8) and (9).<sup>137</sup>

(7) 我那著救你的命。  
 gua na **tioh** kiu li e mia.  
 1sg why need save 2sg GEN life  
 ‘Why do I have to save you?’

(8) 家己仔著愛小心  
 ka-ki-a **tioh-ai** sio-sim  
 self need careful  
 ‘You need to be careful.’

(9) 妳毋著愛趕緊說  
 li m **tioh-ai** kuann-kin kong.  
 2sg M need hurry say  
 ‘You should speak now.’

My consultants provided me with three options. As seen in (9), *tioh* is often accompanied by *-ai*, although *ai* can stand alone without *tioh*. The pragmatics

<sup>137</sup> I will discuss the function of *m* in (8) in section 6.2.8.

may change from one usage to the next, but situations vary because tone also plays a role.

- (9) li      **tioh/tioh-ai/ai**      tshing khah tse sann.  
 2sg    need/need-love/need wear than more clothes  
 ‘You need to wear heavy.’  
 ‘You are advised to wear heavy.’

### 6.2.3 *Ai* as necessity modality.

I discuss *ai* as lexical with the meanings of ‘love’ and as a volitional modal ‘want’ in chapter five. This current chapter adds a third use to *ai*, that is necessity modality, from which a disyllabic *tioh-ai* ‘need’ derives. TSM uses *tioh* 著, *ai* 愛 and *tioh-ai* 著愛 for necessity modality, yet each is characterized differently. I examined the first 100 tokens of each morpheme from the TSM corpus. The use of *tioh* as modality ‘need’ is much less in common; see (11).

- (11) A:    你著愛救我的命，  
           li      tioh-ai kiu    gua    e      mia  
           2sg    need    save    1sg    GEN    life  
           ‘You must save me.’  
 B:        我那著救你的命。  
           gua    na      tioh    kiu    li      e      mia.  
           1sg    why    need    save    2sg    GEN    life  
           ‘Why do I have to save you?’

I next investigate *ai*. As illustrated in Table 6.1, *ai* consists of three major meanings in the first hundred tokens examined.<sup>138</sup>

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<sup>138</sup> There is one case that is unclear to me, so it is excluded.

Table 6.1  
The meaning distribution of *ai*

| meaning      | Number of tokens                |
|--------------|---------------------------------|
| 'need'       | lexical verb: 3; modal verb: 66 |
| 'want'       | 11                              |
| 'love; like' | V: 13; N: 3; ADJ: 3             |

The necessity modal use accounts for two thirds of the data; the remaining cases are *ai* as volitional 'want' and its lexical use of 'love'. Below is an example of *ai* as necessity verb.

- (12) 是愛佢濟錢啦？  
 si     **ai**     gua-tse     tsinn   la?  
 COP   need   how.much   money PAR  
 'How much does (this) need?'/How much is it?'

Secondly, I discuss the corpus result of *tioh-ai*. All the first hundred tokens of *tioh-ai* are used as necessity modals. *Tioh-ai* and *ai* may be used by the same speaker alternatively; (13) is one example.

- (13) 著愛提伊做模範，  
**tioh-ai** theh             i             tso     boo-huan,  
 need   make.use     3sg     do     role.model  
 愛照伊安呢做。  
**ai**     tsiau   i             an-ne             tso.  
 need   follow 3sg     this.way             do  
 '(Someone) needs to use him as a role model and follow him.'

Modality doubling for emphasis is also possible; *ai* appears with an additional adverb or another modal: *it-ting* 'definitely' in (14) and *ing-kai* 'should' in (15).



(14) 一定愛好好栽培這二个囡仔

**it-ting ai**    hoo-hoo        tsai-pue        tsit    lng    e        kiann-a  
 definitely    need   well   cultivate        these   two   CL    son  
 ‘(Someone) must raise these two boys well.’

(15) 應該愛來尋這個目標

**ing-kai**        **ai**    lai    tshue        tsit    e        bok-piau.  
 should        need   come   look.for        this   CL    target  
 ‘(Someone) should begin to look for a target.’

The interchangeable *ai*, *tioh* and *tioh-ai* have been recorded in previous research such as Cheng (1980: 51) and Hsin (1999: 24); however, they do not connect the use of *ai* to another modality, namely volitional *beh*.

Recall that *ai* is used to express volition and is often attached to *beh* ‘want’ in the form of *beh-ai* ‘want’ (chapter five). *Tioh* is undergoing a similar reanalysis, resulting in the competing forms of *tioh*, *ai*, and *tioh-ai*.

The negation of *ai* ‘need’ is *bian* ‘not.need’, but not *\*m-ai* or *\*bo-ai*.

Table 6.2  
 The use of *ai* in TSM

| <i>ai</i>   | volition                                                       | necessity                                                                     |
|-------------|----------------------------------------------------------------|-------------------------------------------------------------------------------|
| affirmative | <i>ai</i> ‘want’                                               | <i>ai</i> ‘need’                                                              |
| negative    | <i>*m-ai</i><br><i>bo-ai</i> ‘not-want’<br><i>m</i> ‘not.want’ | <i>m-ai</i> : prohibitive ‘do not’<br><i>*bo-ai</i><br><i>bian</i> ‘need.not’ |

Last, there are two other possible candidates for necessity modals: *su-iau* 需要 and *bi-su* 必須. They occur, however, in small numbers, with only 11 tokens of *su-iau* and two tokens of *bi-su*. Both words are from the literate linguistic layer, and are not often used in everyday speech.

#### 6.2.4 *Tioh* as a conjunction.

Chen (2003: 53) regards *tioh* in the following case as a connective adverb.<sup>139</sup>

- (16) i      khuann      gua      ak      kah      kui      sin-khu,  
       3sg    see                1sg    drench PREP all      body  
       ‘She saw me drenched,’  
           **tioh**    iong    ui-ku-kin-a    ka      gua    tshit    thau    bin.  
           TIOH use    towel                PREP 1sg    wipe    head    face  
       ‘and (then) wiped my head and face dry with a towel.’

As seen in my translation, *tioh* provides a temporal sense of an event happening shortly after a previous one. Chen (2003: 51-52) provides five examples with *tioh-ai* and suggests *tioh* in those as functioning as a connector.<sup>140</sup> One example is (17).

- (17) ki-jien beh    tshua    lan      Gin-ti-a,  
       since want marry our      (name)  
           i      **tioh-ai**      tam    tsik-jim      la.  
       3sg    TIOH-need    carry    responsibility PAR  
       ‘Since he wants to marry Gin-ti-a, he has to take responsibility.’

However, I do not consider *tioh* in (17) to be a temporal connector; rather, *ki-jien* ‘since’ is the conjunction. *Tioh* and *ai* together denotes necessity modality.

Chen analyzes *tioh* in (18) as a clausal connector.

- (18) m      si      hioh-khon-jit,  
       NEG    COP    holiday

<sup>139</sup> I change her original translation as she does not translate the disposal marker *ka*. She seems to have translated *ka* as *hoo* ‘give’. I also changed some part of her transcription and glosses, such as *men* 免 > *bian*, and *ai* 愛 ‘must’ > ‘need’.

<sup>140</sup> I change all her transcriptions to fit with the system I use in this dissertation.

|                |     |              |
|----------------|-----|--------------|
| <b>tioh-ai</b> | khi | thak-tskeh,  |
| TIOH-need      | go  | study        |
| <b>bian</b>    | khi | tshan-le     |
| need.not       | go  | field.inside |

‘When it is not a holiday, (they) have to go to school, but to work in the field.’

*Tioh* in (18) can be a modal too, as *tioh* ‘need’ and *bian* ‘need.not’ are parallel in this utterance. A conjunction is not obligatory in order to connect two thoughts in the Chinese language. The first part can also be read as ‘on a non-holiday’, under which there is no need for a clausal connector.

Chen (2003: 51-52) argues that in (19), “when the condition ... ‘half an hour later’ is fulfilled, then the event ... ‘to pick them up at the gate’ will be undertaking.’ But her translation does not show such a sequence ‘I **then** need to pick them up at the gate’.

|      |        |         |               |             |           |              |
|------|--------|---------|---------------|-------------|-----------|--------------|
| (19) | pa-a   | bu-a    | sann-tiam     | puann       | beh       | lai,         |
|      | Father | mother  | three-o’clock | half        | about.to  | come         |
|      | koh    | puann   | tiam-tsing    | <b>tioh</b> | <b>ai</b> | khi mng-khau |
|      | more   | half    | hour          | TIOH        | need      | go gate      |
|      |        | tsiap   | in.           |             |           |              |
|      |        | pick.up | them          |             |           |              |

‘Father and Mother are coming at three-thirty. In a half hour, (I) will need to pick them up at the door.’

I agree with the temporal sense of *tioh* that can be translated as ‘then’. However, I see *tioh* as connecting the time adverbial ‘in a half hour’ to the necessity of ‘picking them up at the gate’, rather than connecting ‘(their) coming in thirty minutes’ to ‘picking them up’. There is a possibility in which *tioh* and *ai* are one unit, indicating necessity modal ‘need’.

It is however difficult to distinguish the modal *tioh* in *tioh-ai* from the temporal use of *tioh* ‘then/soon after’; typically both share the same pronunciation and occupy a pre-verbal position.

### 6.2.5 The negative *bian*.

As noted in Table 6.2, the negation of *tioh*, *ai*, or *tioh-ai* ‘need’ is not *\*m-tioh*, *\*m-ai* or *\*m-tioh-ai*. *Bian* is the negation, but *bian* is not a phonetic fusion from negation plus its affirmative *tioh*.

(20) NEG + *tioh* ‘need’ ≠ *bian* ‘need.not’

I look at both lexical and modal uses of *bian*. Just like its affirmative counterpart *tioh*, *bian* is rarely used as a lexical verb. Previous studies such as Li (2007) and Lien (2008) do not include the verbal usage of *bian*, but I found the lexical use of *bian* as in (22) and (23) from the TSM corpus. The use of *bian* can be interpreted as ‘exempt from’.

(22) tsit     **bian**             tsinn. 這免錢  
       this    exempt.from    money  
       ‘This is free.’

(23) li        **bian**             huan-lo. 你免煩惱  
       2sg    exempt.from    worry  
       ‘No worries.’

*Bian* in (22) and (23) is probably a set phrase with the noun. Many instances with *bian-tsinn* occur in the corpus; see (24).

(24) 圓仔湯食免錢的呼  
       inn-a            thng    tsiah    bian-tsinn            e        hoo  
       rice.ball      soup    eat      not.need-money      ASST    PAR  
       ‘Rice ball soup is free, right?’

Next, the modal *bian* denotes necessity ‘need.not’. *Bian* in the same sentence in (23) can be read as a modal ‘need.not’. Below are two examples from the corpus.

- (25) li      **bian**            huan-lo. 你免煩惱  
 2sg   not.need      worry  
 ‘You don’t have to worry.’
- (26) 予你借去了後我就免生活...啊!  
 hoo   li      tsioh   ki      liau-au  
 PASS 2sg   borrow go      after  
           gua   tioh   **bian**            sing-uah      ah  
           1sg   then   not.need      make.a.living PAR  
 ‘After (the tool) was borrowed by you, (I) didn’t have to make a living.’

Li (2007) suggests that the modal *bian* expresses obligation, such as in

(27).<sup>141</sup>

- (27) 下晡的會汝免去參加。      SM; Li (2007: 147)  
 e.po                    e      hue  
 afternoon      GEN   meeting  
           li      **bian**            khi      tsham-ka.  
           2sg   need.not      go      participate  
 ‘You don’t have to attend the meeting in the afternoon.’

### 6.2.6 The interrogative *bian*.

As noted, the negative morphemes are often used as interrogative markers. We have seen *be* ‘can.not’ and *m* ‘not.want’ in the previous chapters. However, I did not find any *bian* as interrogative in my corpus.

<sup>141</sup> Transcription and translation are mine.

We have seen *bian* used in questions previously in section 6.2.1, when *tioh* is discussed. I repeat the sentence below for convenience. however, (28) is not from the TSM corpus.

- (28) *tioh sann a bian?*  
 need clothes or need.not  
 ‘Do (you) need clothes?’

Li (2007) in his grammar book on Southern Min provides similar examples, where *bian* appears at sentential final position; see (29) and (30).

- (29) 卜請儂客著買魚也免？ SM; Li (2007: 161)  
*beh tshiannlang-kheh tioh be hi a bian?*  
 want host-guest need buy fish or need.not  
 ‘Do (we) buy fish to host our guests?’
- (30) 著曝甲焦也免？ SM; Li (2007: 161)  
*tioh phak kha ta a bian?*  
 need make.dry more dry or need.not  
 ‘Do (I) have to dry it completely?’

One can see the pair *tioh* ‘need’ versus *bian* ‘need.not’, in these questions. My consultants agree with the use of (28)-(30). They, however, use *bo* as a Q for these questions. The productivity test from the corpora provides a hint, and the disjunctive use ‘need or not.need’ in these cases reveals that *bian* is still a negative. Unlike the other negatives, *bian* is not an interrogative marker.

### 6.2.7 The prohibitive.

Modality is connected to imperatives or prohibitives, which often take place in the 2<sup>nd</sup> person. *Mai* from the fusion of *m* ‘not’ and *ai* ‘need’ is also often used; (32) and (33).

(31) **bian** koh kha a.  
PROH again call PAR  
'There is no need (for you) to call again.'

(32) **mai** koh kha a.  
PROH again call PAR  
'Don't call (someone) again.'

(33) li **mai** luan kong.  
2sg MAI messily say  
'Do not make up things.'

*Mai* is only used in the 2<sup>nd</sup> person subject, as (34) is ungrammatical.

(34) \*i **mai** khi.  
3sg PROH go  
Int.: 'He had better not go.'

*Mai* can appear with another modality, such as *siong-hoo* 'had better', with which the tone is softened.

(35) li siong-hoo **mai** khi.  
2sg the.best PROH go  
'You had better not go.'

Another common prohibitive in TSM is *m-thang*.

(36) **m-thang** ko kong a.  
PROH again say PAR  
'Don't say any more.'

(37) li **m-thang** bo khi hakhau.  
2sg not-allow NEG go school  
'You cannot not go to school.'

### 6.2.8 *m-bian* as negative concord?

Li (2007) and Lien (2008) both suggest that *m* and *bian* involve negative concord. Li's reasoning comes from (38), where two negatives *m* and *bian* are used, but the interpretation of the sentence takes one negative only.

(38) 我著去唔? 唔免, 我家已去。 SM; Li (2007: 155)

gua tioh khi m?

1sg need go Q

'Do I need to go?'

**m-bian,** gua ka-ki khi.

M-BIAN 1sg self go.

'No, I myself go.'

Li (2007) provides two examples with *m-bian*, and both are in the answer portion. Yet, Lien has examples where *m-bian* is a modal verb; see (39).

(39) 我毋免提你的工錢啦 TSM; Lien (2008: 10)

gua **m-bian** te li e kang-tsinn la.

1sg M-BIAN take 2sg POSS labor-money PAR

'I need not take money (wages) from you.'

Lien's (2008: 10) found 188 tokens of such usage in his modern TSM corpus, which indicates high productivity of *m-bian*.

The first question to ask is the status of *m* in these instances. The volitional *m*<sub>1</sub> 'not.want' differs from *m* in (39). Is *m* in (39) the same as the pure negator *m*<sub>2</sub>, which is typically used with stative verbs and modals (chapter five)? The answer is no, because *m*<sub>2</sub> is 'not', but the *m* in (39) does not yield negation.



I provide two analyses. The use of *m* together with *bian* may be contributed to the denasalization of *b* in *bian* from *m*, which is the initial consonant of 免.

(40) *mian* > *m-bian*

If the above is not the case, then *bian* may be losing its negativity. This can be rephrased as whether or not *m* is a renewal for *bian*.

Interestingly, *m* is also used with the affirmative *tioh* without negativity, as in (41). That is, when *m* and *tioh* is used, the sentence has the same meaning as when *tioh* stands alone.

(41) li (m) tioh khah tsa khun le.  
 2sg M need more early sleep PAR  
 ‘You have to go to bed earlier.’

This phenomena is also found in Lien (2008: 10), where he suggests that *m-tioh* is used to look for agreement from the listener. I found cases where *m-tioh(-ai)* shows impatience; see (42).

(42) 問你的話，妳毋著愛趕緊講  
 mng li e ue, li m tioh-ai kuann-kin kong.  
 ask 2sg GEN word 2sg M need hurry say  
 ‘(Someone) is asking you. You should speak now.’

Lien notes that when *m-tioh* precedes a modal, it is to provide suggestions.

(43) 你毋著毋通叫我去共你保你 TSM; Lien (2008: 10)  
 li m-tioh m-tang kiou gua  
 2sg M-tioh not-allow ask 1sg  
 khi kah li po li.  
 go PREP 2sg bail 2sg  
 ‘You had better not ask me to bail you out.’

As *m* in (42) and (43) can be dropped, I analyze *m* as an emphatic marker. Table 6.3 summarizes the various categories of *tioh* and *bian* in contemporary TSM.

Table 6.3  
Categories of *tioh* and *bian*

|             | V | MOD | Discourse<br>marker | INT |
|-------------|---|-----|---------------------|-----|
| <i>tioh</i> | √ | √   | √                   |     |
| <i>bian</i> | √ | √   |                     | √   |

### 6.3 Diachrony of *tioh/bian*

In this section, I synthesize previous studies on *tioh*, in addition to my corpus analysis, and trace the origin of *bian* in the history of the Chinese language.

#### 6.3.1 The multi-functional *tioh*.

Modal *tioh* is recorded as 著 in the Southern Min literature. The character 著 has various pronunciations, and carries a larger number of categories than the other verbs discussed in the previous chapters. The *Hanyu da cidian* has the following lexical entries for this morpheme. The pronunciation is in MSC.

Table 6.4  
Definitions of 著 in Chinese

|             |                                                                              |
|-------------|------------------------------------------------------------------------------|
| <i>zhu</i>  | V: to make clear, to show, to establish                                      |
| <i>zhu</i>  | V: to stay; same as 佇                                                        |
| <i>zhu</i>  | V: to store; same as 貯                                                       |
| <i>zhuo</i> | V: to attach; to wear; to put; to grow; to feel emotional attached; to spend |
| <i>zhao</i> | V: to ignite; post-verbal: to reach the goal                                 |
| <i>zhe</i>  | Auxiliary: progressive                                                       |

Table 6.5 summarizes the various uses of 著 in contemporary TSM

(adopted from Yang 1992). I organize the table by pronunciation.

Table 6.5  
The multiple meanings of *tioh* 著 in TSM

| pronunciation | meaning                            | pronunciation | meaning        |
|---------------|------------------------------------|---------------|----------------|
| <i>tioh</i>   | V: 'to wear'                       | <i>tu</i>     | V: 'to write'  |
| <i>tioh</i>   | V: 'to target at';<br>'to undergo' | <i>tiau</i>   | V: 'to attach' |
| <i>tioh</i>   | V & Mod: 'need'                    | <i>ti</i>     | V: 'to exist'  |
| <i>tioh</i>   | Adverb: 'then'                     | <i>ti</i>     | LOC: 'be at'   |
| <i>tioh</i>   | verbal<br>complement               | <i>toh</i>    | V: 'to ignite' |

The preverbal use includes *tioh* 'to wear', *tiau* 'to attach', *toh* 'to ignite', the necessity modal 'need', and the adverbial *tioh* 'then'. The post-verbal *tioh* is a telicity marker, and *ti* shows location.

I only focus on two major uses of *tioh* in this dissertation. The first type characterizes *tioh* as post-verbal aspect. In (44) and (45), *tioh* provides the activity verb *tshue* 'look.for' with telicity.<sup>142</sup> In other words, *tioh* turns an activity verb such as 'look for' into a telic one 'find'.

(44) i        tshue        be                **tioh**    thau-loo.        TSM  
           3sg    look.for       not.able        obtain job  
           'He cannot find a job.'

(45) i        tshue                **tioh**    thau-loo        a        bue?    TSM  
           3sg    look.for        obtain job        PAR    Q  
           'Has he found a job?'

<sup>142</sup> Mandarin makes use of another morpheme *dao* 到 for such a function.

The other use of *tioh* is preverbal, expressing necessity modality; see (46).

This usage is the focus of this section.

- (46) li      **tioh**(-ai)      khi      tshue      thao-loo.      TSM  
2sg      need(-need)      go      look.for      job  
'You need to look for a job.'

As the modal use of 著 is the focus, more attention is given to the word order [著 *tioh* + V] rather than [V + *tioh* 著], 著 in the latter of which is aspectual. What follows is a history of *tioh* as discussed in previous research. I also review related uses of 著, including *Zhuzi Yulei* and related Min studies.

### 6.3.2 Diachrony of *tioh*.

There have been a considerable number of studies on 著 about different Chinese language varieties.<sup>143</sup> However, the modal use of 著 has not received much attention. I single out this usage and re-organize it chronologically.

The origin of 著 can be traced back to the pre-Qing Dynasties (before 221 BCE) in which 著 has three lexical meanings: 'to attach', 'to be conspicuous' and 'to write' (Chen 2004).<sup>144</sup>

- (47) 矢著于莊門 春秋公羊傳 (*Gongyang zhuan*; 476-221 BCE)  
shi      **zhuo**      yu      zhuang.men  
arrow      attach      LOC      gate  
'An arrow hit the gate.'

---

<sup>143</sup> For example, Sun (1998).

<sup>144</sup> Sentences are from Chen (2004: 43-47) and glosses are mine. All sentences are in MSC pronunciation; I transcribe the morpheme 著, based on its meaning in each case.

- (48) 兵箸晉陽三年矣 戰國策 (*Zhan guo ce*; the 3rd to 1st centuries BCE)  
 bing **zhuo** Jinyang san nian yi  
 troop attach (place) three year ASP  
 ‘Troops have besieged Jinyang for three years.’
- (49) 桓公之信著乎天下 春秋公羊傳 (*Gongyang zhuan*; 476-221 BCE)  
 HuanGong zhi xin **zhu** hu tian.xia.  
 (name) GEN faith conspicuous LOC the world  
 ‘The good faith of Huan Gong is conspicuous to all the world.’
- (50) 著於丹書 春秋左傳襄公 (*Zuo Zhuan*; compiled by 389 BCE)  
**zhu** yu dan shu  
 write LOC red book  
 ‘Write down (the name of the criminal) in red’

In the West Han Dynasty, several new usages emerged, including ‘to wear’, which derives from ‘to attach’ (Chen 2004; Yang 1992).

Moving to Middle Chinese, during the Wei-Jin-Nan-Bei Dynasties, 著 further developed from a lexical to grammatical item. 著 as ‘to target’, ‘to be at’ and ‘to reach’ can be attested in *Shi shuo xinyu* 世說新語 (403-444 BCE), based on Chen (2004). Below is an example of ‘to reach’.

- (51) 可擲箸門外 *Shi shuo xinyu* 世說新語 (403-444 BCE)  
 ke zhi ZHE men wai  
 can throw reach door out  
 ‘(It) could be thrown out of the door.’ (Chen 2004: 59)

More new functions such as ‘to persist in’, ‘to use’, and causative ‘to make’ are found in *Dunhuang bianwen ji* 敦煌變文集. 著 in (52) can also mean ‘feeling attached to and longing for’ (Chen 2004: 63).<sup>145</sup>

- (52) 何需戀著海中財 敦煌變文 (*Dunhuang bianwen*)  
he xu lian **zhuo** hai zhong cai  
why must love persist.in sea middle wealth  
‘Why must one pine for wealth in the ocean?’

Modality ‘need’ in 著 first appears in the literature around the Tang Dynasty (618-907 CE) in the North (Yang 1992: 14).<sup>146</sup>

- (53) 鴻雁纔飛便著行 敦煌變文 (*Dunhuang bianwen*; Tang 618-907 CE)  
hongyan cai fei bian **zhuo** xing  
swan.goose just fly then need go  
‘A swan goose, though having just taken flight, indeed had to go.’
- (54) 亦須著精神好 祖堂集 (*Zutang ji*; 952 CE)  
yi xu **zhuo** jing shen hao  
also need need essence spirit good  
‘Also demand that the essences and spirits be good.’

Note that *tioh* 著 in (53) is a modal ‘need to’, whereas it is lexical in (54).

Strangely, there is no lexical use of *tioh* in the earlier text 敦煌變文 *Dunhuang bianwen* than *Zutang ji*, where the lexical *tioh* is attested (Chen 2004).

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<sup>145</sup> Sentences are from Chen (2004: 63); glosses are mine. I modify some translation in (52)-(54).

<sup>146</sup> The two sentences are from Chen (2004: 69); glosses are mine.

Briefly, by early Mandarin time, 著 has developed into its modal usage.

Chen (2004: 90) concludes that modal 著 follows a grammaticalization as (55).<sup>147</sup>

(55) 著 [TSM: *tioh*]: ‘to attach’ > ‘persist in’ > ‘need’

### 6.3.3 *Tioh* in *Zhuzi Yulei*

In the following paragraphs, I pay special attention to two early Min texts: one is *Zhuzi yulei* and the other is *Lijing ji*.

Table 6.4 summarizes necessity modals in *Zhuzi* (adapted Wu 2004a: 77).

Table 6.4  
Necessity (modal) verbs in *Zhuzi Yulei*

|                      | Number of tokens |                                                                             |
|----------------------|------------------|-----------------------------------------------------------------------------|
| 1. 須 <i>su</i>       | <b>401</b>       | taking VP                                                                   |
| 2. 須是 <i>su-si</i>   | 141              | <i>si</i> : COP, <i>su-si</i> takes a CP                                    |
| 3. 須得 <i>su-tik</i>  | 3                | Only in negation and questions                                              |
| 4. 須著 <i>su-tioh</i> | 14               | <i>tioh</i> ‘need’<br>-predicated by VP only; no negation; not in questions |
| 5. 直須 <i>tik-su</i>  | 3                | same as item 4                                                              |
| 6. 必須 <i>pit-su</i>  | 10               | same as item 5; <i>pit</i> ‘necessary; need’                                |
| 7. 要 <i>iau</i>      | <b>165</b>       | negation is <i>put</i> 不; taking VP, AdjP, or CP                            |
| 8. 要須 <i>iau-su</i>  | 20               | derived from item 7                                                         |
| 9. 須要 <i>su-iau</i>  | 4                | derived from item 7                                                         |
| 10. 用 <i>iong</i>    | 15               | ‘need’; taking VP                                                           |
| 11. 當 <i>tong</i>    | 135              | ‘should’                                                                    |

<sup>147</sup> The other meanings of ‘to use’ and causative ‘to make’ of *tioh* may be associated with ‘need’ too. Further research is, however, needed for a firm conclusion.

Apparently *su* 須 is the major modal verb, expressing ‘need’, from which items two to six are derived. The negative for *su* is *put* 不 or *bi* 未. Among the disyllabic modals, the second item *su-si* ‘need to be’, consisting of ‘need’ and a copula *si*, is also productively used in this text. Wu (2004a: 71) explains that *su-si* differs from *su* in the fact that *su-si* takes a CP complement.

The fourth item *su-tioh* ‘need-need’ is worth attention as well. As noted, *tioh* first occurred in the Tang Dynasty as modality in earlier historical texts than *Zhuzi yulei*. In *Zhuzi*, the combination of *su* and *tioh* is attested.<sup>148</sup> Item 6 *pit-su* 必須 has survived to MSC, pronounced as *bi-xu*.

According to Wu (2004a), other than item 2, which takes a CP, items 3 to 6 are restrictive in use. For example, item 3 only occurs in negation and questions, and items 4 through 6 only take a VP predicate, with no negative and interrogative form, as \*不必須 *bo put-su* ‘not need’ is not a correct form.

Item 7 *iau* 要 is also important. Recall that in TSM, *iau* ‘to want’ denotes volitional modality (chapter five). Volition and necessity modality are related. Interestingly, *iong* 用, initially meaning ‘to use’, can be used as a necessity modal. This is relevant, as in MSC *bu-yong* 不用 ‘not-use’ is one of the negative necessity modals. The affirmative form \**yong* ‘need’ does not survive.

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<sup>148</sup> *Tioh* is the most productive modal in contemporary TSM. It needs further research to answer the question whether *su* took over *tioh* as necessity modality in later texts such as *Zhuzi*. The use of *su* in *Zhuzi* may simply have to do with stylistic or regional differences.



The difference between the two important modals *su* and *iau* in *Zhuzi yulei* is summarized in Table 6.7 (Wu 2004a: 77); brackets show the number of tokens.

Table 6.7  
The overlapping modality in *Zhuzi Yulei*

|                         |                           |                                    |
|-------------------------|---------------------------|------------------------------------|
| <i>su</i> 須 ‘must’      |                           | <i>su</i> [401] 須 ‘need’           |
| <i>pit-su</i> 必須 ‘must’ |                           | <i>su-si</i> [141] 須是 ‘need to be’ |
|                         | <i>iau</i> 要 [212] ‘want’ | <i>iau</i> 要 ‘need’ [165]          |

The use of modality in *Zhuzi yulei* differs largely from that in contemporary TSM. However, *su* 須 and *iau* 要 (MSC transcription: *xu* and *yao*) have been adopted by MSC to this era.

### 6.3.4 *Tioh* in *Lijing Ji*.

In the 16<sup>th</sup> century Min text *Lijing ji* 荔鏡記, necessity modality is mostly expressed by *tioh*.<sup>149</sup>

#### *Tioh* as a lexical verb.

(56) 自古嫁娶著媒人 *Lijing ji*; Chung (2001: 40)

tsu-koo                      ke-tshua              **tioh**      mui-lang  
since old.times              marriage              need      match-maker  
‘Marriage has relied on match-makers since ancient times.’

(57) 打虎須著親兄弟 *Lijing ji*; Chung (2001: 40)

phah   hoo   su-**tioh**              tshin   hiann-ti.  
hit   tiger   need                      real   brothers  
‘Catching a tiger requires help from brothers.’

<sup>149</sup> Examples (55)-(60) are from Chung (2001); glosses and translation are mine.

***tioh* as a modal verb.** There are also cases where *tioh* is used as a modal verb. Disyllabic modals also appear in this text; (58)-(60). As just noted, *su* 須, *pit* 必, and *tioh* 著 individually express modality ‘need’.

(58) 你去路上著細膩 *Lijing ji*; Chung (2001: 52)

li khi loo.siong **tioh** se-ji.  
 2sg go on.the.road need caution  
 ‘You need to be careful on the way (there).’

(59) 須著趕路程 *Lijing ji*; Chung (2001: 52)

**su-tioh** kuann loo-ting  
 need hurry mileage  
 ‘(someone) needs to hurry on the way.’

(60) 三爹必須著只內去 *Lijing ji*; Chung (2001: 52)

sann-tia **pit-su-tioh** cit-lai khi.  
 (title) need enter go  
 ‘(name) needs to come in (for something).’

I have discussed how *tioh* characterizes modality in *Lijing ji* by lexical and grammatical means in the above examples. Briefly, TSM necessity modals differ in shape, but historical traces are attestable; see Table 6.8. For instance, *tioh* can be seen in epistemic *tiann-tioh* ‘must’. The participant internal necessity modal *su-iau* has appeared in *Zhuzi yulei*. Interestingly, *tioh* as necessity modality is used in modern TSM, as opposed to *su* in *Zhuzi yulei*. I will discuss *ai* 愛 later, as its necessity sense is a later development.

Table 6.8  
Modern Southern Min necessity modals<sup>150</sup>

|                                                           |
|-----------------------------------------------------------|
| necessity                                                 |
| <i>tiann-tioh</i> 定著 ‘must’ (epistemic)                   |
| <i>su-iau</i> 需要 ‘need’ (participant internal necessity)  |
| <i>tioh</i> 著 ‘need’ (deontic necessity)                  |
| <i>ai</i> 愛; <i>tioh-ai</i> 著愛 ‘need’ (deontic necessity) |

***tioh* as a complementizer.** We now move to another topic: *tioh* as a complementizer. Based on Chung (2001: 53-61), *tioh* can be in C too. She however only categorizes the use of *tioh* in embedded sentences without further separating the modal *tioh* from the conjunction *tioh*.

I use her examples to demonstrate that *tioh* has begun to be used as a C in *Lijing Ji*. One type of complementizer appears in causal relationships as in (61) and (62).<sup>151</sup>

(61) 好花因著風雨滾 *Lijing ji*; Chung (2001: 55)

ho hue in-**tioh** hong hoo kun.  
good flower because wind rain turnover  
‘Good flowers turn over because of wind and rain.’

(62) 爲著人情到只處 *Lijing ji*; Chung (2001: 55)

ui-**tioh** jin-tsing kau jit chu.  
because.of human.affection arrive this place  
‘I came here for (someone).’

<sup>150</sup> Hsin (1999) treats *tiann-tioh* as an adverb.

<sup>151</sup> Sentences are from Chung (2001: 55); glosses and translation are mine.

*Tioh* in the compounding conjunctions *in-tioh* 因著 and *ui-tioh* 爲著 does not carry the semantics of necessity; rather, *in* 因 and *ui* 爲 are typically clause connectors, meaning ‘because/because of/for’. While Chung does not associate the above usage with C, she suggests *tioh* in the following sentence as a conditional conjunction.

- (63) 今著叫一聲三哥即放      *Lijing ji*; Chung (2001: 55)  
 tann    **tioh**    kio    jit    siann    Sann-ko    tsiah    pang  
 now    need    call    one    CL    (title)    then    release  
 ‘You need to call me Third Elder Brother in order for me to let you go.’

I do not agree. Chung translates *tioh* as *dei* 得 in MSC, which means ‘need to’, but she argues that *tioh* is a conditional marker. I analyze *tioh* here as a modal.

She further explains that (63) is a case of the [*beh* X # *tioh* Y] conditional construction, where X and Y are clauses, with *beh* ‘if’ optionally dropped. This construction is similar to English ‘if...then’. *Tioh* ‘then’ has an immediate temporal function. Another example from Chung is (64), where *tioh* means ‘to attach’ or ‘to undergo’. As noted in chapter five, *na-beh* is the conditional connector rather than *tioh*.

- (64) **na-beh**put    kian,    li    **tioh**-tinn.      *Lijing ji*; Chung (2001: 60)  
 if    NEG    see    3sg    TIOH-intertwine  
 ‘If (she) is out of scene, you’re in trouble.’

I argue that *tioh* in (64) does not function as a conditional marker. Also, many examples under her conditional category show *tioh* as necessity modality; see (65)-(66).

- (65) 你不實說，定著討死 *Lijing ji; Chung (2001: 60)*  
 li m sit sueh, tiann-**tioh** tho si.  
 2sg NEG honestly say must receive death  
 ‘If you don’t tell the truth, you must die.’
- (66) 卜脫林大姻親，必須著投告恁。 *Lijing ji; Chung (2001: 60)*  
**beh** thuat Lim-taiin-tsin, pit-su-**tioh** tau-ko lin.  
 if rid (name) marriage need beg 2sg  
 ‘To get rid of the marriage with Limtai, I need to beg you.’

Also, we see modality doublings, such as *tiann-tioh* ‘definitely-need’, and *pit-su-tioh* ‘need-need-need’. Therefore, *tioh* in these cases should not be a C, as mistakenly suggested by Chung. The conditional marker *na* ‘if’ can be inserted in (65) for (67). This means that *tioh* in these cases is a modal.

- (67) li **na** m sit sueh...  
 2sg if NEG honestly say  
 ‘If you don’t tell the truth...’

The same conclusion applies to her concession examples, one case of which is (68), in which *tioh* is also a modal, meaning ‘need’. The complementizer can be *jim* 任 ‘however’, or *ia* 也, translated here as ‘regardless; nevertheless’.

- (68) 任你口說出蓮花，也著嫁乞伊 *Lijing ji; Chung (2001: 61)*<sup>152</sup>  
**jim** li kao-sueh-tsut-lian-hue,  
 regardless 2sg whatever.reason  
 ia **tioh** ke khit i.  
 also need marry PREP 3sg

<sup>152</sup> 口說出蓮花, literally ‘lotus out of the mouth’, is a metaphor meaning ‘whatever reason’

‘Regardless of any reason you come up with, you need to/must marry him.’

I agree that the categorial status of *tioh* ranges from V to Mod, and to C.<sup>153</sup> It is just that *tioh* as a necessity modal often connects two dependent/subordinating events/clauses. Only in the clausal relationship type does *tioh* behave like a C, as in (61) and (62).

### 6.3.5 *Tioh* in TSM.

I discuss TSM necessity modality in section 6.2. Table 6.9 outlines TSM necessity modal paradigm, including the affirmative and negative systems. As seen, historical traces are apparent in morphology.

Table 6.9  
TSM necessity paradigm

|                                               |                                                                                            |                                                                                                                                     |
|-----------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| epistemic                                     | <i>tiann-tioh</i> 定著 ‘must’                                                                | <i>ing-kai</i> 應該 ‘should’<br><i>ing-tong</i> 應當 ‘should’                                                                           |
| Participant-internal/<br>Participant-external | <i>ai</i> 愛 ; <i>su-iau</i> 需要 ‘need’<br><i>bo-ai</i> ; <i>bo-su-iau</i> 不需要<br>‘not need’ |                                                                                                                                     |
| Participant-external<br>deontic               | <i>Tioh</i> 著; <i>ai</i> 愛; <i>tioh-ai</i> 著<br>愛 ‘need’<br><i>bian</i> 免 ‘not.need’       | <i>ing-kai</i> 應該; <i>kai</i> 該; <i>kai-tong</i> 該當 ‘should’<br><i>bo-ing-kai</i> 不應該<br>‘should not’<br><i>put-kai</i> 不該 ‘should’ |

I found it difficult to match TSM modals with those in English. There are no individual words in TSM to match English ‘should’, ‘need’, ‘have to’, or ‘must’.

<sup>153</sup> I am agnostic about *tioh* moving to T for the case of temporal *tioh* ‘then’.

The semantics of *ai* is taken over by another modal *ing-kai* ‘should’; (69) is mainly for suggestions.

- (69) li      **ing-kai**      **ai**      khi.      TSM  
       2sg    should          need    go  
       ‘You should go (somewhere).’

*Tioh(-ai)* ‘need’ is the major necessity modal in TSM. To express stronger directiveness, another modality adverb such as *i-tng* 一定 ‘definitely, absolutely’ is often utilized; see (70). The additional *kah gua*, literally ‘give me’, often indicates impatience and impoliteness.

- (70) li      **i-tng**              **tioh/ai/tioh-ai** (kah    gua)    khi.      TSM  
       2sg    definitely          need              PREP 1sg    go  
       ‘You must go (somewhere).’

### 6.3.6 The evolution of *tioh*.

As noted, *tioh* as necessity modality first appeared in the *Tang* dynasty. In *Zutang ji* and *Dunhuang bianwen*, *tioh* was used as lexical or modal ‘need’. A puzzle is that *su* 需 is the major necessity modal in *Dunhuang bianwen*, but *tioh* is not noted in the modal system by Wu (2004a: 37). *Su* in a later text *Zhuzi yulei* serves as the major necessity modal although *su-tioh* 須著 and other combinations also occur in the same text (Wu 2004b).

In the Min text *Lijing ji*, *tioh* 著 is the most productive modal for necessity, and *su* only appears in *su-tioh* 須著 or *pit-su-tioh* 必須著. The paradigm of necessity modality in contemporary TSM differs. *Tioh* remains as one of the three necessity modals and the other two are *ai* and *tioh-ai*. *Ai* as necessity modality

first appeared in the 19<sup>th</sup> to 20<sup>th</sup> centuries (Chang 2009). *Ai* as a renewal for necessity *tioh* is just as *ai* is a renewal for volition *beh* ‘want’ (chapter five).

I summarize the evolution of Southern Min *tioh* as necessity ‘need’ in (71). I show the time periods when *tioh* and *ai* first occurred as modality and also the dominating necessity modal during each period of time in the history. Apparently, *tioh* undergoes grammaticalization, as a renewal *ai* is often attached to *tioh*, resulting in *tioh-ai* ‘need’.

(71) *tioh* 著; modality use appeared in the Tang dynasty (618-907 CE)

> *su* 須; *Dunhuang bianwen*; Tang (618-907 CE)

> *su* 須; *Zhuzi yulei* (1270 CE)

> *tioh* 著; *Lijing ji* (16<sup>TH</sup> cy.)

> *ai* 愛; modality use appeared 19<sup>th</sup> -20<sup>th</sup> cy.

> *tioh-ai* 著愛; contemporary TSM

### 6.3.7 Diachrony of *bian* 免.

I begin with dictionary definitions for *bian* 免. There are two entries in *Hanyu da cidian*, with MSC pronunciations as *mian* and *wen*. I discuss the meanings of the first pronunciation, as it is more relevant.<sup>154</sup> The lexical use of *mian* includes five entries: ‘to take off’, ‘to leave’, ‘to release’, ‘to escape’, and ‘to exempt’. I provide two examples below.

(72) 臨難毋苟免 禮記曲禮上 (*Liji*; 202-220 BCE)

lin nan wu guo **mian**

face difficulty NEG indifferent escape

‘in the face of difficulties, do not indifferently escape’

---

<sup>154</sup> Transcription is in MSC; glosses and translation are mine.



- (73) 人情所不能免也 (Liji; 202-220 BCE)  
 ren qing suo bu neng **mian** ye  
 people feeling SUO NEG able exempt PAR  
 ‘Emotion is what normal people cannot turn aside.’

As seen in these definitions, the use of *mian* 免 shows opposite semantics from 著 *zhuo*, which has an origin ‘to attach’. It is not surprising that *bian* 免 is used as the negation of 著 *tioh* in TSM.

What’s interesting is the negative use of *mian*. The dictionary suggests that *mian* as negation is like *bu* ‘not’ or prohibitive *bu-yao* in MSC. Below is the example from the *Hanyu dai cidian*. *Mian* as negation occurred in Middle Chinese; (74).

- (74) 旦夕公歸伸拜謝，  
 dan xi gong gui shen bai xie  
 dawn dusk lord return extend veneration respect  
 免勞騎去逐雙旌。唐韓愈 (poetry by Han Yu; 768-824 CE)  
**mian** lao qi qu zhu shuang jing  
 avoid travail ride go chase double banner  
 ‘Dawn and dusk does his Lordship return to extend veneration and respects, in doing so avoiding the travail of riding in the wake of the redoubled banners.’

Interestingly, I found *xu-zhuo* 需著 ‘need’ being used in the same poetry; (75).

- (75) 長令奴仆知饑渴，  
 zhang ling nu pu zhi ji ke  
 master command slave thrall know hunger thirst  
 須著賢良待性情。唐韓愈 (poetry by Han Yu; 768-824 CE)  
**xu-zhuo** xian liang dai xing qing

need-need able virtuous retain character department  
 ‘Just as the master commands slave and thrall to know hunger and thirst, so  
 must the virtuous and able man retains (fine) character and department.

As noted, *bian* is used as a negative and interrogative marker in modern  
 TSM. Investigating the grammar books (see Wu 2004a and 2004b) on *Dunhuang*  
*bianwen* (618-907 CE) and *Zhuji yulei* (1271 CE), I found no record of *bian* as  
 negation during these two periods.<sup>155</sup>

One may wonder how negation in *bian* derives. I investigate the previous  
 Min text *Lijing ji* for *bian* 免. Surprisingly, the use of *put bian* 不免 is fairly  
 productive in this text, with 212 tokens out of the total 238 tokens of *bian*. I  
 analyze *bian* in these cases in *Lijing ji* as a verb, followed by another lexical verb  
 in a sequence. For the 1<sup>st</sup> and 2<sup>nd</sup> person, *bu bian* is used as ‘why not’ or ‘might as  
 well’.<sup>156</sup> There is no negation or real compelling obligation involved.

(76) put **bian** kiou mng. 不免叫門。  
 not exempt ask door  
 ‘Why not knocking at the door? (since I’m here)’

(77) put **bian** khi hiou i tshu. 不免去歇伊處。  
 not exempt go rest 3sg place  
 ‘(You) might as well go and stay at his place.’

(78) put **bian** kiann kau hue-hng. 不免行到花園  
 NEG avoid walk arrive garden  
 ‘Why don’t you go to the garden,

---

<sup>155</sup> Nor is *bian* used in the V-NEG construction as a question marker in these texts.  
 This provides evidence that my postulation in section 6.2.6 is on the right track.  
 That is, *bian* is not an interrogative.

<sup>156</sup> I transcribe these sentences in TSM.

tsiong sim-pak-ue 將心腹話  
 DISP heart.elt.words  
 說幾句乞伊聽  
 kong kui.ku ki i tshiann  
 say several-sentence PREP 3sg hear  
 ‘(and) tell her what you have in mind’

The above are instances with some degree of suggestions from the addresser or of volition from a self. However, there are cases where the addresser speaks to the 2<sup>nd</sup> person, (79), with necessity modality.

(79) u ue put **bian** phian gua. 有話不免騙我  
 have word NEG avoid deceive 1sg  
 ‘You need to tell me the truth.’/Don’t deceive me with words.’

Modality can also appear in the third person subject; (70). The context indicates that the situation is difficult (for someone) ‘not to avoid getting someone out and punishing him’.

(80) 不免叫出來懲戒伊。  
 put **bian** kiou tshut-lai ting-kai i  
 NEG avoid ask come.out punish 3sg  
 ‘They had to get out of (someone) and punish him.’

In a routine practice such as (81), *put bian* may move from ‘hard to avoid’ to ‘what necessarily follows next’. This is still different from contemporary TSM *bian* ‘need.not’

(81) 不免請亞娘梳粧。  
 put **bian** tshiann A-Niu se-tsong

NEG avoid ask(politely) name make.up  
'(The maid) politely asks A-Niu to dress up.'

To summarize, *bian* in the above examples from *Lijing ji* is associated with modality and negation. I assume that the meaning of 'to exempt/to avoid' in *bian* is later reanalyzed as 'not necessary; not need' in modern TSM. Future research is required.

What follows is a discussion of *m-bian*. At first thought, the juxtaposition of *put* 'not' and *bian* 'to exempt; to avoid' in *Lijing ji* may explain the *m-bian* 'not.need' version of modern TSM; however, *m* in *m-bian* does not give rise to negation. I do not see the contexts of *put* and *bian* together in the above cases as an origin of *m-bian* 'need.not' in contemporary TSM. All examples of *put bian* in *Lijing ji* take a VP or CP complement, and *bian* is not predicated by a nominal phrase, as it can be in TSM.

The *m* part in *m-bian* may be simply phonetic. There are two possible analyses. First, the initial in *mian* is denasalized, thus making two pronunciations, *m-bian* and *bian*, in TSM.

(82) *mian* > *m-bian* > *bian*

The other analysis suggests *bian* as original, and *m* is added as emphatic.

(83) *bian* > **m**-*bian*

As previously noted, I am against the notion that *m-bian* is a case of negative concord by Li (2007) and Lien (2008). Briefly, *m* is not an N-element that licenses negative indefinites; meanwhile, *bian* is not an N-word, either. Both components are required in negative concord (cf. Herburger 2001).

- (84) li     **m**     **bian**             lai     a.  
       2sg    M     not.need        come   PAR  
       'You need not come.'

Another piece of evidence for this *m* as emphatic comes from the non-negative *m*, used together with *tioh*, where *m* behaves like an emphatic.

- (85) li     (**m**)    tioh-ai ka     tsa     kuann le.  
       2sg    m     need   more   early   sleep   PAR  
       'You need to go to bed early.'

To conclude, I trace the diachronic development of *tioh* and *bian* in this section. The necessity modality of *tioh* comes from the semantics of 'to attach' or 'to persist in'. As the negative counterpart of *tioh*, the negation of *bian* derives from the semantics of *mian* 免 'to exempt, to avoid'. Interesting, the lexical use of *mian* can be associated with 'to detach', the opposite of 'to attach'.

#### 6.4 Grammaticalization of *tioh/bian*

I have shown how *tioh* and *bian* have evolved in the history of Chinese. This section reviews how reanalysis takes place in these necessity modals under the generative framework of grammaticalization.

##### 6.4.1 *Tioh*: V > Mod > C.

The lexical use of *tioh* in (86) expresses necessity, just as *ai* in (87).

- (86) **tioh**   sann             a             **bian?** Yang (1992)  
       need   clothes            or            Q  
       'Do (you) need clothes?'
- (87) jit     **ai**     tsinn             bo?     TSM  
       this    need   money            Q  
       'Do I need to pay to get this?'

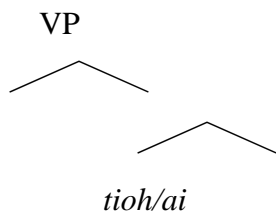
As discussed in section 6.3, *tioh* evolves from the meaning of ‘to attach’ or ‘persist in’. The use of *ai* as necessity modality in TSM is a later development.

(88) *tioh*: V ‘attach; persist in’ > V ‘need’

(89) *ai*: N ‘essence’ > V ‘need’

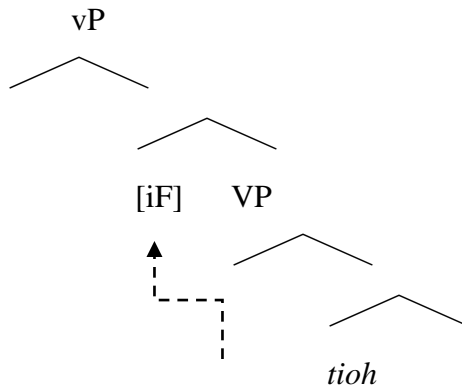
*Tioh* or *ai* occupies the V head when it carries full semantic features.

(90) *Tioh* as a lexical verb



Reanalysis takes place at different levels. During the first stage, when *tioh* gradually loses its semantic features, it becomes reanalyzed in a higher head, carrying [iF: necessity]; see (91).

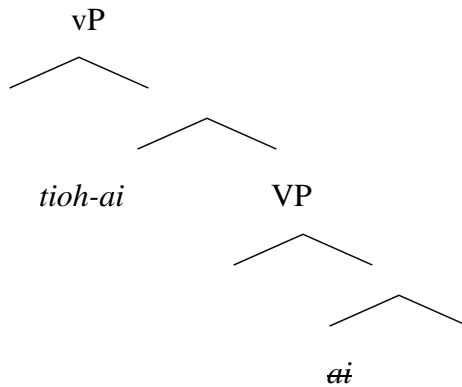
(91) Reanalysis of *tioh*



*tioh*: ‘attach; persist in’ > ‘need’ > [iF: necessity]

When the verb position is empty, another stronger semantic verb (e.g. *ai*) fills in, thus resulting in a disyllabic modal *tioh-ai* ‘need’; see (92).

(92) *Ai* as a renewal

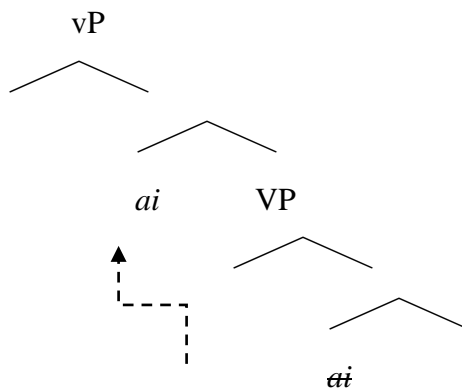


*tioh*: ‘need’ > [iF: necessity]

*ai*: ‘need’

A competing form *ai* ‘need’, originally meaning ‘love’, comes into use before this stage, as shown in (93). *Ai* presumably is base-generated in V, and moves to v, as *ai* ‘need’ requires an Agent argument.

(93) Reanalysis of *ai* as ‘need’



*ai*: ‘love’ > ‘need’

Due to a loss of semantic features, *tioh* or *ai* further becomes a modal; *tioh-ai* is the same.

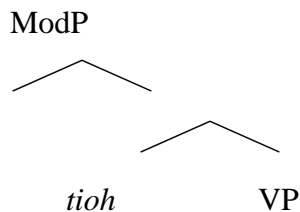
(94) *tioh*: ‘need’ > [iF: necessity]

- (95) li      **tioh/ai/tioh-ai**      khi.    TSM  
       2sg    need                            go  
       ‘You need to go.’

When moving from V to Mod, the necessity modal *tioh-ai* follows the same grammaticalization path.

From chapters four through six, we have seen a pattern in the affirmative modals/verbs in their reanalysis process: they all make use of renewals in morphology, while they semantically become weakened. As a consequence, monosyllabic modals often become multi-syllabic. Syntactically, as full-fledged verbs lose semantic features, accompanying by a loss of agency, they move from VP to ModP. In language acquisition, it is a reanalysis triggered by the Economy Principles.

- (96) Reanalysis of *tioh* as Mod



A step further up is when *tioh* becomes reanalyzed from ModP to C. The use of *tioh* as a conjunction in (97) is a case of *tioh* as C. *Ai* however is not a C yet.

- (97) a-**tioh** tu-tioh                    a.  
       CONJ encounter-attach        PAR  
       ‘I then encountered (something).’

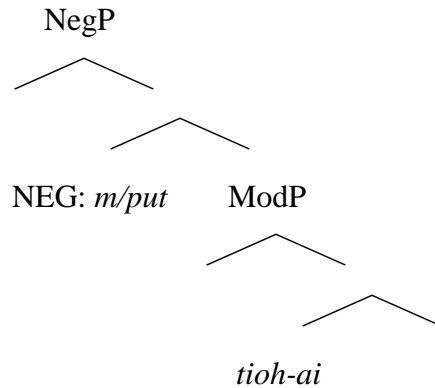


### 6.4.2 *Bian*: V > neg > Q.

The negation of *tioh(-ai)* ‘need’ is not projected by a NegP above the ModP, as mistakenly presented in (99).

- (98) \*gua **put** tioh-ai khi.  
 1sg NEG need go  
 Int.: ‘I don’t need to go.’

- (99) A misplaced NegP for modal *tioh-ai*

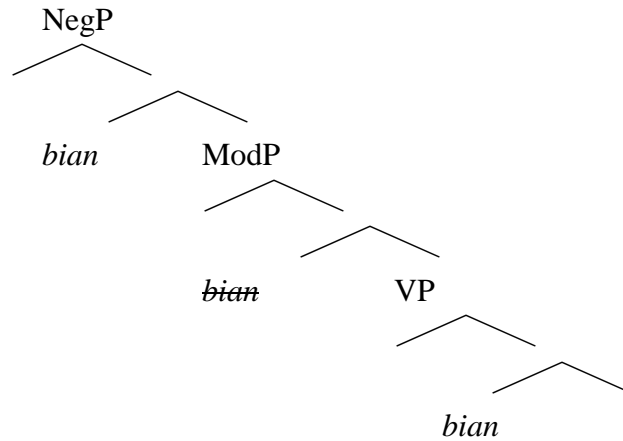


Recall that one of the dictionary entries of *bian* is equivalent to ‘not’; this definition, however, does not seem to include modality. An examination of *bian* in the 16<sup>th</sup> century play *Lijing ji* reveals that *bian* ‘to exempt’ often appears with a negative *put* 不 ‘not’. However, *bian* is a lexical verb under such circumstances. The context of negation and *bian* may have given rise to necessity modality in *bian*.

- (100) *bian*: V ‘to exempt’ > ‘need.not’ > [iF: necessity; negation]

- (101) jit (m-) **bian** tsinn .  
 this M need.not money  
 ‘This is free.’

(102) The negative *bian*



This path follows one of van der Auwera's (2010) typological classifications for diachrony of negation: negation often comes from 'lack'. The same is true in *mei* 沒, which originates as 'to lack', from *mo* 沒 'to die; to sink'.

Despite the fact that the necessity use of *bian* is not attested in historical texts prior to contemporary TSM, it is reasonable to postulate V to Mod in *bian*, as the modal use of *bian* far outnumbers its lexical one.

(103) *bian*: V > Mod 'not.need'

Finally, just as all the other negative morphemes in TSM, *bian* may be used as Q, in the CP layer.

|       |                        |         |    |              |
|-------|------------------------|---------|----|--------------|
| (104) | tioh(-ai)              | siann   | a  | <b>bian?</b> |
|       | need(-need)            | clothes | or | not.need     |
|       | 'Do you need clothes?' |         |    |              |

However, *bian* does not have other functions of C other than interrogatives. Possibly *bian* is still used under a disjunctive relationship 'need or not.need';

(104). I did not find such construction as (104) in the corpus. Nevertheless, *bian* demonstrates a grammaticalization path as (105), based on its synchrony.

(105) *bian*: V ‘exempt; avoid’ > Mod: necessity negation > Q: interrogatives (?)

## 6.5 Comparative Studies

Patterning with the previous two chapters, this section covers typology of necessity modality and a comparison among the three Sinitic language branches. I organize one category of *tioh/bian* after another, and discuss several special topics.

### 6.5.1 Typology of necessity.

I discuss two issues below: English necessity modals and the sources of necessity modality. Note that the literature has used the terms *obligation*, *necessity*, or *obligation necessity*, which I use here interchangeably.

English has the following necessity modals, based on van der Auwera and Plungian’s (1998) classification. As discussed, TSM does not have corresponding modals to match each English modal; *tioh* ‘need’ serves as the basic necessity modal.

Table 6.10

English modal verbs in the necessity modality paradigm

|                                       | necessity                            |
|---------------------------------------|--------------------------------------|
| epistemic                             | <i>must; should; will</i>            |
| Participant-internal                  | <i>need (to)</i>                     |
| Participant-external<br>(non-deontic) | <i>have to; must</i>                 |
| Deontic                               | <i>must; should; shall; ought to</i> |

adapted from Li (2003: 64)

bold: prominent markers; non-bold: often used, but not prominent markers

There are also different ways to look at these modals. When referred to central versus semi-modals, they can be grouped as follows:

(106) central: *must, need, should, ought*

Semi-modal: *have to, had better, have got to, need to, be supposed to, ought to*

In terms of degree of modality, the distinction between “strong” and “weak” modals is used. For example, Smith (2003: 242) classifies modals as markers of “strong” versus “weaker” necessity as (107).

(107) modals of strong necessity: *must, have to, have got to, need, need to*

modals of weaker necessity: *should, ought to, supposed to*

Smith however admits that this distinction is not perfect either, in that “the strongest use of the weaker forms ...[can] ...carry more force than the weakest uses of strong forms” (Smith 2003: 242). Examples are (108) and (109).

(108) *You **should** get a move on.* (used deontically)

(109) *You **must** come and visit some time.*

Coates (1983) investigates most of these modal verbs from corpora, which she claims presents contemporary English at the time; Collins (2009) updates her conclusions. What is relevant is the definitions of modals by Coates.

Coates suggests the semantics of *must* and *have got to* as ‘it is essential that’, compared to *have to*, which means ‘it is necessary for’ (Coates 1983: 53).

(110) *You **must** play this ten times over.* (Coates 1983: 34)

(111) *...the only thing you **ve got to** remember is...*(Coates 1983: 53)

(112) *I **have to** get up at 7 a.m. tomorrow.* (Coates 1983: 54)

The major difference between *must* and *have to* is that with *must*, the speaker has authority, and the authority of *have to* comes from no particular source (Coates 1983: 55). *Must* represents the strongest directive in English.

Coates refers *should* to be “the most commonly used [modal] to express the Root modality of (weak) obligation” (Coates 1983: 58).

(113) *You **should** walk round the ramparts of the old city too.* (Coates 1983: 58)

*Ought* has a similar function and sense to that of *should*.

(114) *There is a new book you **ought** to see.* (Coates 1983: 71)

However, like many others, Coates also agrees that modality in each modal is in a continuum, where a use can range from the strongest to the weakest. The tone in *ought* turns from ‘I advise you/it is advisable’ to ‘it would be a good idea’, as in (115).

(115) *You **ought** to come over to Cambridge some time.* (Coates 1983: 71)

Negation of modals is interesting. When *have to* is negated, the semantics is “it is not necessary for’ (Coates 1983: 55). Southern Min *bian* serves this function; see (117).

(116) *They **don’t have to** be drama experts.* (Coates 1983: 54)

(117) **bian**            koh   kong   a.    TSM  
                         need.not    again   say    PAR  
                         ‘There is no need to say more.’

By contrast, the negated *must* denotes “it is necessary for you not’ or simply ‘you are obliged ...not’ (Coates 1983: 55).

(118) *You **mustn’t** put words into my mouth.* (Coates 1983: 39)

The equivalent to Southern Min is *mai*, which comes from the modal negation *m* ‘not’ and *ai* ‘need’.

- (119) **mai** koh kong a. TSM  
PROH again say PAR  
‘Don’t say (it) again.’

Bybee et al. (1994) do not address sources of necessity modality; they focus on the subjunctive use of English *should* but not *need*. Nonetheless, they conclude that obligation modality follows the path such as (120).

(120) obligation → intention or imperative (Bybee et al. 1994: 240)

I agree that obligation and intention are related and that imperatives are often derived from obligation modality, as I have demonstrated in chapter five and this chapter. I’m agnostic about the direction.

In the Chinese language, the source for necessity modality can be ‘to attach’ as Southern Min *tioh*, ‘essence’ as MSC *yao*, or ‘desire’ as Hakka *oi*, the latter two of which can also be volition.

The negation of MSC *yao* and Hakka *oi* projects above the VP, presented as *bu-yao/bu-yong* ‘not-need’ and *m-sii* (literally ‘not-use’). The negation of TSM *tioh* is lexical, as a negative modal *bian* ‘need.not’ is utilized.

What follows is a comparison among the three Sinitic languages.

### 6.5.2 The lexical *tioh/bian*.

As stated, the lexical use of *tioh* in modern TSM has become rare. In the Min affirmative paradigm, an alternative necessity verb *ai* 愛 is used, whereas Hakka makes use of *oi* 愛 and Mandarin uses *yao* 要.

- (121) tse      \*tioh/**ai**      tsinn. TSM  
lia      **oi**      tsien. Hakka  
zhe      **yao**      qian. MSC  
this    needs      money  
‘To buy this, one needs money.’

From the historical texts, the use of *tioh* may come from an older linguistic stratum first attested in the Tang dynasty, while *ai* is from a newer layer, which emerged two to three centuries ago. The newer usage is cognate to Hakka *oi*.

The necessity system is intertwined with volitional modality in TSM, evident in the use of *ai* as the affirmative necessity ‘need’ and ‘want’. The dual function also applies to Hakka *oi* and Mandarin *yao*.

In the TSM corpus, *bian* as a lexical verb ‘need.not’ is uncommon, and it often accompanied by a nominal phrase, as a fixed expression.

- (122) tse      **bian**      tsinn. TSM  
this    need.not    money  
‘This is free of charge’  
(123) **bian**      huan-lo.      TSM  
need.not      worry  
‘No worries.’

Hakka does not use *mien* (equivalent to Min *bian*) to negate *oi* 愛 ‘need’. A negative modal *m-sii* 毋使 ‘not.need’ is used instead. Interestingly, *sii* 使 ‘to make; to demand’ also appears in the possibility deontic *ssi-m-tet* ‘can.not’ (not.allowed). While *m-sii* expresses obligatory necessity, *sii-m-tet* is permissive.

(124) lia    **m-sii**            tsien   Hakka  
           this    need.not        money  
           ‘This is free of charge’

(125) **m-sii**            seu/fan-nau.   Hakka<sup>157</sup>  
           need.not        worry  
           ‘No worries.’

Like Hakka, Mandarin utilizes a negative verb *bu-yao* 不要 or *bu-yong* 不用.

(126) zhe    **bu-yao/bu-yong**        qian    MSC  
           this    NEG-need            money  
           ‘This is free of charge’

As noted, *yao* can express both volition (‘want’) and necessity (‘need’). *Bu-yao* as one unit negates volition or necessity, whereas *bu-yong* is only for necessity. *Yong* 用 is attested as modality ‘need’ in earlier texts such as *Lijing ji*, despite the fact that its meaning of ‘to use’ is more common in MSC.

Note that *yao* can be used in the affirmative setting, while *yong* cannot. In other words, just like TSM *bian* or Hakka *m-sii*, MSC *bu-yong* heads its own VP.

(127) zhe    **yao/\*yong**        qian    MSC  
           this    need            money  
           ‘This is not free.’

I further investigate the external non-deontic use of ‘need’. *Ai* or *tioh-ai* participates; however, *tioh* is not a candidate; (128). Hakka and MSC make use of *oi* and *yao*, just like their lexical counterparts.<sup>158</sup>

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<sup>157</sup> One consultant (in her sixties) used *seu* 愁 and another (in her forties) provided me with *fan-nau* 煩惱.



- (128) hue **ai/tioh-ai/su-iau** (u) tsui tsiah e uah. TSM  
hue **\*tioh** (u) tsui tsiah e uah. TSM  
fa **oi/si-rhau** (yu) sui zhang voi sang. Hakka  
hua **yao/xu-yao** (you) shui cai neng huo. MSC  
flower need have water then able live  
‘Flowers needs water to survive.’

As seen in (128), another option for ‘need’ is *su-iau* 需要, yet this usage is in literate pronunciation and is much less common than *ai* or *tioh-ai*. The equivalents in MSC and Hakka are *xu-yao* and *si-rhau*.

- (129) hue **bian/bo-su-iau** tsui tioh e uah. TSM  
fa **m-sii/mo-si-rhau** sui tsiu voi sang Hakka  
hua **bu-yong/bu-xu-yao** shui jiu neng huo MSC  
flower need.not water then able live  
‘Flowers don not need water to survive.’

There are two negation systems as in(129). Table 6.11 summarizes the necessity modality systems of the three languages.

Table 6.11  
The necessity modality of the three languages

|               | TSM                | Hakka             | MSC                    |
|---------------|--------------------|-------------------|------------------------|
| ‘need’        | <i>ai, tioh-ai</i> | <i>oi</i>         | <i>yao</i>             |
| ‘do not need’ | <i>bian</i>        | <i>m-si</i>       | <i>bu-yao; bu-yong</i> |
| ‘need’        | <i>su-iau</i>      | <i>si-rhau</i>    | <i>xu-yao</i>          |
| ‘do not need’ | <i>bo-su-iau</i>   | <i>mo-si-rhau</i> | <i>bu-xu-yao</i>       |

<sup>158</sup> *Sang* ‘to live’ 生 is used in Hakka rather than 活 ‘to live’, pronounced as *uah* in TSM and *huo* in MSC.

### 6.5.3 The epistemic *tioh/bian*.

Neither *tioh* nor *bian* has an epistemic use. Nonetheless, *tioh-beh*, which consists of the temporal *tioh* ‘about to’ together with *beh* ‘going.to’, can express epistemic. As discussed in chapter five, TSM *beh* can express immediate future; *tioh* here also denotes temporal immediacy. The MSC and Hakka counterparts are *yao* and *oi*, respectively.

|       |       |                           |          |      |       |
|-------|-------|---------------------------|----------|------|-------|
| (130) | thinn | <b>*tioh/beh/tioh-beh</b> | kng      | a.   | TSM   |
|       | tian  | <b>yao</b>                | liang    | le.  | MSC   |
|       | tien  | <b>oi</b>                 | kong     | leh. | Hakka |
|       | sky   | about.to                  | brighten | PAR  |       |
|       |       | ‘It’s about dawn.’        |          |      |       |

Next, *tioh* can be observed in epistemic *tiann-tioh* 定著 ‘must’; however, *tiann-tioh* is often considered to be adverbial.<sup>159</sup> As the Chinese language does not show much morphology in adverbs, *tiann-tioh* can be translated as a modal ‘must’ or an adverb, just like *it-ting* 一定 ‘definitely’.

|       |                                          |     |     |     |
|-------|------------------------------------------|-----|-----|-----|
| (131) | tiann- <b>tioh</b> /it-ting              | si  | i.  | TSM |
|       | must                                     | COP | 3sg |     |
|       | ‘It must be him.’/It is definitely him.’ |     |     |     |

More interestingly, *tiann-tioh* can be used with another modal, resulting in double modality. As standard English does not allow double modals, all my translation of *tiann-tioh* is adverbial.

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<sup>159</sup> Li (2003) and Hsin (1999) suggest that the Sinitic language (the former on MSC and the latter on TSM) mainly makes use of adverbs to express epistemic necessity.

- (132) tse    **tiann-tioh**    ai    tsinn. TSM  
 3sg    definitely    need    money  
 ‘This, of course, needs money.’
- (133) i    **tiann-tioh**    **siunn-beh**    khi    a. TSM  
 3sg    certainly    want    go    PAR  
 ‘He certainly wants to go.’
- (134) gua    **tiann-tioh**    e    kah    li    tau-sann-kang. TSM  
 1sg    surely    will    PREP    2sg    help  
 ‘I will surely help you.’

As for the epistemic *should*, the three languages are largely parallel to one another. The literal reading *ing-kai* 應該 in TSM and *rhin-koi* 應該 in Hakka should come from the same stratification layer as MSC *ying-gai* 應該.<sup>160, 161</sup>

- (135) i    **ing-kai**    e    kah    li    tau-sann-kang. TSM  
 ki    **rhin-koi**    voi    lau    ngi    ten-shui.    Hakka  
 3sg    should will    will    PREP    2sg    help  
 ta    **ying-gai**    hui    bang.zhu    ni.    MSC  
 1sg    should will    PREP    2sg    help    2g  
 ‘He should (be willing to) help you.’

<sup>160</sup> For ‘help’, I use the most common words, such as *tau-sann-kang* 鬥相共/*tau-kha-tshiu* 鬥跤手 for TSM and *ten-shui* for Hakka. According to my consultants, other words such as *pang-tsoo/pang bang* (TSM), and *pong tsu* or *pong mang* (Hakka) 幫助/幫忙 are possible.

<sup>161</sup> Note that MSC has a different word order in (135). My consultants do not use a preposition *gei* as the following order:

- ta    ying-ga    hui    gei    ni    bang.mang.  
 3sg    should    will    give    2sg    help  
 ‘He should help you.’

Some other forms than *ing-kai* can be used in TSM too. Below is an example with *ing-tong* 應當. Each of the morphemes has a historical trace in *Zhuzi yulei* (cf. Wu 2004b). Hakka and MSC have similar counterparts; Table 6.12.

(136) i        *ing-tong*        (si)    li-kui    a.            TSM  
           3sg    should            COP    leave    PAR  
           ‘He should have left.’

Table 6.12  
 Epistemic necessity modals of the three languages

|            | TSM                                     | Hakka                                     | MSC                                       |
|------------|-----------------------------------------|-------------------------------------------|-------------------------------------------|
| ‘about to’ | <i>tioh-beh, beh</i>                    | <i>oi</i>                                 | <i>(kuai) yao</i>                         |
| ‘must’     | <i>tiann-tioh</i> 定著                    | <i>tin-tshoh</i> 定著                       | <i>Ying-ding</i> 一定                       |
| should     | <i>ing-kai</i> 應該<br><i>ing-tong</i> 應當 | <i>rhin-koi</i> 應該<br><i>rhin-tong</i> 應當 | <i>ying-gai</i> 應該<br><i>ying-dang</i> 應當 |

#### 6.5.4 The deontic necessity *tioh/bian*.

The online TSM dictionary does not include *tioh* as a lexical necessity verb. Below are two examples provided by the dictionary and both use *tioh* as a modal.<sup>162</sup> MSC is also from the dictionary; Hakka data are added for comparison.

(137) li        **tioh**    tsai    to-li.    TSM  
           ni        **yao**    dong    dao-li.    MSC  
           ngi        **oi**     ti        to-li.    Hakka  
           2sg    need    know    principle  
           ‘You need to understand.’

<sup>162</sup> I use the official TSM site made available by Taiwan Ministry of Education: [http://twblg.dict.edu.tw/holodict\\_new/index.html](http://twblg.dict.edu.tw/holodict_new/index.html). I ignore tones; the translation is mine.

- (138) **tioh** lai neh! TSM  
**yao** lai oh! MSC  
**oi** loi oh! Hakka  
 need come PAR  
 ‘Do come.’

*Tioh-ai* can also act as a modal for (137) and (138) above. I do not see significant semantic differences among *tioh*, *ai* or *tioh-ai* when they are used as necessity modals. The strong or weak necessity sense should come from the context. Take (137) as an example, the use of the 2<sup>nd</sup> person does not provide a necessary outcome for a compelling obligation, as *li* ‘you’ can be added to (138), which is more like an invitation. *Tioh* in (137) can also be translated as ‘have to’ or ‘should’.

Double necessity modality can be observed, which often provides stronger necessity; see (139), in which *tioh-ai* is better translated as ‘must’. The same applies to Mandarin *yao* and Hakka *oi*.

- (139) 你一定著愛保庇伊个人<sup>163</sup>
- |     |              |                |               |    |     |        |       |
|-----|--------------|----------------|---------------|----|-----|--------|-------|
| li  | <b>i-tng</b> | <b>tioh-ai</b> | po-pi         | i  | e   | lang.  | TSM   |
| ni  | yi-ding      | <b>yao</b>     | bao-you       | ta | de  | ren.   | MSC   |
| ngi | ik-tin       | <b>oi</b>      | po-fu         | ki | kai | ngin.  | Hakka |
| 2sg | definitely   | must           | bless.protect | he | GEN | person |       |
- ‘You must bless and protect that person (my man).’

<sup>163</sup> A line from a TSM popular song 月娘啊聽我說 *gueh-niu a thiann gua kong*. Note that ‘to protect’ has three corresponding readings *po-bi* 保庇, *bao-you* 保佑, and *po-fu* 保護 for TSM, MSC, and Hakka, respectively.

It is worth noticing that MSC *dei* 得 and *bi-xu* 必須 are often referred to necessity modals in addition to *yao* 要, three of which are interchangeable. However, *dei* or *bi-xu* does not require *yi-ding* ‘definitely’, unless for emphasis otherwise.

- (140) ni (\*yi-ding) **dei/bi-xu** bao-you nei-ge ren.  
 2sg definitely must bless that-CL person  
 ‘You must bless and protect that person (my man).’

Negation of TSM necessity modals is simple; *bian* ‘need.not’ is used as opposed to its affirmative counterpart *tioh*. However, MSC *yao* as a necessity modal cannot be negated by *bu* ‘not’; the negative modal *bu-yong* is used. Hakka is similar, as *m-sii* ‘need.not’ rather than *m-oi* ‘not-need’ is used.

- (141) **bian** lai a! TSM  
**bu-yong/\*bu-yao** lai le! MSC  
**m-sii/\*m-oi** loi leh! Hakka  
 not-need/need.not come PAR  
 ‘(You) don’t have to come.’

Table 6.13  
 The necessity modal paradigms of the three languages

| TSM                             | Hakka                   | MSC                       |
|---------------------------------|-------------------------|---------------------------|
| <i>tioh, ai, tioh-ai</i> ‘need’ | <i>oi</i> ‘need’        | <i>yao</i> ‘need’         |
| <i>*bo-tioh; m-tioh</i>         | <i>*bo-oi</i>           | <i>*bu-yao</i>            |
| <i>bian</i> ‘need.not’          | <i>m-sii</i> ‘need.not’ | <i>bu-yong</i> ‘need.not’ |

I compare the volition (chapter five) and necessity modality systems in MSC. Recall MSC volitional *yao* ‘want’ has a negative counterpart *bu yao* 不要 ‘not want’. However, the necessity paradigm differs, as it does not have a symmetric

counterpart: \**yao* ‘need’ versus *bu-yao* ‘not.need’. Table 6.14 provides a comparison between the modal systems.

Table 6.14  
Mandarin *yao* in the volitional and necessity paradigms

|             | volition                 | necessity                                    |
|-------------|--------------------------|----------------------------------------------|
| affirmative | <i>yao</i> ‘want’        | <i>yao</i> ‘need’                            |
| negative    | <i>bu-yao</i> ‘not.want’ | * <i>bu-yao</i><br><i>bu-yong</i> ‘need.not’ |

The negation for the other MSC necessity modals, *dei* and *bi-xu*, is also important, particularly in language acquisition. The negative forms are not \**bu-dei* and \**bu-bi-xu*; rather, *bu-yong* and *bu-bi* are used.

(142) wo      jinnian      **dei/bi-xu**      jiaoshu.      MSC  
          1sg      this.year      need/need      teach  
          ‘I need to teach this year.’

(143) wo      jinnian      \**bu-dei*/\**bu-bi-xu*/***bu-yong/bi***      jiaoshu.  
          1sg      this.year      not-need      teach  
          ‘I don’t have to teach this year.’

Like *bu-yong*, *bu-bi* is a negative modal. MSC does not have an affirmative modal as \**yong* ‘need’ or \**bi* ‘need’. In spite of the asymmetry in the affirmative and negative use in MSC, the morphemes *yao*, *bi*, *xu* and *yong* have individually been attested in necessity modality in the history of the Chinese language.

Table 6.15  
The necessity modal paradigm in Mandarin

|                     |               |                                   |                                   |
|---------------------|---------------|-----------------------------------|-----------------------------------|
| affirmative ‘need’  | <i>yao</i>    | <i>dei</i>                        | <i>bi-xu</i>                      |
| negative ‘not need’ | <i>bu-yao</i> | * <i>bu-dei</i><br><i>bu-yong</i> | * <i>bu-bi-xu</i><br><i>bu-bi</i> |





In addition to *ing* 應, some other forms such as *kai* 該 and *tong* 當 can be observed in *Zhuzi Yulei* for necessity modality ‘should’. Compared to the modal *tioh-ai* ‘should’ from the native stratum, the above two uses are in the literate pronunciation, and are used less commonly in daily conversations. Hakka is similar to TSM, but MSC uses *ying-kai* 應該 much more frequently.

In brief, *tioh-ai* ‘need’ is the major necessity modal, and other form such as *kai-tong* is also used in TSM. Other means such as adverbs may be used to strengthen or eliminate the degree of necessity. Nonetheless, TSM necessity modality is similar to the English dichotomous system, which often distinguishes the directive ‘need’/ ‘have (got) to’/ ‘must’ from ‘should’.

Table 6.16 provides a review of TSM modal systems (chapters four to six).

Table 6.16  
TSM affirmative modals<sup>165</sup>

|                                  | possibility                                                            | volition <sub>1</sub>                        | volition <sub>2</sub>                               | necessity                                                                       |
|----------------------------------|------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------|
| epistemic                        |                                                                        | <i>e</i> 解 ‘will’<br>(future;<br>prediction) | <i>beh</i> 欲<br>‘about.to’<br>(immediate<br>future) | [ <i>tiann-tioh</i> 定<br>著 ‘must’]                                              |
| participant-internal             | <i>e-hiau</i> 解曉<br>(ability)                                          | <i>e</i> ‘will’<br>(volition)                | <i>ai</i> 愛 ‘want’<br><i>beh-ai</i> 欲愛<br>‘want’    | <i>ai</i> ‘need’ 愛                                                              |
| Participant-external;<br>deontic | <i>e-sai</i> 解使<br><i>e-ing</i> 解用<br><i>e-tang</i> 解通<br>(permission) |                                              |                                                     | <i>tioh</i> 著<br><i>tioh-ai</i> 著愛<br>[ <i>kai-tong</i> 該<br>當]<br>(obligation) |

<sup>165</sup> I adopted van der Auwera and Plungian (1998) for the classification (epistemic, participant-internal, and participant-external) and for the possibility vs. necessity paradigm. I added volition for comparison.

## 6.6 Conclusion

This chapter revolves around the necessity modal pair *tioh* 著 ‘need’ and *bian* 免 ‘need.not’ in Taiwanese Southern Min. *Bian* is an under-researched topic. There has been a large body of literature on *tioh*, but mainly on its historical development and grammatical functions. I investigate the grammaticalization of these two morphemes with regard to their modal use.

Like the other modals in TSM, *tioh* is rarely used as a lexical necessity verb. Not only is *tioh* losing its verbhood, reanalysis also takes place in *tioh*. Another morpheme *ai* also expresses necessity semantics, and is also used as a renewal of *tioh*. TSM has necessity modals as *tioh*, *ai* and disyllabic *tioh-ai*.

The negation of *tioh* is not projected by a NegP; rather, another lexical entry *bian* ‘need.not’ is used. This is similar to the volitional pair: *beh* ‘want’ and *m* ‘not.want’ in chapter five. The grammaticalization process differs in these two modal systems, however. The negation of volitional *beh* is reanalyzed as two projections in *bo-beh* ‘not-want’: NegP and ModP. The negation of necessity *tioh* is *bian* ‘need.not’ and does not have competing forms as *\*bo-tioh* or *\*m-tioh*.

My current project differs from previous research in several aspects. I have connected the volitional and necessity paradigms. The reanalysis of *tioh* is investigated from a historical perspective, which I have also provided a theoretical account that is connected to the other modals discussed in chapters four and five. In addition, I have extended my discussion on Southern Min necessity modality to Hakka and Mandarin, and have brought up several under-addressed topics.

## Chapter 7

### THE ASPECTUAL NEGATIVES BO AND BUE

We have seen three negative morphemes in the previous chapters. This chapter introduces the last two negatives in Southern Min, both of which are aspectual: *bo* ‘not.have’ and *bue* ‘not.yet’.

The organization of this chapter is as follows: I discuss the varied categories of *bo* in modern Taiwanese Southern Min in section 2. Section 3 addresses the meanings and origins of the morphemes under investigation. Section 4 is the historical development of *mei* 沒 and *wu* 無, as *bo* shares some characteristics of both. I discuss cross-linguistic differences in Section 5. Section 6 concludes the chapter.

#### 7.1 Introduction

Like some of the negative morphemes, Southern Min aspectual negation may have a verbal origin. The first aspectual negative to be addressed is the perfective *bo* ‘not.have’ 無, which has a verbal usage as ‘not have’. The character 無 *wu* is often chosen to present TSM *bo*; however, *wu* does not serve as sentential negation in modern Mandarin. Mandarin *mei* and Hakka *mo* are equivalent to *bo*. These three morphemes all express possession, existence, and aspect.

Table 7.1  
Aspectual negation in the three languages

|                            | TSM        | MSC        | Hakka       |
|----------------------------|------------|------------|-------------|
| V: ‘not have’, ‘not exist’ | <i>bo</i>  | <i>mei</i> | <i>mo</i>   |
| Perfective ‘not.have’      | <i>bo</i>  | <i>mei</i> | <i>mo</i>   |
| anterior ‘not.yet’         | <i>bue</i> | <i>mei</i> | <i>mang</i> |

The other aspectual negative under investigation is *bue* ‘not.yet’ 未 in TSM. Hakka uses another negative *mang* 𠵿, which originates as ‘to escape; to die’. Mandarin, however, uses one morpheme *mei* for both perfective ‘not.have’ and anterior aspect ‘not.yet’.

## 7.2 Synchrony of *bo* and *bue*

Li (2007) classifies *bo* into five different categories: verb, adjective, auxiliary, adverb and interrogative.<sup>166</sup> Adopting some of his classifications, I summarize in the following paragraphs the categorial status of *bo* by incorporating examples from TSM corpora from which I drew the first 100 tokens of *bo* sentences for my analysis.<sup>167</sup>

### 7.2.1 *bo* as a verb.

*Bo* as a verb ‘not have’ precedes the nominal phrase and negates its possession or existence, as in (1) and (2).<sup>168</sup> *Bo* in (2) is  $V_1$  in a verb sequence.

(1) 田園無水的時

|           |           |       |     |      |
|-----------|-----------|-------|-----|------|
| tshan-hng | <b>bo</b> | tsui  | e   | si   |
| field     | not.have  | water | GEN | time |

‘when there is no water in the field...’

(2) 閒閒佇厝裡無代誌做。

|           |     |      |        |           |         |      |
|-----------|-----|------|--------|-----------|---------|------|
| ing-ing   | ti  | tshu | li     | <b>bo</b> | tai-tsi | tso. |
| available | LOC | home | inside | not.have  | thing   | do   |

---

<sup>166</sup> Note that Li’s accounts are based on his data through fieldwork in Fujian, China. Nevertheless, in the relevant discussions TSM is basically the same as the Southern Min sub-dialects on which Li conducted his research.

<sup>167</sup> Sentences are from the corpora, unless otherwise stated.

<sup>168</sup> TSM doesn’t have negatives as a D; see Gillon and Yang (2010).

‘(staying) at home not having things to do’

*Bo* can also be the second verb in a sequential event; see (3).

(3) 尋無合意的人

|          |           |            |    |        |
|----------|-----------|------------|----|--------|
| tshue    | <b>bo</b> | hap.i      | e  | lang   |
| look.for | not.have  | interested | CL | person |

‘(She) couldn’t find her Mr./Ms. Right.’

*Bo* as  $V_2$  can be used with quantifiers as *bo kui e* ‘no more than several hits’ in (4).

(4) 啊攏掘無幾下就鈍啊啦

|     |      |      |           |         |     |
|-----|------|------|-----------|---------|-----|
| a   | long | kut  | <b>bo</b> | kui     | e,  |
| PAR | all  | dig  | not.have  | several | hit |
|     | tioh | tun  | a         | la.     |     |
|     | then | dull | PAR       | PAR     |     |

‘Not digging long, sometime this (tool) became dull.’

The nominal object following *bo* may be fronted or dropped; see (5) and (6).

(5) 尋就連一支竹筍仔都無啦

|          |      |           |      |    |              |
|----------|------|-----------|------|----|--------------|
| tshue    | tioh | lian      | tsit | ki | tik-sun-a    |
| look.for | then | FOC       | one  | CL | bamboo.shoot |
|          | long | <b>bo</b> | la.  |    |              |
|          | FOC  | not.have  | PAR  |    |              |

‘(He) couldn’t even find a bamboo shoot.’

(6) 尋無安呢啦

|          |           |          |
|----------|-----------|----------|
| tshue    | <b>bo</b> | an-me-la |
| look.for | not.have  | PAR      |

‘(He) couldn’t find (something)’

This use of *bo* is often considered resultative in set expressions (7).

- (7) *kuann-bo*      literally: ‘see-no’; ‘can’t understand’  
*tak-bo*            literally: ‘read-no’; ‘can’t study well’

### 7.2.2 *bo* as aspectual negation.

*Bo* is used as perfective in (8) and (9).

- (8) 無落來共看呼

**bo**           loo-lai           kah   kuann hoo  
not.have      come.down   PREP look   PAR

‘(someone) didn’t come down to take a look (at something/someone).’

做伊安呢就開走

tso   i       a-ne           toh   kui   tsau  
do   3sg   this.way       then   drive   away

‘suddenly driving away’

- (9) 可能啊就是無用大腦

kho-ling      a      tioh   si      **bo**   iong   tua-nau.  
may           PAR   then   COP   not   use   big-brain

‘(He) may not have used his brain.’

*Bo* in (10) appears in the secondary predicate, and *bo* negates the telic *tioh* in (11),

- (10) 這孟宗傷心落目屎，

tse   Bing-tsong   siong-sim   lau   bak-sai  
this   (name)       heart.broken   drop   tears

‘Bing-tsong burst into tears, heart-broken, ...’

哭到無成聲

khau   kah           **bo**           sing-siann  
cry   COMP       not.have      change sound

‘crying (until he could produce) no sound’

- (11) 尋無著母親的屍體

tshue           **bo**   tioh   bu-tshin   e   si-the.  
look.for       NEG   attach mother   GEN   body

‘(Someone) couldn’t find (his) mother’s body’

The post-verbal *khi* ‘go’ is a resultative of the verb *bo* ‘not.have, not.exist’.

(12) 這個田地啊麼安呢，

tsit e tshan-te a ma an-ne

this CL field PAR also PAR

一塊一塊無去啊安呢

iit te jit te **bo** khi a an-ne

one piece one piece not.have go PAR PAR

‘The field was then gone (disappearing) piece by piece.’

### 7.2.3 *bo* as a pure negator.

I address the issue of *bo* as a pure negator in chapter five. For instance, *bo* in (13b) negates the volition of *beh* ‘want’ in the answer part (13b).

(13) a. li beh khi a m khi?

2sg want go or NEG go

‘Do you want to go?’

b. gua **bo** beh khi.

1sg not want go

‘I don’t want to go.’

*Bo* can also appear with a stative or adjectival predicate; see (14) and (15).

(14) 身體無甲爽快，破病啊啦

sin-the **bo** kah song-khuai, phua-penn a la

body NEG more comfortable get.ill PAR PAR

‘(Someone) wasn’t well, getting ill.’

(15) 本身的立場就企無在啊

pun-sin e lip-tiunn tioh khia **bo** tsai.

self GEN stance then stand NEG stable

‘not having a leg to stand on’

*Bo* also can be used with the progressive, as in (16a). This usage can indicate habitual or short-termed situations (16b).

(16a) 攏無得驚就著啦

long **bo** tih tiann toh tioh la  
all NEG PROG fear then correct PAR

‘(He) is not being feared and that is all.’

(16b) i **bo** tih tsiah hun.

NEG PROG eat cigarette

‘I am not smoking. (progressive)’/ ‘I do not smoke’ (habit).

#### 7.2.4 *bo* as an interrogative.

When used as Q, *bo* is usually paired with its affirmative counterpart *u*.

(17) 母親妳有愛食啥物貨無？

bu-tshin li **u** ai tsiah siann-mih-hue **bo?**

Mother 2sg have love eat what-thing-thing Q

‘Mom, what would you like to eat?’

*Bo* may also appear with modals; however, there is a mismatch in (18), as *be* is expected rather than *bo*.

(18) 您猶會記 e0 我無？

li iau **e** ki-e gua **bo?**

2sg still can remember 1sg Q

‘Do you still remember me?’

*Bo* can be used in a tag question such as (19). Hsin (1999) calls this assertive questions, as the speaker often expects a positive answer from the hearer.

(19) 來嫁我好無？

lai ke gua hoo-**bo?**

come marry 1sg good-Q

‘Marry me, will you?’



### 7.2.5 *bo* as a discourse adverb.

*Bo* as a discourse marker (DM) can appear in different forms under different situations. Below are some examples. For instance, *bo* in (20)-(22) is used to provide suggestions.

(20) 無你食看覓 e0 呼。

**bo**            li        tsiah    kuann-mai    e        hoo.  
 otherwise    2sg    eat      look-try      PAR    PAR  
 ‘Why don’t you try (it) then?’

(21) 抑無來共我鬥腳手

iah-**bo**        lai        kah        gua        tau-kha-tshiu  
 or-BO         come    PREP    1sg        help  
 ‘How about (you) come and help me?’

(22) 無安呢第二個就共號做 lieng5 kun2

**bo**    an-ne            te-ji            e        tloh    ka  
 BO    this.way        the.second    CL    then    PREP  
       ho-tso        Liengkun  
       name-as      (name)

‘How about naming the second daughter Liengkun?’

Li (2007) also provides a discourse use of *bo*, where *u-bo* is used to catch attention from the hearer, carrying no lexical meaning. It carries a pragmatic clue, as “got it?” or “you know?”

(23) 熱天時，有無，病人定著會恰濟。            SM; Li (2007: 203)

zuah-tinn    si,        **u-bo**,  
 hot.day      when    U-BO  
           pang-lang    tian-tloh    e        kah    tse.  
           patient      must        will    more   more

‘When it is hot, you know, the number of patients usually increases.’

*Bo* can also be used in conditionals. *Bo* in (24) expresses negation under circumstances where certain conditions do not meet. It is possibly a reduced form from *na-bo-tsiah* ‘if-not-nominalizer’; *tsiah* is a C here. Chang (1997) further classifies the discourse function of *bo* into conditional and response.

- (24) 一定愛共娶起來，  
 it-ting ai kah tshua-khi-lai  
 definitely need PREP marry  
 ‘(You) definitely need to marry her.’  
 無者，是真艱苦，  
**bo-tsiah,** si tsin kan-kho  
 not-if COP very difficult  
 ‘If not, it’d be difficult.’  
 會亂到歸家伙安呢。  
 e luan kau kui-tshu-hue an-ne  
 will messy to whole.home PAR  
 ‘You’d have no easy life.’

### 7.2.6 Other categories of *bo*.

I provide one example showing *bo* as habitual; *tih* is compatible with *bo*.

- (25) i **u/bo** (tih) tsiah hun.  
 3sg HAB/not.HAB PROG eat cigarette  
 ‘He smokes./He doesn’t smoke.’

Among the five negatives, only *bo* can co-occur with the aspect marker *tih*.

- (25)’ \*i **be/m/bian/bue** tih tsiah hun.  
 3sg not.able/not.want/need.not/not.yet TIH eat cigarette  
 int. ‘He isn’t able to/doesn’t want to/ don’t need to smoke. /He has not yet smoked.’

### 7.2.7 *bue* as aspectual negation.

Unlike *bo*, *bue* is not used as a verb in contemporary Taiwanese Southern Min. *Bue* expresses anterior aspect and often appears with *iau* ‘yet’ 猶.

(26) 透早天未光

thau-tsa      thinn   **bue**              kng  
early.morning sky   not.yet              brighten.up  
‘It’s early in the morning when the sky hasn’t brightened up.’

(27) 啊 ieng9 暗猶未食咧，

a      ieng-am      iau      **bue**              tsiah    le  
PAR   dinner              still   not.yet              eat      PAR  
‘(I) have not eaten dinner yet.’

*Bue* ‘not yet’ can be the aspect of the first verb or the second verb (often, resultative) in a verb sequence; see (28) and (29) respectively.

(28) 猶未食早仔著卜轉啊

iau      **bue**    tsiah    tsa-a              tioh    beh              tng    a.  
yet      not.yet eat      breakfast      then    about.to              return PAR  
‘(He) has not yet had breakfast but is about to leave for home.’

(29) 厝起猶未好

tshu    khi    iau      **bue**              hoo  
house build yet   not.yet              finish  
‘The building of the house has not finished.’

Example (30) shows that modifiers appear between the aspect *bue* and the resultative verb *hoo* ‘good’, and (31) tells us the relative word order of aspect and modality.

(30) 路做猶未講真好

loo      tso      iau      **bue**    kong    tsin    hoo

road do yet not.yet say very good  
 ‘The road has not yet been too well built.’

(31) 彼大的講：伊猶未卜嫁！

hit tsua e kong  
 that older NML say  
 i iau **bue** beh ke.  
 3sg yet not.yet want marry  
 ‘That older one says that she has not wanted to get married.’

As in (32) and (33), the affirmative aspect is expressed through an adverb *i-king* 已經 ‘already’, which is optional, and 矣 *a*, which indicates a change of state.

(32) thinn **i-king** kng **a**.  
 sky already brighten PAR  
 ‘The sky has already brightened up.’

(33) tshu **i-king** khi hoo **a**  
 house already build finish PAR  
 ‘The building of the house has already finished.’

### 7.2.8 *bue* as an interrogative.

*Bue* can be used as an interrogative as in (34) and (35).

(34) 「你有號名未？」伊講：「猶未咧。」

li u ho-mia **bue?** i kong iau **bue** leh.  
 2sg have name Q 3sg say yet not.yet PAR  
 ‘Have you named (someone)?’ ‘He says, not yet.’

(35) 你彼本書是看透猶未？

li hit pun tshe si khuann-tau iau **bue?**  
 2sg that CL book COP read-through yet Q  
 ‘Have you figured out that book?’

### 7.2.9 Concluding remarks.

To conclude, this subsection summarizes some observations about Southern Min *bo*. *Bo* is multi-functional. It can behave like a verb, an aspect marker, a modal, a pure negative, an interrogative marker or even a discourse marker. Syntactically, *bo* can appear in the VP, AspP, as well as CP. Given that Chinese negation goes through a reanalysis of head to head movement, *bo* can be the head of each of these phrase structures. When *bo* is at the CP level, it can be used for polarity marking (such as interrogatives) and for discourse marking (such as adjuncts and adverbs). These will be two different levels of CP. The other aspectual negation *bue* does not carry a lexical use and it is not a discourse marker either.

Table 7.2 illustrates the categorial status of *bo*. The categories of *bue* is demonstrated in Table 7.3.

Table 7.2  
The categorial status of *bo*

| verb | TMA | NEG | QM; INT | DM |
|------|-----|-----|---------|----|
| √    | √   | √   | √       | √  |

Table 7.3  
The categorial status of *bue*

| verb | TMA | NEG | QM; INT | DM |
|------|-----|-----|---------|----|
| --   | √   | √   | √       | -- |

### 7.3 Diachrony of aspectual negation

This section investigates four aspectual negatives from a diachronic perspective. Different morphemes or characters are adopted in the languages under investigation. For perfective ‘not.have’, I discuss the development of *mei* 沒 and *wu* 無 as they are possible cognates of Southern Min *bo*. The discussion of 未 is for Southern Min *bue* ‘not.yet’ in. Also included is the morpheme 亡, for Hakka *mang* ‘not.yet’.

#### 7.3.1 On *wu* 無.

The word 無 is an archaic negative, with MSC pronunciation *wu*. It is often postulated to be a cognate of the morpheme *mei* that developed later.

The Chinese dictionary *Shuowen* 說文 suggests the etymology of *wu* 無 as an associative compound for ‘a person dancing’.<sup>169</sup> Another character 舞 *wu* was further developed for the meaning of ‘dance’.<sup>170</sup>

Based on *the Cotemporary Chinese Dictionary Hanyu da cidian* 漢語大詞典, the parts of speech of *wu* include negated verbs, interrogatives, and discourse markers, which are similar to those of *mei*.<sup>171</sup> I address each below.

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<sup>169</sup> Associative Compounding is one of the six methods of Chinese character formation.

<sup>170</sup> The etymology of *wu* is based on two sources: Taiwan Academia Sinica <http://words.sinica.edu.tw/sou/sou.html> and <http://www.zdic.net/zd/zi/ZdicE7Zdic84ZdicA1.htm>.

<sup>171</sup> Examples (37)-(46) are from *Hanyu da cidian*, unless noted otherwise. Transcription and translations are mine. Transcription is in MSC.

**1. *wu*: verb ‘not have’**

(36) 人而無儀，不死何爲 《詩經》 (*Shi Jing*; the Spring-Autumn period 770-476 BCE)<sup>172</sup>

|           |     |           |          |     |
|-----------|-----|-----------|----------|-----|
| ren       | er  | <b>wu</b> | yi,      |     |
| be.person | and | not.have  | demeanor |     |
|           | bu  | si        | he       | wei |
|           | NEG | die       | what     | do  |

‘If a man has no dignity of demeanor, what should he do but die?’

(37) 欲取鳴琴彈，恨無知音賞。 唐孟浩然詩 (Tang; 618-907 CE)

|      |      |            |           |            |
|------|------|------------|-----------|------------|
| yu   | qu   | mingqin    | tan,      |            |
| want | take | instrument | play      |            |
|      | hen  | <b>wu</b>  | zhiyin    | shang      |
|      | hate | not.have   | confidant | appreciate |

‘wanting to play the Chinese guitar, but hating having no confidant to appreciate it’

**2. *wu*: verb ‘to die’**

(38) 吾無後，當共勉勵，篤睦爲先。南史 Histories of the Southern Dynasties; 643-659 CE

|     |           |            |        |          |           |
|-----|-----------|------------|--------|----------|-----------|
| wu  | <b>wu</b> | hou,       | dang   | gong     | mianli,   |
| 1sg | die       | after      | should | together | encourage |
|     | du        | mu         |        | wei      | xian      |
|     | firmly    | harmonious | COP    | first    |           |

‘After I am no more, you should first encourage each other and get along peacefully.’

Below are examples where *wu* is used as a functional category, ranging from a negative, an interrogative to discourse marking.

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<sup>172</sup> Translation is by James Legge. This example is from Wang (2000: 659).

3. *wu*: ‘not’= MSC *fei* 非 or *bu-shi* 不是 ‘be-not’<sup>173</sup>

(39) 苟無忠信之人，

gou    **wu**    zhong            xin            zhi    ren  
if      not.be faithful          trustworthy    GEN    person

則禮不虛道。禮記 *Li ji*; (Warring States; 475-221 BCE)

ze    li      bu      xu      dao  
then rites    not    empty doctrine

‘The rites should not be perfunctorily performed by the man who is not right in heart and sincere.’

4. *wu*: **adverb** ‘not’ = MSC *bu* 不 ‘not’

(40) 無偏無黨，王道蕩蕩            尚書洪範 *Shang shu* (772-476 BCE)

**wu**    pian    **wu**    dang, wang            dao    dangdang  
not    deflect not    unevenkingdom          road    significant

‘Without deflection, without unevenness, pursue the royal righteousness.’

5. *wu*: **negative** = MSC *wei-ceng* 未曾 ‘not.ever; ‘never’ or *mei* 沒 ‘not.yet’

The dictionary only notes negation of *wu* for this entry, but this use shows that *wu* is aspectual. This contradicts with the finding by Shi and Li (2004), who believes that *wu* disappeared before it began to undergo the grammaticalization from its lexical ‘not have’ to other grammatical functions.

Wang (2000) provides the following example, where *wu* is aspectual, meaning ‘not ever’.

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<sup>173</sup> Translation of (39) and (40) is from James Legge. All the MSC equivalents for each entry are from *Hanyu da cidian*.



(41) 行離理而不外危者，無之有也 《荀子》 *Xunzi*; (Warring States; 475-221 BCE)

xing li li er bu wai wei zhe,  
behave deviate reason and NEG out danger NML  
**wu** zhi you ye  
not.ever this have PAR

‘There is never been a case where danger does not occur because of deviation from righteousness.’

6. **wu**: prohibitive = MSC *bu-ke* 不可 or *bu-yao* 不要 ‘do not V’

(42) 無若丹朱傲，惟慢遊是好。 《尚書》 *Shang shu* (772-476 BCE)<sup>174</sup>

**wu** ruo DanZhu ao,  
RPOH like (name) arrogant  
wei man you shi hao  
only indolence dissipation COP like

‘Be not haughty like Zhu of Dan, who found his pleasure only in indolence and dissipation.’

7. **wu**: interrogative = MSC *fou* 否

(43) 晚來天欲雪，

wan lai tien yu xue,  
evening come sky about.to snow

能飲一杯無？白居易詩 poetry by Bai Yuyi (772-846 CE)

neng yin yi bei **wu**  
can drink one cup Q

‘It’s about to snow. Would you care for some wine?’

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<sup>174</sup> Translation by James Legge

## 8. *wu*: conjunction

*Hanyu da cidian* also provides two types of conjunction. Examples are (44) and (45), equivalent to MSC *bu-lun* 不論 ‘not matter how’ and *ji-shi* 即使 ‘even if’.

(44) 無小無大，從公子邁。《詩經》；the *Book of Poetry*; (1046-771 BCE)<sup>175</sup>

wu      xiao    wu      da      cong   kong   yu      mai  
CONJ   small   CONJ   big      follow master to      progress  
‘Small and great, all follow the prince in his progress to it.’

(45) 國無小，不可易之。《左傳》 *Zuozhuan* (476-221 BCE)

guo      wu      xiao    bu      ke      yi      zhi  
country even.if small   NEG   can      easy   PRON  
‘Even if the nation is small, you cannot take it lightly.’

## 9. *wu*: no specific meaning

This use of *wu* also appears in sentence initial position. It is a discourse marker.

(46) 無寧以善人爲則 《左傳》 *Zuozhuan* (476-221 BCE)<sup>176</sup>

wu      ning    yi      shan              ren      wei      ze  
WU    peace   use    righteous      person COP    model  
‘For peace, making use of righteous persons is the [correct] principle.’

From these definitions, we learn that *wu* ranges from a negated verb to functional categories, including negation, interrogation, and conjunction. *Wu* can also be used to express aspect and prohibitive. A possible grammaticalization path of *wu* is presented as (47).

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<sup>175</sup> Translation by James Legge

<sup>176</sup> 杜預注，無寧寧也。Du Yu annotates, *wu ning ning ye* ‘*wu* comfort means comfort’.

(47) *wu*: V > ASP > NEG > C

My investigation of *wu* doesn't fit with Shi and Li's (2004) claim that *mei* replaced *wu* before the latter negative further developed from its lexical use. We move to *mei* in the following subsection.

### 7.3.2 On *mei* 沒.

There are three pronunciation entries for 沒 in the contemporary dictionary: *mo*, *mei* and *me*.

1. ***mo*** 沒. Under this pronunciation, the lexical use includes 'to sink', 'to swim in', 'to flood', 'to cover', 'to suppress', 'to end', 'to disappear', 'to lose', 'to cave in', and 'to die'. Below are selective examples from the dictionary.<sup>177</sup> These verbal uses of *mo*, however, appear in set expressions only in MSC.

#### ***Mo* as 'to sink/drown'**

Wang (2000: 545) refers this use as an euphemism for 'to die' in ancient Chinese.

(48) 若赴水火，入焉焦沒耳 《荀子》 *Xuzi*; (Warring States; 475-221 BCE)

|       |      |       |              |
|-------|------|-------|--------------|
| ruo   | fu   | shui  | huo,         |
| if    | go   | water | fire         |
| ru    | yian | jiao  | <b>mo</b> er |
| enter | PRON | burn  | drown PAR    |

'If going to the water and fire, one will be either burned or drowned.'

***Mo* as 'to die'** = *mo* 歿 'die'<sup>178</sup>

沒 *mo* in (49) means 'to die' and this use is later replaced by another character 歿.

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<sup>177</sup> Unless noted otherwise, examples are from *Hanyu da cidian*.

<sup>178</sup> Translation by James Legge

(49) 父在觀其志，父沒，觀其行。《論語》 *The Analects*; (772-221 BCE)

fu zai guan qi zhi,  
father alive observe POSS will

fu mo guan qi xing  
father die observe POSS conduct

‘While a man's father is alive, look at the bent of his will; when his father is dead, look at his conduct.’

**Mo: ‘to flood’**

(50) 水來漂沒，溺其人民 《史記》 *Shiji*; (109-91 BCE)

whui lai piao mo, ni qi renmin  
water come float flood drown POSS people

‘When the waters come flooding in, they drown one’s people.’

There is a modality use under the entry of *mo*.

**Mo as prohibitive** = *mo* 莫 or *bu-yao* 不要 ‘do not’

(51) 我勸世人沒要學撐船，

wo quan shiren mo.yao xue cheng chuan  
1sg advise regular.person NEG.PROH learn pole punt

撐子船來弗得閒。明 Ming dynasty; (1368-1644 CE)

cheng zi.chuan lai fu de xian  
pole.punt small.boat FUR NEG obtain/can free

‘I advise you not pole a punt. If you do, you cannot be free.’

**2. mei 沒: negation.** Wang (2000) suggests this meaning of 沒 as a later

development. The dictionary lists two definitions under the pronunciation of *mei*.

**Mei as ‘not have’, also read as mo** = MSC *wu* 無 or *mei.you* 沒有

(52) 娥眉愁自結，鬢髮沒情梳。 唐袁暉詩

ermei chou zi xie,  
eye.brow worry self tie

‘My eye-brows are tied due to worries’

binfai **mei**            qing    shu.  
Hair   not.have        mind   comb  
‘I have no mind to comb my hair.’

**Mei as ‘not.yet’** = 未 *wei* ‘not.yet’ or 不曾 *bu-ceng* ‘not-ever’

This aspectual use of *mei* is important as *mei* is also a perfective. This means that *mei* has a dual aspectual function.

(53) 今日索性連早飯也沒吃 《紅樓夢》 *The Dream of the Red Chamber*,  
Cao Xueqin, mid-18<sup>th</sup> cy., Qing dynasty)

jinri    suoxing        lian    zaofan        ye        **mei**        chi  
today   directly        FOC   breakfast        FOC   not.ASP        eat  
‘He didn’t even eat breakfast.’

Unlike *mo*, the above two uses of *mei* are still productive in MSC.

### 3. *me* 沒 = *me* 麼

This is a later developed meaning. This use is often seen in 甚沒 *shenme*, 什沒 *shenme*, 拾沒 *shime*, all meaning ‘what’ (Wang 2000). The interrogative pronoun has changed to *me* 麼, as in MSC 什麼 *shenme* ‘what’.

(54) 緣沒不攢身入草，避難南皈？ 《敦煌變文集》

yuan            **me**    bu    zan    shen    ru    cao  
affinity        what   NEG   accumulate    enter   grass  
                  bi    nan    nangui  
                  escape   refuge   South

‘As affinity does not accumulate within one’s body as it enters the grasses, in order to avoid difficulties must one take refuge in the south.’

The categories in modern Mandarin *mei* covers lexical ‘not have’, perfective ‘not.have’, anterior aspect ‘not.yet’, and interrogative. We have learned that *wu* 無 was used in questions and could serve as a discourse maker with no semantics. Southern Min *bo* and *wu* are alike in their category types. Still, one problem of considering Southern Min *bo* to be a cognate of *wu* is that *bo* can be used as perfective negation in contemporary TSM, but the historical *wu* doesn’t carry such a use. On the other hand, if we see *bo* as originating from *mei* 沒, we then have to explain why *mei* is not used for discourse marking. Language changes, and possibly *mei* and *wu* are of the same origin. So, *bo* carries characteristics from both of them.

Table 7.4 summarizes the categorial status of *wu* and *mei*, based on dictionary definitions.

Table 7.4  
A comparison of *wu* and *mei*

|     | <i>wu</i> | <i>mei</i> |
|-----|-----------|------------|
| V   | √         | √          |
| ASP | √         | √          |
| NEG | √         | √          |
| INT | √         | √          |
| DM  | √         | --         |

### 7.3.3 On Southern Min *bue* 未

The etymological dictionary *Shuwen jie zi* 說文解字 defines 未, MSC pronunciation *wei*, as ‘flavor’. Another source about *wei* in *Shuowen* is 木老於未 *mu lao yu wei*, meaning wood dying in the *wei* time (*wei* being the appellation of one of the divisions of time according to traditional reckoning). I find the dying meaning in *wei* 未 from the annotation by 段玉裁 Duan Yucai (1735-1815). *Hai*, *mao* and *wei* are times used in Ancient Chinese.

(55) 木生於亥。壯於卯。死於未。 *Shuwen jie zi*; (100-122 CE)

mu sheng yu hai, zhuang yu mao,  
wood born PREP hai.hour, grow PREP mao.hour  
si yu **wei**  
die PREP wei.hour

‘The wood is born during the *hai* hour, grows during the *mao* hour, and dies during the *wei* hour.’

The contemporary Chinese dictionary *Hanyu da cidian* provides the following definitions for 未, the first two of which have been explained above.

1. ‘flavor’

2. *wei-shi* 未時, literally the hour of *wei* = 1-3 in the afternoon

3. negation ‘not’ = MSC *bu* 不. I selected (56) from the Chinese dictionary and

(57) from Wang (2000) as such examples.

(56) 山林未深猿鳥少。宋詩; Song poetry; (960-1279 CE)

shan.lin **wei** shen yuan niao shao  
mountain.wood not deep ape bird few

‘Not going too deep in the wood, one finds only few apes and birds.’

- (57) 食肉者鄙，未能遠謀。《左傳》 *Zuo Zhuan*; (770-476 BCE)  
 shi rou zhe bi, wei neng yuan mou  
 eat meat NML shallow not able far plan  
 ‘Those who are holding a high position are shallow and cannot plan far.’

**4. prohibitive *wu* 勿 = MSC *bu-yao* 不要**

- (58) 東郊何時開？帶甲且未釋。唐杜甫; poetry by Du fu (712-770 CE)  
 dong jiao heshi kai?  
 east gate when open  
 ‘When will the east gate open?’  
 dai jia qie wei shi  
 Wear armor and PROH take.off  
 ‘keep your armor and do not take it off’

Interestingly, these archaic negative morphemes all carry a prohibitive use, but this modality use in *wei* is no longer found in contemporary usage. In MSC or TSM, prohibitive are often fused words from two morphemes, such as *bu-yao* 不要, literally ‘not-need’, in MSC. The negation *wei* is interchangeable with *bu* before the Tang dynasty, 618-907 CE (Wu 2006: 60). None of the above uses have been preserved to the modern era.

**5. *wei* as ‘not.yet’.** The anterior aspect usage is found in TSM *bue* ‘not.yet’, but not in MSC. MSC uses *wei* in set items such as *wei-lai* 未來 ‘in the future’ and *wei-bi* 未必 ‘not necessary’. The dictionary also notes two equivalents for *wei*, as *buceng* 不曾 ‘not.ever’ or *shanwei* 尙未 ‘not.yet’. Wang (2000: 456) also points out aspectual negation in *wei*.



(59) 不好犯上，而好作亂者，未之有也。《論語》 *the Analects*; 772-221 BCE<sup>179</sup>

|     |                  |                  |        |          |           |      |
|-----|------------------|------------------|--------|----------|-----------|------|
| bu  | hao              |                  | fan    | shang,   |           |      |
| not | take.pleasure.in |                  | offend | superior |           |      |
|     | er               | hao              |        | zuo      | luan      | zhe, |
|     | and              | take.pleasure.in |        | do       | confusion | NML  |
|     |                  | <b>wei</b>       |        | zhi      | you       | ye   |
|     |                  | not-ever         | PRON   | have     |           | PAR  |

‘There have been none, who, not liking to offend against their superiors, have been fond of stirring up confusion.’

**6. *wei* as interrogative.** The poetry below has *wei* as a question marker.

(60) 來日綺窗前，寒梅著花未？唐王維; poetry by Wangwei (701-761 CE)

|      |             |                     |        |        |              |
|------|-------------|---------------------|--------|--------|--------------|
| lai  | ri          | qi                  |        | chuang | qian,        |
| come | day         | embroidered.curtain |        | window | front        |
|      | han         | mei                 | zhuo   | hua    | <b>wei</b> ? |
|      | Winter plum | attach              | flower | Q      |              |

‘The day when you had stood before the curtained window [in parting], had you seen plum trees blossoming?’

The first two entries and the last two are still used in contemporary TSM.

未 in the first two nominal definitions is pronounced as *bi* in TSM, which is a literate pronunciation. The same morpheme is pronounced as *bue*, which is colloquial, for the last two definitions: *bue* as aspectual negative or an interrogative.

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<sup>179</sup> Translation by James Legge.

The origin of *wei* is regarded as a fusion of the negative initial *m-* in 毋 *wu* and the adverb 既 ‘already’ ( Pulleyblank 1995: 114). The OC reconstruction of 未 is [miət] by Wang Li 王力 and [mjədʰ] by Li Fanggui 李方桂.<sup>180</sup>

*m-* + 既 [kiət] or [kjədʰ] > 未 [miət] or [mjədʰ]

Therefore, one should not take it for granted that all negatives originate as verbs, although many of them do.

### 7.3.4 On Hakka *mang* 亡.

I look at the definition of 亡 (MSC pronunciation *wang*) because Hakka uses *mang* for ‘not.yet’, as opposed to 未 in TSM. *Hanyu da cidian* has two entries for the character 亡: *wu* and *wang*.

#### 1. *wu* 亡 as ‘not.have’

(61) 日知其所亡，月無忘其所能。 *the Analects* 論語; 772-221 BCE<sup>181</sup>

|       |      |        |      |             |      |  |
|-------|------|--------|------|-------------|------|--|
| ri    | zhi  | qi     | suo  | <b>wu</b> , |      |  |
| day   | know | POSS   | PRON | not.have    |      |  |
| yue   | wu   | wang   | qi   | suo         | neng |  |
| month | not  | forget | his  | PRON        | can  |  |

‘He, who from day to day recognizes what he has not yet, and from month to month does not forget what he has attained to, ...’

This dictionary *Hanyu da cidian* defines *wu* 亡 as the same as another morpheme *wu* 無; however, Wang (2000) argues that two Chinese rhyme dictionaries *Guangyun* 廣韻 and *Jiyun* 集韻 do not have a phonological entry *wu* for 亡.

<sup>180</sup> <http://www.eastling.org/OC/oldage.aspx>.

<sup>181</sup> Translation by James Legge.

2. *wang* 亡. Wang (2000: 12) suggests that the origin of *wang* is ‘to die out, to become extinct’.

**Wang as ‘escape’<sup>182</sup>**

(62) 子牟有罪而亡 《國語》楚語上(475-221 BCE)

Zimou you zui er **wang**

(name) have guilt and escape

‘Zimou is guilty and escapes.’

**Wang as ‘to die’**

(63) 時日曷喪，予及汝皆亡。《尚書》 *Shang shu*; 772-476 BCE

shi ri he sang, yu ji ru jie **wang**

when day when die, 1sg and 2sg both die

‘When the day comes, I will die with you.’

**Wang as ‘to overthrow’**

(64) 暴其民甚 則身弑國亡。《孟子》 Mengzi; 475-221 BCE

bao qi min shen,

torture POSS people extreme

ze shen shi guo **wang**

then body kill nation overthrow

‘If a king tortures his people, he will be killed and the nation will be destroyed.’

From the above, Hakka *mang* ‘not.yet’ possibly originates from a negative verb.

## 7.4 Grammaticalization of Aspectual Negation

I discuss the grammaticalization of *mei* and *wu*, followed by the notion of boundedness associated with MSC *mei*.

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<sup>182</sup> This example is from Wang (2000); other ones are from *Hanyu dai cidian*.

### 7.4.1 Historical development of *mei*(*you*).

The evolution of *mei* has been discussed extensively in the literature. Shi and Li (2004) have suggested that around the eighth century, *mei* evolved into negation, meaning ‘not have’. The negative form *mei you* emerged later approximately between the 14<sup>th</sup> and 15<sup>th</sup> centuries. By the 15<sup>th</sup> century, *mei* was mainly used to predicate nominal phrases and its predication was extended to verbal phrases afterwards. By the 16<sup>th</sup> century, the system of the modern Mandarin negative *mei* has been established.

The grammaticalization of *mei.you* as a negative can be divided into four stages:

#### 1. *mo*: verb = ‘to sink; to die’ > *mei* ‘to lack; not have’

The first stage is when the original verbal *mo* ‘to sink, to die’ evolved into the meaning of ‘lack, not have’. Sentence (65) shows that *mo* used to mean ‘to sink’ before the eighth century.

- (65) 夢爲魚而沒於淵。 *Huainanzi, Zhenxun*, 125 BCE (Shi 2002: 199)  
meng wei yu er **mo/mei** yu yuan.  
dream COP fish and sink LOC abyss  
‘(He) become a fish in his dream and sank into an abyss.’

Sentences (66) and (67) are cases where *mei* means ‘not have’. In (66), *mei* predicates a nominal phrase.

- (66) 深山窮穀沒人來。 Poem by Liu Shangyin, 800 CE (Shi 2002: 200)  
shen shan qiong gu **mei** ren lai.  
deep mountain poor valley not.have people come  
‘The deep mountains and poor valleys do not have people who come.’

- (67) “車子有麼？” “車子沒。” *Lao qi da*, 1325 CE (Shi 2002: 200)  
 chezi you me? chezi mei.  
 carriage have Q carriage not.have  
 ‘Do (you) have a carriage?’ ‘(We) don’t have any carriages.’

**2. *mei*: verb ‘not have’ > negation, to negate *you* ‘to have’**

During this stage, the negated verb changes to a pure negator. In (68), *mei* is to negate the verb *you* ‘to have’.

- (68) 如何沒有鮮魚？ *Shuihu zhuan*, 1550 CE (Shi 2002: 200)  
 ruhe mei you xian yu?  
 why NEG have fresh fish  
 ‘Why don’t you have fresh fish?’

**3. *mei*: negative of *you* ‘to have’ > negative of other verbs; aspectual**

The third stage took place when *mei* began to be used with verbs other than *you* ‘to have’. This change probably occurred in the 16<sup>th</sup> century (Shi and Li 2004: 249). That is, *mei* began to appear with non-nominal predicates. For examples, *mei* in (69) is to negate the verb *shang* ‘to serve’.

- (69) 這一日沒上過鐘酒。 *Jin ping mei*; 1550 CE (Shi 2002: 200)  
 zhe-yi-ri mei shang-guo zhong jiu.  
 for.a.while NEG.ASP serve-EXP cup wine  
 ‘Wine has not been served for a while.’

During this stage, *mei* began to be used as a negative perfective marker (Shi and Li 2004: 197).<sup>183</sup> The use of *mei* as a perfective negative marker occurred later than *mei* as negation to the verb *you*. The aspectual *mei* has then functioned

<sup>183</sup> I mark *mei* as ASP for now. I will discuss its specific aspect use later in this chapter.

as a bounded negative marker since the 16<sup>th</sup> century, although its original verbal usage ‘not have’ is still productive to this date. However, there is a problem in this diachrony: V > Neg > Asp.Neg. This does not seem to be a normal development, as Neg should go after Asp.Neg. Further research is required.

#### 4. *mei* + *you* > aspectual *mei.you*

There is also a stage where *mei* became to fuse with *you* to form *mei.you*, which, as a whole, is reanalyzed as a negative perfective marker. Shi and Li (2004: 248) note that it took a couple of centuries for this reanalysis of aspectual *mei.you* to take place from the negative verb *mei you* ‘to not have’.

Shi and Li (2004) postulate a possible syntactic structure for the reanalysis into aspect to occur. In (70), *mei* is the first verb in an verb series. The brackets indicate two VPs.

(70) [*mei* + NP] + [V + NP]

When the first NP is empty, the structure becomes (71). The next step is for *mei* to become a functional projection, taking the VP as its complement, as in (72). Note that this also shows a pattern from two events to one.

(71) [*mei*] + [V + NP] > (72) *mei* + VP

Historically, *mei* as a negative marker came into existence when *mei* was used together with *you* ‘to have’, and then with a non-*have* verb as perfective.

I discuss how *mei/ mei.you* is reanalyzed into an interrogative. Shi and Li (2004: 269) suggest that *mei.you* as Q is productively used in the 18<sup>th</sup> century.

(73) 吃了藥沒有?            紅樓夢 the *Dream of the Red Chamber*  
       chi-le yao                **mei.you?**

eat-LE medicine      Q  
'Did you take medicine?'

Shi and Li argue that the preverbal interrogative *you-mei.you* did not exist in earlier texts written in the early 20<sup>th</sup> century such as in works by Lao She 老舍 (1899-1966) and Lu Hsun 魯迅 (1881-1936). In other words, *you-mei.you* is a rather new development.

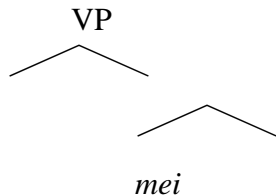
(74) 你有沒有吃藥?      MSC  
ni      **you-mei.you**    chi      yao?  
2sg    have-not.have take    medicine  
'Did you take medicine?'

The historical development of the negative *mei* can be summarized as (75).

(75) *mo* = verb 'to die'  
> *mei* = verb 'not have'  
> *mei* = negation 'not' + *you* 'to have'  
> *mei* = perfective negative: *mei/mei.you* + (non-have) Verb  
(> *mei* = question marker)

Based on Shi and Li (2004), there is a head-to-head movement in *mei*: V > NEG > NEG.ASP > Q, with each head from a different reanalysis stage.<sup>184</sup>

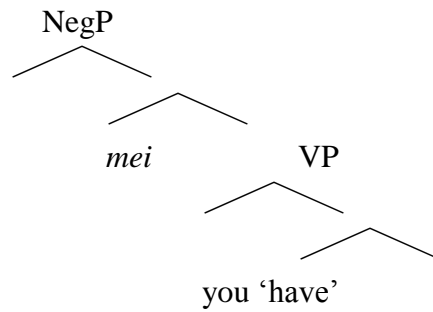
(76) *mei* = V 'not have'



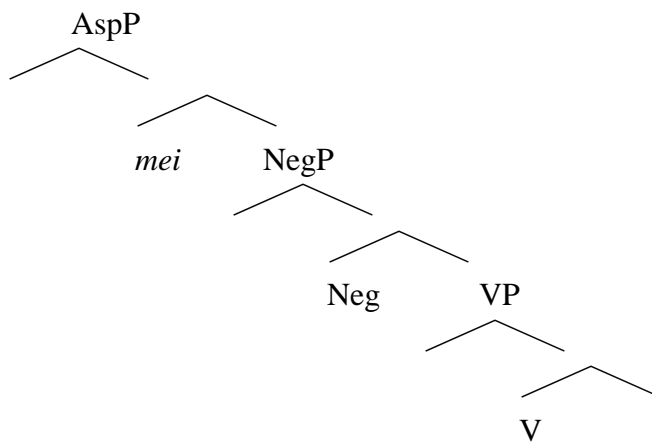
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<sup>184</sup> I have previously noted the strange order, but the verbal origin of *mei* is widely accepted. With this, I analyze a head-to-head movement in *mei*.

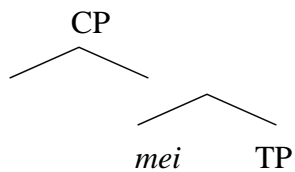
(77) *mei* = negation ‘not’



(78) *mei* = perfective negation NEG.ASP



(79) *mei* = interrogative



The above patterns shows a reanalysis process, from a lexical (verb) to functional projections (negation, aspect, and questions).

Two lines of postulation can be outlined from the above paragraphs. For one, *mei* as aspectual negation possibly comes from a reanalysis of *you* from V to Asp. As the lexical possession *you* ‘have’ becomes aspectual, *mei* negates the aspectual *you*. Technically, *mei* is simply negation under this analysis.



(80) *mei* ‘not’ + { you [ have (possession)] > iF: [aspect] }

Shi and Li (2004) adopt the reasoning that *mei* was further reanalyzed. I analyze the reanalysis as feature loss.

(81) *mei*: [not.have (possession; negativity)] > iF: [aspect; negativity]

The other suggestion is that the aspect of *mei* derives from its negative verb ‘not have’ due to feature loss.

(82) *mei*: [not.have (possession)] > iF: [aspect] (of negation)

Shi and Li (2004) argue that the grammaticalization of *mei* led to the extinction of *wu* 無 as well as other negatives such as *wei* 未 ‘not yet’, because *mei* extended its usage from nominal to include other types of predicates. As the two authors suggest, the modern *mei* system was established no later than the 16<sup>th</sup> century and that the disappearance of *wu* took place approximately in the Yuan-Ming dynasties (1271-1644 CE).

Pan (2002: 306), however, believes that *wu* 無 changed to 沒 *mei* due to phonological weakening. Pan points out that *mei* does not exist in Southern dialects where *wu* is employed; similarly, *wu* cannot be found in Northern dialects where *mei* is used (Pan 2002: 309). In line with Pan, Xu (2003) proposes that with a similar pronunciation, *mei* replaces *wu* as a negated verb.

Either analysis provides us with a possible pathway of the grammaticalization of Southern Min *bo*. The following section discusses the diachrony of *wu* 無 whose character is often chosen to represent TSM *bo*.

### 7.4.2 Historical development of *wu*.

Norman (1995) suggests that the equivalent negative marker to *mei*. *You* in northern Min is a fused word of 無 ‘not have’ and 有 ‘have’, as in (83).

- (83) [ma] 無 + [wu] 有 > [maw] = ‘not have’  
(Northern Min pronunciation)

If this line of reasoning is correct, Southern Min negative *bo* is possibly a fused word of negation plus its affirmative *u*.

- (84) NEG: *m* + *u* ‘to have’ > *bo* ‘not have’

Shi and Li (2004) conclude that the negative *wu* ‘not have’ was used solely with nominal phrases from the pre-Qin times (221 BCE) to the Yuan-Ming Dynasties (1271-1644 CE). *Wu* 無 and *mei* 沒 served the same function until new usages in *mei* developed in the Tang-Song Dynasties (618-960 CE).

I have discussed various uses of *wu* and *mei* in section 7.3 with a conclusion that *wu* is not used as aspectual negation. Otherwise, *wu* and *mei* are fairly similar.

Below I provide examples of *wu* chronologically from different historical texts, including *wu* as the second verb in a sequential event. I focus on *wu* as a negated verb ‘not.have’. The first two examples show that *wu* appears as a verb.

- (85) 人誰無過 《左傳》 (*Zuo Zhuan*; the Spring-Autumn period 770-476 BCE)

ren shui **wu** guo

person who not.have mistake

‘Who among men has made no mistakes?’

- (86) 軍無糧食則亡。《孫子》 (*Sun Tzu*; written 515-512 BCE)

jun **wu** liangshi ze wang

army not.have food then die

‘If soldiers do not have food, they will die.’

In a later text *Shishuo xinyu* 世說新語, one can see that *wu* negates the verb *you* ‘to have’.

- (87) 且謂駿物無有殺理 (*Shishuo xinyu* 世說新語; 220-258 CE)  
qie wei junwu **wu** you sha li  
and say steed not have kill reason  
‘and saying that the steed should not be killed’

Also, in this historical text *wu* often appears in a verb sequence connected by the conjunction *er* ‘and’, such as (88) where *wu* is a negative ‘not’.<sup>185</sup>

- (88) 仁無隱而不著，  
ren **wu** yin er bu zhuo  
benevolence NEG hide and NEG apparent  
無幽而不彰者 (*Shishuo xinyu* 世說新語; 220-258 CE)  
**wu** you er bu zhang zhe  
NEG remote and NEG apparent NML  
‘Benevolence will not be hidden without being known, will not be tucked away without being made apparent.’

In (89), *wu* is the second verb in a verbal sequence, yet it is fairly rare in *Shishuo Xinyu*. There is no conjunction between *ju* and *wu* in (89)

- (89) 居無幾何而周舍死 (*Shishuo xinyu* 世說新語; 220-258 CE)  
ju wu ji he, er Zhoushe si  
live not.have some year and name die  
‘...lived for some years and Zhoushe died’

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<sup>185</sup> One of the definitions for *wu* 無 is ‘not’; see section 7.3.2.

Next, in the *Baopuzi* 抱朴子 text (371-420 CE), *wu* is mainly used as a verb to negate nominal phrases (611 out of 646 tokens), according to Shi & Li (2004: 242). I provide an example below.

- (90) 不見仙人，  
 bu jian xian ren,  
 NEG see transcendent person  
 不可謂世間無仙人也。《抱朴子》內篇 (*Baopuzi*; 371-420 CE)  
 bu-ke wei shijian **wu** xian ren ye  
 NEG.can say world not.have transcendent person PAR  
 ‘One can’t conclude that there is no transcendent in the world until he sees one.’

Third, in *Laoqida* 老乞大 (918-1392 CE), which served as a textbook at the time for Korean learners of Chinese, *wu* serves as the main verb in most tokens.

- (91) 這房裏無人 (*Laoqida* 老乞大; 918-1392 CE)  
 zhe fang li **wu** ren  
 this room inside not.have person  
 ‘There is no one in the room.’

It is hard to find instances of *wu* as the second verbal element. I found three out of the very few *wu* entries (seven). One example is (92). *Wu* appears as the second element, but there is an adverbial phrase *hou* ‘later’ between the first verb and *wu*.

Also, *wu* can be considered to be in the embedded clause.

- (92) 恐後無憑 (*Laoqida* 老乞大; 918-1392 CE)  
 kong hou wu ping  
 worry later not.have proof  
 ‘worrying that there will be no proof later’

Note that the nominal phrase in (92) is indefinite. The indefinite and bare noun is easily lexicalized with the previous verb *wu* into one unit, such as *wu-ping*

‘having no proof’ 無憑.

*Mei* 沒 is another lexical verb ‘not have’ in *Laoqida*. In other words, both *mei* and *wu* serve as negated verbs in this text. The number of *mei* sentences is larger than that of *wu*. We begin to see the rise of *mei* and the fall of *wu* in this text, which is not surprising. As noted by Shi and Li, *mei* emerged approximately in later Tang period (618-917 CE) and *Laoqida* is compiled a little later than Tang.

Let us examine poetry around the Tang dynasty. In poetry, *wu* is often used to contrast with *you* ‘to have’, such as in (93).

(93) 荷盡已無擎雨蓋， 蘇軾《贈劉景文》(*Su Shi*; 1036-1101 CE)

he jin yi                      **wu**                      qing yu gai  
lotus die already              not.have              lift rain cover

‘When the lotus dies, its sheltering leaves are already gone.’

菊殘猶有傲霜枝。

ju                                      can you      **you**      ao      shuang              zhi  
chrysanthemum              die      still      have      elegant frost              branch

‘When the chrysanthemum dies, its elegant frost branches still remain.’

In a Song poem below, *wu* is used as a negated verb too.

(94) 踏破鐵鞋無覓處。 宋夏元鼎詩 (Song Dynasty, 1127-1279 CE)

ta po tie xie      **wu**                      mi.chu  
step worn iron shoe      **not.have**              place

‘Though (I) have looked for everywhere, there is no place where I can find (it).’

*Wu* disappeared in the colloquial stratum of written Chinese, and in MSC *wu* can only be seen in frozen expressions, as in (94).

Moving to the 14<sup>th</sup>-15<sup>th</sup> centuries, we also see the same verbal use of *wu* in 水滸傳 *Shuihu zhuan* (Ming, 1368-1644 CE).

(95) 四邊並無別物 *Shuihu zhuan* (1368-1644 CE)

si bian bing **wu** bie wu  
four side and not.have other thing  
'There are no other things in all four sides.'

(96) 言無數句，話不一席 *Shuihu zhuan* (1368-1644 CE)

yan **wu** shu-ju, hua bu yi xi  
say not.have several-utterance say NEG one feast  
'(Someone) didn't say much and his words didn't last longer than a feast's worth of time.'

Finally, we shall also look at *Lijing ji*, the earliest available Min text. Most tokens of *wu* have the word order of NEG +DP. The V-NEG-DP construction is uncommon; (97) is one such example. The nominal *mih* 'thing' is indefinite.

(97) 我畏無物通度汝食。《曆鏡記》(*Lijing ji*; approximately 1566 CE)<sup>186</sup>

gua kiann **bo** mih tang hoo li tsiah.  
1sg dare not.have thing can give 2sg eat  
'I'm afraid that I do not have food for you to eat.'

So far, we have not seen a case where the nominal phrase is definite. For it to happen needs some syntactic environment. For instance, we can say that *kiann* 'dare' and *bo* 'not.have' are two independent verbs in (97), but they can be in one

<sup>186</sup> I transcribe this line in modern Southern Min as *Lijing ji* is a Min text.

bi-clausal event in certain situations, such as ‘I don’t have the things that you requested.’ I address aspectual negation in the V-NEG-DP order in section 7.5.

Shi and Li (2004) claim that the lexical use of *wu* is limited to ‘to not have’ before it became extinct and was substituted by *mei* around 14<sup>th</sup> to 15<sup>th</sup> centuries. The authors’ evidence is that no pattern such as *wu* + VP is found in *Baopuzi* 抱朴子 (371-420 CE) and *Shuihu zhuan* 水滸傳 (Ming, 1368-1644 CE).

However, I have shown in section 7.3 that *wu* can be used as an pure negative, aspectual negative, interrogative or discourse marker before it went out of use. Based on this, we should expect a reanalysis of *wu* “up the tree” in syntax just like *mei*. This does not fit with Shi and Li’s (2004) claim. Possibly, *wu* has undergone a grammaticalization path as (98). A corpus analysis of more historical texts is required, however.

(98) *wu*: V > NEG > ASP > Q > DM

As discussed in section 7.2, modern TSM *bo* characterizes part of *wu* and of *mei*. Some puzzles arise. If *bo* derives from *wu*, why do we have *bo* as aspectual negation in modern TSM, while historically *wu* was never used this way?

On the other hand, if *bo* is *mei*, why does *bo* differ from MSC *mei* in terms of their predication and word order options? I return to the issues of predication in comparative studies of section 7.5. An apparent difference between MSC and the other two Sino language varieties is word order, which I address immediately after the following subsection.

### 7.4.3 Interim conclusion.

The above paragraphs address the development of Chinese negation, with a focus on aspectual negative morphemes. I show the grammaticalization path for each morpheme below:<sup>187</sup>

(99) *mo/mei* 沒: V ‘to die’ > NEG; ASP > Q

(100) *wu* 無: V ‘not have’ > ASP; NEG > Q > DM

(101) *wei* 未: ? > ASP > Q

(102) *wang* 亡: V ‘to escape’ > ASP > Q

Diachronically, all the Chinese negatives discussed thus far share some characteristics. There is head-to-head reanalysis, and many of these negatives originate as full-fledged verbs, mostly associated with ‘to die’. Nevertheless, a language may choose one form over another. For instance, TSM makes use of *bo* 無 and *bue* 未 as its two separate types of aspectual negation, whereas MSC uses *mei* 無 for both. Hakka has *mo* 無 and *mang* 亡 for perfective and anterior aspect.

I have discussed how previous research provides us with views on the synchronic negation among the Sinitic languages under investigation. I also supply the inquiry with my new insights, either associating one finding with another, or making further clarifications when necessarily.

A large portion of this section contributes to the diachrony of *mei*, including its categorial status and word order. The reason is that these two areas differ significantly between MSC and the other language varieties in contemporary eras.

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<sup>187</sup> All are in MSC pronunciation.



#### 7.4.4 Word order change in *mei*.

This section addresses word order in negation. I first demonstrate two word orders in TSM with only one corresponding word order in MSC. Secondly, I refer this divergence to a change of word order in history during Middle Chinese time. In the remaining paragraphs, I provide examples from the literature on this change and associate them with the aspectual negatives under investigation.

There are two word orders for TSM negation.<sup>188</sup> One is where *bo* serves as the first verb in a sequential event, as in (103). The other word order shown in (104) is also available in Sinitic varieties other than MSC.<sup>189</sup>

(103) 無人知伊心稀微

**bo**            lang   tsai   i        sim   li-bi.  
not.have      person know 3sg   hear   lonely  
'No one knows her loneliness.'

(104) 等無心愛的人

tan    **bo**            sim   ai        e        lang  
wait   not.have      hear   love   GEN   person  
'waiting for the one who (she) cares but in vain'

I now focus on the latter word order. Let us examine (105), where *mei* negates the verb *chi* 'to eat'.

(105) 蛋糕，我沒吃。            MSC

dangao,        wo    **mei**            chi.  
cake            1sg   not.PFV        eat  
'The cake, I didn't eat it.'

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<sup>188</sup> (103) is from a popular Taiwanese song 憂愁牡丹 *iu-tshiu boo-tan*, and (104) is from 返來阮身邊 *tng lai gunn sin-pinn*.

<sup>189</sup> The exception is the MSC V-*bu/de*-R construction.

However, in (106), where there is a resultative compound *chi-wan*, literally ‘eat-finish’, *mei* negates the resultative *wan* ‘finished’, but not the main verb *chi* ‘eat’.<sup>190</sup>

- (106) 蛋糕，我吃了，但沒吃完。           MSC  
 dan.gao<sub>i</sub>,      wo      chi-le [t<sub>i</sub>],      dan      **mei**           chi-wan.  
 cake            1sg   eat-PFV      but   not.ASP      eat-finish  
 ‘I ate some cake, but I did not finish (eating) it.’

In contrast, there are two word orders for (106) in TSM. In (107), *bo* precedes the verb ‘eat’, whereas *tsiah* ‘eat’ is followed by *bo* in (108). These two sentences share same semantics.

- (107) ke-nng-ko,   gua   **bo**           (ka   i)      tsiah-uan.  
 cake            1sg   NEG.ASP   (PREP it)   eat-finish  
 ‘The cake, I did not finish it.’
- (108) ke-nng-ko,   gua   tsiah   **bo**           uan.  
 cake            1sg   eat    NEG.ASP   finish  
 ‘The cake, I did not finish it.’

The difference between these two languages is connected to word order change in the history of the Chinese language. According to Shi and Li (2004: 237), Chinese has gone through a dramatic structure change around the fifteen century, which I demonstrated as in (109).<sup>191</sup>

- (109) [ V + O ] + [ M + X ] > M + ( V-X ) + O

<sup>190</sup> T<sub>i</sub> shows the original position of the topicalized *dangao* ‘cake’.

<sup>191</sup> Translation of the terms is mine. Shi and Li (2004: 237) regard X as a secondary predicate.

M (modifier): interrogative pronouns, degree adverbs, negation, or adverbs

X: verbs, adjectives, time words, quantifier phrase, preposition phrase

I provide (110) as an example.

(110) pushed the door widely open > widely pushed open the door

[ pushed + the door ] + [ **widely open** ] > [ **widely push-open** the door ]

V                    O                    M            X                    M            V-X                    O

First, the change involves clausal boundaries, from two to one, as shown in brackets. ‘Pushed the door’ is one event and ‘(the door was) widely open’ is the other. Second, the modifier (M) ‘widely’ is fronted, and the resultative state X ‘open’ is attached to the verb as (lexical) aspect.

Shi and Li argue that resultative compounding V-X in MSC comes from a structure change in (111).

(111) V + X > V-X, when O and M in (105) are omitted

Now, take the resultative compound *chi-wan* in (106) as an example. There should be a change as in (112).

(112) *chi* ‘eat’ + (O) + (M) + *wan* ‘finish’ > *chi-wan*            ‘finishing eating’

For negation, the pattern should be like (113), adapted Shi and Li (2004: 238-239).<sup>192</sup>

(113) [V + (O)] + [Neg + X]            >            Neg + V-X + O

(114) [*chi* + *dangao*] + [*mei* + *wan*] >            *mei* + *chi-wan* + *dangao*

eat            cake            NEG finish                    NEG eat-finish            cake

<sup>192</sup> Not all Chinese negation completes this change. Here I only address negation as initially scoping over the secondary predicate in MSC.

Negation is fronted once the unit V-X is set. For this to take place, Shi (2002) argues that V-X is reanalyzed as one element, triggering the preposing of negation.

(115) [ V + O ] + [ Neg + X ] > Neg + [ V-X + O ]

I use brackets to separate clausal boundaries. This structure change involves clausal dependency from two independent clauses to a one-event clause.<sup>193</sup> The NegP now scopes over a bi-verbal event. This change is completed in MSC, but not in TSM and Hakka, as the latter languages still make use of both word orders.

I have explained the word order change about negation in MSC, taking *mei* as an example. There are, however, other aspectual negatives such as *wu* and *wei*. In the following paragraphs, I synchronize the literature on Chinese aspectual negation, taking into account *mei* 沒, *wu* 無 and *wei* 未.

#### 7.4.5 Word order change in aspectual negation.

The use of the various negatives from the Wei-Jin 魏晉 periods (beginning 265CE) to the Yuan-Ming 元明 Dynasties (ending 1644 CE) is allocated by the predicate (Shi and Li 2004: 241). The difference can be conceptualized below.<sup>194</sup>

(116) V + [*wei* 未 ‘not.yet’; *bu* 不 ‘not’ ] + verbal/adjectival

(117) V + [*wu* 無 ‘not.have’;

*mei* 沒 ‘not.have’; + nominal

*bu-dao* 不到 ‘not-reach’]

---

<sup>193</sup> Many studies (such as Liu 2004; Wang 2010) have conducted on how the syntax of resultative compounds is represented.

<sup>194</sup> *Wei* 未 and *bu* 不 were interchangeable in some texts at a time; *wu* 無 in some historical texts are used as prohibitives, just as 毋.

In other words, when there is a verbal predicate, the candidate for negation is either *wei* or *bu*. A nominal predicate has a choice among *wu*, *mei* and *bu-dao*. This distinction is only applicable to time periods before *mei* was established and extended to other usages. MSC loses these structures, yet contemporary TSM preserves them, with equivalents such as *bue* 未 for ‘not.yet’, *bo* 無 for ‘not.have’, and *bo-kau* 不到 for ‘not-reach’. Below are historical examples for each type.<sup>195</sup>

(118) 今日做未得，且待來日做。朱子語類訓門人 *Zhuzi yulei*; 1270 CE

jinri zuo **wei** de, qie dai lairi zuo  
 today do not.yet obtain just wait future do  
 ‘Whatever hasn’t done today will be kept until futher.’

(119) 手裡拿叉桿不牢，失手滑將倒去。 *Shuihu zhuan*; 1368-1644 CE

shou li na cha kan **bu** lao,  
 hand in hold fork handle NEG firm,  
 shi shou hua jiang dao qu.  
 lose hand slip hold down go

‘The fork is not firmly held, slipping down from the hand unexpectedly.’

(120) 臨灌渴水死人無數 祖堂集 *Zutang ji*; 952 CE

Lin kuan ke shui si ren **wu** shu  
 Face pour thirst water die person NEG number

‘Numerous people died of thirst.’

(121) 那富安走不到十來步 水滸傳 *Shuihu zhuan* (1368-1644 CE)

na fu’an zou **bu** dao shi lai bu  
 That (name) walk NEG reach ten some step

‘That person didn’t walk more than ten steps.’

---

<sup>195</sup> Examples are from Shi and Li (2004: 238-239); transcription and translation are mine. Transcriptions are all in MSC.

(122) 住了沒兩日就下起雪來 *the Dream of the Red Chamber* (the 18<sup>th</sup> cy.)

zhu le **mei** liang ri  
live LE NEG two day  
jiu xia qi xue lai  
then fall up snow come

‘(Someone) stayed (somewhere) for less than two days when it began to snow.’

From *Zutang ji* 祖堂集 (952 CE) to *水滸傳 Shuihu zhuan* (Ming, 1368-1644 CE), we see change in negation from *wu* to *bu-dao*. In a latter text *紅樓夢* the *Dream of the Red Chamber* (mid-Qing, the 18<sup>th</sup> century), *bu-dao* is often replaced by *mei* (Shi and Li 2004: 239). *Wu* disappeared eventually.

(123) development of aspectual negation for nominal predicates

*wu* → *bu-dao* → *mei*

That is, *mei* takes over the other negatives for negation of the secondary predicate. Before modern eras, *mei* can be observed in two word orders.

(124) *mei* + V + (-X) + O

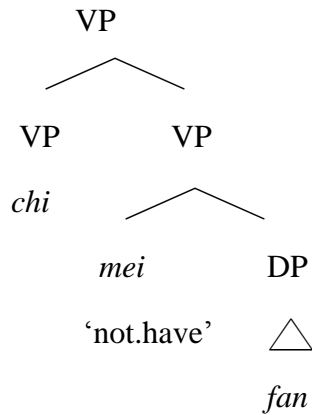
ta **mei** [chi fan] MSC  
3sg NEG.ASP eat rice  
‘He didn’t eat (the/a) meal.’

(125) V + *mei* 沒 + O

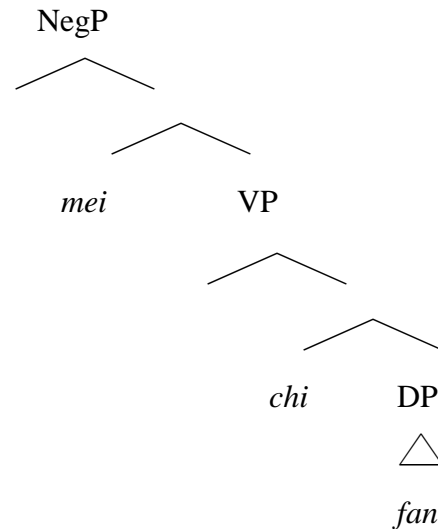
\*ta chi **mei** fan  
3sg eat NEG.ASP rice  
‘He didn’t eat (the/a) meal.’

In early modern Mandarin texts, such as the 18<sup>th</sup> century novel the *Dream of the Red Chamber*, these two word orders are still well attested. In MSC, *mei* however cannot be in the secondary predicate position, as in (125).

(126) tree for (124)



(127) tree for (125)



The prepositioned *mei* discussed above is bounded with the predicate of the verb: resultatives or quantifiers. I discuss boundedness next.

#### 7.4.6 Perfective or perfect.

I first discuss the notion of “boundedness,” extending this topic to the disappearance of several aspectual negatives in Mandarin Chinese. Thus, today *mei* in MSC is used as both perfective and perfect, two terms I will explain accordingly.

Boundedness is used in the Chinese literature (such as Shi 2002) to distinguish *mei* from *bu*, both of which are the two basic negators in MSC. This term characterizes the phenomenon just discussed in section 7.4.3.

For instance, *mei* expresses the aspect of the verb, yet does not immediately precede *kai* ‘open’ in (128).

- (128) ta      **mei**                      tui      (\*mei) **-kai**      men.      MSC  
          3sg    NEG.ASP                      push    NEG    -open    door  
          ‘He pushed the door but failed to open the door.’

To negate the declarative, ‘He pushed the door open’, *mei* is projected above the VP, which is bounded with the telicity *kai* ‘open’. *Mei* also negates quantification in (129). An alternative utterance such as (130) is used.

- (129) ta      **mei**                      chi      (\*mei)                      san      kou      fan.      MSC  
          3sg    NEG.ASP                      eat      NEG.ASP                      three    mouth    rice  
          ‘He ate less than three mouthfuls of meal.’

- (130) ta      chi      **bu**      **dao**      san      kou      fan.      MSC  
          3sg    eat      NEG    reach    three    mouth    rice  
          ‘He ate less than three mouthfuls of meal.’

The boundedness notion used for the above examples is perfectivity. As discussed, perfective *mei* is connected to syntactic change in the history of the Chinese language.

- (131) *mei*: not.PFV

*Bu*, on the other hand, is not bounded with the event; see the ungrammatical example in (132).<sup>196</sup>

- (132) \*ta      **bu**      tui      kai      men.                      MSC  
          3sg    NEG    push    open    door  
          Intended: ‘He didn’t push the door open.’

---

<sup>196</sup> There is a possible reading for (132): ‘He doesn’t want to push open the door’. The negative *bu* can be volitional (chapter five).



In MSC, *bu* is used for adjectival or stative predicates.<sup>197</sup>

- (133) hua    **bu**    hong.    MSC  
flower NEG red  
'The flower is red enough.'
- (134) ta    **bu**    kaixin.    MSC  
3sg    NEG    happy  
'He is not happy.'
- (135) ta    **bu**    neng    lai.    MSC  
3sg    NEG    can    come  
'He cannot come.'

Shi and Li (2004) argue that the occurrence of the “bounded” (in their term) *mei* is accompanied with the extension of *mei* to other types of negation. Before *mei* took over other bounded negatives such as *bu-ceng* 不曾 ‘never’ and *wei-ceng* 未曾 ‘never’ around the 15<sup>th</sup> to 17<sup>th</sup> centuries, both *bu* 不 and *wei* 未 were used to express unboundedness; see (136).<sup>198</sup>

- (136) 商議未了。 *Shuihu zhuan* 水滸傳; 1368-1644 CE  
shang-yi    **wei**    liao  
negotiate    NEG    finish  
'did not finish negotiating'

*Bu* may negate a bounded event, but it is restrictive to an additional adverb.

- (137) 只和每日一般，並不說起。 *Shuihu zhuan* 水滸傳; 1368-1644 CE  
zhi    he    mei-ri    yiban, **bing bu**    shuo-qi

---

<sup>197</sup> *Bu* is to describe the degree of the adjective in (133). For the statement that ‘the flower is not red’, 不是 *bu-si* (... 的 *de*) is used.

<sup>198</sup> Sentences are from Shi and Li (2004: 242-243); transcription and translation are mine.

only with every-day same but NEG mention  
 ‘Just like every day, (he) did not even mention (what was happening).’

However, there are only two basic negative forms in MSC: *bu* and *mei*.

(138) *bu*: adjectival/stative verbs (unbounded)

(139) *bu-ceng/wei-ceng* ‘not-ever’ > *mei* ‘not yet’ (bounded)

The reanalysis illustrated in (139) indicates that *boundedness* by Shi and Li (2004) also refers to *anterior aspect*, aka. *perfect*, abbreviated as PF; see (140).

(140) *mei*: not.PF

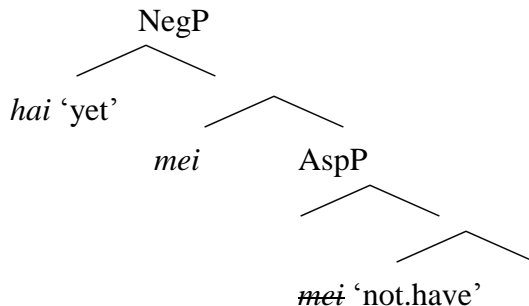
ta hai-**mei**/hai-**mei-you** qu Changcheng. MSC  
 3sg yet-not.PF/yet-not-PF go great.walls  
 ‘He has not left for the Great Walls.’

I add *mei* as perfective (abbreviated as PFV) below in (141) for comparison.

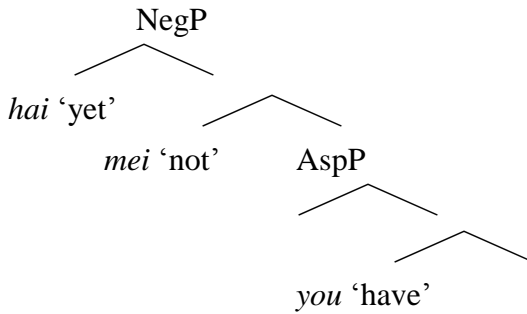
(141) ta **mei** qu Changcheng. MSC  
 3sg not.PFV go Great.walls  
 ‘He did not go to the Great Walls.’

The PF aspect in (140) can be represented in the tree diagrams, accordingly.

(142) *hai-mei* as NEG.PF



(143) *hai-mei-you* as NEG.PF



The crossed-out *mei* shows that the negation *mei* in the higher head is reanalyzed from a lower position. This AspP indicates anterior aspect or perfect.<sup>199</sup>

Now, let us return to Southern Min *bo* and examine how it converges with and diverges from MSC. In a similar fashion, I look at individual-level predication, perfective, and anterior.

First, *bo* is for adjectival or stative predicates, which however patterns MSC *bu* rather than *mei*. I repeat the MSC (133) and (134), but add them TSM data.

(144) hua    **bu**    hong. MSC  
       hue    **bo**    hang. TSM  
       flower NEG red

‘The flower is not red enough.’

(145) ta      **bu**      kaixin.      MSC  
       i        **bo**      huann-hi.    TSM  
       3sg    NEG    happy

‘He is not happy.’

<sup>199</sup> *Le* is the affirmative aspect of *mei*. There has been a prolonged debate on whether *-le* is perfective or perfect, I assume that *-le* 了 can be both, given the negation data provided above.

Interestingly, *bo* serves as a perfective marker, which is the same as MSC *mei* in (132) and (141).

(146) ta      men    **mei**            tui    kai.    MSC  
           i      mng    **bo**                sak    kui.    TSM  
           3sg   door   NEG.PFV    push   open  
           ‘He pushed the door but failed to make it open.’

(147) ta      **mei**            qu    Changcheng.    MSC  
           i      **bo**                khi    Tsng-tsiann.    TSM  
           3sg   not.PFV      go    Great.walls  
           ‘He did not go to the Great Walls.’

We have seen examples where Southern Min *bo* can be a counterpart to MSC *bu* or *mei*. The aspectual *bo* patterns with MSC *mei*; both are perfective markers.

Next, I show one function of MSC *mei*, which is lacking in TSM *bo*.

Whereas MSC *mei* can express anterior aspect, TSM *bo* cannot and *bue* is used instead.

(148) ta      hai      **mei**    qu    Changcheng.    MSC  
           i      iau     **bue**    khi    Tsng-tsiann.    TSM  
           3sg   yet     not.PF   go    Great.walls  
           ‘He has not left for the Great Walls.’

Table 7.5 shows the categorial status of TSM *bo*, compared with the historical development of *wu* and *mei*. To conclude, *bo* is not the same as *wu*, and *bo* is not *mei* either. A possibility is that *bo* is a cognate of *wu*, with a development of aspectual use through the course of time.

Table 7.5  
A comparison of *bo*, *wu*, and *mei*

|             | <i>wu</i> 無 | <i>mei</i> 沒 | <i>bo</i>      |
|-------------|-------------|--------------|----------------|
| V: not have | √           | √            | √              |
| NEG.PFV     | √           | √            | √              |
| NEG.PF      | (?)         | √            | ( <i>bue</i> ) |
| Q           | √           | √            | √              |
| DM          | √           | --           | √              |

#### 7.4.7 Concluding remarks.

The fourth section addresses grammaticalization of aspectual negation: *mei*, *wu*, *wei* and *wang*, as well as word order change in negation, resulting in parametric differences between MSC and the other two language varieties. I show the origin of these negatives markers, most of which are associated with death, a pattern similar to that of the modal negatives discussed in the previous three chapters.

#### 7.5 Comparative Studies

This chapter focuses on two negatives in Southern Min: *bo* ‘not.have’ and *bue* ‘not.yet’. What follows is a comparison of *bo* and *bue* with their counterparts in Hakka and Mandarin. As in the previous chapters, I focus on parametric differences as well as topics that have less been addressed in the literature.

### 7.5.1 Different morphemes for ‘not.yet’

In section 7.3, I have traced the history of 沒 *mo/mei*, 亡 *wang*, and 未 *wei*, all of which mean ‘not.yet’. The latter two morphemes are archaic and are not used as negative markers in modern standard Chinese. *Mang* is used in Hakka for anterior aspect ‘not yet’ (149).<sup>200</sup>

- (149) 佢到下晝兩點還亡食飯      Hakka  
       ki     do     ha-zhiu     liong-diam     (han) **mang** sit     fan.  
       3sg   till     afternoon   two o’clock   yet   not.yet eat   rice  
       ‘He had not eaten until two in the afternoon.’ (Fang 1994:38)

Hakka *mang* also derives from 亡. Southern Min has a counterpart *bue* 未.

- (150) 伊猶未食飯。      TSM  
       i       iau     **bue**   tsiah   png.  
       3sg   yet     not.yet eat   rice  
       ‘He has not eaten yet.’

MSC uses neither 亡 nor 未 (*wang* and *wei* in MSC, respectively) as sources for aspectual negation. Instead, *mei* or *meiyau* is used; see (151).<sup>201</sup>

- (151) 他還\*未/\*亡/沒(有)吃飯。      MSC  
       ta     hai     \***wei**/\***wang**/**mei**(you)     chi   fan  
       3sg   till     not.yet                           eat   rice  
       ‘He has not eaten yet.’

<sup>200</sup> Examples and translation are from Fang (1994); transcription and glosses are mine.

<sup>201</sup> TSM adverb 猶 *iau* ‘yet’ has a different character than that in Hakka *han* 還 in (150) and MSC *hai* 還 in (151).

The above examples show that aspectual negation among the three languages comes from a different origin. Nevertheless, these morphemes *bue*, *mang* and *mei* share similar semantics. Southern Min adopts *bue* 未 and Hakka *mang* 𠵹 for ‘not.yet’; however, Mandarin uses *mei* 沒 for two types of aspect.

The interrogative system also diverges between Mandarin and the other two languages. The perfective *bo* and anterior *bue* are used to elicit two different questions in TSM; Hakka has *mo* and *mang* as the counterparts.

(152) li      u      tsiah-png      **bo?**      TSM  
           ngi     yu      sit-fan      **mo**      Hakka  
           2sg    PF     eat-meal     Q  
           ‘Did you eat (a meal)?’

(153) li      tsiah-png      **bue?**      TSM  
           ngi      sit-fan          mang      Hakka  
           2sg    eat              Q  
           ‘Have you eaten (a meal) yet?’

While TSM has a *bo* versus *bue* ‘not.yet’ distinction, MSC *mei* severs a dual function, as shown in (154a) and (154b). As an interrogative, *mei* can be used to ask two types of questions.

(154) ni      chifan          le      **mei?**          MSC  
           2sg    eat.meal      LE     Q  
           a. ‘Did you eat (a meal)?’  
           b. ‘Have you eaten (a meal) yet?’

Some native speakers of MSC feel that *ma* (155) is equivalent to (154a), whereas *mei* is more prone to (154b).

- (155) ni      chifan          le      **ma?**    MSC  
          2sg    eat.meal      LE      Q  
          ‘Did you eat (a meal)?’

Historically, *ma* is a phonological reduced form from *mei*. *Hanyu da cidian* provides us with the information that *ma*, is grammaticalized from *me* 沒, also written as *me* 麼. This use of *ma* in (155) shows that *ma* is more grammatical/neutral than *mei*. A larger scale of survey is required for a more confirm conclusion, however.

### 7.5.2 Asymmetric aspect marking.

One well-researched topic in the literature of Chinese is the asymmetry in Mandarin aspectual negation. As Shi (2002: 196) points out, the affirmative V-*le* for perfective in (156a) uses the inflectional system, whereas the negative counterpart *mei* utilizes a periphrastic system, as in (156b).<sup>202</sup> The negation of *-le* is *mei*; they are in complementary distribution.

- (156) a.      ta      chang-**le**      ge.            MSC  
              3sg    sing-PFV      song  
              ‘He sang.’
- b.      ta      **mei**            chang ge.      MSC  
              3sg    NEG.PFV      sing    song  
              ‘He did not sing.’

---

<sup>202</sup> Shi (2002: 197) uses perfect, as opposed to perfective proposed by Li and Thompson (1981: 185). I regard both as possible. I side with the latter authors here, however; accordingly, I change the translations in (156). I use PF for perfect and PFV for perfective.



Hakka and Southern Min, however, make use of a periphrastic system.

That is, they have affirmative versus negative aspect counterparts; see (157).

- (157) i        **u/bo**                    tshiunn-kua.    TSM  
         ki        **yu/mo**                    tshong-go.    Hakka  
         3sg    PFV/NEG.PFV            sing-song  
         ‘He sang./He did not sing.’

For perfective, English uses both systems, as the auxiliary *have* indicates the periphrastic system and the *-ed* in the past participle is inflectional; see (158).

- (158) *I have wash-ed my hands.*

English perfective, on the other hand, is expressed by means of simple past tense.

- (159) *I sang. /I did not sing.*

The negative perfective aspect are *bo*, *mo*, and *mei(-you)* for Southern Min, Hakka, and Mandarin, respectively. Notice that Mandarin has two versions: *mei* or *mei-you*. The former is an aspectual negative, and the latter *mei* is simply negation. One may also consider *meiyou* to be one morpheme, denoting both aspect and negation.

- (160) ta        **mei/mei-you**            changge.        MSC  
         3sg    not.PFV/not-PFV        sing.song  
         ‘He did not sing.’

Often addressed in the literature (such as Tsao and Cheng 1995) is the aspectual *you* in affirmative sentences by Taiwanese Mandarin speakers due to language contact with Mandarin; compare (156) and (161).

- (161) ta        **you**    chang            ge.    Taiwan Mandarin  
         i        **u**        tshiunn        kua.    TSM

ki     **yu**     tshong     go.     Hakka  
 3sg   PFV   sing           song  
 ‘He sang./He did sing.’

The periphrastic affirmative *you* has become reanalyzed as an aspect marker in the Taiwanese version of Mandarin for some speakers. *You* can also be used as an emphatic marker, similar to the function of the English *do*-auxiliary, shown in (161) in ‘He did sing’.

### 7.5.3 Different *mei*’s in Mandarin.

As noted in previous paragraphs, Mandarin makes use of *-le* to express completion or perfectivity of an event.

(162) wo     chi-**le**.           MSC  
        1sg   eat-LE  
        ‘I ate.’/‘I have eaten.’

The status of *-le* varies from one scholar to another. Li and Thompson (1981) regard this *-le* as perfective, whereas Shi (2002) argues that *-le* is perfect, aka anterior aspect. I think that both suggestions are possible, as anterior and perfective aspects are in the continuum in grammaticalization.

Below I discuss the aspectual status of *mei*(*you*) ‘not(have)’, the negation of *-le*. Let us examine the first set of examples in (163) and (164). Whereas MSC uses *mei* for both situations in (163), two different negatives are used in TSM as in (164a) and (164b).

(163) a.     wo     hai     shi     **mei**           gen     ta     shuo.   MSC  
           1sg   still   COP   NEG.PFV   with   3sg   say  
           ‘I still did not tell him (about something).’

- b. wo hai **mei** gen ta shuo. MSC  
 1sg still NEG.PF with 3sg say  
 ‘I have not yet told him (about something).’
- (164) a. gua a si **bo** ka i kong. TSM  
 1sg still COP NEG.PFV with 3sg say  
 ‘I still did not tell him (about something).’
- b. gua iau **bue** ka i kong. TSM  
 1sg still NEG.PF with 3sg say  
 ‘I have not yet told him (about something).’

The second group of data below has a resulting state *hoo* ‘good, alright, finished’. The perfective *u* and *bo* cannot be used because *hoo* is anterior.

- (165) \*gua ji **u** sia hoo. TSM  
 1sg word PFV write good  
 Intended: ‘I have finished practicing characters.’
- (166) \*gua ji **bo** sia hoo. TSM  
 1sg word NEG.PFV write good  
 Intended: ‘I have not finished practicing characters.’

To express anterior aspect (perfect), the final particle *a* 矣 is used for affirmative and *bue* 未 is used for perfect negation; see (167) and (168).

- (167) gua ji sia hoo **a**. TSM  
 1sg word write good PAR  
 ‘I have finished writing characters.’
- (168) gua ji **iau** **bue** sia hoo. TSM  
 1sg word yet not.yet write good  
 ‘I have not finished writing characters.’

The above examples reveal that the perfective and perfect aspects are marked by different markers in Southern Min. Mandarin, however, uses *mei* for both aspects. For instance, *mei* can be used to negate perfective, as shown in (169). Adopting Bybee et al.'s (1994) proposal, I see the completive aspect in (169) interpreted as perfect shown as (170).

(169) wo    zi    **mei**            xie    wan.            MSC  
       1sg    word   NEG.PFV    write   finish  
       'I did not finish (the action) of writing characters.'

(170) completive > perfect, for (169)

The other reading focuses on the resultative state *wan* 'finished', expressing anterior aspect. *Hai* 還 'yet' is compatible with this reading.

(171) wo    zi    (**hai**) **mei**    xie    wan.    MSC  
       1sg    word   yet    not.yet write   finish  
       'I have not finished writing characters.'

(172) resultative > anterior aspect for (171)

I therefore argue that modern Mandarin *mei* can be both perfective and perfect. This dual role in *mei* is not coincident; it is connected to the history of Chinese negation. Recall that by the 17<sup>th</sup> century, *mei* has replaced some negative uses, including *wei* 未 'not yet' (Shi & Li 2004). Nonetheless, Shi and Li do not associate this fact to the multiple categorical status of *mei* in MSC.

The last examples to discuss are questions. Next, let us take a look at two types of neutral yes/no questions in MSC: (173) and (174) below. The former type (173) is known as the A-not-A question, and *mei* in (174) is the sentential particle for questions.

- (173) ta     **you-mei.you** chi-fan?     MSC  
 3sg    have-not.have eat-meal  
 ‘Did he eat?’
- |    |                   |    |                   |          |
|----|-------------------|----|-------------------|----------|
| a. | chi-le.           | b. | <b>you</b>        | a.       |
|    | eat-LE            |    | have              | PAR      |
|    | ‘He ate.’         |    | ‘Yes’             |          |
| c. | mei(you).         | d. | hai               | mei. (?) |
|    | not.(have)        |    | yet               | not.yet  |
|    | ‘No, he did not.’ |    | ‘No, he has not.’ |          |

As shown in (173a), an answer as *chi-le* with *-le* indicating perfective is canonical for a *you-mei.you* question. Yet, (173b), where *you* is reanalyzed as a perfective marker, is also possible by speakers of Mandarin. The negative answer can be (173c), but (173d) is less likely.

On the other hand, with a sentence-final interrogative marker *mei(you)* (174) is more likely to elicit an answer that is anterior.

- (174) ta     chi-fan     -le     **mei(you)?**     MSC  
 3sg    eat-meal    LE    Q  
 ‘Has he eaten?’
- |    |                   |    |                   |     |
|----|-------------------|----|-------------------|-----|
| a. | chi-le.           | b. | *you              | a.  |
|    | eat-LE            |    | PFV               | PAR |
|    | ‘He has eaten.’   |    | ‘Yes.’            |     |
| c. | mei(you).         | d. | hai-mei.          |     |
|    | Not.yet           |    | yet-not           |     |
|    | ‘No, he has not.’ |    | ‘No, he has not.’ |     |

With the above three sets of data, I suggest that MSC *mei* has two aspect categories: perfect and perfective.

### 7.5.3 Word order.

The topic of word order difference is rarely addressed in the literature either. One parametric difference between *bo* and *mei* is that *bo* can be in V<sub>1</sub> or V<sub>2</sub> position, while Mandarin *mei* can only be pre-VP. Below are examples from the same source.<sup>203</sup>

(175) 爲何真意真心無地找

ui-ho tsin-i          tsin-sim          **bo**          te          tshue  
why   real-mind      real-heart      not.have      place   find

‘Why is there no place (for me) to find a right person with my real heart?’

(176) 等無月光入來坐

tan    **bo**          geh-kng      jip      lai      tse.  
wait   not.have      moonlight      enter   come   sit

‘waiting but no moonlight [someone] showing up.’

*Bo* as V<sub>1</sub> or V<sub>2</sub> is available in TSM in sequential events. The V-*bo*-DP construction is interesting because it can have multiple readings, depending on two factors: the status of *bo* and the finiteness of the DP. I call this *bo* as V<sub>2</sub> negation. I argue that *bo* has two different positions in the V-*bo*-DP construction. Evidence comes from a comparison between TSM sentences and their MSC counterparts.

I modify Huang’s (2009: 20) example into four readings, but separate them into two groups. *Bo* in (177) is a verb, as opposed to aspect in (178). The bare noun can be read as either definite or indefinite.

---

<sup>203</sup> from a popular Taiwanese song 博杯, MSC pronunciation for 擲筊 ‘tossing divination blocks’

- (177) i        liah    **bo**    hi-a.                    TSM  
           i        catch BO    fish  
           (a)    ‘He cannot catch a fish.’ (generic; indefinite)  
           (b)    ‘He cannot catch the fish.’ (generic; definite)
- (178) i        liah    **bo**    hi-a.                    TSM  
           i        catch BO    fish  
           (c)    ‘He didn’t catch a fish.’ (indefinite)  
           (d)    ‘He didn’t catch the fish.’ (definite)

Mandarin counterparts to (177) are (179). As seen, *mei* cannot be in the second element in a verbal string; rather, *bu* occupies this position.

- (179) ta        zhuo    **bu/\*mei**        dao    yu.        MSC  
           3sg    catch   can.not        obtain fish  
           (a)    ‘He cannot catch a fish.’  
           (b)    ‘He cannot catch the fish.’

The generic indefinite in (179a) can be shown as (180).

- (180) V<sub>1</sub> + [NEG + [V<sub>2</sub> + DP]]                    *bo* in V<sub>2</sub>

On the other hand, the generic definite reading in (179b) has *bo* moving from V to fill the ASP; see (181). There are two different heads for the two readings of *bo*.

- (181) V<sub>1</sub> + [NEG+ ASP+ [V<sub>2</sub> + DP]] *bo* in ASP

Let us examine Mandarin counterparts of (178), which are shown as (182).

- (182) ta        **mei**                    zhuo-dao        yu.        MSC  
           3sg    NEG.PF            catch-DAO    fish  
           (c)    Intended: ‘He didn’t catch a fish.’ (indefinite)  
           (d)    ‘He didn’t catch the fish.’ (definite)

As shown in (182c), the indefinite reading in the DP object is no longer available, in that *mei* is always aspectual. This aspect is connected to definiteness of the DP.

The  $V_2$  negation *bo* as in (178d) has a preverbal *mei* counterpart in Mandarin; see (182d): ‘he didn’t catch the fish’. The syntactic structure for (182d) can be conceptualized below.

(183) ASP + [ $V_2$ + DP]                      definite

In this case, *mei* occupies the position of ASP. It also provides a second piece of evidence for the claim that there are two projections of *bo* in (178).

A third piece of evidence comes from (184). When there is a telicity marker *tioh*, , the DP pins down to one reading: definiteness.

(184) i        lia    **bo**            tioh    hi-a.        TSM  
           3sg    catch   NEG.PF        attach   fish  
           ‘He didn’t catch the fish.’ (definite)

The aspectual *tioh* originates as a verb ‘not obtain; not accomplish’. The negative *bo* is bounded by *tioh*. I therefore analyze Southern Min *bo* as having different projections for its various readings in the V-*bo*-DP construction.

#### 7.5.4 Different syntaxes in *bo/bue* as $V_2$ .

A close examination of other predicate types of *bo*, one finds asymmetry within the same language as well.

Let us first investigate *bo* with an adjectival predicate *pa* ‘full’. In (185), *bo* appears in different positions, but both sentences share distinct semantics.

(185) a.        i        tsiah   **bo**        pa.        TSM  
                   3sg    eat    NEG    full





- b.    kau-a   **bo**    pe    kue.lai.    TSM  
       dog   not.yet climb cross.come  
       ‘The dog did not climb over here.’

In (a), *bo* scopes over the secondary predicate *kue-lai* ‘over here’, whereas *bo* scopes the entire VP in (b), which may mean that the dog is staying at the same spot or the dog moved to elsewhere.

*Bue* is also rather free in both positions, but their semantics differs.

- (190) a.    kau-a   pe    **iau-bue**    kue-lai.    TSM  
           dog   climb yet-not.yet   cross-come  
           ‘The dog began climbing but has not (yet) reached here.’  
       b.    kau-a   **iau-bue**    pe    kue-lai.    TSM  
           dog   yet-not.yet   climb cross-come  
           ‘The dog has not (yet) begun to climb over here.’

There is only one word order for Mandarin; *mei* precedes the verb.

- (191) guo.er **mei**    pa    guo.lai.    MSC  
       gog   not.yet climb cross.come  
       ‘The dog did not climb over here.’  
       (192) guo.er **hai-mei**    pa    guo.lai.    MSC  
           dog   yet-not.yet   climb cross.come  
           ‘The dog has not (yet) begun to climb over here.’

### 7.5.5 Negation with predication.

Southern Min *bo* is often associated with Mandarin *mei*; however, unlike *bo*, *mei* is not compatible with adjectival predicates. *Bu* is the candidate. Mandarin *mei* and *bu* differ with a distinction between the stage versus individual predication. Hakka is similar to TSM and the perfective *mo* is used.

- (193) hue **bo** hang. TSM  
 hua **\*mei/bu** hong. MSC  
 fa **mo** fung Hakka  
 ‘The flower is not red enough.’
- (194) gua lang **bo**/\*m song-khuai. TSM  
 wo ren **bu**/\*mei shufu. MSC  
 ngai rhi **mo** sung-song. Hakka  
 1sg person NEG well  
 ‘I’m not feeling well.’

Table 7.6  
 negation for stage-level adjectival predication

| TSM       | MSC       | Hakka     |
|-----------|-----------|-----------|
| <i>bo</i> | <i>bu</i> | <i>mo</i> |

However, another set of negation is for individual-level adjectival predicate. As seen in (195) and (196), *m* is used rather than *bo* in Southern Min. Hakka is the same, i.e. *m* is used. In sum, MSC uses *bu* for both stage and individual-level predicates, while the other two languages differ.

- (195) jit hue **m** si hang e. TSM  
 zhe hua **bu** shi hong de. MSC  
 lia fa **m** he fung gai. Hakka  
 this flower NEG COP red ASST  
 ‘The flower is not red.’
- (196) gua **m** kiann. TSM  
 wo **bu** pa. MSC  
 ngai **m** kiang. Hakka  
 1sg NEG fear  
 ‘I’m not afraid.’

Table 7.7  
Negation for individual-level adjectival predication

| TSM      | MSC       | Hakka    |
|----------|-----------|----------|
| <i>m</i> | <i>bu</i> | <i>m</i> |

Now we look at TSM *bo*. Not only does *bo* take adjectives or stative verbs, but it can be used with imperfectives, such as progressive.

- (197) gua    **bo**    tih    tsiah   png.   TSM  
          wo    **mei**   zai    chi    fan    MSC  
          1sg   NEG   PROG eat    rice  
          ‘I am not eating (a meal).’

However, unlike TSM *bo*, MSC *mei* doesn’t negate habitual progressive *zai*; *bu* is used in Mandarin for habitual rather than *mei*.

- (198) gua    **bo**    tih    tsiah-hun.            TSM  
          1sg    NEG    PROG eat-tobacco  
          wo    **bu**    --    chouyan            MSC  
          1sg    NEG    --    smoke.tobacco  
          ‘I do not smoke.’

For psych verbs, progressive *zai* is not compatible, but *bo* is fine. One may see the use of *wo mei zai pa* 我沒在怕 in newspapers or hear it in broadcast in present times, which is considered less canonical in MSC.

- (199) gua    **bo**    tih    kiann.   TSM  
          wo    **mei**   zai    pa.    MSC (?)  
          wo    **bu**    ---    pa.    MSC  
          1sg    NEG    PROG fear  
          ‘I’m not being afraid.’

Table 7.8 compares TSM with MSC in terms of predication types. Hakka uses *mo*, *mang*, and *m* in a similar fashion to that of TSM *bo*, *bue* and *m*.

Table 7.8  
TSM *bo* versus MSC *mei*

|                                     | TSM              | MSC              |                                                                         |
|-------------------------------------|------------------|------------------|-------------------------------------------------------------------------|
| DP                                  | <i>bo</i>        | <i>mei(you)</i>  | negated verb<br><i>wu; mei</i> (historically)                           |
| VP                                  | <i>bo</i>        | <i>mei(you)</i>  | ASP/PFV<br><i>mei</i> (historically)                                    |
| VP                                  | <i>(iau) bue</i> | <i>(hai) mei</i> | ASP/PF<br><i>wei/bu</i> (historically)<br>also <i>bu-ceng</i>           |
| Neg scopes over<br>V <sub>2</sub>   | <i>bo</i>        | <i>*mei</i>      | Only allowed <i>bu</i> in V-<br><i>de/bu-R</i> in MSC (chapter<br>four) |
| VP: telic                           | <i>bo</i>        | <i>mei</i>       |                                                                         |
| Adj/stative V<br>(stage-level)      | <i>bo</i>        | <i>bu/*mei</i>   | negator                                                                 |
| Adj/stative V<br>(individual-level) | <i>m</i>         | <i>bu/*mei</i>   | negator                                                                 |

## 7.6 Conclusion.

This section addresses several less researched issues on TSM *bo* ‘not.have’ and *bue* ‘not.yet’, largely focusing on word order and predication. I also provide my viewpoint on the categorial status of Mandarin *mei*. Table 7.9 is a comparison of the three languages in terms of their use of aspectual negation.

Table 7.9  
Aspectual negation in synchronic Chinese

|               | Hakka       | Mandarin           | Southern Min |
|---------------|-------------|--------------------|--------------|
| V: ‘not have’ | <i>mo</i>   | <i>mei(you)</i>    | <i>bo</i>    |
| NEG.PF        | <i>mang</i> | <i>mei(you)</i>    | <i>bue</i>   |
| NEG.PFV       | <i>mo</i>   | <i>mei(you)</i>    | <i>bo</i>    |
| Q (PFV)       | <i>mo</i>   | <i>you-mei.you</i> | <i>bo</i>    |
| Q (PF)        | <i>mang</i> | <i>mei(you)</i>    | <i>bue</i>   |

PF = perfect or anterior aspect; PFV = perfective

## Chapter 8

### SOUTHERN MIN NEGATION AND INTERROGATIVES

This chapter reviews chapters four through seven, and extends the topic to interrogatives reanalyzed from their negative counterparts in Southern Min. The organization of this chapter is as follows: I provide an overview in section 8.1. Section 8.2 focuses on the affirmative modal paradigm and section 8.3 on the negative paradigm. In each section, I provide an overview on Hakka and Mandarin, in addition to a discussion of Southern Min.

#### 8.1 Introduction

In chapters four through seven, I have addressed the negation of the three languages under investigation. A first topic for comparison is the varying number of negatives in the three language varieties. While Southern Min has five basic negatives, Mandarin and Hakka use two and three, respectively. Contexts for the use of negation range from ability, volition, necessity, possession, to perfectivity. The corresponding negative morphemes in Southern Min are *be* 袂 ‘unable’, *m* 毋 ‘not want’, *bian* 免 ‘not need’, *bo* 無 ‘not have’, and *bue* 未 ‘not yet’.

Mandarin utilizes *mei* 沒 as aspectual negative (both perfective and perfect) and merges the other usages into its other negative *bu* 不, unto which a modal verb is attached, such as *bu-neng* 不能, ‘cannot’, *bu-yao* 不要 ‘not-want’, and *bu-yong* 不用 ‘not-need’. The Mandarin negation system is, however, not as simple as the commonly held notion of aspectual *mei* versus habitual *bu*, in that *bu* can be volitional or abilitive.

Hakka uses *mo* 無 for possessive and perfective, *mang* 𠵿 for anterior aspect (perfective), and *m* 毋 for the remainder of the situations such as modal verbs.

Table 8.1 briefs the negative system of each investigated language.

Table 8.1  
The negative system of the three languages

|            | TSM                                                   | MSC                                                               | Hakka                                                                 |
|------------|-------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------|
| can.not    | <i>be-hiau</i> (abilitive)<br><i>be-sai</i> (deontic) | <i>bu-neng; bu-hui</i><br>(abilitive)<br><i>bu-keyi</i> (deontic) | <i>m-voi; m-hiau-tet</i><br>(abilitive)<br><i>tso-m-tet</i> (deontic) |
| will.not   | <i>be</i>                                             | <i>bu-hui</i>                                                     | <i>m-voi</i>                                                          |
| not.want   | <i>m</i>                                              | <i>bu-yao</i><br><i>bu</i>                                        | <i>mo-oi</i>                                                          |
| need.not   | <i>bian</i>                                           | <i>bu-yong</i>                                                    | <i>m-si</i>                                                           |
| possessive | <i>bo</i>                                             | <i>mei(you)</i>                                                   | <i>mo</i>                                                             |
| have.not   | <i>bue</i>                                            | <i>mei(you)</i>                                                   | <i>mang</i>                                                           |

## 8.2 Doublings in the affirmative paradigm

Southern Min modal doublings characterizes an apparent changing paradigm. This phenomenon is not as apparent in the other languages. I discuss these topics in the following paragraphs accordingly.



### 8.2.1 Modal doublings in Southern Min.

I show the modality paradigm of Southern Min in Table 8.2. For instance, the abilitive *e-hiau* ‘can’, the volitional *beh-ai* ‘want’, and the necessity *tioh-ai* ‘need’, each of which is composed of two near-synonyms.

Table 8.2  
The affirmative modal doublings in Southern Min

|                        | VERB                                           | MOD                                                                                     |
|------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------|
| <i>e</i> ‘can’; ‘will’ | <i>e-hiau</i> ‘can; able’                      | <i>e</i> (futurity)<br><i>e-hiau</i> ‘can’ (ability)<br><i>e-sai</i> ‘can’ (permission) |
| <i>beh</i> ‘want’      | <i>siunn-beh</i><br><i>ai; beh-tih; ai-tih</i> | <i>siunn-beh</i><br>beh, ai, <b>beh-ai</b>                                              |
| <i>tioh</i> : ‘need’   | ai                                             | tioh, ai, <b>tioh-ai</b>                                                                |

In each of the relevant chapters, I use Minimalist Feature Economy to account for this process: when feature loss occurs, there is usually a renewal.

Take *e-hiau* as an example. The morpheme *e* originates as a lexical verb as ‘to know, to comprehend’ and another morpheme *hiau* also has an origin in meaning of ‘to know, to understand’.

- (1) 解 *e*: [know]
- (2) 曉 *hiau*: [understand]

When feature loss occurs in *e*, as in (3), *hiau* as a renewal comes into existence to assist *e*. we see a doubling such as *e-hiau* in (4).

- (3) *e*: [know] > iF
- (4) *e*: iF + *hiau* [know] > *e-hiau* ‘can’ (the verbal use)

The same renewal process occurs, leading to the doublings of Southern Min permissive modals. There are three alternatives: *e-sai*, *e-ing* and *e-tang*. Take *e-sai* as an example. The diachronic data also show that *e* was once used as permission modality, just like the English deontic *can*. The lexical use of *sai* 使 is ‘to allow, to command’.

(5) *e*: [know] > iF: [permission]

(6) *sai*: [allow, command]

When *e* is losing its semantic features, *sai* is then added as a renewal to strengthen the use of *e* in the deontic sense. Thus, we now have such a doubling as *e-sai*.

(7) *e*: iF + *sai*: [allow] > the doubling *e-sai* ‘can’

Along similar lines, the same principle applies to *siunn-beh* and *beh-ai* of the volitional system, and to *tioh-ai* of the necessity system.

The category shift from lexical to verbal taking place in *e* or *e-hiau* is observed in Southern Min, parallel to the development of English modal verb *can*, which also has a lexical origin as ‘to know’.

(8) *can*: [know] > iF [ability; permission; probability]

Therefore, we see that English *can* is used in three modality subcategories: ability, permission and probability.

### 8.2.2 A comparison.

While English *can* is used for three subsystems of possibility modality: the epistemic *can*, the abilitive *can* and the permissive *can*, Chinese makes use of doublings, demonstrated in Table 8.3.

Table 8.3  
The modal doublings in the three languages

|             | TSM                                                                                               | Mandarin                                                                                             | Hakka                                                                             |
|-------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| possibility | <i>e</i> (futurity ‘will’)<br><i>e-hiau</i> ‘can’ (ability)<br><i>e-sai</i> ‘can’<br>(permission) | <i>ke.neng</i> ‘may/can’<br><i>hui</i> ‘will’<br><i>hui; neng</i> ‘can’<br><i>ke.yi</i> (permission) | <i>voi</i> ‘will’<br><i>voi; hiau-tet</i> ‘can’<br><i>tso-tet</i><br>(permission) |
| volition    | <i>e</i> ‘will’<br><i>beh, ai, beh-ai</i> ‘want’                                                  | <i>hui</i> ‘will’<br><i>xiang-yao; yao</i>                                                           | <i>voi</i><br><i>siong-oi; oi</i>                                                 |
| necessity   | <i>tioh, ai, tioh-ai</i>                                                                          | <i>yao</i>                                                                                           | <i>oi</i>                                                                         |

These three investigated Sinitic languages differ in their mechanism of doubling. Take the abilitive modal as an example.

In Southern Min, we observe that *e* is the basic for possibility modality, despite the fact that *e* varies in its modality: *e* 解 for epistemic *e-hiau* 解曉 for abilitive, , and *e-sai* 解使 for deontic permission.

In comparison, the Mandarin system is, however, less consistent. Under the possibility modality paradigm, Mandarin makes use of both *neng* 能 ‘able’ and *ke* 可 ‘allow’. Therefore, Mandarin has doublings such as *ke.neng* 可能 for epistemic ‘can’, *neng(gou)* 能夠 for abilitive, and *ke.yi* 可以 for deontic permission. The additional bound morphemes among these modal verbs are *gou* ‘enough’ and *yi* ‘to use’. As noted, modal doublings are not randomly made; the doublings are

often near-synonyms. The permissive modal *ke.yi* ‘can’, composed of *ke* ‘permit’ and *yi* ‘use’, literally means ‘receiving permission to use’.

Mandarin morpheme *hui* 會 ‘can; will’ can be used in two subsystems: possibility and volition. Southern Min *e* is the same. Just like Mandarin *hui* and Southern Min *e*, Hakka uses a monosyllabic *voi* 會 for both abilitive ‘can’ and future/volitional ‘will’. Another abilitive *hiau-tet* 曉得 in Hakka has a similar development path as that of Southern Min *e-hiau-tit* 解曉得. The use of *tso-tet* 做得 as deontic permissive in Hakka is neither attested in modern Southern Min nor Mandarin. Yet, the morpheme *tso* has a verbal origin as ‘to do’, the permissive sense thus arise when *tso* is combined with another morpheme *tet* ‘to obtain’.

(9)  $V_1: tsu$  ‘do’ +  $V_2: tet$  ‘obtain’ > V/modal: *tso-tet* ‘can’ (permission)

The morphology of today’s Sinitic languages has been preserved from different eras of Middle Chinese. Each individual language branch has adopted different verb series in syntax initially as  $V_1$ - $V_2$ . Gradually the verb serial system comes to the morphological level, as one verb. So, today we observe divergent doublings in each of these languages.

Note that aspectual markers are not discussed here in that they do not have doublings, possibly because they have less verbhood than modal verbs.

### 8.3 The Negative Paradigm

I address in the first portion the origins of Southern Min negation. The next portion reviews the affirmative and negative paradigm of Southern Min, focusing on how negation is projected in syntax. The third subsection provides an

overview of the grammaticalization of Southern Min negation with an extension to the reanalysis of negatives into interrogatives. What follows is a discussion on one particular negative: *bo*. The last two subsections compare and contrast the negation system within the three languages.

### 8.3.1 Origins of Southern Min negation.

I first review the origins of the negatives in Southern Min in Table 8.4. As seen, three of the negatives come from a origin ‘to die’ or ‘to lack’. This phenomenon patterns with one of the three ways, proposed by van der Auwera (2010), for negation to come into use cross-linguistically.

Table 8.4  
The origins of Southern Min negatives

|                      |                                                                                     |
|----------------------|-------------------------------------------------------------------------------------|
| <i>be</i> ‘can.not’  | possibly, NEG + <i>e</i> ‘can’                                                      |
| <i>m</i> ‘not.want’  | no corresponding character                                                          |
| <i>bian</i> ‘need’   | 免 ‘to exempt, to avoid’                                                             |
| <i>bo</i> ‘not.have’ | 無; 沒 ‘not die, to lack’<br><br><i>bo</i> = possessive ‘have’; perfective ‘not have’ |
| <i>bue</i> ‘not yet’ | 未 ‘to die’                                                                          |

I found no corresponding Chinese characters for the first two negatives, however. *Be* ‘can.not’ is likely a fused word from a negator and the affirmative counterpart, as suggested by scholars such as Teng (1992). In Classical Chinese, modality is used as prohibitive. I have not discovered a possible character to represent *m*. A possibility is that *m* is chosen as a borrowing from a non-Chinese

language community, for the native layer of the Min language, thus not shown in Chinese written records.

### 8.3.2 Southern Min negative paradigms.

I show the current affirmative versus negative paradigm in Taiwanese

Southern Min in Table 8.5.

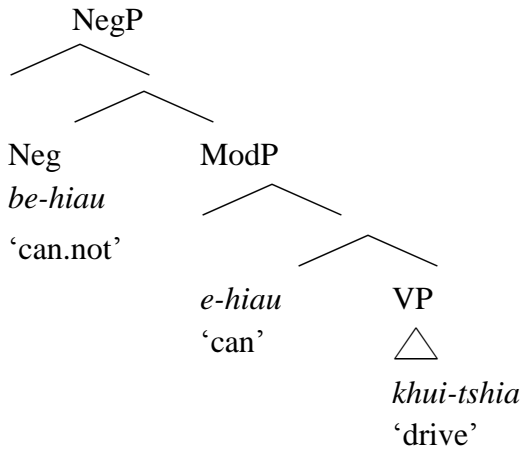
Table 8.5  
Southern Min negation in morpho-syntax

|             | affirmative | negative    | Negation in morpho-syntax                                                                          |
|-------------|-------------|-------------|----------------------------------------------------------------------------------------------------|
| abilitative | <i>e</i>    | <i>be</i>   | <i>be</i> ‘cannot’ = Neg + Mod: <i>e</i>                                                           |
| volitional  | <i>beh</i>  | <i>m</i>    | <i>m</i> ‘not.want’: Neg.Mod<br><i>bo-beh</i> ‘not-want’ = Neg: <i>bo</i> + Mod: <i>beh</i>        |
| necessitive | <i>tioh</i> | <i>bian</i> | <i>bian</i> ‘not.need’: Neg.Mod                                                                    |
| possessive  | <i>u</i>    | <i>bo</i>   | <i>bo</i> ‘not have’ = Neg.V (possessive)<br><i>bo</i> ‘not.have’ = Neg.Asp<br><i>bo</i> = Neg.Hab |
| perfect     | --          | <i>bue</i>  | <i>bue</i> ‘not.yet’: Neg.Asp                                                                      |

As noted in the table, some negatives project a Mod/Asp head and move to the head of NegP above (such as *m*, *bian*, *bo*, and *bue*), while the other negatives simply head a NegP above the ModP/AspP (such as *be* and *bo-beh*). In what follows, I explain one by one of the negatives shown in the table.

First, in the possibility modal system, *be* is a fused word from a negative and the affirmative *e*. There is a NegP above the ModP headed by *e* ‘can’. I show the tree representation below, along with its example.

(10) *be* ‘cannot’ = Neg + Mod: *e*



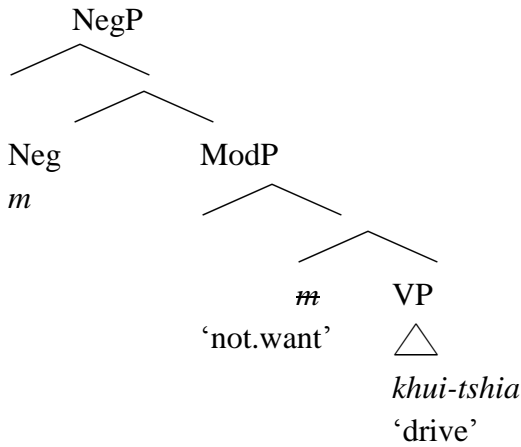
(11) i      **be-hiau**      khui-tshia.      TSM  
 3sg    can.not-know    drive-car  
 ‘He doesn’t know how to drive.’

Next, the volitional modals (*beh* and *m*) are not alike in morphology, and there are two negation subsystems. The volitional negative *m* is special as it is monosyllabic but serves two functions, negation and modality. Also special is its affirmative counterpart *beh*, which is postulated as a borrowing from a non-Sinitic language, as suggested by Chang (2009) among others.

In the case of *m*, which characterizes modality and negation, *m* heads a ModP and is further reanalyzed to another head of the NegP. I show its tree diagram below.

(12) i      **m**                    khui-tshia      (lai).      TSM  
 3sg    not.want            drive-car      come  
 ‘He doesn’t want to drive.’

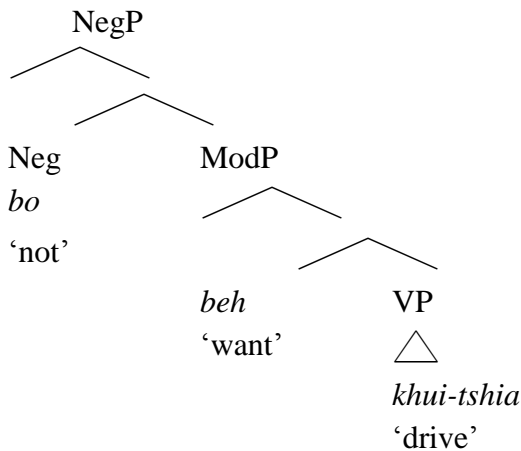
(13) *m* ‘not.want’ = Mod > Neg



However, the volitional paradigm characterizes two subsystems for negation.

The fused *m* is one, and the analytical *bo-beh* or *bo-ai* is the other. Under the latter system, the modal verb *beh* ‘want’ or *ai* ‘want’ is situated in ModP, while *bo* ‘not’ heads the NegP, independent from the ModP. The tree for *bo-beh* resembles that for *be* in (10).

(14) *bo-beh* ‘not-want’ = Neg: *bo* ‘not’ + Mod: *beh* ‘want’



(15) *i*      **bo-beh**      khui-tshia      (lai).      TSM  
 3sg    not-want      drive-car      come  
 ‘He doesn’t want to drive.’

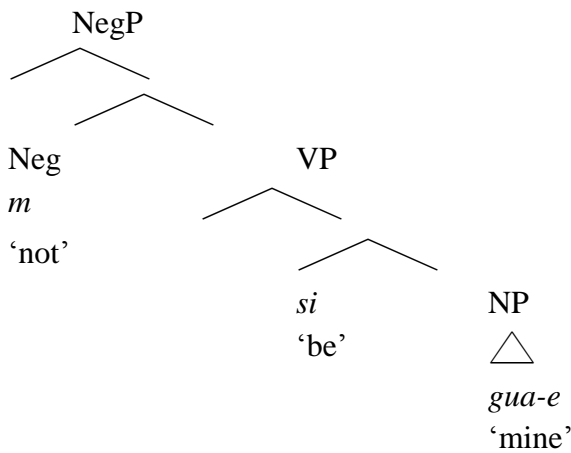


I will return to this topic in section 8.3.4 when discussing the grammaticalization of the aspectual negative *bo*.

There is another *m* ‘not’. The literature often labels this use as  $m_2$  in order to distinguish the volition *m*, labeled as  $m_1$ . As a pure negator, this *m* heads its own NegP. Below I provide two typical environments where the pure negative *m* appears.

- (16) tse m si gua-e. TSM  
 This NEG COP mine  
 ‘This is not mine.’

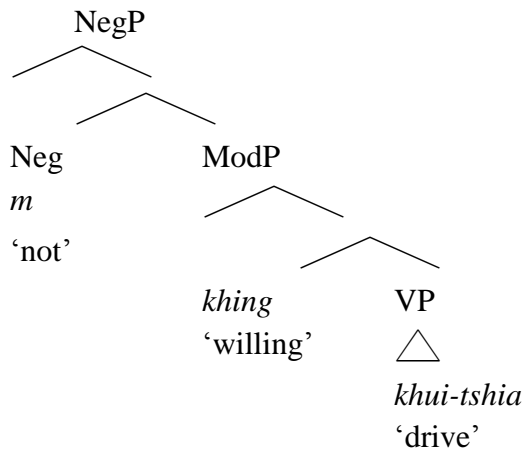
- (17) *m* ‘not’ = Neg



The above *m* appears with a copula and below is an example of *m* with a modal verb.

- (18) i m khing khui-tshia (lai). TSM  
 this NEG willing drive come  
 ‘He is not willing to drive.’

(19) *m* ‘not’ = Neg

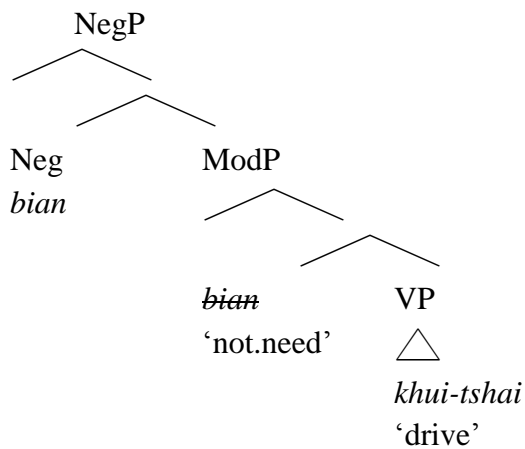


We now move to the third system in Table 8.4. The necessity modal pair (*tioh* ‘need’ versus *bian* ‘not.need’) is also special, in that these two are independent morphemes. While *tioh* originates as ‘to attach, to persist in’, *bian* means ‘to exempt, to avoid’. Therefore, *bian* is not presented as (20). The tree representation comes back to that for the fused negative *m* ‘not.want’.

(20) \**bian* ‘not.need’ = Neg + Mod: *tioh* ‘need’

(21) i      **bian**      khui-tshai      (lai).      TSM  
       3sg   not.need    drive-car      come  
       ‘He doesn’t have to drive.’

(22) *bian* ‘not.need’ = Mod > Neg

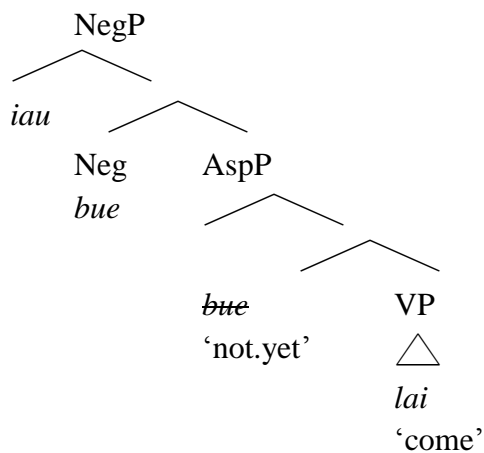


Note that *be-hiau* ‘can.not’ and *bo-beh* ‘not-want’ both have lexical verbal usage. The tree diagram is similar to their modal counterparts, however. I then skip them.

The remainder two negatives in Table 8.4 are aspectual. The aspectual negative *bue* means ‘not.yet’, which is accompanied by an adverb *iau* ‘yet’. I show an example along with its syntactic diagram below.

- (23) i      iau      **bian**      lai.      TSM  
          3sg    yet      not.yet      come  
          ‘He has not come yet.’

- (24) *bue* ‘not.yet’ = AsP > Neg

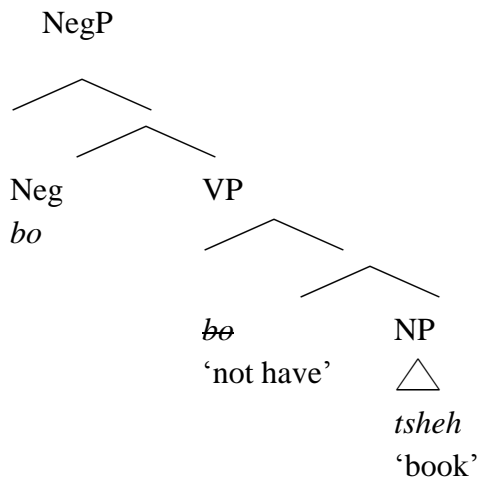


The other aspectual negative *bo* can be treated in two ways: *bo* ‘not.have’ as an independent Neg head from Asp, or *bo* as a negative fused from a negative and the affirmative *u*. Both proposals are claimed in the literature.

- (25) *bo* ‘not.ASP’ = ASP > Neg  
 (26) *bo* ‘not.ASP’ = Neg + *u* (perfective)

The morpheme *bo* has a wide range of category. Here I discuss three negative occasions: *bo* as a negated verb, an aspectual negative and a habitual negative. For convenience, I see *bo* as one head.

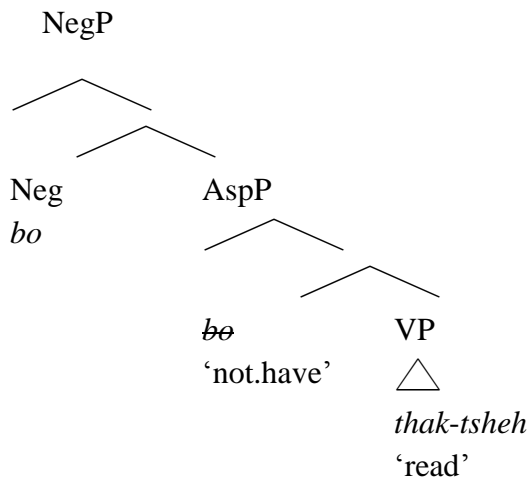
(27) V: *bo* ‘not have’



(28) i      bo      tshəh. TSM  
 3sg   not.have   book  
 ‘He doesn’t have a book.’

When *bo* is used as an aspectual negative, it heads an AspP and then as the head of NegP above the AspP.

(29) The aspectual *bo* ‘not.have’ = Asp > Neg

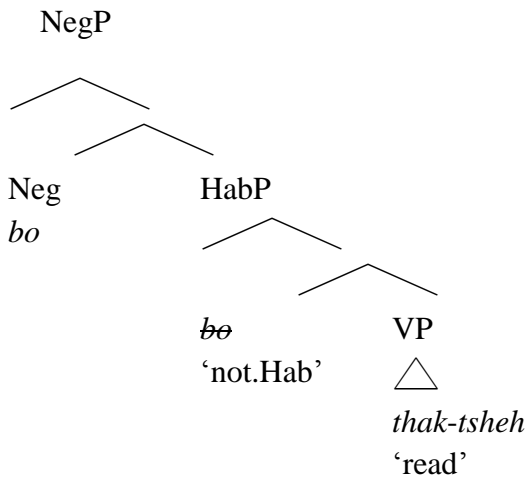


- (30) i        bo                thak-tsheh.    TSM  
       3sg    not.have        read-book  
       ‘He didn’t study.’

There is also another use of *bo*: the habitual *bo*. I use the same example from above, but the projection changes to HabP.

- (31) i        bo                thak-tsheh.    TSM  
       3sg    not.have        read-book  
       ‘He doesn’t go to school.’

- (32) The habitual *bo* = Hab > Neg



In (32), where *bo* is read as habitual, the sentence has a meaning of ‘He doesn’t go to school’ or a metaphor of ‘He is not educated/illiterate.’

I have discussed the syntax of Southern Min negation, including three modal verbs (*be* ‘can.not; will.not’, *m* ‘not.want’, and *bian* ‘need.not’) and two aspect markers (*bue* ‘not.yet’ and *bo* ‘not.have’). The following section extends to a discussion of a bigger picture about negation.

### 8.3.3 The grammaticalization of Southern Min negation.

Let us examine how individual negatives in Southern Min differ and are alike in terms of categorial shifts. The divergence is that only *be-hiau* ‘can.not’ and *bo* ‘not have’ maintain their lexical usage to this date. The other negatives have lost their verbhood. *M* ‘not.want’ and *bian* ‘need.not’ require certain environments for them to be used as verbs. I see them as modals. *M* and *bo* are often used as discourse markers (cf. Chang 1997).

I show the categories of Southern Min negatives in Table 8.6, and address similarities immediately following.

Table 8.6  
The categorial status of Southern Min negatives

|                                   | verb                | TMA | NEG | Q | DM |
|-----------------------------------|---------------------|-----|-----|---|----|
| <i>be</i> ‘can.not’<br>‘will.not’ | √<br><i>be-hiau</i> | Mod | √   | √ |    |
| <i>m</i> <sub>1</sub> ‘not.want’  | --                  | Mod | √   | √ | ?  |
| <i>m</i> <sub>2</sub> ‘not’       | --                  | --  | √   | √ | √  |
| <i>bian</i> ‘need not’            | --                  | Mod | √   | ? |    |
| <i>bo</i> ‘not.have’              | √                   | Asp | √   | √ | √  |
| <i>buei</i> ‘not.yet’             | --                  | Asp | √   | √ |    |

The similarity lies in TMA marking, negation, and question uses. Five of them, *bo*, *be*, *m*, *bue* and *bian*, can serve as negative markers as well as modality or aspect. Also, four of them are also reanalyzed as question markers. In principle,

these question markers match with modality/aspect in the declarative part of a sentence. For instance, *e* ‘will’ and *be* ‘will.not’ are affirmative and negative counterparts in (34). *Beh* ‘want’ and *m* ‘not.want’ are counterparts in (35). *Bo* ‘not.have’ is the negation of perfective aspect *u* in (36).

(34) i        **e**        khi    **be?**

3sg    will    go     Q

‘Will he go?’

(35) i        **beh**    khi    **m?**

3sg    want    go     Q

‘Does he want to go?’

(36) i        **u**        khi    **bo?**

3sg    ASP    go     Q

‘Did he go?’

The question markers *be*, *m* and *bo* in (34)-(36) are reanalyzed from their negatives. As the reanalyzed interrogatives are well matched with their affirmative counterparts in these examples, I suggest that there is checking feature between the modality/aspect and the interrogative head: *be*, *m* and *bo* in these examples.

Next, we look at the negatives in terms of grammaticalization. As seen, the grammaticalization of each of these negatives is not at the same pace. Although most of them have undergone the pathway: V > Neg > Q, (except for *bian* ‘not.need’, which I consider is not a Q yet,) one interrogative may be used more productively than another.

According to my corpus analysis together with fieldwork results, *m* has become less common as a final particle Q, presumably due to the weakness of its

phonology. However, *m* is often observed as a discourse marker, and one example is (37), where *m* is used as emphatic for the necessity modal *tioh*.

- (37) li      **m**      tioh   kah   kinn.   TSM  
       2sg    M      need   more   quick  
       ‘Hurry up.’/‘You need to act more quickly.’

Two negatives, *be* ‘can.not’ or ‘will.not’ and *bue* ‘not.yet’, are phonologically mixed among many speakers of Taiwanese Southern Min, so it is difficult to decide on their current use as interrogatives. The pronunciation of *bue* or *be* is dialect-based. They have become allophones in many cases, with *be* winning over *bue*.

- (38) i      khi    iau    **bue/be?**  
       3sg    go     or     not.yet  
       ‘Has he left yet?’

*Bo* is the most flexible among all of these negatives, as it is often used as interrogative with mismatched modality/aspect, a topic to which I return in section 8.3.4.

Next, the reanalysis from Neg to C is observed not only in questions, but in discourse marking. However, out of these negatives, only *m* and *bo* have undergone this grammaticalization path. DM stands for discourse markers.

- (39) *bo; m: V > Neg > Q > DM*

By the large, the diachronic development of the negatives follows a pattern from V to T (aspect; modality) and to C (interrogative; discourse), assuming split TP and CP under the cartographic approach. This unidirectionality is evident



cross-linguistically. However, each negative morpheme differs synchronically in its categorial status due to a different grammaticalization pace.

### 8.3.4 Grammaticalization of *bo*.

I have chosen *bo* as a more in-depth discussion in that *bo* covers a full range of category: verb, aspect, negative, interrogative, and discourse marker. What follows focuses on two particularly interesting phenomena in the negative morpheme *bo*.

I first address the issue where *bo* replaces other interrogatives in questions.

Below is an example where *bo* replaces *be* for Q.

- (40) i        e        khui-tshia    khi    **be/bo?** TSM  
3sg    PFV    drive-car    go    Q  
'Will he drive (to get there)?'

Despite the fact that *be* is still used by some speakers (matching with its modality *e* in the sentence), *bo* may be chosen over *be* by other speakers.

Although this phenomenon has been addressed in previous studies, such as Crosland (1998) and Chang (1997), no theoretical accounts are provided.

In comparison, (41) demonstrates how *bo* is used: *bo* matches with the affirmative *u* in aspect in the sentence. Again, the match of aspect between *u* and *bo* still exists in contemporary Southern Min.

- (41) i        u        khui-tshia    khi    **bo?**    TSM  
3sg    PFV    drive-car    go    Q  
'Did he drive (to get there)?'

These indicate that the paradigm in Southern Min interrogatives is undergoing changes. The long-established affirmative-negative match in aspect or modality becomes less systematic.

The other major change found in Southern Min negative paradigm is that the original volitional *m* ‘not want’ is competing with two other forms, namely *bo-beh* and *bo-ai* ‘not-want’. We observe the use of *bo* to negate a volition modal such as *beh* ‘want’.

This change is intriguing in that *bo* is not a typical negator for modal verbs in Southern Min. There is a set pattern for negation of modality in Chinese: The negative for Southern Min volitional modal verbs is *m*, as in *m-kann* 不敢 ‘not-dare’, and *m-khing* 不肯 ‘not.willing’ and *bu-guan* ‘not.willing’. Hakka uses *m* for its modality, and Mandarin has *bu*. *M* or *bu* in these cases is a pure negator.

The significance of this phenomenon is a shift of the negative *bo* from aspectual to non-aspectual. Now, *bo* unexpectedly becomes the negator for the volitional modal system, which is a later development.

(42) I            **m/bo-beh**                                    khi.    TSM  
           3sg    ‘not.want’/ ‘not-want’                    go  
           ‘He doesn’t want to go.’

I connect this non-aspectual use of *bo* (42) to the fact that *bo* is replacing other interrogatives, as shown in (40). The semantics of *bo* however differ in these two syntactic environments. In the case of volition *bo-beh*, *bo* is non-aspectual in (42), but negative features still remain in *bo*. As for the interrogative *bo* in (40), feature loss occurs in both negation and aspect.

This also points to a possibility: *bo* is becoming a candidate for a universal question marker. Mandarin neutral question marker *ma* 嗎 is an instance of such change. I predict that when *bo* loses its aspectual features, it will become base-generated as an interrogative in the C position.

The Neg to Q claim is by no means new in the literature. For instance, Wei (2007) has shown the diachrony of negation changing to interrogatives in the history of Chinese. Synchronically, Hsin (1999) regards four Southern Min question words *bo*, *be*, *m*, and *bue* as mood markers (Hsin1999: 83-85), and argues for Southern Min sentence final particles as situated in the head of CP (Hsin 1999: 88). My analysis differs from Hsin (1999). For one, I use feature checking, and, for another, her notion is only partially true, which I explain immediately.

On a comparison of Cantonese, Mandarin and Southern Min, Cheng, Huang and Tang (1996) propose that the formerly negative words in the Southern Min interrogative construction are base-generated in the head of CP. They suggest a free choice among the four available negatives (Cheng et al. 1996: 45) as in (43), where none of the negative particles has negative features.

(43) i        e        lai        m/bo/bue/be?        TSM  
          s/he    will    come    not/not-have/not-yet/not-FUT  
          ‘Will s/he come?’

Yet, based on my corpus analysis and field work, their claim is too strong. For instance, several of my consultants do not treat the four particles equally; the first two *bo* and *be* are typically their choices. It is more accurate that layering of

the aspectual and non-aspectual *bo* exists in contemporary Taiwanese Southern Min.

Briefly, these negative words (more accurately, question markers) are restricted in one way or another. As noted, *bo* is the most flexible interrogative. Based on my corpus analysis, *bo* is not replaced by another interrogative. However, double interrogatives occur in some speakers of Southern Min. An utterance such as (44) can be encountered.

- (44) i      **kann/kam**    u      khui-tshia    khi    **bo?**    TSM  
3sg    KAM            PFV    drive-car    go      Q  
'Did he drive (to get there)?'

*Kann/kam* 敢 is also a common question marker for eliciting neutral yes/no answers. The pronunciation varies. Some distinguish *kan* for neutral questions from *kam* for assertive questions, while others think of *kam* for both. The question marker *kam* 敢 shares the same character with the volitional modal *kann* 敢 'dare'. The additional *kam* in a question with *bo* as the final particle in (44) further indicates that *bo* is losing its interrogative features. This analysis is not possible, as *bo* is also used as a discourse marker.

The categorial status of *bo* is summarized in Table 8.7.

Table 8.7  
 Semantic layering of *bo*

| category                    | examples                                                                                                                                                                                                                                           |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| negated verb                | (45) i <b>bo</b> tsinn.<br><i>he not.have money</i><br>‘He doesn’t have money.’                                                                                                                                                                    |
| aspectual negative          | (46) i <b>bo</b> khi.<br><i>he not.PFV go</i><br>‘He didn’t go.’                                                                                                                                                                                   |
| aspectual interrogative     | (47) i    u    khi <b>bo?</b><br><i>he PFV go Q</i><br>‘Did he go?’                                                                                                                                                                                |
| Pure negator                | (48) i <b>bo</b> beh    lin-go.<br><i>he not want apple</i><br>‘He doesn’t want apples.’<br>(49) i <b>bo</b> beh    khi.<br><i>he not want go</i><br>‘He doesn’t want to go.’                                                                      |
| Non-aspectual interrogative | (50) i    beh    lin-go <b>bo?</b><br><i>he want apple Q</i><br>‘Does he want apples?’<br>(51) i    beh    khi <b>bo?</b><br><i>he want go Q</i><br>‘Does he want to go?’<br>(52) i    e    khi <b>bo?</b><br><i>he will go Q</i><br>‘Will he go?’ |

### 8.3.5 A comparison between Southern Min and Mandarin.

As noted in previous chapters, Mandarin has two negatives only: *bu* 不 and *mei* 沒. A straightforward way to distinguish one from the other is modality versus aspect. That is, *bu* is for modal verbs and *mei* is aspectual. For example, to negate *hui* ‘can, will’, *bu* is used, so *bu hui* means ‘can.not’ or ‘will.not’. In comparison, *mei* is used as possession, existential, and perfective.

Table 8.8 clearly shows distributions between *bu* and *mei* in Mandarin as well as the negative versus modality/aspect matching system in the negatives.

Table 8.8  
The negative system between Southern Min and Mandarin

|            | TSM                                                   | MSC                                                                                         |
|------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------|
| can.not    | <i>be-hiau</i> (abilitive)<br><i>be-sai</i> (deontic) | <b><i>bu-neng</i></b> ; <b><i>bu-hui</i></b> (abilitive)<br><b><i>bu-keyi</i></b> (deontic) |
| will.not   | <i>be</i>                                             | <b><i>bu-hui</i></b>                                                                        |
| not.want   | <i>m</i>                                              | <b><i>bu-yao</i></b>                                                                        |
| need.not   | <i>bian</i>                                           | <b><i>bu-yong</i></b>                                                                       |
| possessive | <i>bo</i>                                             | <b><i>mei</i></b> (you)                                                                     |
| have.not   | <i>bue</i>                                            | <b><i>mei</i></b> (you)                                                                     |

I provide two sets of examples before moving to a review of the under-researched topics.

In terms of categories, *bu-hui* ‘can.not’ can be used as a lexical verb, just like Southern Min *be-hiau*. *Mei*(you) ‘not have’ can be lexical too, as its Southern Min counterpart *bo*. Modern English does not have lexical use of *can*, however.

(53) wo    **bu-hui**    yingwen.    MSC  
1sg   not-can    English  
'I don't understand English.'

(54) wo    **mei/mei-you**    qian.    MSC  
1sg   not.have)/not-have    money  
'I don't have money.'

Mandarin *bu-yao* 'not-want' can be used as lexical, as opposed to its Southern Min counterpart *m*, which is non-lexical.

(55) wo    **bu-yao**    pingguo.    MSC  
1sg   not-want    apple  
'I don't want apples.'

What follows next is two neglected issues within the Mandarin negation system. One is that *bu* is not necessarily a pure negative for modals or a habitual negator for activity or stative verbs. *Bu* can be volitional. For instance, (56) can be read in two ways: one is habitual and the other is volitional.

(56) ta    **bu**    changge.    MSC  
3sg   NEG   sing  
a. 'He doesn't sing.'  
b. 'He doesn't want to sing.'

One way to disambiguate (56) is adding *de* to give rise to the meaning of (56a) and adding *yao* to *bu* to yield a reading as (56b). The volitional use of *bu* may be regional, and more research needs to be conducted for a firm conclusion.

(57) ta bu changge **de.** MSC  
 3sg NEG sing ASST  
 ‘He doesn’t sing.’

(58) ta bu-**yao** changge. MSC  
 3sg not-want sing  
 ‘He doesn’t want to sing.’

The other under-researched topic is the dual aspectual function of *mei*.

(59) ta **mei** changge. MSC  
 3sg NEG.PFV sing  
 ‘He didn’t sing.’

(60) ta hai **mei** changge. MSC  
 3sg yet not.yet sing  
 ‘He has not sung.’

I now move to a discussion of interrogatives in Mandarin. Mandarin negatives, *bu* and *mei(you)*, are also reanalyzed as interrogatives.

(61) Hufei **hui** qu **bu?** Cheng et al. (1996: 47)  
 Hufei will go Q  
 ‘Will Hufei go?’



- (62) Hufei qu-**le**            **meiyou?**            Cheng et al. (1996: 47)  
 Hufei go-ASP            Q  
 ‘Did Hufei go?’

The choice of *bu* over *mei*(you) in (61) is based on a reanalysis that patterns negation. That is, the negation of modal *hui* ‘will’ is *bu*, and thus *bu* is selected as the interrogative in (61). Along the same lines, the affirmative aspect *-le* has a negative counterpart of *mei*(you); therefore, (62) makes use of the reanalyzed interrogative *mei*(you).

The interrogative in (61) or (62) can be replaced by a neutral question marker *ma* 嗎 or *m* 麼. These two neutral question markers are diachronically connected to *mei*(you).

One topic on interrogatives that is worth discussing is that unlike Southern Min, Mandarin does not make use of modal verbs as its question markers. For instance, the modal verb *bu hui* ‘not.will’ does not function as a question marker. To make the sentence grammatical, a verb *lai* ‘come’ is needed.

- (63) ta        mingtian        hui        lai        **bu-hui**        \*(lai)? MSC  
 3sg        tomorrow        will        come        not-will        come  
 ‘Will he come tomorrow?’

The use of modal- or aspect-final interrogative particles is unique in the Sinitic varieties other than Mandarin. The Southern Min sentence below is equivalent to (64), where the interrogative *be* is reanalyzed from its disjunctive interrogative *be* ‘will.not’.

- (64) i bin-a-tsai e lai **be?** TSM  
 3sg tomorrow will come Q  
 ‘Will he come tomorrow?’

The disjunctive negative is then reanalyzed as an interrogative (cf Wei 2007). This follows the Head Preference Principle (van Gelderen 2004).

- (65) i e lai a-si **be** lai?  
 3sg will come or-COP will.not come  
 ‘Will he come or not (come)?’

On the other hand, Southern Min is restrictive in the use of the A-not-A question pattern; see (66) and (67).

- (66) ta mingtian **hui-bu-hui** lai? MSC  
 3sg tomorrow will-not-will come  
 ‘Will he come tomorrow?’

- (67) \*i bin-a-tsai **e-be** lai? TSM  
 3sg tomorrow will-not.will come  
 ‘Will he come tomorrow?’

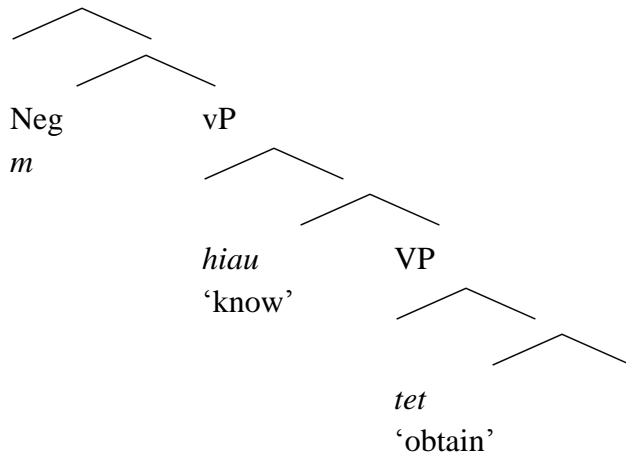
There are other differences between these two language; I only address the areas relevant to negation here.

### 8.3.6 A comparison between Southern Min, Mandarin and Hakka.

Two basic negatives in Hakka are *m* and *mo*: the former for modal verbs and the latter for perfective. Thus, the counterparts are Mandarin *bu* and *mei*,. A major different between Mandarin and Hakka is the use of *mang* ‘not.yet’ in Hakka, which is lacking in Mandarin. Mandarin merges perfective and perfect in one morpheme: *mei* ‘not.have’ and ‘not.yet’.



(70) NegP



(71) ki    **m**-hiau    rhin-vun.    Hakka  
 3sg    can-know    English  
 ‘He doesn’t understand English.’

The morphology and phonology in (69) differs from the Southern Min counterpart *be-hiau*; see (72).

(72) *be-hiau*    <    Neg: *m*    *e*    + *hiau*    TSM  
 ‘can.not’    ‘not’    ‘know’ ‘comprehend’

Basically, the two languages make use of different syntactic strategies and, resulting in a different reanalysis in the morphology of their negation. A comparison is (73); I use modal verbs here. I analyze both situations as having a NegP above the ModP (*hiau-tet* in Hakka and *e-hiau* in TSM).

(73) ki    **m**-hiau-tet    si-tsha.    Hakka  
 i    **be**-hiau    sai-tsiah.    TSM  
 3sg    cannot    drive-car  
 ‘He doesn’t know how to drive.’



## **8.4 Conclusion**

This chapter reviews major findings found in this dissertation. Also addressed is the topic on reanalysis of negatives morphemes into interrogatives. Results have shown that consistency occurs in the grammaticalization of negation within Southern Min and intra-linguistically among the three investigated Sinitic languages. Parametric differences are found at the morphological level.

## Chapter 9

### CONCLUSION

This last chapter addresses the contributions of this dissertation and suggests directions for future research.

#### **9.1 Contributions**

This dissertation examines the interface between morphology, syntax and semantics for the three Sinitic languages of Hakka, Mandarin and Southern Min. Specifically, I treat the subject of the grammaticalization of negation. I also incorporate a cross-linguistic comparison among the three aforementioned languages. This dissertation contributes to the field of linguistics in the following aspects:

First, this dissertation provides an overview of negation among three language branches. This dissertation adds new insights into the complexity of Chinese negation. Chinese negation is among the best researched topics in the literature; however, prior research either deals exclusively with negation in one language, or with one or two of the negative morphemes in a single language. This dissertation not only examines the entire negation system of Southern Min, but extends its scope to the other two Sinitic languages, Hakka and Mandarin. While Southern Min has five basic negatives, Mandarin and Hakka only have two and three, respectively. Thus, a major attempt is made to compare and contrast the varying negatives among these languages.

Second, in its discussion of negation, this dissertation also addresses the affirmative systems. The reason is that Southern Min negative morphemes are often fused with modality or aspect. Only by separating the affirmative from the negation system can the entire negation be discovered. Under this inquiry, two under-addressed topics are therefore revealed. One is that the modality paradigm shows an overlap between the possibility, volition, and necessity systems. The other topic is related to the doublings found in affirmative modals. Special attention is paid to the doublings of the affirmative modality, as affirmative aspect markers do not have doublings.

Additionally, this dissertation examines negation from both synchronic and diachronic perspectives. I have looked at individual negative morphemes of Southern Min on their synchronic categorial status and syntactic behaviors. I have also examined the origin of Southern Min negatives, consulting Chinese dictionaries for the range of usage in each morpheme.

The incorporation of corpus data also makes this dissertation unique. Contemporary corpus data are used for Southern Min together with my fieldwork. A corpus analysis in diachronic data is also included, particularly when a topic is not covered in the literature. The use of corpus data has helped to account for the reanalysis of the negatives and their affirmative counterparts.

Also contributing to the field of linguistics is the comparative studies portion in this dissertation. I provide English examples as comparison for each modal or aspect markers. The inclusion of three Sinitic languages is a huge project but certainly new to this field. Results have shown that consistency occurs



in the grammaticalization of negation within Southern Min and intra-linguistically among the three investigated Sinitic languages. Parametric differences are found at the morphological level.

This dissertation has demonstrated a connection between generative and grammaticalization frameworks as well. The use of generative frameworks is by no means innovating; however, the incorporation of cartography into the minimalist Feature Economy Principle is a new pursuit.

Finally, the introduction of three Sinitic languages to the English-speaking academia makes a significant contribution to the field of linguistics.

## **9.2 Directions for Future Research**

During my writing, I have addressed many areas to be explored. Due to space and time constraints, I can only leave them for future research. I outline major ones below.

First, I have addressed briefly in chapter eight the reanalysis of negatives into interrogatives in Southern Min. As negative morphemes in Southern Min are each fused with modality or aspect, the modality/aspect is often carried to their reanalyzed interrogatives. However, corpus analysis reveals that there are mismatched cases between modality/aspect and the interrogatives. Some interrogatives are losing modality/aspect on the way to become interrogatives, which results in one negative replacing another regardless of different modality or aspect. For instance, the initially aspectual *bo* ‘not.have’ replaces the modal negative *be* ‘will.not’ as an interrogative, which means *bo* is losing its aspect. A theory is needed to account for such a change.

In terms of empirical data, the synchronic Hakka and Mandarin data in this dissertation are checked with my consultants mainly. Future research should extend to a corpus analysis and/or a larger scale of fieldwork on these two languages. An investigation of more historical texts in order to deepen the investigation of diachrony of negation is also suggested.

Word order differences between Mandarin and the other two languages also serve as a good topic for future research. I have touched on this issue in several places in this dissertation. A synthesis is worthwhile as word order changes involve these grammatical functions: modality, aspect and negation.

In my studies of Southern Min negation, I also found double negation and double modals interesting. Sentence final mood markers other than interrogatives are important as well, as they may or may not co-occur with question particles. These are less studied topics suggested for future pursuit.

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