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漢語含情態詞之附加問句

Chinese Tag Questions with Modal Verbs

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本論文係文譯瑱君（學號 R10146029）在國立臺灣大學
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13 日承下列考試委員審查通過及口試及格，特此證明。

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楊中玉

學程主任： 

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摘要

至今已有諸多研究探討含有詞組性空範疇的刪略結構於不同詞組的刪略現象，如名詞組、動詞組、屈折詞組以及補語詞組（如：附加問句）。然而，現存文獻多以英語為主要分析的語言，而目前僅有少數的近期研究探析此句法結構於漢語中的體現。承繼前述學者對漢語刪略結構的關注，本論文的目標即為詳盡地深究漢語情態詞於附加問句中所表現的句法行為。

根據自省語料的測試結果，本研究發現判定情態詞能否出現於漢語附加問句的條件取決於情態詞與無生性空代詞共現的可能性。由於動力性的情態詞對其主語具備有生性的選擇限制，因此僅有認知性和義務性的情態詞得以出現於漢語的附加問句。再者，前行句與附加問句之中的情態詞並不具備嚴格的對應關係，故附加問句得以與不具情態詞、具有相異情態詞、具多重情態詞的前行句共現。同時，附加問句與多元句型結構之共現，如並列複句、從屬複句、包孕句亦獲證實。

此外，本研究對漢語附加問句句法生成結構的重新闡述支持原則和參數理論，亦即前行句應同屬漢語與英語附加問句中的其一成分。漢語的疑問助詞與英語的[+疑問]徵性更反映跨語言中附加問句的疑問本質。

至於教學建議，本研究主張漢語附加問句應被列為教材中獨立的語法結構。除了常見的篇章動詞如「對」、「是」和「好」，情態詞亦為可出現於漢語附加問句中之動詞類別。

關鍵詞：句法生成、附加問句、情態詞、華語教學、教材分析、教學建議、當代中文課程

Abstract



Much research has analyzed ellipsis constructions at different phrasal categories, such as NP, VP, IP, and CP (e.g., tag questions). Nevertheless, studies on these phenomena mainly focus on English, with only recent efforts examining their syntactic manifestations in Mandarin Chinese. Following the past scholars' explorations in Mandarin Chinese, the goal of this thesis is to thoroughly investigate the syntactic behavior of modal verbs across different modalities in Chinese tag questions.

The results from the introspective corpus testing show that the criteria responsible for the legitimacy of modal verbs in Chinese tag questions are determined by the modal verbs' eligibility to co-occur with the inanimate *pro*. Since dynamic modal verbs impose restrictions on subject animacy, only epistemic and deontic modal verbs can form Chinese tag questions. Moreover, the modal verbs in the antecedent clause and the tag question do not need to correspond strictly, as tag questions can co-occur with antecedent clauses without modal verbs, with different modal verbs, or even multiple modal verbs. At the same time, the compatibility with various clausal constructions, i.e., coordinated sentences, subordinated sentences, and embedded sentences is also confirmed.

Moreover, the reformulation of the syntactic derivation mechanism of Chinese tag questions supports the principles and parameters framework that the antecedent clause should be an element within both Chinese and English tag questions. The existence of the

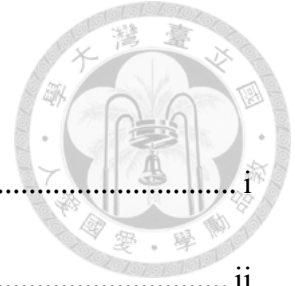
Q particle and the [+Q] feature reflects the interrogative nature of tag questions cross-linguistically.



With respect to pedagogical implications, this thesis proposes that Chinese tag questions be recognized as an independent grammatical construction. Aside from common discourse verbs such as *dui*, *shi*, and *hao*, modal verbs represent another category of verbs that frequently appears in Chinese tag questions.

Keywords: *A Course in Contemporary Chinese*, Modal verbs, Pedagogical Implications, Syntactic Derivation, Textbook Analysis, Tag questions, Teaching Chinese as a Second Language

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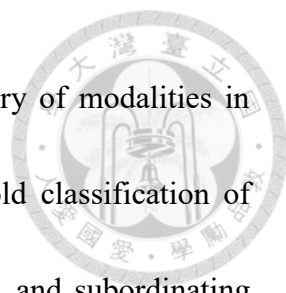
Chapter 1 Introduction



1.1 General Background

The modality of language systems has been widely investigated as it expresses the speaker's mood upon the utterance of the sentence. Languages are more than a compilation of linguistic signs, but a means to express the speaker's mood toward others via the use of language as a means of communication. Much research has been devoted to investigate the modality systems in different languages (e.g., for English, see Lyons, 1977; Cook, 1978; Coates, 1983; Bybee, Perkins, and Pagliuca, 1994; Palmer, 1979, 1988, 2001; for Chinese, see Chao, 1968; Zhu, 2007; Teng, 1975; Li & Thompson, 2009; Lin & Tang, 1995; Tang & Tang, 1997; Huang, 1999; Hsin, 2000; Hsieh, 2002, 2005, 2006a, 2006b; Tsai, 2010, 2015).

Modality in English has been broadly categorized as epistemic and deontic modality. The former concerns the possibility of propositions, whereas the latter the necessity of propositions (Lyons, 1977). An alternative term to express deontic modality is root modality to express permission, obligation, or ability (Cook, 1978). Utilizing the tests to reveal the underlying semantic differences, determine the scope of negation, compare the use of modal verbs in the past and present tense, and inspect the embedded sentence types, Cook (1978) provides a fine description of the distinction between the English modal verbs “can”, “may”, “must”, and “have to”, where “can” involves all the three meanings



to indicate possibility, permission, and ability. Following the inquiry of modalities in languages, Bybee, Perkins, and Pagliuca (1994) identify a four-fold classification of modalities, inclusive of agent-oriented, speaker-oriented, epistemic, and subordinating modality. Despite the apparent clear-cut boundaries in between, overlapping in modalities do exist as a result of diachronic derivation process. Similar to Bybee et al. (1994), Palmer (1979, 1988, 2001) also proposes four independent categories of modalities—epistemic, evidential, deontic, and dynamic, and has since then become one of the mainstream classifications of modalities. These modalities are realized as the system of modal verbs in English and other languages, such as Chinese.

The modalities of sentences are often expressed via lexicalized modal verbs in Chinese and the properties of modalities have also been thoroughly investigated (e.g., Chao, 1968; Zhu, 2007; Teng, 1975; Li & Thompson, 2009; Lin & Tang, 1995 ; Tang & Tang, 1997; Huang, 1999; Hsin, 2000; Hsieh, 2002, 2005, 2006a, 2006b; Tsai, 2010, 2015).

The thorough study of modal verbs in Chinese introduces various research into the dynamics of modal verbs in sentence structures, and one such field concerns the use of modal verbs in Chinese tag questions (e.g., Li & Thompson, 2009; Tang, 2016, 2018; Hsin, 2016; Chiu, 2011, 2023).

Similar to English tag questions, Chinese tag questions refer to clauses appended to



an antecedent clause. The elliptical *pro* subject of Chinese tag questions co-indexes with the preceding clause. Chinese tag questions are often realized as three syntactic forms: V-not-V form, V-particle form, and negative-V form, liken to constructions of interrogatives in Chinese (cf. Chang, 2006; Chiu, 2011; Hsin, 2016; Chiu, 2023). Broadly speaking, Chinese tag questions can be divided into five categories: tag questions with modal verbs, regular tag verbs, false tags, rare tags, and rhetoric tags (Hsin, 2016). Examples illustrating different types of Chinese tag questions are provided in sentence (1) to (5) in the following.

Sentence (1) offers an instance of a tag question with the modal verb *hui* in the V-particle form. The discourse verb *shi* in sentence (2) is categorized as a regular tag verb, similar to *hao*, *you*, *dui*, and *xing* (Chang, 2006; Hsin, 2016) as they are the most frequently used tag verbs. It is worth pointing out that the antecedent clause and tag question do not have to be reverse in polarity as in English. The tag question can agree with the antecedent clause in polarity, as both hold affirmative value in sentence (1) and sentence (2). Sentence (3) is an example of a false tag question since the elliptical subject *pro* preceding the lexical verb *he* does not refer to the antecedent clause, but refers to a supposedly pronominal subject, such as *Zhangsan* (proper name) or *ni* (the second person pronoun you). Tag questions should predicate on the entire preceding CP and questions predicating only on an elliptical pronoun would be regarded as an interrogative instead of



a tag question. Sentence (4), albeit rare in daily conversations, is an instance of rare tag questions. The tag question *xuan-bu-xuan* is used to describe the preceding proposition, fulfilling the characterization of tag questions. Sentence (5) provides an example of rhetoric tag questions, where the speaker is issuing a command on the addressee rather than waiting for an affirmative or negative response as in sentence (1), (2), and (4). The pragmatic function of sentence (5) is an instantiation of the speech act theory where an utterance exerts illocutionary force on the addressee.

(1) 張三去了臺北，會嗎？

Zhangsan qu le taibei, hui ma?

Zhangsan go prt Taipei, possible prt?

‘Is it possible that Zhangsan have gone to Taipei?’

(2) 張三去了臺北，是嗎？

Zhangsan qu le taibei, shi ma?

Zhangsan go asp Taipei, is prt?

‘Zhangsan have gone to Taipei, is it?’



(3) 冰箱裡有一瓶可口可樂，喝不喝？

Bingxiangli you yi ping kekou kele, (pro) he-bu-he?

Refrigerator have one cl coca cola (pro) drink-not-drink

‘There is a bottle of coca cola in the refrigerator. Does Zhangsan want to drink

it?/Do you want to drink it?’

(4) 張三開跑車去上課，炫不炫？

Zhangsan kai paoche qu shangke, xuan-bu-xuan?

Zhangsan drive sports car to class, cool-not-cool

‘Zhangsan drives sports car to class. Isn’t it cool?’

(5) 不要亂跑，好不好？

buyao luanpao, hao-bu-hao?

Not run around, can-not-can?

‘Do not run around. Can you? Can you not?’

Focusing specifically on the analysis of Chinese tag questions with modal verbs, scholars differ in the types of modal verbs that are able to license tag questions, as Hsin (2016) argues for the deontic restriction to license tag questions and regards sentences such as sentence (6) as an instance of a false tag question. The basis for Hsin’s (2016) argument is that epistemic verbs are analyzed as raising verbs and deontic verbs as control verbs according to Lin and Tang (1995) and that only raising verbs are able to take clausal

complements. Control verbs, on the other hand, take animate subjects and this selectional restriction on the subject disqualifies questions featuring deontic verbs to be analyzed as true tag questions. Different from Hsin's (2016) observation, Chiu (2011; 2023) argues for the epistemic restriction to license tag questions and considers sentences such as sentence (7) to be illegitimate.

(6) 張三敢攀岩，張三敢嗎？/張三敢不敢？

Zhangsan gan panyan, zhangsan gan ma?/ zhangsan gan-bu-gan?

Zhangsan dare rock climbing, Zhangsan dare part./ Zhangsan dare-not-dare?

'Zhangsan dare to go rock climbing. Dare he?/ Dare or Dare he not?

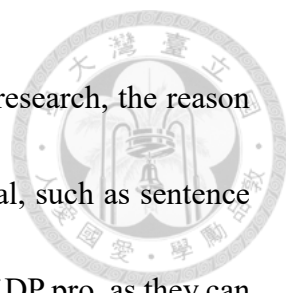
(7) 張三應該去台南，應該嗎？/不應該嗎？

Zhangsan yinggai qu tainan, yinggai ma?/bu-yinggai ma?

Zhangsan should go Tainan, should Prt?/not-should Prt?

*'Zhangsan should go to Tainan, shouldn't he?'

The underlying basis contributing to the differences in the two authors' judgements on the grammaticality of the two sentences results from the postulation of different syntactic structures and the reference of pro (CP/IP/DP). CP/IP pro is adopted in Hsin's (2016) study without differences in the categories of tag questions, while DP pro is adopted in Chiu's (2023) research analyzing modal tags and CP pro is adopted in Chiu's (2023) research addressing invariable tags. The realization of pro as CP or DP is



determined by the following predicate. Therefore, in Chiu's (2023) research, the reason that tag questions featuring epistemic modal verbs are ungrammatical, such as sentence (7), is that epistemic modal verbs cannot function as the predicates of DP pro, as they can only modify sentential subjects (Lin and Tang, 1995). On the other hand, the reason that Hsin (2016) excludes questions featuring deontic modal verbs as tag questions, such as sentence (6), is that they require agent subjects, instead of sentential subjects.

To address the inconsistencies in the interpretation of Chinese tag questions with modal verbs, the goal of this thesis is to offer a preliminary investigation of modal verbs in Chinese tag questions. Although Chiu (2011) is one pioneering study that comprehensively researches all phrasal empty categories in Chinese encompassing NP ellipsis, VP ellipsis, IP ellipsis, and Chinese tag questions, the function and license of modal verbs has not been fully investigated. This literature gap awaits extensive inquiries on the behavior of modal verbs in Chinese tag questions, which is complicated with the interaction between non-symmetrical modal verbs, multiple modal verbs, and various clausal constructions.

1.2 Research Questions

This thesis addresses the following two research questions:

1. What are the criteria responsible for the legitimacy of modal verbs in Chinese tag questions?

2. How are modal verbs presented in Chinese tag questions with antecedent clauses lacking modal verbs, featuring non-correspondence of modal verbs between antecedent clauses and tag questions, or antecedent clauses containing multiple modal verbs? How do modal verbs in Chinese tag questions relate to varying antecedent clausal constructions?

1.3 Organization of the Thesis

This thesis is organized as the following. Chapter two provides the literature review of the general classifications of modality and the classification of Chinese modality. Chapter three discusses the realization of modal verbs with different modalities in Chinese tag questions. Chapter four proposes the derivation mechanism of Chinese tag questions and compares it with that of English tag questions. Chapter five explores how modal verbs and tag questions are currently presented in Chinese textbooks. Chapter six concludes this thesis.



Chapter 2 Literature Review



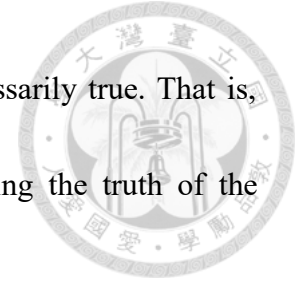
Chapter 2 provides a review of literature on modality to establish the theme of this thesis. Section 2.1 reviews the general classifications of modality in English (e.g., Lyons, 1977; Cook, 1978; Coates, 1983; Bybee, Perkins, & Pagliuca, 1994; Palmer, 1988, 1990, 2001). Focusing specifically on Chinese linguistics, Section 2.2 presents a review of the classifications of Chinese modality (e.g., Chao, 1968; Zhu, 2007; Teng, 1975; Li & Thompson, 2009; Lin & Tang, 1995; Huang, 1999; Hsin, 2000; Hsieh, 2002, 2005, 2006; Tang & Tang, 1997; Tsai, 2010, 2015). Section 2.3 generalizes the classification of Chinese modal verbs.

2.1 General Classifications of Modality

This section provides the general classifications of modality which are mostly conducted in English, inclusive of Lyons' (1977) reasoning on the difference between epistemic and deontic modality, Cook's (1978) analysis of four English modal verbs, Bybee, Perkins, and Pagliuca's (1994) four-fold categorization of modalities, and Palmer's (1988, 1990, 2001) research on modalities in general and its similarities and dissimilarities from other studies.

According to Lyons (1977), the most fundamental cornerstones to establish the concept of modality lie in the differentiation between necessity and possibility. If a proposition is necessarily true, then its negation could not be possibly false. Likewise, it

a proposition is possibly true, then its negation could not be necessarily true. That is, necessity and possibility serve as the two sides of a coin dictating the truth of the proposition and its negation.



Lyons (1977) generalizes two types of necessity and possibility—epistemic and deontic modality. The term “epistemic” derives from the word for knowledge in Greek and the epistemic logic concerns the nature of knowledge. Sentences expressing epistemic modality are shown in sentences (8), (9), and (10).

(8) He may have gone to Paris. (Lyons, 1977)

(9) Perhaps he went to Paris. (Lyons, 1977)

(10) It's possible that he went to Paris. (Lyons, 1977)

Different from epistemic modality that concerns most primarily with the possibility of the proposition, deontic modality denotes “the logic of obligation and permission”, that is, the obligation and permission of the agents who perform the act of a given proposition. The obligation for an agent to perform an act to make the proposition true is one of the distinguishing criteria for the realization of deontic modality. In addition to the entailment of the agent's obligation to perform an act, another difference is that deontic modality relates to futurity. The relation to futurity implies that the time which the obligation for the agent to perform an act should precede that of the statement denoting deontic modality.

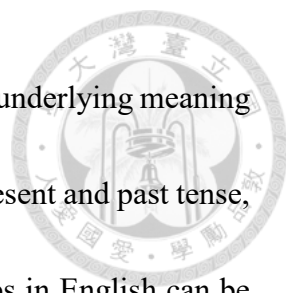
The third feature setting deontic modality apart from epistemic modality is that the

former concerns the source or the cause of the modularized statement. In other words, there should be an external source causing the agent to take on the responsibility of performing an act. The reference to the conveyance of the agent's intention, desire, and will can trace back to the origins of the instrumental use of language. People use language to express their desires and to command other agents to perform their desired acts for them.

The comparison between the sentences so far demonstrates the difference between epistemic modality and deontic modality as the former concerns the possibility of propositions, whereas the latter the necessity of propositions. This view is supported by scholars distinguishing the two modalities encoded by modal verbs “may”, “can”, and “must” in English. A rough classification between the two is that epistemic modal verbs are identified as intransitive verbs, while deontic modal verbs transitive verbs.

Lyons' (1977) dichotomous differentiation between epistemic and deontic modality lays the foundation for modern modality research. Building on this paradigm, Cook (1978) introduces the prototype of a three-fold distinction of the modality system. For Cook (1978), epistemic modality subsumes the possibility and necessity of propositions, while root modality involves the agent's relationship with the proposition, whether it is a permission, obligation, or a characterization of the agent's ability to perform an act.

Cook (1978) is one of the research articles investigating the difference in English

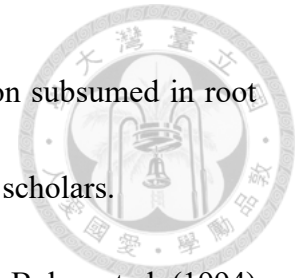


modal verbs “can”, “may”, “must”, and “have to” in four aspects: the underlying meaning, semantic difference, the scope of negation, the difference between present and past tense, and the embedded sentences. According to Cook (1978), modal verbs in English can be classified as epistemic modals and root modals where the former concerns the truth value of the sentence and the latter the permission, obligation, and ability of an agent who performs the act in the sentence. All the modal verbs “can”, “may”, “must”, and “have to” are able to manifest possibility and necessity. Likewise, they can also denote the agent’s permission or obligation to conduct an act. The only difference among the four is that “can” can express the agent’s ability of performing an act, but not the other three modal verbs.

Similar to Lyons (1977), Cook (1978) follows the traditional methods of analyzing epistemic modal verbs as one-place intransitive predicates, taking sentential subjects. Different from epistemic modality relating to the possibility or necessity of the proposition, root modality pertains to the permission, obligation, and ability of the agent of the proposition. A root modal is represented as a transitive verb with an agent and a nominalized sentential object characterizing the attribute of the agent.

Since Lyons’ (1977) investigation of epistemic and deontic modality, much research has scrutinized the finer nuances of modalities. Cook’s (1978) analysis of epistemic modality and root modality is one of the pioneering studies to introduce a three-fold

system of modality, where the meaning of permission and obligation subsumed in root modality, should be separated from the expression of ability by later scholars.

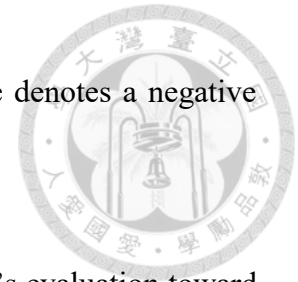


Different from previous works (e.g., Lyons, 1977; Cook, 1978), Bybee et al. (1994) propose a four-fold categorization of modalities, namely, agent-oriented, speaker-oriented, epistemic, and subordinating modality.

According to Bybee et al. (1994), agent-oriented modality expresses the relation between the agent and the existing action provided in a given proposition within a clausal domain. It is also identified as the source of most modalities diachronically. Agent-oriented modality can be used to convey the agent's obligation, necessity, ability, or desire. Among the four functions expressed by agent-oriented modality, obligation is the most frequent modality in languages around the world.

In contrast to agent-oriented modality, speaker-oriented modality captures the dynamics between the speaker and hearer, but not to recount the relationship between the agent and the existing action. Six independent types of speaker-oriented modality have been identified: imperative, prohibitive, optative, hortative, admonitive, and permissive. Imperative differs from prohibitive in that the former requires the hearer to act accordingly upon the command, whereas the latter restricts the hearer's action. Optative and hortative modality are used to express the speaker's wishes or encouragements towards the hearer respectively. The difference between admonitive and permissive is

parallel to that between prohibitive and imperative that admonitive denotes a negative warning and that permissive guarantees a positive permission.



The third modality, epistemic modality, pertains to the speaker's evaluation toward the truth of the proposition. Possibility and inferred certainty have been identified as two types epistemic modality.

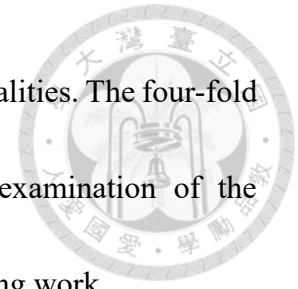
The last modality, subordinating mood, refers to the inclusion of speaker-oriented and epistemic modalities in embedded clauses.

Despite the seemingly clear-cut differentiation among the four modalities, overlapping of modalities do occur. For instance, modal verbs found to exhibit agent-oriented modality also possess the ability to express epistemic modality. This phenomenon has been characterized by scholars as a process of derivation from the agent-oriented modality to epistemic modality (Horn, 1972 cited in Bybee et al., 1994).

Given this developmental path from agent-oriented modality to epistemic modality, Bybee et al. (1994) propose that agent-oriented modality is the source of all the other modalities (i.e., speaker-oriented, epistemic, and subordinate) via their investigation of the diachronic development of languages in the world. The subcategories of agent-modalities, ability, obligation, and desire, derive into the kaleidoscopic scalar representation of modalities.

Starting from the dichotomy between epistemic and deontic modality (Lyons, 1977),

scholars have explored new approaches to unveil the mystery of modalities. The four-fold categorization generalized by Bybee et al. (1994) through the examination of the historical development of languages worldwide is one such pioneering work.



According to Palmer (1988, 1990, 2001), the difference between modality and tense or aspect is that the former is concerned with the proposition, while the latter two describes the event within the proposition. One binary feature proposed to characterize modality is “realis” and “irrealis”, albeit this feature might not capture all the subcategories subsumed in the realis modality or the irrealis modality. To address this issue, two approaches have been employed by languages to represent the notion of modality—mood and modal system, although the two are not necessarily mutually exclusive. English adopts the latter strategy to create a full-fledged system of modal verbs, which are a subset of auxiliary verbs.

One strategy to characterize the pairs of modal verbs is the distinction between subject orientation and discourse orientation. For instance, *will* is subject oriented and *shall* is discourse oriented and that *can* is subject oriented and *may* is discourse oriented. Subject oriented modal verbs refer to the properties of the subjects in the sentences, whereas discourse oriented modal verbs concern the role of the participants in a discourse.

In addition to the distinction between subject orientation and discourse orientation (Palmer, 1979), Palmer (2001) characterizes four main categories of modality—epistemic,

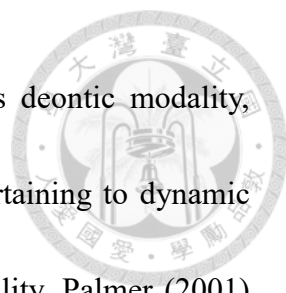
evidential, deontic, and dynamic. Epistemic and evidential modality pertains to propositional modality, whereas deontic and dynamic modality event modality.

Propositional modality differs from event modality in that the former concerns the speaker's judgement toward a proposition, while the latter relates to the speaker's perception toward an event.

Propositional modality can be realized as epistemic and evidential modality. Epistemic modality is to provide the speaker's judgement of the factivity of a proposition, while evidential modality is for the speaker to supplement relevant evidence to support the factivity of a proposition. Epistemic modality can be divided into three subcategories of modality—speculative, deductive, assumptive.

In addition to propositional modality, event modality considers the speaker's perception toward an event. There are two types of event modality: deontic modality and dynamic modality, which roughly parallels to the distinction between the reference to the external forces accounting for an individual's deeds and the internal sources governing those acts.

Building on Bybee et al.'s (1994) classification of agent-oriented modality (i.e., obligation, necessity, ability, or desire), Palmer (2001) points out that the difference between the former two and the latter two lies in the involvement of external forces, and hence, should be distinguished as deontic and dynamic modality. Obligation and necessity

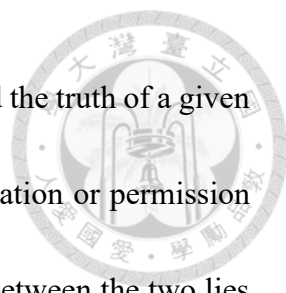


are duties issued by external forces and should be categorized as deontic modality, whereas ability and desire refer to factors internal to the agent, pertaining to dynamic modality. In addition to the reclassification of agent-oriented modality, Palmer (2001) argues that obligation, necessity, and permission should be considered more so as speaker-oriented than agent-oriented given that these conditions originate not from the agent, but from the speaker of the proposition. It is the speaker of the proposition that grants the agent's permission to perform the act, but not the agent permitting oneself to do so. This scenario is rather different from ability or desire, which are purely agent-oriented.

Besides the four main types of modalities, i.e., epistemic, evidential, deontic, and dynamic, other types of modalities have also been identified via comparisons with languages other than English. Instances of those other types of modalities include presupposed modality, negative and interrogative modality, wishes, fears, past tense modals, or even a combination of different modalities.

Palmer's (2001) classification of the four types of modalities—epistemic, evidential, deontic, and dynamic is one of the mainstreams of the analysis of modalities in languages.

In short, modality refers to the illocutionary force conveyed via a sentence, which is realized as the system of modal verbs in English. From the review of literature, it is apparent that the classification of modality has evolved throughout the past years. Lyons (1977) is one of the first attempts to address the dichotomy between epistemic and deontic



modality. Epistemic modality is to present the speaker's belief toward the truth of a given proposition, whereas deontic modality is to denote the agent's obligation or permission to conduct an act via the given proposition. The basis of difference between the two lies in the concepts of possibility and necessity in logic. Three features have been identified to set deontic modality apart from epistemic modality, that is, the entailment of obligation, the reference to futurity, and the source of the modularized statement. Transitivity is one syntactic means to approach the two modalities where epistemic modal verbs entail intransitivity and deontic modal verbs transitivity. In other words, epistemic modal verbs take sentential subjects, but deontic modal verbs take agent-like subjects or nominalized sentences to specify the source of the obligation or permission and the obligatory event.

Lyons' (1977) dichotomous classification of modalities has since then been expanded by Cook (1978) into a tripartite system. "Ability" is included as one of the root modalities in addition to obligation and permission which have been identified as deontic modality.

Different from Cook's (1978) three-fold categorization, the four-fold modality classification proposed by Bybee et al. (1994), i.e., agent-oriented, speaker-oriented, epistemic, and subordinating modality, largely enhances the knowledge of modality distinctions in languages. Obligation and permission, which has been classified as deontic modality in Lyons (1977) pertain to agent-oriented and speaker-oriented modality

respectively.

Palmer (1988, 1990, 2001) also generalizes a four-fold classification of modality—epistemic, evidential, deontic, and dynamic, albeit different from that established in Bybee et al. (1994). The agent-oriented modalities, obligation and necessity, are classified as deontic modality, whereas desire and willingness are classified as dynamic modality.

Despite the dissimilarities of the categorizations among scholars, recurrent themes do occur regarding the differentiation of epistemic modality. Lyons (1977) characterizes epistemic modality as either subjective or objective.

The distinction between subjective and objective epistemic modality is on a par with the three-fold categorization of the epistemic modality endorsed in Palmer (1988, 1990, 2001). Palmer (1988, 1990, 2001) categorizes epistemic modality as speculative, deductive, and assumptive modality. Subjective epistemic modality corresponds to speculative modality, and objective epistemic modality deductive modality since the former is speculated by the speaker without sufficient proof while the latter should have been reached after thorough logical reasoning. This distinction is referred to as possibility and inferred certainty in Bybee et al. (1994).

Similar to the recurrent interpretation of epistemic modality throughout scholars, the differentiation of deontic modality exhibits comparable patterns. The reference to obligation and permission have been subsumed into deontic modality in Lyons (1977) in

contrast to epistemic modality. Bybee et al. (1994) reclassifies obligation as pertaining to agent-oriented modality and permission as relating to speaker-oriented modality.

The discussion on the reclassification of Bybee et al.'s (1994) agent-oriented modality also appears in Palmer (2001) that obligation and necessity express deontic modality, whereas ability and desire convey dynamic modality given that the involvement of external forces is the defining criterion between the two modalities. For Palmer, obligation and necessity relates more so to the speaker, rather than the agent since it is the speaker granting the duties of the agent.

Epistemic and deontic modality have been established as the two most basic notions of modalities. Other modalities, such as dynamic modality in Palmer's (2001) classification have also been reinterpreted in the literature. Although Lyons (1977) makes little reference to "ability" under the logic notion of possibility and necessity and does not consider it as an independent modality, Cook (1978) incorporates ability into one of the root modalities together with the agent's permission or obligation to perform a given act entailed by the proposition. The notion of ability is included as one of the agent-oriented modalities coupled with obligation, necessity, and desire in Bybee et al. (1994). Palmer (2001) isolates ability from obligation and necessity and classifies it as dynamic modality since the former two instantiate external sources, while the latter includes only internal sources, akin to the agent's desire, willingness, or volition.

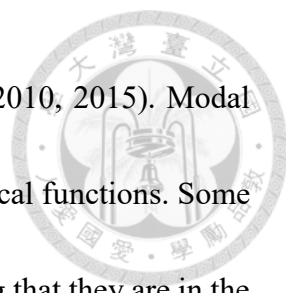
The difference in Bybee et al.'s (1994) and Palmer's (1979, 1988, 2001) quadripartite classifications of modalities is the inclusion of subordinating mood or evidential modality. Subordinating mood refers to the combination of speaker-oriented modality and epistemic modality in embedded clauses and subjunctive modality is one such example.

In contrast to subordinating mood, evidential modality is an instance of propositional modality for the speaker to provide sufficient evidence to account for the factivity of a proposition. For instance, Central Pomo differentiates the sources of the utterance into five categories: “general knowledge”, “first-hand personal experience”, “auditory evidence”, “hearsay”, and “inference”. This differs sharply with English where the speaker's knowledge is the sole judgement to evaluate the truth of the proposition expressed by epistemic modality. Nonetheless, given that there might be no proof to validate “hearsay” and “inference”, the two overlap with speculative, deductive, and assumptive epistemic modalities, which merits further research to untangle this similarity.

In a nutshell, the classification of modalities is a recurrent theme in the literature.

2.2 Classification of Chinese Modality

Similar to the analysis of English modal verbs, modal verbs in Chinese have long been researched and scholars have presented different categorizations (e.g., Chao, 1968; Zhu, 2007; Teng, 1975; Li & Thompson, 2009; Lin & Tang, 1995 ; Tang & Tang, 1997;



Huang, 1999; Hsin, 2000; Hsieh, 2002, 2005, 2006a, 2006b; Tsai, 2010, 2015). Modal verbs differ from lexical verbs in that they carry additional grammatical functions. Some modal verbs, however, could also function as lexical verbs, indicating that they are in the ongoing process of grammaticalization, which is different from the grammaticalized modal verbs in English (Tsai, 2015). Past literature addressing Chinese modal verbs primarily focuses on the difference between lexical verbs. It is only through later exploration that aligns the research of Chinese modal verbs with the general classification of modalities.

Chao (1968) is one of the first literature addressing the classification of modal verbs, or he calls “auxiliary verbs” or “modal auxiliaries” in Chinese. This class of verbs differ from lexical verbs in that they would not co-occur with aspectual markers and that they take verbal elements as complements, but not nominal elements as other verbs. Chinese modal auxiliaries might have no corresponding English counterparts, as *neng* could be translated into “can”, which is also a modal auxiliary, but *yuanyi*’s English translation “wish (to)” is not a modal auxiliary accordingly. This unparallel conceptualization of modal auxiliaries in Chinese and English emphasizes the different parameters across languages. Common characteristics associated with this class of verbs are the ability to take negative markers *bu* or *mei*, to be modified by intensifiers such as *hen* (very), to follow in successive order, and to enter A-not-A interrogative construction. Nonetheless,

modal auxiliaries could not be used in imperative sentences or undergone reduplication.

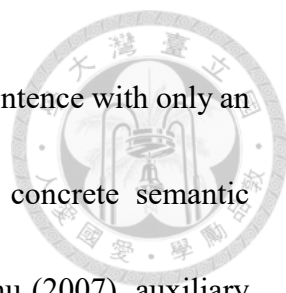
In terms of the exact instances of modal auxiliaries, Chao (1968) classifies 43 tokens, inclusive of *neng*, *nenggou hui*, *yao*, *xiang*, *xiangyao*, *yaoxiang*, *ai*, *yuanyi*, *qingyuan*, *leyi*, *xihuan*, *gaoxing*, *ken*, *keyi*, *xu*, *zhun*, *yinggai*, *gai*, *yingdang*, *gaidang*, *de*, etc. The classification of *xihuan* and *gaoxing* as modal auxiliaries is different from Teng's (1975) classification that both pertain to stative verbs.

In line with Chao (1968), Zhu's (2007) *Yufa Jiang Yi*, first published in 1982, is another masterpiece which also addresses the classification of modal verbs, or he calls *zhu dong ci* (auxiliary verb) in Chinese. Examples of modal verbs include *neng*, *nenggou*, *hui*, *keyi*, *keneng*, *de*, *yao*, *gan*, *xiang*, *yinggai*, *yingdang*, *gai*, *yuanyi*, *qingyuan*, *leyi*, *ken*, etc, which is rather similar to Chao's (1968) analysis.

Akin to Chao (1968), Zhu (2007) does not elaborate on the underlying reasons for causing such surface differences between this class of verbs and other types of verbs. These common properties would need more detailed instantiations as no examples are provided to illustrate how modal verbs could be used independently in a given sentence.

Li and Thompson (2009) characterize Chinese modal verbs as “auxiliary verbs”. Two properties that auxiliary verbs share with lexical verbs are the ability to enter A-not-A constructions and undergo negation.

There are six characteristics that sets auxiliary verbs apart from lexical verbs. For



instance, an auxiliary verb could not stand alone. The meaning of a sentence with only an auxiliary verb is incomplete, since auxiliary verbs do not carry concrete semantic meanings. Similar to the observations made by Chao (1968) and Zhu (2007), auxiliary verbs cannot take aspectual markers. The infelicity for auxiliary verbs to co-occur with aspectual markers differentiates them from ordinary verbs. Aside from the inability to co-occur with aspectual markers, the modification by adverbial intensifiers, such as *hen* (very) or *geng* (even more) is also prohibited. The nominalization of auxiliary verbs is forbidden and that auxiliary verbs should always follow the subject. In addition, auxiliary verbs are unallowed to take direct objects (Chao, 1968; Zhu, 2007). It would be semantically unclear to resolve the relation between the subject and the direct object due to the lack of a lexical verb.

Li and Thompson (2009) argues that the word “*keneng*” should be considered an instance of adjectival verb, such as *nan* (difficult) and *rongyi* (easy), but not an auxiliary verb, despite its overlapping distribution in positions where auxiliary verbs should be.

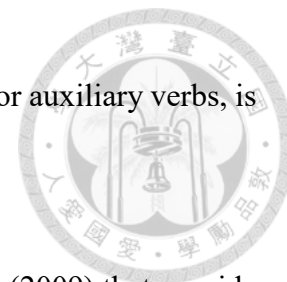
One property disqualifying the analysis of *keneng* as auxiliary verbs is the ability to be modified by adverbial intensifiers, such as *hen* (very) and *geng* (even more). True auxiliary verbs (e.g., *neng* (can)), on the other hand, are disallowed to be modified by adverbial intensifiers, such as *hen* (very) and *geng* (even more). Besides, *keneng* is found to occur sentence initially and “semantically taking a clause as its subject”. Substituting

keneng with *neng*, a true auxiliary verb, however, fails to make the sentence grammatical.

Given that *keneng* is able to be modified by adverbial intensifiers, nominalized, and occur sentence initially, Li and Thompson (2009) does not classify *keneng* as auxiliary verbs due to the violations of the six distinguishing criteria. Table 2.1 summarizes the list of auxiliary verbs. It is worth pointing out that modal verbs in Chinese and English do not form corresponding relations, as there can be multiple instances in Chinese to convey the approximate meaning in English, similar to the observations in Chao (1968) and Zhu (2007).

Table 2.1 The list of auxiliary verbs (Li & Thompson, 2009:182-183)

<i>yinggai, yingdang, gai</i>	‘ought to, should’
<i>neng, nenggou, hui, keyi</i>	‘be able to’
<i>neng, keyi</i>	‘has permission to’
<i>gan</i>	‘dare’
<i>ken</i>	‘be willing to’
<i>der, bixu, biyao, bidei</i>	‘must, ought to’
<i>hui</i>	‘will, know how’

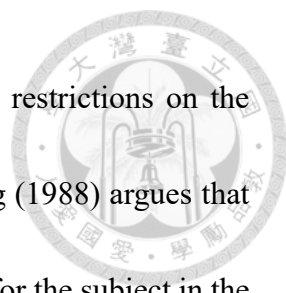


The approach of presenting the isolated tokens of modal verbs, or auxiliary verbs, is similar to those adopted by Chao (1968) and Zhu (2007).

Different from Chao (1968), Zhu (2007), and Li and Thompson (2009) that provide a complete inventory of modal auxiliaries and treat them as a unified whole without internal differences as opposed to other types of verbs, Lin and Tang (1995) broadly classify Chinese modal verbs as possessing either epistemic or deontic modality, following Lyons (1977) and Palmer (1988, 1990, 2001). Epistemic modality is to make predictions with regard to the possibility, necessity, or factuality of the given proposition. Deontic modality, on the contrary, is to give indications with reference to obligation, permission, necessity, or ability. Some modal verbs possess both the epistemic and deontic modality, such as *yinggai* (should), *keyi* (may), *hui* (will).

In addition to concurrently pertaining to both epistemic and deontic modality, others belong to either one of them. For instance, *keneng* only entail the epistemic modality, whereas *xiang*, *gan*, *ken*, *neng*, *yuanyi* convey only the deontic modality.

In line with the binary distinction of modal verbs (i.e., epistemic and deontic modality), Lin and Tang (1995) argue that the two types of modalities correspond to two syntactic constructions and that they could be analyzed as raising modals and control modals respectively. This phenomenon is first captured by scholars such as Huang (1988) that there are selectional restrictions between the animacy of subjects and modal verbs.



In accordance with the fact that modals posing no selectional restrictions on the animacy of subjects could take a clausal complement as well, Huang (1988) argues that those sentences should be considered as involving raising structures for the subject in the embedded clause to be raised to the subject of the main clause.

On the other hand, for modals imposing selectional restrictions on the animacy of subjects, it is speculated that the subject is base-generated and selected by the modal. The assignment of theta roles verifies the existence of this underlying syntactic construction, as an empty PRO should exist in the derivation of these sentences, receiving the external theta role assigned by the verb.

Generalizing the observation of the two types of syntactic structures (i.e., raising and control), Lin and Tang (1995) confirm that there is a correspondence between the classification of modals and sentence structures. Epistemic modals could be roughly analyzed as involving raising structures, whereas deontic modals control structures. Modals possessing both the epistemic and deontic modalities, such as *yinggai* and *keyi*, would involve the raising structure given that the interpretations of such sentences are parallel to that of English passive predicates. Similar to English passive predicates, they have no right to assign external theta roles as in control constructions.

Table 2.2 is the classification of modals regarding their modalities proposed by Lin and Tang (1995). As shown in Table 2.2, both *yinggai* and *keyi* are analyzed as raising

modals despite the difference in epistemic and deontic modality.



Table 2.2 The classification of modals regarding their modalities (Lin & Tang, 1995)

Raising modals	<i>keneng</i> “possible”, <i>yinggai</i> “it should be the case that/ be supposed/obliged”, <i>keyi</i> “it may be the case that/be allowed to”, <i>hui</i> “it will be the case that’
Control modals	<i>keyi</i> “be able to”, <i>hui</i> “be able to”, <i>gan</i> “dare”, <i>ken</i> “willing”, <i>neng</i> “be able to”, <i>xiang</i> “want”, <i>yuanyi</i> “willing”

Following Lin and Tang (1995), Tang and Tang (1997) offer a comprehensive investigation of modality in Chinese. Modality is defined as the speaker’s viewpoint or mental attitude toward the propositional content, inclusive of judgements regarding the possibility, probability, or necessity of propositions as well as alethic, epistemic, boulomaic, deontic, or evaluative modalities conveyed by propositions. Modal expressions are manifested as modal particles, modal adverbs, or modal verbs and modal adjectives in Chinese.

These modal expressions are functions words in Chinese, implying that they are a closed class with a limited number of words expressing grammatical meanings as opposed to content words denoting actual lexical meanings and taking important grammatical roles.

Although modal verbs are classified as auxiliary verbs (e.g., Chao, 1968; Zhu, 2007; Li & Thompson, 2009), Tang and Tang (1997) disapprove of such categorization. They argue that there is no compelling reason to isolate Chinese modal verbs from other verbs since the two exhibit similar syntactic behaviors, as both can serve as the information focus of cleft sentences, form A-not-A questions, or appear in comparison constructions.

In line with past literature (e.g., Lyons, 1977; Palmer, 1979, 1988, 2001; Lin & Tang, 1995), Tang and Tang (1997) differentiate two types of modal verbs—deontic modal and epistemic modal. Typical examples of deontic modal verbs are *neng*, *hui*, *yuanyi*, *yao*, *ken*, *yinggai*, *keyi*, and *gan*, whereas typical examples of epistemic modal verbs are *keneng*, *yinggai*, *hui*, and *yao*. Despite the bipartite distinction, the identical modal verb can display both modalities or varying interpretations according to the immediate sentential context.

The deontic and epistemic modal verbs can be analyzed as control verbs and raising verbs, as evidenced in Lin and Tang (1995). This accounts for the presence of selectional restriction on animate subjects for deontic modals and the absence of it for epistemic modals.

Adopting Hofmann's (1993) semantic analysis of modalities, Huang (1999) demonstrates that Chinese modal verbs also encompass capability, generic, deontic, and epistemic modality. Although volition is not included as a semantic category in Hofmann

(1993), Huang (1999) argues that this concept is crucial to the investigation of the semantics of Chinese modal verbs with relevant example sentences.



Similar to Lin and Tang (1995), Hsin (2000) investigates the interaction between the syntax and semantics of modal verbs in Chinese given the polysemous phenomenon in the interpretation of modal verbs, as shown in sentences (11), (12), and (13). The modal verb *yinggai* in sentence (11) expresses deontic modality that it is Xiaoming's obligation to pay filial piety to his parents, whereas the identical modal verb *yinggai* in sentences (12) denotes epistemic modality that it is possible that Xiaoming was born in the year of the Dragon. Nonetheless, sentence (13) displays both the deontic and epistemic modality of *yinggai*, as it can either indicate that it must be the case that Xiaoming lives in Taipei because he works in Taipei or that it is possible that Xiaoming lives in Taipei since he seems to be so familiar with Taipei.

(11) 小明應該孝順父母。(Hsin, 2000:260)

Xiaoming *yinggai* xiaoshun fumu

Xiaoming should pay filial piety parents

'Xiaoming should pay filial piety to his parents.'



(12) 小明應該屬龍。(Hsin, 2000:260)

Xiaoming yinggai shu long

Xiaoming possible is Dragon

‘It is possible that Xiaoming was born in the year of the Dragon.’

(13) 小明應該住台北。(Hsin, 2000:260)

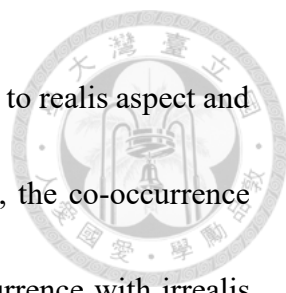
Xiaoming yinggai zhu taibei

Xiaoming should live Taipei

‘It is possible/ It should be the case that Xiaoming lives in Taipei.’

To resolve this ambiguity, Hsin (2000) offers several diagnostic tests to determine the modulation of the interpretations of modal verbs and the co-occurrence with the types of verbs is one such test. Following and modifying the classification of situation types in Vendler (1967) and Smith (1997), Chen (1988) argues that verbs in Chinese can be classified into five types: stative verbs, activity verbs, accomplishment verbs, complex change verbs, and simple change verbs, where the latter two are finer distinctions of achievement verbs. Applying Chen’s (1988) categorization, Hsin (2000) discovers that the interaction between modalities and verb types and generalizes that the epistemic modality is associated with stative verbs, but the deontic modality relates to verb types other than stative verbs.

The interaction between aspect markers and modalities is also examined. Given that



completive aspect, progressive aspect, and experiential aspect pertain to realis aspect and that attemptive aspect and tentative aspect belong to irrealis aspect, the co-occurrence with realis aspect induces the epistemic modality, while the co-occurrence with irrealis aspect triggers the deontic modality.

In addition to the influence of aspect markers, Hsin (2000) argues that phase markers are also of paramount importance regarding the differentiation of modalities. One possible reason to account for the unified interpretations is that phase markers are only attached to dynamic verbs, but not stative verbs. The co-occurrence with dynamic verbs induces the deontic interpretation of the modal verb *yinggai* as testified previously that verb class should be factored into the resolution of modalities.

Sentences (14) and (15) present cases where aspects take priority over phases. Notwithstanding the influence of co-occurring phase markers, the modal verb *yinggai* in both sentences denotes epistemic modality since the completive aspect marker *le* and experiential aspect marker *guo* represent realis aspect. The association between phase markers (i.e., completive phase markers *wan* and achievement phase marker *dao*) and the deontic modality could not rival that between realis aspect markers and the epistemic modality. In other words, phase markers relate only to the internal composition of the verbal element, while aspect markers scope over the entire verb phrase.



(14) 小明應該看完了金庸全集。(Hsin, 2000:265)

Xiaoming yinggai kan wan le Jinyong quanji

Xiaoming possible read prt asp Jinyong all the series

‘It is possible that Xiaoming has finished reading all the series of Jinyong’s novels.’

(15) 錢，小明應該花完了/找到過。(Hsin, 2000:265)

qian, Xiaoming yinggai hua wan le/ zhao dao guo

money, Xiaoming possible spend prt asp/ find prt asp

‘It is possible that Xiaoming has spent all the money/ found the money.’

Hsin’s (2000) investigation between the syntax and semantics of modal verbs in Mandarin Chinese showcase the dynamics between verb class, aspect, phase and modality. This exploration serves to unveil the mystery of the polysemy of modal verbs.

Contrary to Lin and Tang’s (1995) syntactic classification of Chinese modals, Hsieh (2002; 2005; 2006a; 2006b) classifies Chinese modals into four semantic types—epistemic, deontic, dynamic, and evaluative. This classification addresses the limitations of conceptualizing modal verbs as reflections of “the speaker’s opinion or attitude” or associating them with “the logic of possibility or necessity”, as discussed in Lyons (1977).

Table 2.3 displays Hsieh’s (2002, 2005;2006a; 2006b) classification of modal verbs based on their semantic source. The instances *caice*, *yunxu*, and *xiwang* are all main verbs, but not modal verbs, serving as a comparison between modal verbs and main verbs of the

same type of modality. The examples of the evaluative modality are all modal adverbs, but not modal verbs, exhibiting a three-fold categorization (i.e., epistemic, deontic, and dynamic) of Chinese modal verbs.

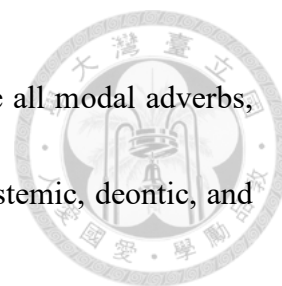


Table 2.3 The classification of modals based on their semantic source (Hsieh, 2005: 52-53)

Types of modalities	Example	Orientation	Source
Epistemic	<i>keneng</i> “may”	Speaker	+
	<i>caice</i> “guess”	Subject	-
Deontic	<i>keyi</i> “can”	Speaker/ situation	+
	<i>yunxu</i> “allow”	Subject	-
Dynamic	<i>xiang</i> “would like”	Subject	-
	<i>xiwang</i> “hope”	Subject	-
Evaluative	<i>xingkui</i> “fortunately”	Speaker	+
	<i>qingxing</i> “gratified”	Subject	-

Regarding the involvement of the speaker’s opinion or attitude, Hsieh (2005, 2006a, 2006b) argues that it is possible for the speaker to paraphrase others’ speech and that entities external to the speaker could be perceived as the deontic source of modal verbs.

To resolve the ambiguity of relating modal verbs in general to “the speaker’s opinion or attitude”, Hsieh (2002, 2005, 2006a, 2006b) further untangles the interaction between “the speaker’s opinions or attitude” and the four types of modal verbs.



Given that epistemic modality is used to convey speaker’s viewpoint toward a topic, the orientation “speaker” is obliged to be included, hence indicating the “source” of the utterance.

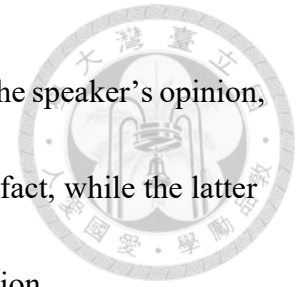
Different from epistemic modality solely revealing the speaker’s stance on a given issue, deontic modality entails two layers of meanings, either according to the speaker or the situation.

In addition to epistemic and deontic modality concerning the speaker or situation as the source of the utterance, dynamic modality describes the “ability” and “volition” of the subject. No semantic source is involved in the interpretation of dynamic modal verbs, such as *yuanyi*, *ken*, *xiang*, and *yao*.

This difference in relating to the sentential subject thus sets dynamic modality apart from epistemic and deontic modality, where the former is marked [-source] and the latter two are marked [+source] in Table 2.3.

The above three categories—epistemic modality, deontic modality, and dynamic modality—broadly captures the classification of modal verbs in Chinese. Evaluative modality, the fourth modality, applies only to modal adverbs, but not modal verbs in

Chinese. Although evaluative and epistemic modality both concerns the speaker's opinion, they differ in that the former relates to the speaker's evaluation of a fact, while the latter involves the speaker's perception about the factuality of the proposition.



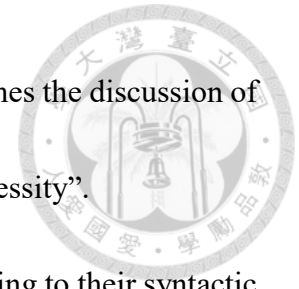
Besides the interaction with the semantic source, Hsieh (2002, 2006b) further discusses the relation between modal verbs and the logic of possibility or necessity. Applying Palmer's (2001) distinction among speculative, deductive, and assumptive epistemic modality, Hsieh (2002, 2006a, 2006b) also discovers the tripartite characterization of Chinese modal verbs.

With respect to deontic modality, Hsieh (2002, 2005, 2006a, 2006b) argues that in addition to the two main directive purposes—issuing permission, obligation, or even mild suggestions, there is another function—to express one's commitment (Searle, 1983:166). Different from directive modality where the assurance stems from external semantic sources which may or may not be the speaker, commissive modality is to give assurance to one's own words and deeds.

Other than the finer distinctions of the epistemic and deontic modality, Hsieh (2002, 2006a, 2006b) distinguishes between capacity and volition within the dynamic modality.

The fourth modality, evaluative modality, carries presuppositions; however, it is primarily realized as modal adverbs, but not modal verbs in Chinese. The three modalities, epistemic, deontic, and dynamic constitute a tripartite system of Chinese modal verbs.

Basing the differentiation of modalities on the semantic source enriches the discussion of “the speaker’s opinion or attitude” or “the logic of possibility or necessity”.



Different from Lin and Tang (1995) that classify modals according to their syntactic behaviors or Hsieh (2002, 2005, 2006a, 2006b) that refers to their semantic source, Tsai (2010, 2015) utilizes the cartographic approach to distinguish the three categories—epistemic, deontic, and dynamic with reference to their interactions with functional projections. Although it has been previously suggested by Lin and Tang (1995) that modal verbs can be analyzed either as raising verbs or control verbs, Tsai (2010, 2015) argues for the existence of a “modality spectrum”. The three modalities (i.e., dynamic modality, deontic modality, and epistemic modality) could all be encoded within a word, as shown in sentences (16) to (20). Sentence (16) presents an instance where the modal verb *yao* functions as the main verb of the sentence. The identical modal verb *yao* in sentence (17) expresses dynamic modality that A-Q is willing to buy this book, whereas the modal verb *yao* in sentence (18) and (19) illustrates deontic modality that prisoners are obliged to go to bed at nine o’clock and that it is necessary for people to drink water every day. On the other hand, the modal verb *yao* in sentence (20) conveys epistemic modality that it is going to rain at the time of the utterance.



(16) 阿 Q 要這本書。(Tsai, 2010:209)

a-Q yao zhe ben shu

a-Q want this cl book

‘A-Q wants this book.’

(17) 阿 Q 要買這本書。(Tsai, 2010:209)

a-Q yao mai zhe ben shu

a-Q will buy this cl book

‘A-Q would like to buy this book.’

(18) 犯人每晚九點要上床睡覺。(Tsai, 2010:209)

fanren mei wan jiu dian yao shangchuang shuijiao

prisoner every night nine o'clock need go to bed

‘Prisoners must go to bed at nine o'clock every night.’

(19) 人每天要喝水。(Tsai, 2010:209)

ren meitian yao he shui

people every day should drink water

‘People should drink water every day.’

(20) 天要下雨了。(Tsai, 2010:209)

tian yao xiayu le

it will rain prt

‘It’s going to rain.’



Tsai (2010) argues that the continuum of modalities results from the process of grammaticalization. The modal verbs *yao*, *hui*, and *neng*, which are first used to describe the attributes of entities are grammaticalized to indicate obligations and permissions. They are then grammaticalized into expressions of the irrealis mood, characterizing the features of events. The three phases of the grammaticalization process correspond to the representations of dynamic modality, deontic modality, and epistemic modality. To account for this hypothesis, several diagnostic tests have been administered.

One of the diagnostic tests concerns the interaction between modal verbs and modal adverbs, as shown in sentences (21), (22), and (23). The modal verb *hui* in sentence (21) denotes the irrealis mood, whereas that in sentence (22) displays dynamic modality. Nonetheless, the modal verb *hui* can only entail the dynamic modality when it co-occurs with the deontic adverb *bixu*, as in sentence (23). This phenomenon shows that the structural positions of epistemic modal verbs are higher than deontic and dynamic modals. The former occupies the level of CP, whereas the latter two exist within the IP.



(21) 阿 Q 大概會去縣城，我不是很確定。(Tsai, 2010:210)

a-Q dagai hui qu xiancheng, wo bu shi hen queding

a-Q probably will go county seat I not am very certain

‘A-Q will probably go to the county seat. I am not pretty sure.’

(22) 阿 Q 大概會去縣城，你不必教他怎麼走。(Tsai, 2010:210)

a-Q dagai hui qu xiancheng, ni bubi jiao ta zenme zou

a-Q probably know go county seat you not teach him how go

‘A-Q probably knows how to go to the county seat. You do not need to teach him how to go there.’

(23) 阿 Q 必須會開車，否則車買了也沒用。(Tsai, 2010:210)

a-Q bixu hui kaiche, fouze che mai le ye mei yong

a-Q must know drive or car buy prt also no use

‘A-Q must know how to drive, or the car he buys is useless.’

Another diagnostic test involves the interaction between modal verbs and inner and outer subjects. Outer subjects co-occurring with *you* are mainly interpreted as specific, whereas inner subjects co-occurring with *you* are nonspecific. It is found that deontic and epistemic modal verbs patterns similarly, as shown in sentences (24), (25), (26), and (27). Nevertheless, dynamic modal verbs can only occur with outer subjects, but not inner subjects, as shown in sentences (28) and (29). This distribution difference differentiates

epistemic and deontic modals from dynamic modals.



(24) 這次有兩個人必須要來。(Tsai, 2010:210)

zhe ci you liang ge ren bixu yao lai

this cl are two cl people must need come

‘*Two people* must come this time.’

(25) 這次必須要有兩個人來。(Tsai, 2010:210)

zhe ci bixu yao you liang ge ren lai

this cl must need are two cl people come

‘Two people must come this time.’

(26) 這次有兩個人應該會來。(Tsai, 2010:211)

zhe ci you liang ge ren yinggai hui lai

this cl are two cl people possible will come

‘It is possible that there are *two people* who will come this time.’

(27) 這次應該會有兩個人來。(Tsai, 2010:211)

zhe ci yinggai hui you liang ge ren lai

this cl possible will are two cl people come

‘It is possible that there are two people who will come this time.’



(28) 這次有兩個人肯來。(Tsai, 2010:211)

zhe ci you liang ge ren ken lai

this cl are two cl people willing come

‘*Two people* are willing to come this time.’

(29) *這次肯有兩個人來。(Tsai, 2010:211)

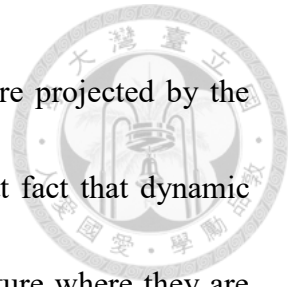
zhe ci ken you liang ge ren lai

this cl willing are two cl people come

‘**Two people* are willing to come this time.’

The three types of modals correspond to three layers of a tree diagram, as shown in Figure 2.1. According to Tsai (2015), epistemic modals exist at the complementizer layer, deontic modals the inflectional layer, and dynamic modals the lexical layer. The hierarchical ordering of the three types of modals on a tree diagram results from the source of their underlying modalities. Given that epistemic modals relate to discursive knowledge such as the factivity of propositions, they occupy positions on the left periphery as endorsed by Rizzi (1997). Deontic modals, on the other hand, concern the internal event structure within the IP, and hence are subject-oriented. This analysis is different from Hsieh (2002, 2005;2006a, 2006b) who argues that both epistemic and deontic modal verbs are speaker-oriented and that dynamic modal verbs are subject-oriented. Although both epistemic and deontic modals extend beyond the sentential

domain, dynamic modals are only relevant to the argument structure projected by the main verb and therefore should be regarded as agent-oriented. That fact that dynamic modals interact with the arguments of verb is evident in past literature where they are analyzed as control verbs, possessing the ability to exert selectional restriction on the animacy of subjects. It is worth pointing out that dynamic modal verbs are often treated as a sub-category within deontic modals as opposed to epistemic modals in Lin and Tang's (1995) dichotomous classification of Chinese modal verbs.



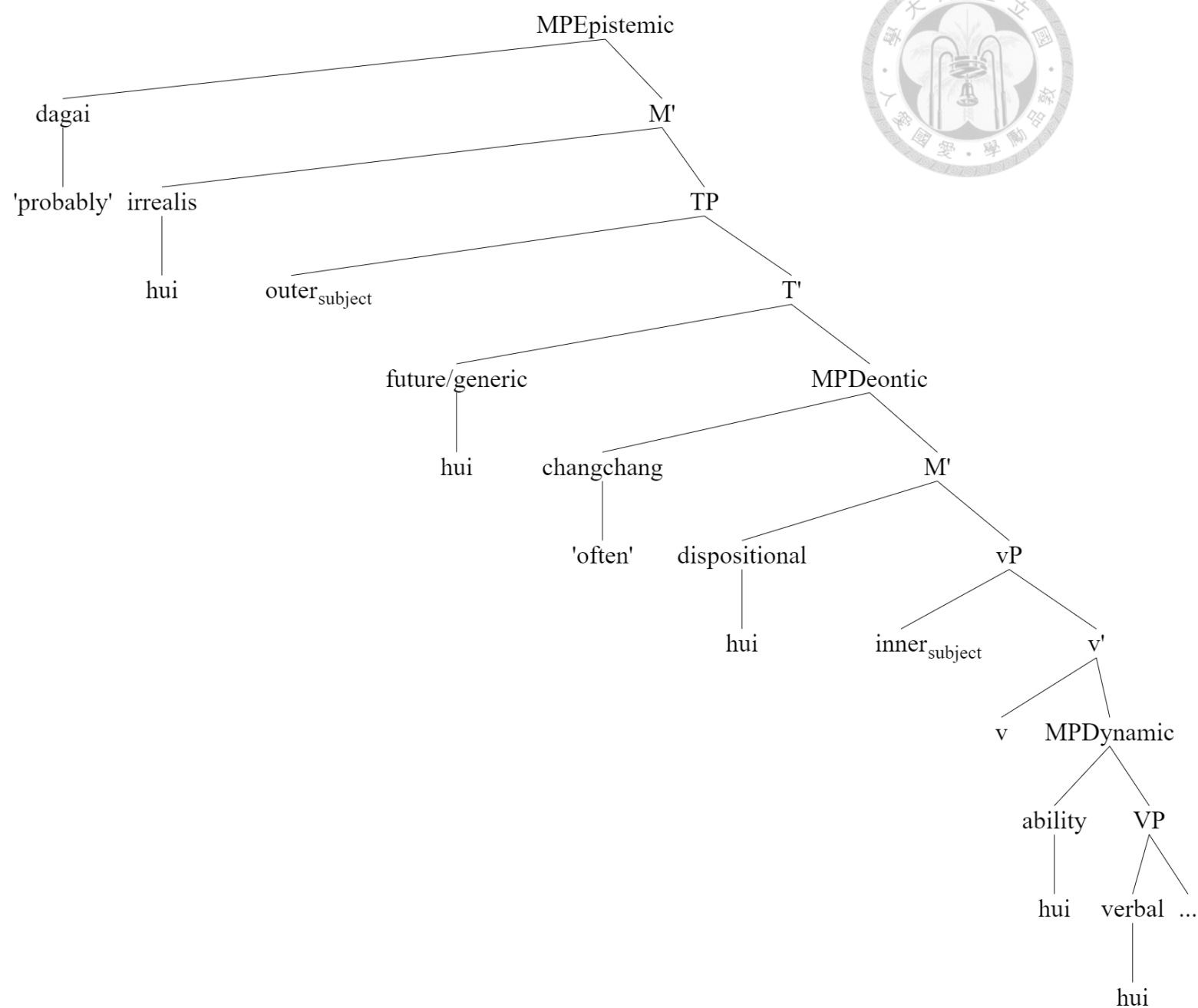


Figure 2.1 The graphical representation of three layers of Chinese modals (Tsai, 2015:285)

In short, Chinese modal verbs exhibit epistemic, deontic, and dynamic modality and the three appear hierarchically on a tree diagram depending on their semantic properties.

All in all, traditional research of Chinese modal verbs (e.g., Chao, 1968; Zhu, 2007; Li & Thompson) tend to treat modal verbs as a general concept without internal differences. Both Chao (1968) and Zhu (2007) generalize a list of modal auxiliaries and expound on the properties distinguishing them from other classes of verbs. For instance, although modal auxiliaries can enter A-not-A constructions, they cannot take aspectual markers, which is contradictory to the behavior of most verbs in Chinese. Following Chao (1968) and Zhu (2007), Li and Thompson (2009) classify modal verbs as modal auxiliaries and conclude that there are six distinctive features setting modal auxiliaries apart from other verbs. One of the characteristics is that auxiliary verbs are not allowed to stand alone; however, a closer inspection of sentence (30) and sentence (31) suggests that it is perfectly grammatical for modal auxiliaries to serve as a simple affirmative or negative answer to a given question within a specific context. The ability for modal verbs to be used independently has also been highlighted by Tang and Tang (1997).

(30) 他能不能喝酒?能。

ta neng-bu-neng hejiu? Neng

he can-not-can drink can

‘Can he drink? Yes, he can.’



(31) 他能不能喝酒?不能。

ta neng-bu-neng hejiu? Bu-neng

he can-not-can drink not-can

‘Can he drink? No, he can’t.’

Another characteristic is that modal auxiliaries are infelicitous to be modified by adverbial intensifiers, such as *hen* (very) or *geng* (even more), and this thus excludes the possibility for *keneng* to be treated as a modal auxiliary on a par with true auxiliary verbs, such as *neng*. Nonetheless, sentence (32) and (33) provide instances where *neng* is also permissible to be modified by intensifiers, akin to the behavior of *keneng* in sentence (34). In contrast to the grammaticality of sentence (32) and (33), sentence (35) presents an ungrammatical instance where *neng* is disallowed to be modified by intensifiers. The reason causing such difference in grammaticality results from the fact that the verbs “drink” and “put up with hardships” entail negative connotations, while “do homework” does not. This comparison reveals that *neng* can only be modified by adverbial intensifiers when it is used with verbs highly associated with negativity.

(32) 他很能喝酒。

ta hen neng hejiu

he can even.more drink

‘He can drink a lot.’



(33) 我很能吃苦，他更能。

wo hen neng chiku, ta geng neng

I very can put up with hardships he even.more can

‘I can put up with (all kinds of) hardships, he can do so even more.’

(34) 他很可能缺席。

ta hen keneng quexi

he very possible absent

‘It is likely for him to be absent.’

(35) *他很能寫作業。

ta hen neng xie zuoye

he very can do homework

‘*He can really do his homework.’

In addition to the ability for modal auxiliary verbs to be modified by intensifiers under certain circumstances, it is found that auxiliary verbs may not always follow the subject, as shown in sentence (36). Given that Chinese is well-acknowledged to be a pro-drop language (Huang, 1989; Huang, Li, & Li, 2009), sentence (36) provides an instance where the modal auxiliary *neng* appears sentence initially, forming the interrogative meaning ‘Can you let me go to that concert?’. It is worth pointing out that the subject understood in sentence (36) is restricted to the addressee only and it would be

unacceptable for the speaker to seek consent from another third person in the context.



(36) 能讓我去那場音樂會嗎?

neng rang wo qu na chang yinyuehui ma

can let me go that cl concert prt

‘Can you let me go to that concert?’

Having stated that the traditional analysis of modal verbs concerns primarily about the inter-class variation between modal verbs and other types of verbs, it is only until Lin and Tang (1995) that proposes the distinction between epistemic and deontic modal verbs and attributes the classification to raising verbs and control verbs that establishes the syntactic research of modal verbs. Examples illustrating these bi-clausal structures are shown in sentences (37) and (38). The modal verb *yinggai* in sentence (37) is analyzed as a raising verb, enabling the subject of the embedded clause to be raised to the main clause, whereas *yinggai* in sentence (38) is analyzed as a control verb, licensing the co-reference between the main clause subject and the embedded clause PRO.

(37) 外面應該[t 在下雨]。

waimian yinggai zai xiayu

outside possible asp rain

‘It is possible that it is raining out.’



(38) 約翰應該[PRO 進來]。

yuehan yinggai jinlai

Yuehan should come in

‘Yuehan should come in.’

This structural analysis of Chinese epistemic and deontic modal verbs differs slightly from Lyons (1977) who roughly classifies epistemic modal verbs as intransitive verbs taking sentential subjects and deontic modal verbs as transitive verbs taking agents as subjects to specify the source of the obligation or permission. Sentences portraying this difference are repeated as sentences (39), (40), and (41) below.

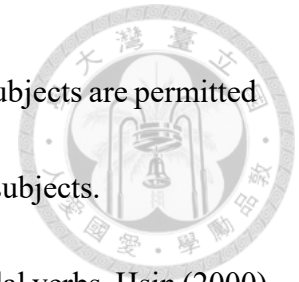
(39) John may come in. (Lyons, 1977)

(40) That John will come in is possible. (Lyons, 1977)

(41) I make-it-possible that John will come in. (Lyons, 1977)

From the comparison, it is found that both Lin and Tang (1995) and Lyons (1977) analyze epistemic modal verbs as one-place predicates and deontic modal verbs as two-place predicates. The difference between Chinese epistemic modal verbs and their English counterparts is that the former takes sentential complements, allowing the embedded subjects to be raised, while the latter takes sentential subjects, hosting the whole proposition as its subject. In contrast to the one-place predicate analysis of epistemic modal verbs, the two-place predicate analysis of deontic modal verbs aligns well with the

selectional restriction of the animacy of subjects since only animate subjects are permitted to perform obligations and abide by permissions, but not inanimate subjects.



Building on the studies on the syntactic behavior of Chinese modal verbs, Hsin (2000) researches the interaction between the syntax and semantics of modal verbs, relating their divergent syntactic behaviors to the representations of modalities. Hsin (2000) argues that only stative verbs are associated with epistemic modality among all verb classes and the example supporting this observation is repeated in sentence (42).

(42) 小明應該很樂觀。(Hsin, 2000:261)

Xiaoming yinggai hen leguaan

Xiaoming possible very optimistic

‘It is possible that Xiaoming is very optimistic.’

Nevertheless, contradictions of arguments appear in subsequent example sentences, which are repeated below as sentence (43), (44), and (45). Sentences (43), (44), and (45) are used to elaborate on the generalization that epistemic modality is associated with the completive aspect marker *le*, progressive aspect marker *zai*, and experiential aspect marker *guo* and that deontic modality relates to the attemptive aspect marker *kankan* and tentative aspect marker *yixia*. From these examples, it is evident that the verb *mai* (buy) and *xue* (learn) are not instances of stative verbs, thereby refuting the prior argument proposed by Hsin (2000) that stative verbs, but not other classes of verbs (e.g., activity



verbs, accomplishment verbs, complex change verbs, and simple change verbs) are prone to induce epistemic modality.

(43) 小明應該買了書。(Hsin, 2000:262)

Xiaoming yinggai mai le shu

Xiaoming possible buy asp book

‘It is possible that Xiaoming bought the book.’

(44) 小明應該在買書。(Hsin, 2000:262)

Xiaoming yinggai zai mai shu

Xiaoming possible asp buy book

‘It is possible that Xiaoming is buying books.’

(45) 郭靖應該學過降龍十八掌。(Hsin, 2000:262)

Guojing yinggai xue guo Xianglongshibazhang

Guojing possible learn asp Xianglongshibazhang

‘It is possible that Guojing has learned Xianglongshibazhang (before).’

Moreover, accomplishment verbs such as *ma* (scold) in sentence (46) could also trigger the epistemic modality reading of the modal verb *yinggai*. Since teachers are not assumed to perform the obligation of scolding students according to the common world knowledge, the deontic interpretation is naturally ruled out in this situation.

(46) 老師應該罵了學生。

laoshi yinggai ma le xuesheng

teacher possible scold asp student

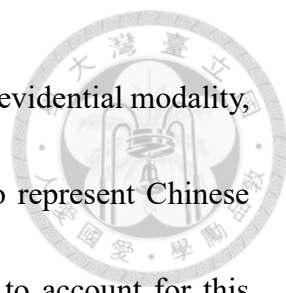
‘It is possible that the teacher has scolded the student.’



Different from Lin and Tang (1995), Tang and Tang (1997), and Hsin (2000), Huang (1999) embarks on a semantic approach to characterize Chinese modal verbs. Adopting Hofmann’s (1993) theoretical framework of logical modality in English, Huang (1999) maintains that Chinese covers all the four aspects of modality: capacity, generic, deontic, and epistemic with relevant example sentences retrieved from the corpora. In addition to the four semantic categories, Huang (1999) argues that it is necessary to include “volition” as one of the modalities to represent the subject’s willingness or desire to participate in a given event. The two modalities—capability and volition—constitute the dynamic modality under Palmer’s (2001) classification capturing the internal relation between the agent and the proposition without the involvement of external forces. Among the five semantic modalities, the generic modality receives little discussion in Lyons (1997), Cook (1978), Bybee et al. (1994), and Palmer (2001), and the inclusion of it has undoubtedly furthers the inquiry on modality and modal verbs. However, there are several issues awaiting clarifications and one concerns the three logical modal concepts identified by Hofmann (1993). Given that possibility and impossibility are the inverse of the other,

there is no need to postulate the two as separate categorial labels. Besides, more explanations should be supplemented to justify the adoption of Hofmann's (1993) theoretical framework since this piece of literature might not be familiar to researchers surveying the semantics of modality and modal verbs in languages worldwide.

Similar to Huang's (1999) quest of the semantics of modal verbs, Hsieh (2002, 2005, 2006a, 2006b) further points out the importance of identifying the "semantic source" of modal verbs rather than relying on the logic notion of possibility and necessity. Hsieh (2002, 2005, 2006a, 2006b) theorizes a four-fold classification of modality: epistemic, deontic, dynamic, and evaluative. This classification largely follows the dichotomous classification in Lyons (1977). The inclusion of orientation is reminiscent of Bybee et al.'s (1994) distinction between agent-oriented and speaker-oriented modality. According to Hsieh (2002, 2005, 2006a, 2006b), the orientation of modality originates from three sources: speaker, situation, and subject. With reference to modal verbs, it is found that the epistemic modality mainly stems from the speaker, the deontic modality the speaker and the subject, and the dynamic modality the subject. The agent orientation in Bybee et al.'s (1994) work is not included as a source of orientation contributing to the modalities in Chinese. A finer investigation of the relationship between subject-oriented and agent-oriented modality would be required to unravel the nuances involved. Although Hsieh's (2002, 2005, 2006a, 2006b) classification mainly patterns with Palmer's (2001)



quadripartite classification, namely epistemic, deontic, dynamic, and evidential modality, the choice of evaluative modality rather than evidential modality to represent Chinese modalities is worthy of further amplification. One possible reason to account for this variation is that evidential modality is non-existent in Chinese and there is no need to establish it as an independent modality category as Palmer (2001) does for Central Pomo. Since evaluative modality applies to modal adverbs, but not modal verbs, in Chinese, it could be rightfully understood that Chinese modal verbs convey three modalities only, i.e., epistemic, deontic, and dynamic modality.

In line with Hsieh's (2002, 2005, 2006a, 2006b) arguments, Tsai (2010, 2015) offers a tripartite classification of Chinese modal verbs and account for their differences as differences in the hierarchical structure. Since Tsai's (2010, 2015) analysis mainly involves Chinese modal verbs, this leads to a new research direction of the application of this framework to languages other than Chinese. For instance, both sentence (40) and (41) feature the modal verb "should", but the former entails epistemic modality and the latter deontic modality. According to Tsai (2010, 2015), the identical modal verb should occupy the complementizer layer in sentence (47) and the inflectional layer in sentence (48). Likewise, sentence (49), (50), (51) are instances involving the use of the modal verb "can" to express epistemic, deontic, and dynamic modality respectively. It merits further research whether these three illustrations of modalities correspond to the three

hierarchical layers (i.e., complementizer, inflectional, and lexical layer) on a tree diagram.



(47) It should be raining outside.

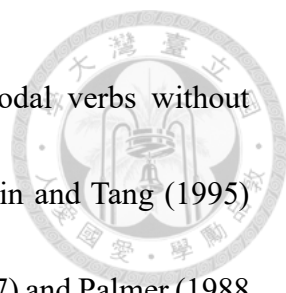
(48) You should bring your breakfast with you.

(49) The price for the tickets can be really high.

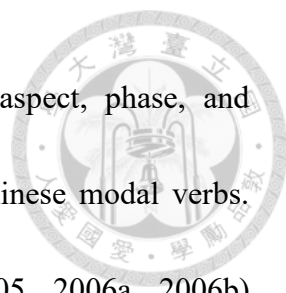
(50) You can enter now.

(51) He can play basketball really well.

In a nutshell, Chao (1968) is one of the first literature addressing the classification of modal verbs, pointing out the crosslinguistic difference in the conceptualization of modal verbs. Following Chao (1968), Zhu (2007) generalizes the common properties shared by modal verbs in Chinese, as the restrictions to co-occur with aspectual markers or undergo reduplication. To account for the syntactic behaviors of Chinese modal verbs, Teng (1975) proposes that there are two types of modalities—internal modality and external modality. The former concerns only the patient within the sentence, whereas the latter predicates on the whole proposition. This difference is reflected on the types of patients selected by the modal verb, where the former only takes a simple patient and the latter a sentential patient. In line with Chao (1968) and Zhu (2007), Li and Thompson (2009) offer several accounts on the difference between modal verbs and lexical verbs. Comparisons between modal verbs are also provided, suggesting that there should be internal classifications within the hypernym “modal verbs”. Different from Chao (1968),



Zhu (2007), and Li and Thompson (2009) providing a list of modal verbs without explaining the internal differences between Chinese modal verbs, Lin and Tang (1995) adopt the dichotomy of epistemic and deontic modality in Lyons (1977) and Palmer (1988, 1990, 2001) to classify Chinese modal verbs. Epistemic modal verbs are analyzed as raising verbs, while deontic modal verbs control verbs. This is one of the first attempts to characterize the syntactic behaviors of Chinese modal verbs and account for their modalities. Similar to English modal verbs, some Chinese modal verbs possess both modalities and their interpretations are modularized according to the immediate sentential context. Following Lin and Tang (1995), Tang and Tang (1997) analyze epistemic modal verbs as raising verbs and deontic modal verbs as control verbs. They argue that modal verbs should not be isolated as a separate category of auxiliary verbs since the syntactic behaviors of modal verbs much resemble those of main verbs in Chinese. Adopting and modifying Hofmann's (1993) semantic approach toward modalities, Huang (1999) verifies the existence the four modalities—capability, generic, deontic, and epistemic modality in Chinese modal verbs. Huang (1999) argues that volition is also a core semantic concept in modal verbs for agents to express willingness and desire toward an act and should be included in the semantic analysis of Chinese modal verbs. Different from Huang (1999) utilizing a purely semantic approach, Hsin (2000) explores the interaction between the syntax and semantics of modal verbs through several diagnostic



tests. Inextricably intertwined relationships between verb class, aspect, phase, and modality are found, resolving the polysemous interpretation of Chinese modal verbs. Adopting the notion of the semantic source, Hsieh (2002, 2005, 2006a, 2006b) distinguishes four modalities in Chinese—epistemic, deontic, dynamic, and evaluative. This classification challenges the inclusion of “the speaker’s opinion or attitude” as suggested by previous studies and also diversifies the discussion on “the logic of possibility or necessity”. Tsai (2010, 2015) proposes a tripartite classification of Chinese modal verbs where epistemic modals exist at the complementizer layer, deontic modals the inflectional layer, and dynamic modals the lexical layer. The hierarchical ordering of the three types of modals on a tree diagram results from the source of their underlying modalities.

The research on modal verbs and modality in Chinese, although first originates as a language-specific independent study, has now encompassed wisdom from other languages and hence broadens the semantic and syntactic classifications of modal verbs and modality worldwide.

2.3 Classification of Chinese Modal Verbs

Among the scholars (e.g., Hsieh, 2002, 2005, 2006a, 2006b; Tang & Tang, 1997; Tsai, 2010, 2015), it has been suggested that Chinese modal verbs can be classified into three categories—epistemic modality, deontic modality, and dynamic modality, following

Lyons (1977) and Palmer (1979, 1988, 2001). Although Yu (2014) suggests that the modal verb *yinggai* could be used to express evidential modality, few research has supported that there are other modal verbs that could also be used in this manner. The consensus on the tripartite classification of Chinese modal verbs has greater leverage than the inclusion of evidential modality that constitutes a quadripartite classification.

One problem raises by Yu (2014) is that although *yinggai* possesses two modalities—epistemic and deontic modality—only the deontic modality is preserved in an interrogative clause. In contrast, the epistemic modality of *keneng* remains rather intact. The comparison between sentences (52) and (53) illustrate this difference in the interpretation of modalities. Sentence (52) is biased toward the deontic reading, whereas sentence (53) is modulated toward the epistemic reading.

(52) 張三應該去工作了嗎? (Yu, 2014: 62)

Zhangsan *yinggai* qu gongzuo le ma

Zhangsan should go work prt prt

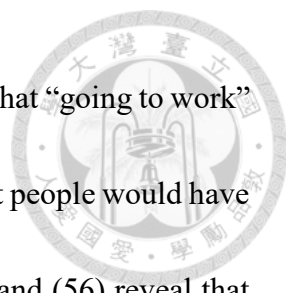
‘Is it required of Zhangsan to go to work?’

(53) 張三可能去工作了嗎? (Yu, 2014:62)

Zhangsan *keneng* qu gongzuo le ma

Zhangsan possible go work prt prt

‘Is it possible that Zhangsan has gone to work?’



The reason that the deontic modality is the prominent reading is that “going to work” is deemed an obligation by most native speakers of Chinese given that people would have to work to support their families. Nonetheless, sentences (54), (55), and (56) reveal that the dual modalities encoded by *yinggai* could both surface in interrogatives with appropriate contextual information. Taking sentence (54) as an example, Zhangsan could be a booking clerk at the theater and the speaker is asking whether Zhangsan has gone to work or not. It could also be the case that Zhangsan is a dedicated moviegoer and the speaker is curious about whether Zhangsan has gone to the movie theater to watch the latest movie or not. The first reading gives rise to the deontic modality of *yinggai*, while the second reading the epistemic modality of *yinggai*. The different interpretations of *yinggai* might be difficult to obtain at first glance, albeit provided sufficient contextual information, readers could resolve the distinction between Zhangsan being a booking clerk who is obliged to go to work and Zhangsan as a dedicated moviegoer who is supposedly on the way to the theater for the latest movie. Similar patterns of contextual modulation can be observed with respect to the interpretation of sentence (55) and (56). Given that “going to Taipei” and “go to the nightclub” are not common obligations for the public, it is the epistemic modality of *yinggai* that seizes prominence in the interpretation of these sentences. The deontic modality of *yinggai* is regarded as the subordinate reading since there are chances that Zhangsan is a salesperson and is required

to travel to different places occasionally or that he also works in a nightclub.



(54) 張三應該去電影院了嗎?

Zhangsan yinggai qu dianyingyuan le ma

Zhangsan should go movie theater prt prt

‘Is it possible that Zhangsan has gone to the movie theater?/ Is it required of

Zhangsan to go to the movie theater?’

(55) 張三應該去台北了嗎?¹

Zhangsan yinggai qu taibei le ma?

Zhangsan should go Taipei prt prt

‘Is it possible that Zhangsan has gone to Taipei?/ Is it required of Zhangsan to

go to Taipei?’

¹ Thanks to a committee member who remarked that it was rather difficult to obtain the epistemic reading of the modal verb *yinggai* in sentence (55). This phenomenon was also identified in Chiu (2021) who analyzed the interaction between modal verbs and sentence final particles in Mandarin Chinese. In this thesis, we argue that the epistemic modality of the modal verb *yinggai* overlaps with that of *keneng*. This overlapping relationship causes the epistemic modality of *yinggai* to be partly subsumed into *keneng*, giving rise to the notion that *yinggai* is more often associated with the deontic modality. Nevertheless, given appropriate contextual information, as described above, we can arrive at the deontic reading of *yinggai* in Chinese yes/no questions after taking the corresponding circumstances into consideration.

(56) 張三應該去夜店了嗎?

Zhangsan yinggai qu yedian le ma?

Zhangsan should go nightclub prt prt

‘Is it possible that Zhangsan has gone to the nightclub?/ Is it required of Zhangsan to go to the nightclub?’

The sentences above indicate that both the epistemic and deontic modality of *yinggai* could be interrogated and it should not be the case that the epistemic modality of it is non-existent in questions. The reason that Yu (2014) arrives at the generalization that *keneng* is preserved for interrogating epistemic modality and *yinggai* deontic modality results from the fact that both can be used to represent the epistemic modality. However, it is *yinggai* that can also denote deontic modality, but not *keneng*. This difference in distribution causes the deontic modality of *yinggai* to be more prominent than its epistemic counterpart, which can be more specifically expressed by *keneng* without causing confusion in interpretation. A schematic representation of this phenomenon is shown in Figure 2.2. In this Figure, the epistemic modality of *yinggai* overlaps with *keneng* and the grayish area represents the prominence of the epistemic modality to be conveyed and understood by *keneng*. The light orange area signifies the deontic modality of *yinggai*, which is a property bearing no relation to *keneng*. As manifested by the graph, *yinggai* is more often to be associated with expressions of the deontic modality since the



epistemic modality of it overlaps with and is consequently subsumed into *keneng*.

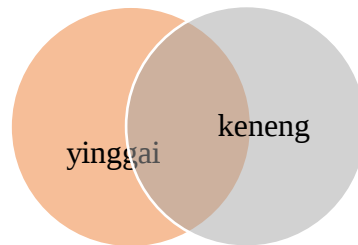
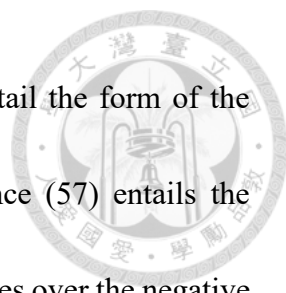


Figure 2.2 A Venn Diagram illustrating the overlapping of the epistemic modality between *yinggai* and *keneng*

Having established the overlapping relationship between *yinggai* and *keneng*, the differences in interpretation discussed by Yu (2014) could be subsumed under this framework. It should not be the case that *yinggai* is analyzed as possessing evidential modality since the semantics of *yinggai* contradicts with the definition of evidential modality. According to Palmer (2001), the use of evidential modality is for the speaker to supply relevant evidence to account for the factivity of the proposition. Two independent categories of evidential modality have been identified in languages such as Central Pomo, Ngiyambaa, Tuyuca, Hidatsa, and some Native American languages, namely, sensory and reported. The former encapsulates the expressions of visual, non-visual, auditory, or other sensory proofs, and the latter concerns the various sources of the proposition (e.g., reportive, experiential, hearsay, etc.). The use of *yinggai*, however, does not indicate the



sensory information associated with the proposition, nor does it entail the form of the report, as shown in sentence (57). Yu (2014) explains that sentence (57) entails the evidential modality of *yinggai* given that the modal verb *yinggai* scopes over the negative marker *bu*. Notwithstanding this observation, there is no clue that the modal verb *yinggai* implies that this proposition is a piece of first-hand information or second-hand information or that this message is obtained visually or auditorily by the speaker.

(57) 張三應該不去日本了。(Yu, 2014:76)

Zhangsan *yinggai* bu qu riben le

Zhangsan possible not go Japan asp

‘It is possible that Zhangsan will not go to Japan.’

Sentences (58) and (59) are instances that Yu (2014) further compares the syntactic distribution of the evidential *yinggai* and epistemic *keneng*. The manipulation of known falsity is the primary concern since it would be infelicitous for the speaker to negate his or her subjective judgement by an established truth, resulting in the ungrammaticality of sentence (58). On a closer inspection, though, we think that both sentence (58) and sentence (59) are well-formed and acceptable Chinese sentences. These sentences could be uttered by a speaker who happens to travel to other places in Taiwan during a cold wave and he or she predicts that it would also probably snow in Xinzhu, but it turns out that it does not snow there. Both sentences illustrate the speaker’s judgement on the truth

of the proposition, denoting epistemic modality.



(58) #昨天新竹可能下雪了，但事實上並沒有。(Yu, 2014:78)

Zuotian Xinzhu keneng xiaxue le, dan shishishang bingmeiyou

Yesterday Xinzhu possible snow asp, but in fact not

‘It is possible that it snowed in Xinzhu yesterday, but in fact it wasn’t.’

(59) 昨天新竹應該下雪了，但事實上並沒有。(Yu, 2014:78)

Zuotian Xinzhu yinggai xiaxue le, dan shishishang bingmeiyou

Yesterday Xinzhu possible snow asp, but in fact not

‘It is possible that it snowed in Xinzhu yesterday, but in fact it wasn’t.’

Likewise, although Yu (2014) points out that sentence (60) and sentence (61) demonstrate the difference in grammaticality with respect to the use of *yinggai* and *keneng* in interrogative constructions, there is no clue indicating that *yinggai* is used to convey evidential modality according to Palmer’s (2001) definition. In other words, evidential modality should not be regarded as the underlying reason accounting for the difference between the two modal verbs. Besides, we do not find sentence (60) to be ungrammatical since the speaker could be offering a prediction whether the night market is going to be very riotous on Sunday given that most people do not work on weekends.



(60) *星期天的夜市應該會很熱鬧嗎？(Yu, 2014:80)

Xingqitiande yeshi yinggai hui hen renao ma

Sunday's night market possible will very riotous prt

‘Is it possible that the night market will be very riotous on Sunday?’

(61) 星期天的夜市可能會很熱鬧嗎？(Yu, 2014:80)

Xingqitiande yeshi keneng hui hen renao ma

Sunday's night market possible will very riotous prt

‘Is it possible that the night market will be very riotous on Sunday?’

To manifest the blocking effect, Yu (2014) argues that the ungrammaticality of sentence (62) results from the fact that the epistemic *keneng* is illegitimate to precede and occupy a higher hierarchical position than the evidential *yinggai*. One instance Yu (2014) fails to consider is for the evidential *yinggai* to precede and occupy a higher position than the epistemic *keneng*, as shown in sentence (63). Despite this sentence exhibits no blocking effect, sentence (63) might lower the grammaticality and acceptability of the sentence. One plausible reason for this phenomenon is that it is rather infrequent for multiple modal verbs to precede the subject of a given sentence. A similar pattern presenting the hierarchical structure is provided in sentence (64) where Yu (2014) argues for the grammaticality for the evidential *yinggai* to precede the epistemic *keneng*. We do not agree with Yu (2014) that the modal verb *yinggai* in sentence (64) represents

evidential modality as this sentence does not express factual information about the utterance. Consider the parallel sentence where *keneng* precedes *yinggai* hierarchically, as shown in sentence (65). Sentence (65) might be difficult to interpret for some native speakers of Chinese as it represents the contradiction of modalities, where the modal verb *keneng* displays epistemic modality and the modal verb *yinggai* conveys deontic modality. The meaning of sentence (65) is “It is possible that Zhangsan should go to work”.

(62) *可能應該總統明確地表達立場。(Yu, 2014:87)

keneng yinggai zongtong mingquedi biaoda lichang

possible possible president clearly state stance

‘It is possible that the president should possibly state his/her stance.’

(63) 應該可能總統明確地表達立場。

yinggai keneng zongtong mingquedi biaoda lichang

possible possible president clearly state stance

‘It is possible that the president should possibly state his/her stance.’

(64) 應該張三可能去工作了。(Yu, 2014:88)

yinggai Zhangsan keneng qu gongzuo le

possible Zhangsan possible go work asp

‘It is possible that Zhangsan possibly go to work.’

(65) 可能張三應該去工作了。

keneng Zhangsan yinggai qu gongzuo le

possible Zhangsan should go work asp

‘It is possible that Zhangsan should go to work.’

Considering the discussion in this section, we maintain a tripartite classification system to characterize Chinese modalities, encompassing the epistemic modality, deontic modality, and dynamic modality. A quadripartite system inclusive of the evidential modality should not be pursued since Chinese does not employ the sensory or reported means to represent the evidential modality as in other languages, such as Central Pomo.





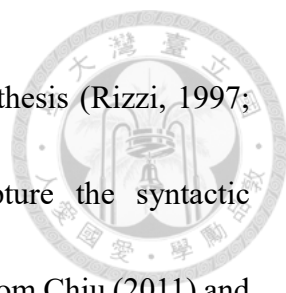
Chapter 3 Modal Verbs in Chinese Tag Questions



3.1 Overview

Tag questions refer to questions that are appended to a declarative, imperative, or an exclamative sentence. The primary semantic and pragmatic function of tag questions is generally to seek confirmation from the addressee or to soften the stance expressed in the antecedent clause. Much research has been conducted to examine the syntactic operation of tag questions in English. For instance, Bouton (1990) specifically targets at the grammar of English imperative tags, arguing that they should not be treated as fixed idiomatic expressions. Analyzing their syntactic behaviors, Culicover (1992) finds a binding relationship between the tag and its preceding clause, ruling out the possibility of involving movements in the derivation. Later research comprises the comparison of tag questions between British and American English via corpus analysis (Tottie & Hoffman, 2006) or the examination between canonical and noncanonical declarative constant polarity tags (Kimps, 2007) and between canonical and noncanonical imperative constant polarity tags (Kimps & Davidse, 2008).

In contrast to the abundance of syntactic research in English, relatively few studies have researched Chinese tag questions. Chiu (2011) is one of the first attempts to schematically represent the syntactic structure of Chinese tag questions adopting both the split CP hypothesis (Rizzi, 1997; Rizzi & Cinque, 2016) and predication analysis. In



line with Chiu (2011), Hsin (2016) proposes that the split CP hypothesis (Rizzi, 1997; Rizzi & Cinque, 2016) should be a unified approach to capture the syntactic representations of various types of Chinese tag questions. Different from Chiu (2011) and Hsin (2016), Chiu (2023) argues for a consistent bi-clausal analysis of Chinese tag questions where the two clauses were conjoined by an unpronounced operator, similar to what has been discussed in Tang (2016; 2018).

One inconsistency in the literature on Chinese tag questions involves the presentation of different types of modals. Hsin (2016) suggests that only epistemic modal verbs are capable of forming tag questions, whereas Chiu (2023) remarks that deontic and dynamic modal verbs, but not epistemic modal verbs, are possible candidates. Given this difference in the interpretation of Chinese modal verbs in tag questions, the aim of this chapter is to examine the interaction between different types of modal verbs (i.e., epistemic, deontic, and dynamic) and Chinese tag questions, hoping to achieve better crosslinguistic comparisons between English and Chinese.

The organization of this chapter is as follows. Section 3.2 addresses the different classification of Chinese tag questions and the syntactic derivation process of Chinese tag questions. Section 3.3 reviews the literature on Chinese tag questions, inclusive of the epistemic restriction to license Chinese tag questions and the deontic restriction to license Chinese tag questions, which are presented in Section 3.3.1 and Section 3.3.2 respectively.

Section 3.4 offers the data pattern observed in the behaviors of modal verbs in Chinese tag questions, inclusive of the general classification of Chinese modal verbs and the analysis offered by this study to account for the interaction between modal verbs and Chinese tag questions.

3.2 Classifications of Chinese Tag Questions

Scholars have proposed alternative classifications of Chinese tag questions.

For example, Chiu (2011) categorizes two types of Chinese tag questions—invariable tag questions and verbal tag questions. The former includes both the A-not-A form and particle form, and the latter features modal verbs in the corresponding form. Both the A-not-A and particle form have been identified as means to form interrogatives in Chinese (Huang, 1987; Huang, 2010; Liu, 1996; Li & Thompson, 2009; McCrawley, 1994; Tang, 1981; Tang, 1984; Tang, 1988). Examples of invariable tag questions and verbal tag questions are provided in sentences (66) to (68). Sentence (66) and (67) are instances of invariable tag questions and sentence (68) is an example of verbal tag questions.



(66) A-not-A type (Chiu, 2011:151)

你上次拿了我的書，有沒有?/對不對?

Ni shang-ci na-le wode shu, you-mei-you?/dui-bu-dui?

You last.time take-prf my book exist-not-exist correct-not-correct

‘you took my book last time, didn’t you?’

(67) Particle type (Chiu, 2011:151)

他去了台北，對嗎?/不對嗎?/沒錯吧?

Ta qu-le taibei, dui ma?/bu-dui ma?/mei-cuo ba?

He go-Asp Taipei, yes Prt not-yes Prt no-wrong Prt

‘He went to Taipei, *did he?/ didn’t he?’

(68) Verbal tag (Chiu, 2011:152)

張三可以去台北，可以嗎?/可不可以?

Zhangsan keyi qu taibei, keyi ma?/ke-bu-keyi?

Zhangsan can go Taipei, can Prt?/can-not-can

‘Zhangsan can go to Taipei, can’t he?’

Different from Chiu (2011) that makes no finer differentiation between the affirmative and negative particle form, Hsin (2016) argues that the negative-V-particle form should be isolated as a separate category and deserve independent treatment. The difference between the positive-V-particle, negative-V-particle form, and A-not-A results

from the presupposition force carried by the tag questions. That is, the negative-V-particle form carries the strongest presupposition of the speaker's attitude toward a proposition, the positive-V-particle the weaker, and the A-not-A form the least or nearly no presupposition. Examples illustrating this phenomenon are provided in sentence (69) to (71). According to Hsin (2016), sentence (71) carries the strongest presupposition that the speaker believes in Zhangsan's ability to speak German, whereas sentence (69) is a relatively neutral tag question.

(69) 張三會說德語，是不是? (Hsin, 2016:73)

Zhangsan hui shuo deyu, shi-bu-shi?

Zhangsan can speak German, yes-not-yes?

'Zhangsan can speak German, can't he?'

(70) 張三會說德語，是嗎? (Hsin, 2016:73)

Zhangsan hui shuo deyu, shi-ma?

Zhangsan can speak German, yes-Prt?

'Zhangsan can speak German, is it so?'

(71) 張三會說德語，不是嗎? (Hsin, 2016:73)

Zhangsan hui shuo deyu, bu-shi-ma?

Zhangsan can speak German, not-yes-Prt?

'Zhangsan can speak German, can't he?'

In terms of the types of verbs in Chinese tag questions, Hsin (2016) further distinguishes between regular tag verbs, tags with modal verbs, false tags, rare tags, and rhetoric tags. Each sub-type of tag question is discussed in the following.

Regular tag verbs encompass *dui*, *shi*, *hao*, and *xing*, where the former two are for the speaker to seek confirmation and the latter two are to display several pragmatic functions, consisting of expressing evaluation, request, or approval. This categorization is a generalization of Chang's (2006) and Hu's (2001) observation. Another commonly discussed tag verb is *you*. The unique occurrence of *you* in tag questions is a piece of evidence supporting that it has been accepted in the linguistic repertoire of Taiwanese Mandarin.

Different from regular tag questions, tags with modal verbs specifically refers to tag questions consisting of modal verbs. According to Hsin (2016), only epistemic modal verbs, but not deontic modal verbs, are able to constitute tag questions in Chinese. The key syntactic reason for such is that the former involves raising structure, whereas the latter control structure. The sentential antecedent would be illegitimate to represent the PRO in the control structure, contributing to the ungrammaticality of deontic modals as tag verbs. However, this view is different from Chiu (2023), which would be discussed in the later part of this chapter.

In addition to tag questions with regular tag verbs and modal verbs, Hsin (2016)

mentions a type of question that is often mistaken as tag questions—false tags. Examples of false tags were provided in sentences (72) and (73).



(72) 桌上有一盤餃子，吃不吃?/吃嗎?/不吃嗎? (Hsin, 2016:83)

zhuoshang you yi-pan jiaozi, chi-bu-chi/ chi-ma/bu-chi-ma?

Table-on have one-dish dumpling eat-not-eat/ eat-Prt/not-eat-Prt?

‘There is dish of dumplings; do you want to eat?’

(73) 阿 Q 會說阿拉伯語，會不會?/會嗎? (Hsin, 2016:84)

A-Q hui shuo Alaboyu, hui-bu-hui/hui-ma/bu-hui-ma?

A-Q can speak Arabic-language can-not-can/can-Prt/not-can-Prt?

‘A-Q can speak Arabic; can he or can’t he/can he/can’t he?’

At first glance, it appears as if these questions are ordinary tag questions, as they follow the general pattern of question formation in Chinese (Huang, 1987; Huang, 2010; Liu, 1996; Li & Thompson, 2009; McCrawley, 1994; Tang, 1981; Tang, 1984; Tang, 1988), inclusive of the A-not-A form and particle form. Contrary to the assumption that these questions appear to be ordinary tag questions, these questions should be considered as questions predicating on the empty pronoun as in sentences (74) and (75). In sentence (74), the speaker is inquiring the addressee’s will to eat the dumplings on the table, and in sentence (75), the speaker is seeking for others’ opinion about A-Q’s ability to speak Arabic. Given the wide acknowledgment that Chinese is a *pro*-drop language (Huang,

1989; Huang, Li, & Li, 2009), both sentences (74) and (75) are instances of interrogatives predicating on an empty pronoun, rather than predicating on the aforementioned proposition. The differences in the predicating structure thus set these false tags apart from true tag questions.

(74) 桌上有一盤餃子，(你/*pro*)吃不吃?/吃嗎? (Hsin, 2016:84)

zhuoshang you yi-pan jiaozi, (ni/*pro*) chi-bu-chi/ chi-ma?

Table-on have one-dish dumpling, (you/*pro*)eat-not-eat/ eat-Prt?

‘There is dish of dumplings; do you want to eat?’

(75) 阿 Q 會說阿拉伯語，(阿 Q/他/*pro*)會不會?/會嗎? (Hsin, 2016:84)

A-Q hui shuo Alaboyu, (A-Q/ta/*pro*) hui-bu-hui/hui-ma?

A-Q can speak Arabic-language, (A-Q/ta/*pro*)can-not-can/can-Prt?

‘A-Q can speak Arabic; can he?’

While false tags are often considered a subtype of tag questions, rare tags are true tag questions despite their low frequency. Examples of rare tags are provided in sentences (76) and (77). Unlike false tags predicating on empty pronouns, both sentences (76) and (77) are tag questions predicating on the proposition, that is, the preceding host sentences.



(76) 飛機就這樣不見了，怪不怪? (Hsin, 2016:86)

feiji jiu zhe-yang bu-jian-le, guai-bu-guai?

Airplane just this-way not-see-asp, strange-not-strange?

‘The airplane just disappeared like this; isn’t it strange?’

(77) 下了好幾天的雨，明天就要放晴了，讚不讚? (Hsin, 2016:86)

xia-le hao-ji-tian de yu, mingtian jiu-yao fang-qiang-le,

zan-bu-zan?

drop-asp very-several day DE rain, tomorrow will turn-sunny-asp,

great-not-great?

‘It rained for several days. It will turn sunny tomorrow. Isn’t it great?’

In contrast to the infrequency of rare tags, the occurrence of rhetoric tags is much more frequent in speech, as they entail additional discourse functions. Examples of rhetoric tags are given in sentences (78) and (79). Sentence (78) demonstrates the speakers’ bold defense that they do not evade taxes, serving as a strong refutation. In contrast, sentence (79) shows the speaker’s sarcastic attitude toward the addressee, scornfully questioning his/her behaviors. The patterning of the two types of rhetoric tags is in parallel with the categorization of discourse verbs, where *dui*, *shi* commonly employed to seek confirmation could express irony, and *hao*, *xing*, *keyi* generally used for various pragmatic functions could denote affirmative assertion against an unfavorable

accusation (Hsin, 2016).



(78) 我們沒有逃稅，好不好/行不行/可以不可以? (Hsin, 2016:89)

women mei-you tao-shui, hao-bu-hao/xing-bu-xing/keyi-bu-keyi?

We not-have escape-tax, good-not-good/workable-not-workable/OK-not-

OK?

‘We did not evade taxes, OK?’

(79) 想偷錢，是不是/是嗎/對不對? (Hsin, 2016:90)

xiang tou-qian shi-bu-shi/shi-ma/dui-bu-dui?

want steal-money be-not-be/be-Prt/true-not-true?

‘You want to steal money, don’t you?’

Contrary to Hsin’s (2016) detailed classification, Chiu (2023) broadly categorizes two types of tag questions—modal tags and invariable tags. The former involves deontic and dynamic tag questions, whereas the latter pertains to the majority of Chinese tag questions.

Generalizing from Chiu’s (2011;2023) and Hsin’s (2016) findings, it is found that different from their English counterparts, it can be observed that Chinese tag questions do not strictly require reverse polarity between the antecedent clause and the tag question. Therefore, Chinese tag questions can display either reverse polarity or constant polarity. According to the type of verbs featured in the tag questions, Chinese tag questions can be

broadly categorized as two subtypes—Tag questions with typical discourse verbs (e.g., *hao*, *xing*, *shi*, etc.) and tag questions with modal verbs (e.g., *keyi*, *keneng*, *yinggai*, etc.).

The formation of Chinese tag questions is similar to the formation of any interrogatives in Chinese, involving the (not-) A-particle form and the A-not-A form. The distinctive pragmatic functions of Chinese tag questions are not of concern and that A-particle form and not-A-particle form are treated as both belonging to a subtype of Chinese tag question without differences in implication and illocutionary force, which has been discussed elsewhere in the past literature (cf. Hsin, 2016). It is worth pointing out that some consider tag questions with discourse verbs as invariant tag questions, as opposed to variant tags in English, indicating that they are fixed idiomatic expressions carrying identical meanings despite their use in different sentences. We do not agree with this point of view and regard both tag questions with discourse verbs and tag questions with modal verbs as the result of the application of the syntactic derivation process, as presented in the following section. We classify Chinese tag questions into two types—tag questions featuring typical discourse verbs and tag questions featuring modal verbs where the sole difference between the two subtypes lies in the type of the verbs in use.

This section outlines the classification of Chinese tag questions inclusive of the different syntactic forms (i.e., A-not-A form, particle form, and negative-particle form) and discourse functions (e.g., assertion, refutation, and sarcasm).



3.3 Restrictions to License Chinese Tag Questions

Most previous studies (e.g., Chang, 2006; Hu, 2001) investigate Chinese tag questions with respect to common discourse verbs, such as *dui*, *hao*, *shi*. Few have explored how modal verbs could be applied in Chinese tag questions. Chiu (2011) is one of the first studies that researches this subject.

3.3.1 The Epistemic Restriction to License Chinese Tag Questions—Chiu (2011, 2023)

According to Chiu (2011), both deontic modal verb and epistemic modal verbs are eligible to be presented in Chinese tag questions, as shown in sentences (80) and (81). Sentence (80) is an instance for deontic modals to form A-not-A and particle tag questions, whereas sentence (81) indicates that epistemic modals could also enter this construction. The modal verb in the tag question should be identical to that in the preceding antecedent clause, similar to the anchoring function in English tag questions, as shown in sentence (82). The modal verb “should” in the tag questions is identical to that in the antecedent clause with the only difference regarding the polarity of the two.

(80) 張三敢高空彈跳，敢嗎？/不敢嗎？/敢不敢？ (Chiu, 2011:158)

Zhangsan gan gaokong-tantiao, gan-ma?/bu-gan ma?/ gan-bu-gan?

Zhangsan dares bungee jumping dare-Prt not-dare-Prt dare-not-dare

‘Zhangsan dare to go bungee jumping, doesn’t he?’



(81) 張三應該去台北，應該嗎?/不應該嗎? (Chiu, 2011:158)

Zhangsan yinggai qu taibei, yinggai ma?/bu-yinggai ma?

Zhangsan should go Taipei, should Prt?/not-should Prt?

‘Zhangsan should go to Taipei, shouldn’t he?’

(82) Mary should go to Taipei, shouldn’t her?

Contrary to Hsin’s (2016) account that only epistemic modal verbs could form tag questions, Chiu (2023) states that only questions with deontic and dynamic modal verbs are qualified as tag questions and that those with epistemic modal verbs are ungrammatical. Nevertheless, Chiu (2023) does not provide further explanation of what disqualifies epistemic modal verbs’ usage in Chinese tag questions. An apparent contradiction between Chiu (2011) and Chiu (2023) is that the identical sentence containing the epistemic modal verb *yinggai* is marked grammatical in Chiu (2011), but ungrammatical in Chiu (2023), as shown in the comparison between sentence (81) and (83). Sentence (81) is a grammatical sentence, but sentence (83) is ungrammatical. It is worth pointing out that the examples provided by Chiu (2011) and Chiu (2023) are all instances where the identical modal verb occur both in the antecedent clause and tag question. There are no instances where the modal verb occurs only in tag questions.

(83) *張三應該去台北，應該嗎？/不應該嗎？ (Chiu, 2023)

Zhangsan yinggai qu taibei, yinggai ma?/bu-yinggai ma?

Zhangsan should go Taipei, should Prt?/not-should Prt?

*‘Zhangsan should go to Taipei, shouldn’t he?’



3.3.2 The Deontic Restriction to License Chinese Tag Questions—Hsin (2016)

Hsin (2016) argues that only epistemic modal verbs could function in tag questions and that deontic modal verbs could not. The reason for such difference lies in the respective syntactic structures of epistemic and deontic modal verbs. Deontic modal verbs belong to the classification of control verbs, whereas epistemic modal verbs appertain to raising verbs (Lin & Tang, 1995). Control verbs are verbs consisted of two-place predicates and two arguments, where the subject NP and the PRO subject heading the deontic modal verb co-index with each other. In other words, the PRO subject is controlled by the subject NP. In contrast to control verbs, raising verbs are verbs taking sentential complements. The subjects realized in the surface representation is a result of the subject in the embedded clause raising to the subject position. This difference in syntactic structure contributes to the subjects selected by the two types of modal verbs. Deontic modal verbs must have an agent subject, but epistemic modal verbs take a sentential subject. Given that Chinese tag questions are sentential CP elements, Hsin (2016) thus theorizes the grammaticality for epistemic modal verbs to occur in tag

questions. Deontic modal verb questions, according to Hsin's (2016) definition, are not tag questions. They are interrogatives with an implicit subject *pro*, as shown in sentence (84). In sentence (84), the element preceding the tag question could be phonetically realized as the antecedent subject. This pattern is not in accordance with the formation of tag questions which requires the complement IP/CP *pro* to co-refer to the antecedent clause. Therefore, only questions encompassing epistemic modal verbs are considered true tag questions.

(84) 張三敢高空彈跳，*pro*(張三)敢嗎？/*pro*(張三)敢不敢？(Chiu, 2011)

Zhangsan gan gaokong tantiao, *pro*(Zhangsan) gan ma?/*pro*(Zhangsan) gan-bu-gan?

Zhangsan dare high-space jump, *pro*(Zhangsan) dare Prt?/*pro*(Zhangsan) dare-not-dare?

‘Zhangsan dare to do bungee jumping. Dare he?/Dare or Dare he not?’

The inconsistency regarding the types of modal verbs (i.e., epistemic, deontic) that could form Chinese tag questions merits further research, as Hsin (2016) argues for epistemic modals to occur in tag questions, but Chiu (2023) argues for the opposite.

3.4 Data Pattern

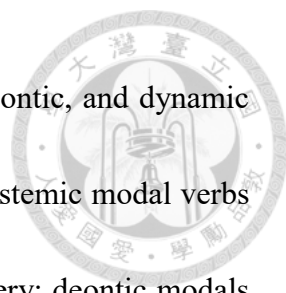
This section provides an analysis regarding the interaction between modals verbs and Chinese tag questions, aiming to resolve the inconsistency in past literature. This thesis



argues that epistemic and deontic modal verbs are both eligible to form Chinese tag questions, but not dynamic modal verbs with specific selectional restriction of the animacy of subjects. Other properties in reference to the presentation of modal verbs in Chinese tag question are discussed in the following. This section consists of five subsections. Section 3.4.1 outlines legitimate modal verbs in Chinese tag questions. section 3.4.2 provides examples of modal tag questions co-occurring with antecedent clauses without modal verbs. Section 3.4.3 concerns the phenomenon of modal verb disharmony between antecedent clauses and Chinese tag questions. Section 3.4.4 addresses instances where multiple modal verbs occur in the antecedent clause. Section 3.4.5 researches various clausal constructions of the antecedent clause.

3.4.1 Legitimate Modal Verbs in Chinese Tag Questions

Following the predication analysis proposed in Chiu (2011) and Chiu (2023), we hypothesize that the internal structure of a Chinese modal tag question contains an empty pronoun followed by the modal predicate, as it has been well-attested in Lin and Tang (1995) that Chinese modal verbs could serve as the predicate of either a nominal or sentential subject. To confirm the existence of an empty pronoun as the subject of the modal predicate, Chiu (2011) and Chiu (2023) utilize the explicit demonstrative pronoun *zhe* to represent the anchoring proposition, which is analogous to the means in Lin and Tang (1995).



According to Tsai (2015), the difference between epistemic, deontic, and dynamic modal verbs lies in the structure with which they are associated. Epistemic modal verbs concern the information structure often presented on the left periphery; deontic modals involve the IP headed by the subject; dynamic modals relate to the argument structure projected by the main verb. In line with Tsai's (2015) analysis that dynamic modals pertain to the argument structure of the verb and that they semantically select animate subjects, it would be illegitimate for dynamic modal verbs to act as the predicate of sentential subjects². Sentences demonstrating such ungrammaticality are shown in sentences (85), (86), and (87) where three typical dynamic modal verbs *neng*, *ken*, and *gan* are the main predicate of the respective sentences headed by sentential subjects *Lisi bu qu Taipei*. The ungrammaticality of these sentences results from the presence of inanimate subjects.

² Thanks to a committee member who provides an instance where *keyi* is used as a dynamic modal verb, as in sentence (a). According to the reasoning provided in this thesis, we do not regard sentence (a) to be a sentence of Chinese tag question, as the following question interrogates the capacity of the car, rather than the preceding proposition. Sentence (a) offers an instance where inanimate entities serve as the subject of dynamic modal verbs, showing that dynamic modal verbs do not have to strictly select animate subjects. The antecedent clause of sentence (a) can be realized as “flip-flop sentences” as described in Tsai (2020) who argues that the difference between deontic modality and capacity modality lies in the head movement of the main verb.

(a) 這部車可以坐九個人，可以嗎?
 zhe bu che keyi zuo jiu ge ren, keyi ma
 this cl car can sit nine cl people can prt
 ‘This car has the capacity to take nine people. Can it (the car)?’



(85) *李四不去台北也能。

[Lisi bu qu taibei] ye neng

Lisi not go Taipei also can

‘*It is okay for Lisi not to go to Taipei.’

(86) *李四不去台北也肯。

[Lisi bu qu taibei] ye ken

Lisi not go Taipei also willing to

‘*It is okay for Lisi not willing to go to Taipei.’

(87) *李四不去台北也敢。

[Lisi bu qu taibei] ye gan

Lisi not go Taipei also dare

‘*It is okay for Lisi dare not to go to Taipei.’

However, such ungrammaticality does not hold for deontic modals, as shown in sentence (88) and (89). The deontic modal *keyi* is eligible to serve as the main predicate of sentences headed by sentential subjects in sentence (88), while the deontic modal *yingai* is also permissible to modify sentential subjects in sentence (89). Sentence (88) conveys the proposition that Lisi is also permitted not to go to Taipei and sentence (89) denotes the proposition that Lisi should go to Taipei as deontic modality is used to express obligation, permission, or necessity.



(88) 李四不去台北也可以。

[Lisi bu qu taibei] ye keyi

Lisi not go Taipei also can

‘It is okay for Lisi not to go to Taipei.’

(89) 李四不去台北不應該。

[Lisi bu qu taibei] be yinggai

Lisi not go Taipei not should

‘It should not be the case for Lisi not to go to Taipei.’

Likewise, the epistemic modal *keneng* is also permissible to serve as the main predicate of sentences with sentential subjects, as shown in sentence (90). Sentence (90) reveals the speaker’s subjective assessment regarding the factuality of the proposition—that it would be impossible for Lisi not to go to Taipei.

(90) 李四不去台北不可能。

[Lisi bu qu taibei] bu keneng

Lisi not go Taipei not possible

‘It is impossible for Lisi not to go to Taipei.’

As demonstrates above, epistemic and deontic modal verbs pattern the same as both of them are possible candidates to serve as the main predicate of sentential subjects, while dynamic modal verbs are impossible to co-occur with sentential subjects. This difference

in the co-presence with sentential subjects is parallel to their interaction with the demonstrative pronoun *zhe* as it can be used to substitute for inanimate subjects, inclusive of sentential subjects, as shown in sentence (91) and (92). The demonstrative pronoun *zhe* is used to substitute for the sentential subject *Lisi bu qu Taipei* in sentence (92) and sentence (91) and (92) literally convey the same proposition.

(91) 李四不去台北是對的。

[Lisi bu qu Taipei] shi dui de

Lisi not go Taipei is right prt

‘It is right for Lisi not to go to Taipei.’

(92) 這是對的。

zhe shi dui de

this is right prt

‘This is right.’

Sentence (92) can also occur independently with two ambiguous interpretations, indicating that “this is the right thing” or that “doing this is right.” The former interpretation concerns the approval of an entity, either concrete or abstract, while the latter the approval of an action, as in sentence (91) that it is right for Lisi not to go to Taipei. The speaker could express confirmation that a certain concrete object, such as “the red pen is right”, thereby excluding possibilities of other pens, or that an abstract noun

such as “happiness is right”. The only impossibility for *zhe* to be understood as is animate subjects, inclusive of pronominal subjects or R-expressions, as we would not interpret sentence (92) as “he is right”, “she is right”, or “Tim is right”. In other words, the demonstrative pronoun *zhe* can only be used to substitute for inanimate entities, but not their animate counterparts.

Given the substitution pattern exhibited by the demonstrative pronoun *zhe*, sentences (93) to (98) are examples where *zhe* is used to replace the original sentential subject *Lisi bu qu Taipei*. As predicted, sentences with dynamic modal verbs *neng*, *ken*, and *gan* are ungrammatical given the mismatch between the animacy requirement of the pronominal subject and the argument structure of the modal verb in sentence (93), (94), and (95). On the contrary, sentences with deontic modal verbs as sentence (96) and (97) or sentences with epistemic modal verbs as sentence (98) are grammatical.

(93) *這也能。

zhe ye neng

this also can

‘*This also can.’



(94) *這也肯。

zhe ye ken

this also willing to

‘*This also willing to.’

(95) *這也敢。

zhe ye gan

this also dare

‘*This also dare.’

(96) 這也可以。

zhe ye keyi

this also can

‘This is also okay. = This is also permitted.’

(97) 這不應該。

zhe bu yinggai

this not should

‘It shouldn’t be like this.’



(98) 這不可能。

zhe bu keneng

this not possible

‘This is impossible.’

The grammaticality divergence in taking the demonstrative pronoun *zhe* as the subject between deontic, epistemic and dynamic modal verbs contributes to their permissibility to occur in Chinese tag questions. Given that deontic and epistemic modal verbs are able to take *zhe* as subjects, they are eligible to function in tag questions following the predication analysis proposed by Chiu (2011) and Chiu (2023). In contrast, the inability for dynamic modal verbs to take *zhe* as subjects indicates that they are illegitimate to occur in Chinese tag questions. The seeming tag questions with dynamic modal verbs are actually *pro*-drop questions, but not true tag questions, as Chinese is well-identified as a language with *pro*-drop parameters (Huang, 1989; Huang, Li, & Li, 2009). This analysis is in line with Hsin’s (2016) analysis of false tags where these questions with dynamic modal verbs contain a hidden subject *pro*. Sentence (99) is Hsin’s (2016) explanation on Chiu (2011), repeated below.



(99) 張三敢高空彈跳，*pro*(張三)敢嗎？/*pro*(張三)敢不敢？(Chiu, 2011)

Zhangsan gan gaokong tantiao, *pro*(Zhangsan) gan ma?/*pro*(Zhangsan) gan-bu-gan?

Zhangsan dare high-space jumping, *pro*(Zhangsan) dare prt?/*pro*(Zhangsan) dare-not-dare?

‘Zhangsan dare to do bungee jumping. Dare he?/Dare or Dare he not?’

As shown in sentence (99), the subject taken by the dynamic modal verb *gan* “dare” is the same as that in the antecedent clause. That is, if explicitly spelled out, the covert subject of a dynamic modal verb stands for a person, rather than a proposition. It is the co-indexing between the proposition and *pro* that license a true tag question, but not the co-indexing relationship between the subject of the antecedent clause and the *pro* of the follow-up question³. This reasoning is different from Chiu (2023) arguing that deontic and dynamic modal verbs are legitimate to appear in tag questions, but not epistemic modal verb tag questions. Nonetheless, as shown above, the grammaticality for epistemic

³ The difference between *Pro* and *pro* has been discussed in Huang (1989) and Haegeman (1994) and other scholarly studies. For the sake of simplicity, the following paragraph mainly reviews from Huang (1989) and Haegeman (1994).

Haegeman (1994) characterizes *PRO* as [+anaphoric] and [+pronominal], as *PRO* is used to serve as arguments to fulfill the Extended Projection Principle (EPP) and that *PRO* can be realized as pronouns under certain circumstances. The interpretation of *PRO* is often dependent on another referential NP and the relation between the two is often represented by the theory of control, where *PRO* is controlled by the NP. In contrast to the universality of *PRO* under the “*PRO* theorem”, Huang (1989) remarks that the existence of *pro* is a language-specific phenomenon as the subject of a finite clause in different languages may or may not be pronounced. The reason that the *pro*-drop or null subject parameter is legitimate in certain languages lies in the fact that certain aspects of the null subject can be recovered via agreement markings and hence, the potential reference of the subject can be understood despite the lack of the subject in the finite clause.

modal verbs such as *keneng* to function as the predicate of the demonstrative pronoun *zhe* as in sentence (98) demonstrates epistemic modal verbs' capability to form Chinese tag questions. Likewise, the grammaticality of sentence (96) and (97) suggests that deontic modal verbs are able to co-occur with and modify *zhe*, denoting deontic modal verbs' capability to form Chinese tag questions.

Generalizing from the evidence presented above, it is deontic and epistemic modal verbs that could form Chinese tag questions, but not dynamic modal verbs since the latter involves a covert animate subject heading the interrogative.

3.4.2 Antecedent Clauses without Modal Verbs

In addition, although the examples introduced by Chiu (2011), Hsin (2016), and Chiu (2023) illustrate that the identical modal verb would occur both in the antecedent clause and the tag question. New empirical evidence suggests that modals in Chinese tag questions may or may not necessarily be presented in the antecedent sentence, as shown in sentence (100) to (105). All the modal verbs in sentence (100) to (105) occur only in tag questions, but not the antecedent clauses.

The modal verb *keneng* in sentence (100) is indicated by the speaker to judge the plausibility of the proposition in the antecedent clause, that is, whether it is possible for him to attend a concert or not.



(100) 他昨天參加了一場音樂會，可能嗎？/不可能嗎？/可不可能？

ta zuotian canjia le yi chang yinyuehui, keneng ma?/bu keneng ma?/ ke-
bu-keneng?

he yesterday attend prt one cl concert possible prt/ not possible
prt?/possible-not-possible?

‘He attended a concert yesterday. Is it possible?/Is it not possible?’

The modal verb *hui* in sentence (101) is to inquire the addressee whether it is likely for Xiaohua to admire Xiaoming or not. As exhibited in sentence (101), the modal verb is presented only in the tag question, but not the antecedent clause.

(101) 小華好像很崇拜小明，會嗎？/不會嗎？/會不會？

xiaohua hoaxing hen chongbai xiaoming, hui ma?/bu hui ma?/hui-bu-hui?

xiaohua seem very admire xiaoming will prt/ not will prt/ will-not-will

‘Xiaohua seems to admire xiaoming a lot. Will he? Will he not?’

Sentence (102) to (104) concern the epistemic and deontic use of the modal verb *yinggai* in tag questions, with sentence (102) pertains to the epistemic modality. The fact that sentence (102) conveys the epistemic modality, but not deontic modality, is achieved via the manipulation of the antecedent clause. As it is a well-accepted common knowledge that people at the age of three are not obliged to have good handwriting. The interpretation of sentence (102) naturally excludes the deontic use of *yinggai* because readers would not

anticipate the subject “he” in the sentence to have good handwriting at three years old. In other words, the dual modalities (i.e., epistemic and deontic modality) encoded by the modal *yinggai* is modulated by the manipulation of the antecedent clause.

(102) 他才三歲就寫得一手好字，應該嗎？/不應該嗎？/應不應該？

ta cai san sui jiu xie de yi shou hao zi, yinggai ma?/

bu yinggai ma?/ying-bu-yinggai?

he just three age then write prt one hand good character, possible
prt?/not-possible prt?/possible-not-possible

‘His handwriting is really good at the age of three. Is it possible? Is it not possible?’

Despite the antecedent clause modulation effect in sentence (102), sentence (103) and (104) relate to the deontic and epistemic modality of the *yinggai* respectively, exhibiting an ambiguity in reference to the identical proposition and tag question. The interpretation of sentence (103) is “should/shouldn’t it be the case that the teacher knows nothing about students’ attendance?” given the fact that teachers, as the facilitators of every course, are assumed to be in control of the precise number of students in each class.



(103) 老師對學生的出缺席竟然一無所知，應該嗎？/不應該嗎？/應不應該？

laoshi dui xuesheng de chuquexi jingran yiwusuo zhi, yinggai

ma?/bu yinggai ma?/ying-bu-yinggai?

teacher toward student poss attendance surprisingly know nothing, should

prt?/not-should prt?/ should-not-should

‘It turns out that the teacher knows nothing about students’ attendance. Should
it? Shouldn’t it?’

Different from sentence (103), the interpretation of sentence (104) is “whether it is possible/ not possible for the teacher to know nothing about students’ attendance?” given that there may be a teaching assistant to keep record of students’ attendance so that the teacher does not have to know exactly which student is absent on each day or that it is too large a class that the teacher might have no idea of who is present or absent.

(104) 老師對學生的出缺席竟然一無所知，應該嗎？/不應該嗎？/應不應該？

laoshi dui xuesheng de chuquexi jingran yiwusuo zhi, yinggai

ma?/bu yinggai ma?/ying-bu-yinggai?

teacher toward student poss attendance surprisingly know nothing, possible

prt?/not-possible prt?/ possible-not-possible

‘It turns out that the teacher knows nothing about students’ attendance. Is it
possible?/Is it not possible?’

Since the antecedent clause does not exhibit a modulation effect to restrict the modalities of *yinggai* in the tag questions, two modalities (i.e., epistemic modality in sentence (39) and deontic modality in sentence (103)) are equally accepted to be interrogated in the tag question. Similar to the sentences presented earlier in this subsection, the modal verbs occur only in the tag questions, but not the antecedent clauses.

Sentence (105) is an instance where the modal verb *keyi* also occurs only in the tag question. This sentence is seeking the teacher's permission whether the class can be ended early or not, demonstrating the deontic modality encoded by *keyi*.

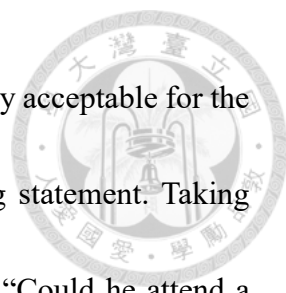
(105) 我們希望提早下課，可以嗎？/不可以嗎？/可不可以？

women xiwang tizao xiake, keyi ma?/bu-keyi ma?/ke-bu-keyi?

we hope early dismiss, can prt/ not-can prt/ can-not-can

‘We hope to end the class early. Can it? Can’t it?’

As illustrated in sentences (100) to (105), both epistemic and deontic modal verbs are grammatical in Chinese tag questions and that they may not necessarily have to be presented in the antecedent clause and tag question simultaneously. In the sentences above, the modal verb occurs only in the tag question and there is no corresponding modal verb in the antecedent clause. On the contrary, sentences with dynamic modal verbs *neng*, *ken*, and *gan* as in sentence (106) to (108) are only grammatical when they co-occur with an animate subject. These are not true tag questions, but questions with a covert subject since



dynamic modals only select animate subjects. Therefore, it is perfectly acceptable for the modal verb to occur only in the question and not in the preceding statement. Taking sentence (106) as an example, the interpretation to this sentence is “Could he attend a concert yesterday?” because the subject “he” may be too young to attend a concert or he might not have a car to arrive at the venue. Under this line of reasoning, the follow-up question inquires about the agent of the action, but not about the whole proposition, as a true tag question does. It is, however, much more natural when the subject *ta* is realized phonologically in the follow-up question.

(106) *他昨天參加了一場音樂會，能嗎？/不能嗎？/能不能？

ta zuotian canjia le yi chang yinyuehui, neng ma?/bu neng ma?/ neng-bu-neng?

he yesterday attend prt one cl concert can prt/ not can prt?/can-not-can?

‘He attended a concert yesterday. Can he? Can he not?’

(107) *他昨天參加了一場音樂會，肯嗎？/不肯嗎？/肯不肯？

ta zuotian canjia le yi chang yinyuehui, ken ma?/bu ken ma?/ ken-bu-ken?

he yesterday attend prt one cl concert willing prt/ not willing prt?/willing-not-willing?

‘He attended a concert yesterday. Is he willing? Is he not willing?’

(108) *他昨天參加了一場音樂會，敢嗎？/不敢嗎？/敢不敢？

ta zuotian canjia le yi chang yinyuehui, gan ma?/bu gan ma?/ gan-bu-gan?

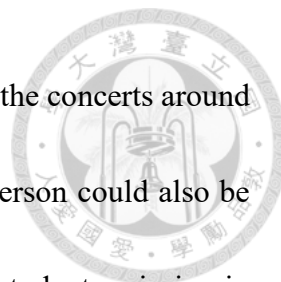
he yesterday attend prt one cl concert dare prt/ not dare prt?/dare-not-

dare?

‘He attended a concert yesterday. Dare he? Dare he not?’

The discussion on the types of modal verbs that are permitted to occur in tag questions further confirms that unlike their epistemic and deontic counterparts, as in sentences (100) to (104), dynamic modal verbs do not constitute tag questions in Chinese, as in sentences (106) to (108), despite the seemingly parallel behavior for the modal verb to occur only in the tag question, but not the antecedent clause. Whether the modal verb in the tag question has to agree with that in the antecedent clause or that there could be no modal verb in the antecedent clause for that in the tag question to agree with brings about questions regarding the triangular interaction between the modal verb, antecedent clause, and tag question. To address this issue, this thesis hypothesizes that the modal verb in the tag question should be base-generated.

To examine whether there is a modal verb within the antecedent clause, restoration of the modal is employed, as shown in sentences (109), (110), and (111). It is worth pointing out that the modal verb *yinggai* could be interpreted as both possessing the epistemic modality and the deontic modality given appropriate contextual information.



The person could be an avid movie-goer who would attend nearly all the concerts around the corner, so it is likely that he attended a concert yesterday. The person could also be required to attend the concert by his boss or teacher as an intern or student majoring in theatrical performance; therefore, it is his obligation to attend the concert yesterday.

(109) 他昨天可能參加了一場音樂會，可能嗎？/不可能嗎？/可不可能？

ta zuotian keneng canjia le yi chang yinyuehui, keneng ma?/bu keneng ma?/
ke-bu-keneng?

he yesterday possible attend prt one cl concert possible prt/ not possible
prt?/possible-not-possible?

‘It was likely that he attended a concert yesterday. Is it possible?/Is it not possible?’

(110) 他昨天應該參加了一場音樂會，應該嗎？/不應該嗎？/應不應該？

ta zuotian yingai canjia le yi chang yinyuehui, keneng ma?/bu keneng ma?/ ke-
bu-keneng?

he yesterday possible/should attend prt one cl concert possible prt/ not
possible prt?/possible-not-possible?

‘It was likely that he attended a concert yesterday. Is it possible?/Is it not possible?’ ‘He should have attended a concert yesterday. Should he?/Should he not?’

(111) 我們希望可以提早下課，可以嗎？/不可以嗎？/可不可以？

women xiwang keyi tizao xiake, keyi ma?/bu-keyi ma?/ke-bu-keyi?

we hope can early dismiss, can prt/ not-can prt/ can-not-can

‘We hope that we can end the class early. Can it? Can’t it?’

The grammaticality of (109), (110), and (111) confirms the existence of modal verbs in antecedent clauses. Nevertheless, the discussion regarding sentences (112), (113), (114), (115), and (116) appear to suggest that the restoration of the modal in the antecedent clause might be illegitimate. That is, the modal verb *yinggai* and *keneng* in the tag question in sentence (112), (113), (114), (115), and (116) should be base-generated as the restoration of the modal in the antecedent clause gives rise to ungrammaticality. The reason that the restoration of the modal verb in the antecedent clause is illegitimate is that the modal verb may not be compatible with the contextual information in the antecedent clause.

Take sentence (112), (113), and (114) as an example, the restoration of the modal verb *yinggai* in the antecedent clause gives rise to the salience of the deontic modality as in sentence (112), resulting from the use of the modal adverb *jingran*, as it is known to be a counter-expectation marker to be used in instances where the proposition does not aligns with the speaker’s prior expectations (e.g., Lu, 2014; Shan, 2016; Lu & Zeng, 2019; Lu, 2021; Chen & Wang, 2021). Since teachers, as the main facilitators of the course, should



have recorded students' attendance for every course, it would be unlikely for them to know nothing about it and this counter-expectation is represented by the modal verb *jingran*. Notwithstanding the salience of *yinggai*'s deontic modality, it is possible to arrive at the epistemic reading of *yinggai* in sentence (113) and *keneng* in sentence (114) as well. Nevertheless, the sentiment of counter-expectation conveyed by the modal adverb *jingran* is incompatible with epistemic modality of *yinggai* and *keneng* which inquires the speaker about the possibility of the proposition. As the proposition turns out to contrast with the speaker's intuition, it would be redundant and unnecessary for the speaker to seek for confirmation from the addressee.

- (112) 老師*(應該)對學生的出缺席竟然*(應該)一無所知，應該嗎?/不應該嗎?/應不應該?

laoshi dui xuesheng de chuquexi jingran yiwusuo zhi, yinggai
ma?/bu yinggai ma?/ying-bu-yinggai?

teacher toward student poss attendance surprisingly know nothing, should
prt?/not-should prt?/ should-not-should

'It turns out that the teacher knows nothing about students' attendance. Should
it? Shouldn't it?'



- (113) 老師對學生的出缺席應該*(竟然)一無所知，應該嗎？/不應該嗎？/應不應該？

laoshi dui xuesheng de chuquexi yinggai jingran yiwusuo zhi,
yinggai ma?/bu yinggai ma?/ying-bu-yinggai?

teacher toward student poss attendance possible surprisingly know nothing,
possible prt?/not-possible prt?/ possible-not-possible

‘It turns out that it is possible that the teacher knows nothing about students’
attendance. Is it possible?/Is it not possible?’

- (114) 老師對學生的出缺席可能*(竟然)一無所知，可能嗎？/不可能嗎？/可不可能？

laoshi dui xuesheng de chuquexi keneng jingran yiwusuo zhi,
keneng ma?/bu keneng ma?/ke-bu-keneng?

teacher toward student poss attendance possible surprisingly know nothing,
possible prt?/not-possible prt?/ possible-not-possible

‘It turns out that it is possible that the teacher knows nothing about students’
attendance. Is it possible?/Is it not possible?’

The comparison between sentence (115) and (116) further elucidates the restoration of the modal verb in the antecedent clause concerns the compatibility with the relevant sentence structure. It is revealed in sentence (115) that the deontic modality of the modal

verb *yinggai* assumes more prominence in the restored antecedent clause. However, since it is rather unlikely for a three-year-old to be expected to have good hand-writing, this assumption contradicts the use of *cai* within the sentence, referring to events that happen or end later than previously expected (Lu, 2003). This contradiction in the interpretation does not exist in sentence (116), which is perfectly natural for the speaker to inquire about the possibility of such proposition from the addressee. As a result, sentence (115) is an ungrammatical sentence, whereas sentence (116) is a grammatical sentence. It is also possible to interpret the modal verb *yinggai* in sentence (115) as possessing the epistemic reading since the salience of the epistemic modality does not hinder the retrieval of the deontic modality.

(115) *他應該才三歲就寫得一手好字，應該嗎？/不應該嗎？/應不應該？

ta yinggai cai san sui jiu xie de yi shou hao zi, yinggai
ma?/ bu yinggai ma?/ying-bu-yinggai?

he should just three age then write prt one hand good character,
possible prt?/not-possible prt?/possible-not-possible

‘He should have really good handwriting at the age of three. Should it? Should
it not?’



(116) 他可能才三歲就寫得一手好字，可能嗎？/不可能嗎？/可不可能？

ta keneng cai san sui jiu xie de yi shou hao zi, keneng
ma?/ bu keneng ma?/ke-bu-keneng?

he possible just three age then write prt one hand good character,
possible prt?/not-possible prt?/possible-not-possible

‘His handwriting is really good at the age of three. Is it possible? Is it not
possible?’

The comparison among sentences (110) to (116) suggests that the modal verb should be base-generated in the tag question, conforming to the prediction that the modal verbs should be base-generated in the tag question. The antecedent clauses in sentences (112), (113), (114), (115), and (116) do not undergo the restoration of modal verbs because modal verbs are also base-generated within the antecedent clauses. That is, both the antecedent clause and tag question contain modal verbs as revealed in sentence (109), (110), and (115).

3.4.3 The Phenomenon of Modal Verb Disharmony

In addition to the situation where there is no modal verb in the antecedent clause as outlined in section 3.4.2, there is another situation where past literature fails to address adequately—the phenomenon of modal verb disharmony between the antecedent clause and tag question, that is, where the two exhibit different modal verbs respectively. The

phenomenon of modal verb disharmony can be resolved via the modulation of semantic scope and scope mismatch. The mismatch of modality between the antecedent clause and tag question does not syntactically hinder the acceptability of sentence. Examples demonstrating the phenomenon of modal verb disharmony are presented in sentences below.

For instance, in sentence (117), the modal verb in the antecedent clause and the tag differs, as the former contain “*hui*”, while the latter “*keneng*”. It is worth noting that the modal adverb *yexu* in the antecedent clause indicates epistemic modality of the antecedent clause, bringing about the meaning that it is likely to rain tomorrow. The modality within the antecedent clause and tag question align with each other as both are used to denote epistemic modality, which in this case, refers to the possibility of raining tomorrow. Sentence (117) is grammatical despite the different modals in the antecedent clause and tag question.

(117) 明天也許會下雨，可能嗎？/不可能嗎？/可不可能？

mingtian yexu hui xiayu, keneng ma?/bu-keneng ma?/ke-bu-keneng?

tomorrow maybe will rain possible prt not-possible prt possible-not-possible

‘Perhaps it will rain tomorrow. Is it possible? Is it not possible?’

Sentence (118) shows that it is equally acceptable if the modal in the antecedent clause is the same as that in the tag question, achieving modal verb harmony between the



antecedent clause and tag question. In sentence (118), the modal verb *hui* occurs both in the antecedent clause and tag question.

(118) 明天也許會下雨，會嗎？/不會嗎？/會不會？

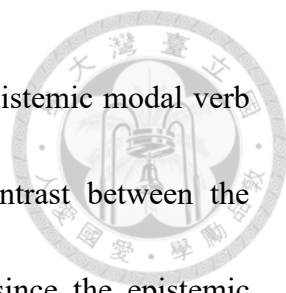
mingtian yexu hui xiayu, hui ma?/bu-hui ma?/hui-bu-hui?

tomorrow maybe will rain possible prt not-possible prt possible-not-possible

‘Perhaps it will rain tomorrow. Is it possible? Is it not possible?’

Sentence (119) is another instance illustrating the phenomenon of modal verb disharmony between the antecedent clause and tag question. The modal *yinggai* in the antecedent clause is different from *keneng* in the tag question, but this modal verb disharmony does not affect the grammaticality of this sentence. One interesting observation about sentence (119) is that the antecedent clause encompasses the deontic modality, whereas the tag question the epistemic modality. In other words, not only does this sentence display modal verb disharmony between the antecedent clause and antecedent clause, it also involves modality inconsistency. Although the modal verb *yinggai* is encoded with two modalities, the deontic modality is the primary modality at which people arrive, whereas epistemic modality is the secondary modality.⁴ The reason that the epistemic modality of *yinggai* is less salient than its deontic counterpart is that

⁴ The issue that the modal verb *yinggai* is primarily associated with the deontic modality is brought up during the discussion in the course Current Theories of Linguistics.



the former is found to be in complementary distribution with the epistemic modal verb *keneng*. This complementary distribution results in the sharp contrast between the epistemic modality of *keneng* and deontic modality of *yinggai*, since the epistemic modality of *yinggai* overlaps with that of *keneng*. Nevertheless, relative saliency does not deny *yinggai*'s epistemic modality to be presented in sentential contexts, as speakers could still arrive at the epistemic reading after further contemplation, provided that sufficient contextual information is given. Taking sentence (119) as an example, the deontic modality carried by the antecedent clause does not conflict with the epistemic modality interrogated in the tag question and a paraphrase of the interpretation of sentence (119) is “whether it is possible or not for Meimei to be obliged to go to Taipei tomorrow”. The context causing the speaker to utter this question could be that Meimei is a salesperson and she is obliged to visit different cities upon request by her boss.

(119) 美美明天應該去台北，可能嗎？/不可能嗎？/可不可能？

Meimei mingtian yinggai qu taibei, keneng ma?/bu-keneng ma?/ke-bu-keneng?

Meimei tomorrow should go Taipei, possible prt?/not-possible prt?/possible-not-possible?

‘Meimei should go to Taipei tomorrow. Is it possible? Is it not possible?’

Sentence (120) eliminates the phenomenon of modal verb disharmony in that the modal *yinggai* occurs both in the antecedent clause and tag question. The modality

inconsistency in sentence (119) is also resolved and that sentence (120) conveys the deontic modality by default. An interpretation of sentence (120) is “should Meimei or shouldn’t Meimei be obliged to go to Taipei tomorrow?” A semantic intensifying effect is contributed to the reduplication of the modal verb *yinggai* in the tag question once again and the speaker is expressing his/her considerable concern about Meimei’s obligation to go to Taipei tomorrow.

(120) 美美明天應該去台北，應該嗎？/不應該嗎？/應不應該？

Meimei mingtian yinggai qu taibei, yinggai ma?/bu-yinggai ma?/ying-bu-yinggai?

Meimei tomorrow should go Taipei, should prt?/not-should prt?/should-not-should?

‘Meimei should go to Taipei tomorrow. Should her? Shouldn’t her?’

Notwithstanding the default deontic modality associated with the modal *yinggai*, the modulation of sentence (121) broadens the interpretation as the epistemic modality could also be easily derived. The introduction of *shi* is a means to derive cleft construction in Chinese and which Huang (1988) has analyzed as a raising verb. The reason why the alteration of sentence structure introduces the epistemic modality of *yinggai* is not fully understood and merits further examination. The antecedent clause in sentence (121) could refer to the epistemic interpretation of *yinggai* or the deontic interpretation as in sentence

(122). That is, this sentence involves ambiguity in reference to the dual modality representation of *yinggai* within the antecedent clause. Both the antecedent clause and tag question in sentence (121) exhibit the epistemic modality, demonstrating modality consistency between the two.

(121) 美美明天應該是去台北，可能嗎？/不可能嗎？/可不可能？

Meimei mingtian yinggai shi qu taibei, keneng ma?/bu-keneng ma?/ke-bu-keneng?

Meimei tomorrow possible is go Taipei, possible prt?/not-possible prt?/possible-not-possible?

‘It seems that Meimei is going to Taipei tomorrow. Is it possible? Is it not possible?’

In sentence (122), however, an instance of modality inconsistency is observed given the fact that the antecedent clause relates to the deontic modality of *yinggai* and the tag question the epistemic modality. A paraphrase of sentence (122) is “whether it is possible or not for Meimei to be obliged to go to Taipei tomorrow.”



(122) 美美明天應該是去台北，可能嗎？/不可能嗎？/可不可能？

Meimei mingtian yinggai shi qu taibei, keneng ma?/bu-keneng ma?/ke-bu-keneng?

Meimei tomorrow should is go Taipei, possible prt?/not-possible prt?/possible-not-possible?

‘Meimei should be obliged to go to Taipei tomorrow. Is it possible? Is it not possible?’

Sentences (123) and (124) are instances where the identical modal verb *yinggai* occurs both in the antecedent clause and tag question. Although as described earlier that the modal *yinggai* manifests the properties of two modalities (i.e., deontic and epistemic modality) within the cleft construction, it is ungrammatical for it to display two different modalities within the same sentence. The modality exhibited by *yinggai* in the antecedent clause would direct the modality of it in the following tag question, abiding by modality consistency between the two. For instance, both the antecedent clause and tag question express the epistemic modality of the modal *yinggai* in sentence (123), which is akin to that in sentence (125) where the epistemic modal *keneng* occurs both in the antecedent clause and tag question. In contrast, both the antecedent clause and tag question convey the deontic modality of the modal *yinggai* in sentence (124) and the speaker is inquiring about Meimei’s responsibility of going to Taipei tomorrow. It would be otherwise difficult

to interpret if the antecedent clause and tag question demonstrate modality inconsistency, as the antecedent clause displays the deontic modality and the tag question the epistemic modality, and vice versa. In other words, the modality presented in the antecedent clause blocks the other modality in the tag question. In addition to the modality blocking effect, the repetition of modal verbs in the antecedent clause and tag question as in sentences (123), (124), and (125) reinforces the interrogative force.

(123) 美美明天應該是去台北，應該嗎？/不應該嗎？/應不應該？

Meimei mingtian yinggai shi qu taibei, yinggai ma?/bu-yinggai ma?/ying-bu-yinggai?

Meimei tomorrow possible is go Taipei, possible prt?/not-possible
prt?/possible-not-possible?

‘It seems that Meimei is going to Taipei tomorrow. Is it possible? Is it not possible?’



(124) 美美明天應該是去台北，應該嗎？/不應該嗎？/應不應該？

Meimei mingtian yinggai shi qu taibei, yinggai ma?/bu-yinggai ma?/ying-bu-yinggai?

Meimei tomorrow should is go Taipei, should prt?/not-should prt?/should-not-should?

‘It seems that Meimei is going to Taipei tomorrow. Is it possible? Is it not possible?’

(125) 美美明天可能是去台北，可能嗎？/不可能嗎？/可不可能？

Meimei mingtian keneng shi qu taibei, keneng ma?/bu-keneng ma?/ke-bu-keneng?

Meimei tomorrow possible is go Taipei, possible prt?/not-possible prt?/possible-not-possible?

‘It seems that Meimei is going to Taipei tomorrow. Is it possible? Is it not possible?’

Despite the phenomenon of modality inconsistency is attested in sentence (124), the following sentences show oddity when there is a mismatch in modality between the antecedent clause and tag question. For instance, both the antecedent clause in sentences (126) and (127) carry the deontic modality, yet the epistemic modality in the tag questions fails to make sentences (126) and (127) acceptable for most Chinese native speakers.



(126) ?大家可以一起唱歌，可能嗎？/不可能嗎？/可不可能？

dajia keyi yiqi change, keneng ma?/bu-keneng ma?/ke-bu-keneng

everyone can together sing possible prt not-possible prt possible-not-possible

‘?Everyone can sing together. Is it possible? Is it not possible?’

(127) ?大家可以一起唱歌，應該嗎？/不應該嗎？/應不應該？

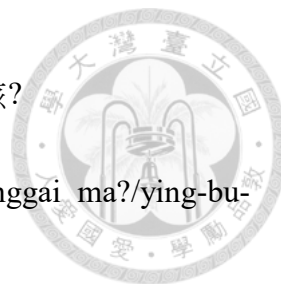
dajia keyi yiqi change, yinggai ma?/bu-yinggai ma?/ying-bu-

yinggai

everyone can together sing possible prt not-possible prt possible-not-possible

‘?Everyone can sing together. Is it possible? Is it not possible?’

Even though both the antecedent clause and tag question in sentences (128) and (129) involve the deontic modality, these sentences sound might be unacceptable for some native speakers of Chinese.



(128) ?大家可以一起唱歌，應該嗎?/不應該嗎?/應不應該?

dajia keyi yiqi change, yinggai ma?/bu-yinggai ma?/ying-bu-yinggai

everyone can together sing should prt not-should prt should-not-should

‘?Everyone can sing together. Should we? Shouldn’t we?’

(129) ?大家可以一起唱歌，會嗎?/不會嗎?/會不會?

dajia keyi yiqi change, hui ma?/bu-hui ma?/hui-bu-hui

everyone can together sing can prt not-can prt can-not-can

‘?Everyone can sing together. Can we? Can’t we?’

However, it is sentence (130) where the modal *keyi* is presented both in the antecedent clause and tag question that proves to be an acceptable sentence. One plausible reason to account for this phenomenon is that the antecedent clause is a command from the speaker that “everyone can sing together” and such imperative sentences are relatively incompatible with tag questions as it violates the function of tag questions. The tag question in (130) is not to seek confirmation from the addressee, which is the primary function of most tag questions, but is rather used as a rhetoric tag demanding the hearer to conform to the speaker’s order.



(130) 大家可以一起唱歌，可以嗎?/不可以嗎?/可不可以?

dajia keyi yiqi change, keyi ma?/bu-keyi ma?/ke-bu-keyi

everyone can together sing can prt not-can prt can-not-can

‘?Everyone can sing together. Can we? Can’t we?’

Sentences (131) and (132) do not contain tag questions since dynamic modal verbs are only permitted to take animate subjects and that tag questions, serving as predicates, should be able to take the preceding proposition as their subjects, following Chiu’s (2023) model. A covert subject *pro* is assumed in the follow-up question and the acceptability of sentences (131) and (132) would not alter the analysis of tag questions.

(131) 大家可以一起唱歌，能嗎?/不能嗎?/能不能?

dajia keyi yiqi change, neng ma?/bu-neng ma?/neng-bu-neneg

everyone can together sing can prt not-can prt can-not-can

‘Everyone can sing together. Can you? Can’t you?’

(132) 大家可以一起唱歌，願意嗎?/不願意嗎?/願不願意?

dajia keyi yiqi change, yuanyi ma?/bu-yuanyi ma?/yuan-bu-

yuanyi

everyone can together sing willing prt not-willing prt willing-not-

willing

‘Everyone can sing together. Are you willing? Aren’t you willing?’

Sentences (133) and (134) are instances where dynamic modal verbs are presented in the antecedent clause. The inability for dynamic modal verbs to occur in tag questions does not impact their occurrence in the antecedent clause. In sentence (133), the phenomena of modal verb disharmony and modality inconsistency are observed as the dynamic modal *xiang* occurs in the antecedent clause and the deontic modal *keyi* the tag question.

(133) 我想休息一下，可以嗎？/不可以嗎？/可不可以？

wo xiang xiuxi yixia, keyi ma?/bu-keyi ma?/ke-bu-keyi?

I want rest for a while can prt not-can prt can-not-can

‘I would like to rest for a while, can I? can’t I?’

Likewise, sentence (134) provides an example exhibiting modal verb disharmony and modality inconsistency between the antecedent clause and tag question.

(134) 我想休息一下，可能嗎？/不可能嗎？/可不可能？

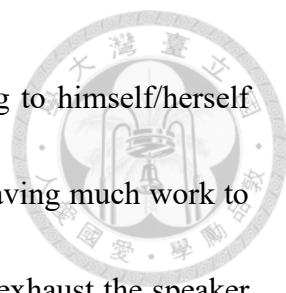
wo xiang xiuxi yixia, keneng ma?/bu-keneng ma?/ke-bu-keneng?

I want rest for a while possible prt not-possible prt possible-not-possible

‘I would like to rest for a while. Is it possible? Is it not possible?’

Sentence (135), despite its grammaticality, is not considered a true tag question due to the selectional restriction on the animacy of subjects imposed by dynamic modal verbs.

The question here is used by the speaker introspectively to reflect on his/her willingness



to take a rest for a while. It appears as if the speaker is murmuring to himself/herself whether he/she would like to take a rest for a while or not despite having much work to be done in a short period of time. Apparently, the heavy workloads exhaust the speaker and that he/she would need a short break to fully recover from the fatigue. The modal verb *xiang* in sentence (135) is not used to inquire the hearer whether he/she would like to take a rest or not since the subject of the antecedent clause is the first person pronoun *wo* ‘I’. The first person pronoun *wo* ‘I’, as both the sentential and discourse subject, naturally rules out the possibility of inquiring about the hearer’s willingness to take a rest.

(135) 我想休息一下，想嗎？/不想嗎？/想不想？

wo xiang xiuxi yixia, xiang ma?/bu-xiang ma?/xiang-bu-xiang?

I want rest for a while want prt not-want prt want-not-want

‘I would like to rest for a while. Do I want to? Do I not want to?’

Sentences (136) and (137) are instances where the dynamic modal verb *gan* is used in the antecedent clause. Similar to the analysis above, the phenomena of modal verb disharmony and modality inconsistency are observed between the antecedent clause and tag question as the tag question in sentence (136) conveys deontic modality and that in sentence (137) expresses epistemic modality.



(136) 弟弟敢吃辣，會嗎?/不會嗎?/會不會?

Didi gan chi la, hui ma?/bu-hui ma?/hui-bu-hui?

Younger brother dare eat spicy can prt?/not-can prt?/can-not-can

‘The younger brother dares to eat spicy food. Can he? Can’t he?’

(137) 弟弟敢吃辣，可能嗎?/不可能嗎?/可不可能?

Didi gan chi la, keneng ma?/bu-keneng ma?/ke-bu-keneng?

Younger brother dare eat spicy possible prt?/not-possible prt?/possible-not-possible

‘The younger brother dares to eat spicy food. Is it possible? Is it not possible?’

Sentence (138), akin to sentence (135), is not regarded as a true tag question because dynamic modal verbs are unable to take a proposition as their subjects.

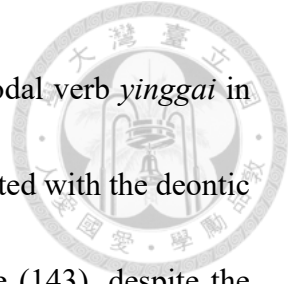
(138) 弟弟敢吃辣，敢嗎?/不敢嗎?/敢不敢?

Didi gan chi la, gan ma?/bu-gan ma?/gan-bu-gan?

Younger brother dare eat spicy dare prt?/not-dare prt?/dare-not-dare

‘The younger brother dares to eat spicy food. Dare he? Dare he not?’

Sentences (139) to (142) feature the dynamic modal *ken* in the antecedent clause, indicating that the inability to occur in tag questions does not hinder dynamic modals’



ability to be used in the antecedent clauses of tag questions. The modal verb *yinggai* in sentences (140) and (141) exhibits ambiguity as the former is associated with the deontic modality of *yinggai* and the latter the epistemic modality. Sentence (143), despite the agreement of the modal verbs in the two clauses, is not a true tag question.

- (139) 李四肯接這份苦差事，可能嗎？/不可能嗎？/可不可能？

lisi ken jie zhe fen kuchaishi, keneng ma?/bu-keneng ma?/ke-
bu-keneng?

Lisi willing take this cl difficult task possible prt?/not-possible
prt?/possible-not-possible

‘Lisi is willing to tackle this difficult task. Is it possible? Is it not possible?’

- (140) 李四肯接這份苦差事，應該嗎？/不應該嗎？/應不應該？

lisi ken jie zhe fen kuchaishi, yinggai ma?/bu-yinggai ma?/ying-
bu-yinggai?

Lisi willing take this cl difficult task should prt?/not-should prt?/should-
not-should

‘Lisi is willing to tackle this difficult task. Should he? Shouldn’t he?’



(141) 李四肯接這份苦差事，應該嗎？/不應該嗎？/應不應該？

lisi ken jie zhe fen kuchaishi, yinggai ma?/bu-yinggai ma?/ying-
bu-yinggai?

Lisi willing take this cl difficult task possible prt?/not-possible
prt?/possible-not-possible

‘Lisi is willing to tackle this difficult task. Is it possible? Is it not possible?’

(142) 李四肯接這份苦差事，會嗎？/不會嗎？/會不會？

lisi ken jie zhe fen kuchaishi, hui ma?/bu-hui ma?/hui-bu-hui?

Lisi willing take this cl difficult task will prt?/not-will prt?/will-not-will

‘Lisi is willing to tackle this difficult task. Will he? Will he not?’

(143) 李四肯接這份苦差事，肯嗎？/不肯嗎？/肯不肯？

lisi ken jie zhe fen kuchaishi, ken ma?/bu-ken ma?/ken-bu-ken?

Lisi willing take this cl difficult task will prt?/not-will prt?/will-not-will

‘Lisi is willing to tackle this difficult task. Will he? Will he not?’

The findings in this section supports the hypothesis that the modal verb in the tag question is base-generated since it is possible for the identical modal verb to occur in the antecedent clause and tag question without causing interference with acceptability. Aside from this finding, the phenomena of modal verb disharmony and modality inconsistency are what mainly explored in this section as it is perfectly acceptable for the modal verb in

the tag question to disagree with that in the antecedent clause.

3.4.4 Multiple Modal Verbs in the Antecedent Clause



In addition to the phenomenon of modal verb disharmony and modality inconsistency described in the previous section, this section considers instances where there are multiple modal verbs in the antecedent clause, which is also undiscussed in Chiu (2011), Hsin (2016), and Chiu (2023). It is found that the modal verb in the tag questions could either agree with one of the modal verbs in the antecedent clause or be irrelevant to neither of the modal verbs in the preceding clause. When there are multiple modal verbs in the antecedent clause, the modal verb in the tag question can choose to agree with either one of the previously occurred modal verbs, contributing to semantic overlap between the two clauses. The phenomenon manifests the flexibility of semantic scope that the tag question can select the most suitable modal verb to arrive at the corresponding semantic interpretation accordingly. Sentences with multiple modal verbs have been researched by Huang (2009a; 2009b), who proposes the following Figure 3.1 to capture the relative position arrangement among modal verbs. According to Huang (2009a; 2009b), Chinese modal verbs occupy the left periphery of a tree diagram, following Rizzi (1997).

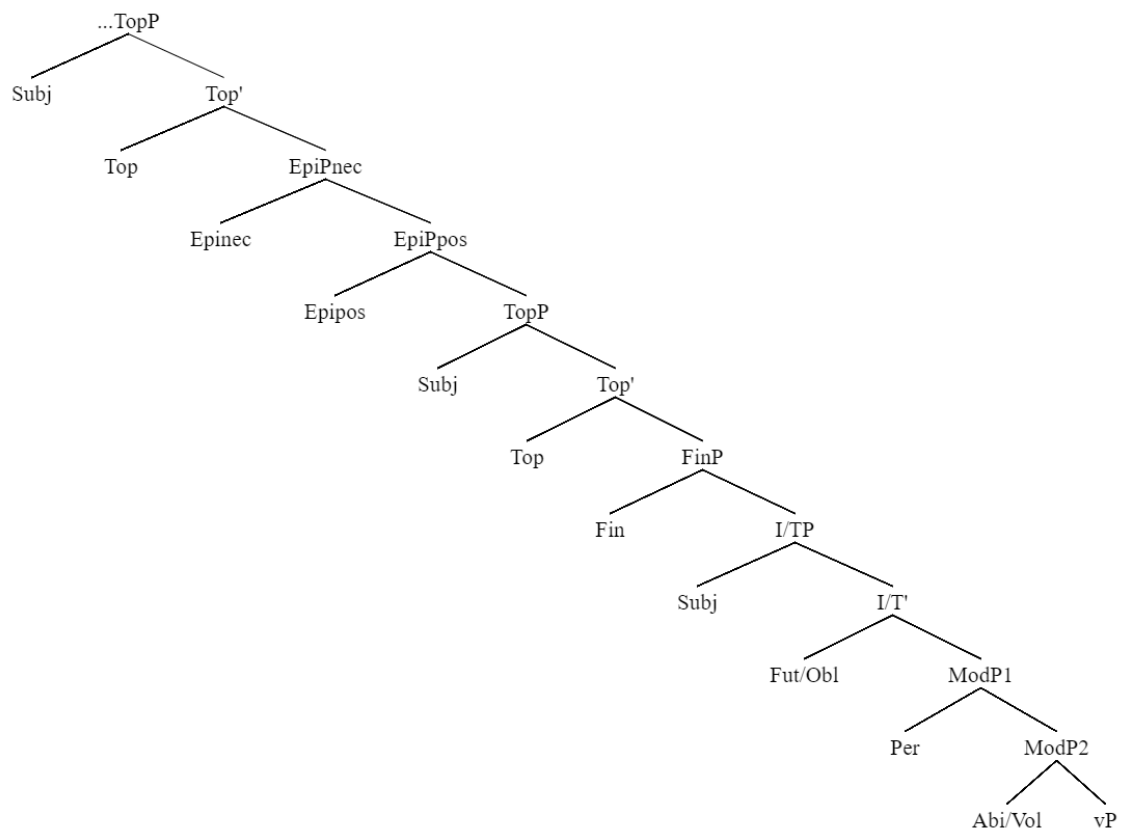


Figure 3.1 The hierarchical ordering of Chinese modal verbs (Huang, 2009b:539)

This hierarchical ordering of modal verbs should be strictly abided by and failure to conform to this scheme would result in ungrammaticality. For example, epistemic modal verbs should occur above deontic and dynamic modal verbs and that the reversal would be deemed ungrammatical by most native speakers of Chinese. Examples illustrating the comparison regarding grammaticality are shown in sentences (144) and (145), given that *keneng* pertains to epistemic modal verbs and should precede all other modal verbs hierarchically and also linearly.



(144) 王五可能會退出這場比賽。

Wangwu keneng hui tuichu zhe chang bisai

Wangwu possible will withdraw this classifier competition

‘It is possible that Wangwu will withdraw from this competition.’

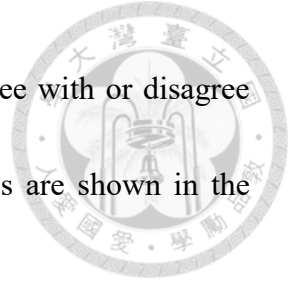
(145) *王五會可能退出這場比賽。

Wangwu hui keneng tuichu zhe chang bisai

Wangwu will possible withdraw this classifier competition

‘*It is possible that Wangwu will withdraw from this competition.’

Different from Huang (2009a;2009b), Lin (2012) argues that the finiteness of the complement would also contribute to the relative ordering of modal verbs. Modals taking nonfinite complements can occur both finitely and nonfinitely, whereas modals taking finite complements can only occur finitely. This classification can be applied to the ordering of modal verbs, where epistemic modal verbs can only occur in a finite context, thereby hierarchically and linearly preceding all other modals, such as deontic and dynamic modals, which can occur both in a finite and nonfinite context. With this generalization, Lin (2012) states that although Chinese is a language without overt morphological marking, the category TP should exist to indicate the finiteness property. Informed by Huang (2009a;2009b) and Lin (2012), this study takes the relative ordering of modal verbs into consideration and employs multiple modal constructions in the



antecedent clause. Whether the modal verb in the tag questions agree with or disagree with those in the antecedent clause is observed. Relevant examples are shown in the following.

For instance, in sentence (146), the modal verb *keneng* in the tag question agrees with the first modal verb in the antecedent clause. Nonetheless, the ungrammaticality of sentence (147) demonstrates that modals in tag questions are only allowed to agree with the first modal verb in a multiple modal verb construction.

(146) 王五可能會退出這場比賽，可能嗎？/不可能嗎？/可不可能？

Wangwu keneng hui tuichu zhe chang bisai, keneng
ma?/bu keneng ma?/ke-bu-keneng?

Wangwu possible will withdraw this classifier competition possible
prt?/ not possible prt?/ possible-not-possible

‘It is possible that Wangwu will withdraw from this competition. Is it
possible?/Is it not possible?’

(147) *王五可能會退出這場比賽，會嗎？/不會嗎？/會不會？

Wangwu keneng hui tuichu zhe chang bisai, hui
ma?/bu hui ma?/hui-bu-hui?

Wangwu possible will withdraw this classifier competition will
prt?/ not will prt?/ will-not-will

‘*It is possible that Wangwu will withdraw from this competition. Will
it?/ Will it not?’

Although some readers⁵ might regard sentence (147) as the composition of an antecedent clause and a tag question and that sentence (147) is as grammatical as sentence (146), the question in sentence (147) is not a true tag question anchoring to the antecedent clause, but rather, a follow-up question abiding by the pro-drop parameter where the subject *Wangwu* or the pronominal subject *ta* (he) is unpronounced. Therefore, the follow-up question in sentence (147) should be realized as “Will he? Won’t he?”, instead of “Will it? Will it not?” where the pronoun *it* refers to the CP of the antecedent clause.

Agreement with modal verbs other than the first modal in the consecutive order is deemed ungrammatical. That is, when there are two successive modal verbs in the antecedent clause, only the first can be presented in the tag question since the first modal

⁵ This issue is brought up in the course “Chinese Syntax”. Thanks for the insightful observations provided by my fellow classmates.



verb occupies a higher level in the syntactic tree. This behavior gives rise to the restriction of the types of modal verbs that can be used in tag questions. To account for the restriction on the occurrence of modal verbs in tag questions, a rule is postulated in sentence (148).

(148) Restriction on the occurrence of modal verbs in tag questions

When there are more than one successive modal verbs in the antecedent clause, only the modal verb occupying a higher hierarchical level can be used in tag questions.

Modal verbs in tag questions can agree with neither of the modal verbs in the antecedent clause, as shown in sentences (149) and (150). The modal verb *yinggai*, encompassing two modalities, can occur in the tag despite the absence of it in the host sentence.

(149) 王五可能會退出這場比賽，應該嗎？/不應該嗎？/應不應該？

Wangwu keneng hui tuichu zhe chang bisai, yinggai
ma?/bu yinggai ma?/ying-bu-yinggai?

Wangwu possible will withdraw this classifier competition possible
prt?/ not possible prt?/ possible-not-possible

‘It is possible that Wangwu will withdraw from this competition. Is it
possible?/Is it not possible?’

(150) 王五可能會退出這場比賽，應該嗎？/不應該嗎？/應不應該？

Wangwu keneng hui tuichu zhe chang bisai, yinggai
ma?/bu yinggai ma?/ying-bu-yinggai?

Wangwu possible will withdraw this classifier competition should
prt?/ not should prt?/ should-not-should

‘It is possible that Wangwu will withdraw from this competition. Should
it?/Shouldn’t it?’

Likewise, the comparison between sentence (151) and (152) exhibits the ungrammaticality for modal verbs in tag questions to agree with modal verbs other than the first of them in a multiple modal construction, which in this case, refers to the adjacency between the deontic modal *hui* and dynamic modal *xiang*. It is worth pointing out that sentence (152) would not be qualified as a true tag question given that dynamic modals impose selectional restriction on the animacy of subjects and tag questions, supposedly predicating on the preceding CP, are inanimate.





(151) 我會想一個人暫時靜一靜，會嗎？/不會嗎？/會不會？

wo hui xiang yi ge ren zhanshi jing yi jing, hui ma?/bu hui
ma?/hui-bu-hui?

I will want one cl person temporarily be alone will prt not will prt
will-not-will

‘I would like a few moments of peace by myself. Would I? Wouldn’t I?’

(152) *我會想一個人暫時靜一靜，想嗎？/不想嗎？/想不想？

wo hui xiang yi ge ren zhanshi jing yi jing, xiang ma?/bu xiang
ma?/xiang-bu-xiang?

I will want one cl person temporarily be alone want prt?/
not want prt?/ want-not-want?

‘*I would like a few moments of peace by myself. Want I? Want I not?’

Sentence (153) and (154) constitute cases where modals in tag questions agree with neither of them in the host sentence. Sentence (153) feature a deontic modal in the tag, whereas sentence (154) an epistemic modal. In other words, three modalities, i.e., epistemic, deontic, and dynamic can all occur in this coordinated structure (Chiu, 2023). The triple modal construction in sentence (155) is also grammatical.



(153) 我會想一個人暫時靜一靜，可以嗎？/不可以嗎？/可不可以？

wo hui xiang yi ge ren zhanshi jing yi jing, keyi ma?/bu keyi
ma?/ke-bu-keyi?

I will want one cl person temporarily be alone can prt?/ not can prt?/

can-not-can

‘I would like a few moments of peace by myself. Can it? Can it not?’

(154) 我會想一個人暫時靜一靜，可能嗎？/不可能嗎？/可不可能？

wo hui xiang yi ge ren zhanshi jing yi jing, keneng ma?/bu keneng
ma?/ke-bu-keneng?

I will want one cl person temporarily be alone possible prt?/ not

possible prt?/ possible-not-possible

‘I would like a few moments of peace by myself. Is it possible? Is it not
possible?’

(155) 我可能會想一個人暫時靜一靜，可能嗎？/不可能嗎？/可不可能？

wo keneng hui xiang yi ge ren zhanshi jing yi jing, keneng ma?/bu

keneng ma?/ke-bu-keneng?

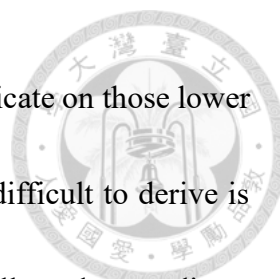
I possible will want one cl person temporarily be alone possible

prt?/ not possible prt?/ possible-not-possible

‘It is possible that I would like a few moments of peace by myself. Is it

possible? Is it not possible?’

Sentence (156) and (157) introduce cases where the dual modalities encoded by *yinggai* could surface in a single sentence, thereby causing ambiguity. Sentence (156) features and also interrogates the baby’s obligation to step out, while sentence (157) involves the possibilities of the baby’s courage to step out. Another interesting case is sentence (158), where both modalities co-occur in a single sentence. Sentence (158) could be interpreted as “the baby should dare to step out” and whether such proposition is possible or not. This cross matching of modalities, however, would be relatively difficult to arrive at if sentence (158) is interpreted as “it is possible that the baby dares to step out” and whether such proposition is obligatory or not. One possible reason for this interpretation difficulty is the predicating relationship between the antecedent clause and tag question. Semantically, tag questions predicate on the antecedent clause, whereas syntactically, they are tagged and dependent on the antecedent clause. Since epistemic



modals occupy a higher hierarchical order, they are permitted to predicate on those lower in the order, as in sentence (158). The reverse of sentence (158) is difficult to derive is that deontic modals, occupying a lower hierarchical order, are not allowed to predicate those higher in the order, such as epistemic modals.

(156) 寶寶應該敢跨出去，應該嗎？/不應該嗎？/應不應該？

baobao yinggai gan kuachuqu, yinggai ma?/ bu-yinggai ma?/ying-bu
yinggai?

baby should dare step out should prt?/ not-should prt?/should-not-
should

‘The baby should dare to step out. Should it? Shouldn’t it?’

(157) 寶寶應該敢跨出去，應該嗎？/不應該嗎？/應不應該？

baobao yinggai gan kuachuqu, yinggai ma?/ bu-yinggai ma?/ying-bu
yinggai?

baby possible dare step out possible prt?/ not-possible prt?/possible-
not-possible

‘It is possible that the baby dares to step out. Is it possible? Is it not
possible?’



(158) 寶寶應該敢跨出去，應該嗎?/不應該嗎?/應不應該?

baobao yinggai gan kuachuqu, yinggai ma?/ bu-yinggai ma?/ying-bu
yinggai?

baby should dare step out possible prt?/ not-possible prt?/possible-
not-possible

‘The baby should dare to step out. Is it possible? Is it not possible?’

Sentence (159) and (160) are cases where the modal in the tag agrees with neither of the modals in the antecedent clause. Despite being syntactically permissible, these two sentences with semantically incompatible modals lowers the acceptability when both modalities of *yinggai* are considered. It sounds as if the speaker is seeking confirmation from the baby, the addressee. Nonetheless, it is unnatural for adults to expect babies to provide answers in most contextual settings, thus contributing to the unnaturalness of sentence (159) and (160).

(159) ?寶寶應該敢跨出去，可以嗎?/不可以嗎?/可不可以?

baobao yinggai gan kuachuqu, keyi ma?/ bu-keyi ma?/ke-bu-keyi?

baby should dare step out can prt?/ not-can prt?/can-not-can

‘*The baby should dare to step out. Can it? Can’t it?’



(160) ?寶寶應該敢跨出去，可以嗎?/不可以嗎?/可不可以?

baobao yinggai gan kuachuqu, keyi ma?/ bu-keyi ma?/ke-bu-keyi?

baby possible dare step out can prt?/ not-can prt?/can-not-care

‘It is possible that the baby dares to step out. Can it? Can’t it?’

In short, the findings presented in this section verify that the modal verb in the tag question is base-generated. Let us consider the following examples to re-examine the rule regulating the types of modal verbs that can occur in tag questions. The restriction of the occurrence of modal verbs in tag questions is provided as in sentence (161) again.

(161) Restriction on the occurrence of modal verbs in tag questions

When there are more than one successive modal verbs in the antecedent clause, only the modal verb occupying a higher hierarchical level can be used in tag questions.

Sentence (162), (163), and (164) are sentences containing two consecutive modal verbs *keneng* and *yinggai*. These sentences suggest that *yinggai* occupies a higher layer than *keneng* in the hierarchical order as both can be used to represent epistemic modality (Tsai, 2010; Tsai, 2015). When the two appear in the successive order, the plausible interpretation of the modal verbs displays an intriguing phenomenon. The modal verb *keneng* in sentence (162) and (163) is interpreted as possessing epistemic modality, while the epistemic reading of *yinggai* in sentence (163) is illegitimate as the epistemic *yinggai*

should occupy a higher hierarchical order than the epistemic *keneng*. As a result, the modal verb *yinggai* in the sentence (163) could only express the deontic modality. That is, the modal verb *yinggai* in the tag question of sentence (162) denotes the epistemic modality, whereas the modal verb *yinggai* in sentence (163) conveys the deontic modality, rather than the epistemic modality. Comparing with sentence (162) and (163), sentence (164) offers an instance where *keneng* is semantically interpreted as displaying epistemic modality and *yinggai* deontic modality.

(162) #王五應該可能會退出這場比賽，應該嗎？/不應該嗎？/應不應該？

Wangwu yinggai keneng hui tuichu zhe chang bisai,

yinggai ma?/bu yinggai ma?/ying-bu-yinggai?

Wangwu should possible will withdraw this classifier competition

should prt?/ not should prt?/ should-not-should

‘#It should be the case that Wangwu will possibly withdraw from this

competition. Is it required?/ Is it not required?’

‘It should be the case that Wangwu will possibly withdraw from this

competition. Is it possible?/ Is it not possible?’



(163) *王五可能應該會退出這場比賽，應該嗎?/不應該嗎?/應不應該?

Wangwu keneng yinggai hui tuichu zhe chang bisai,

yinggai ma?/bu yinggai ma?/ying-bu-yinggai?

Wangwu possible should will withdraw this classifier competition

should prt?/ not should prt?/ should-not-should

‘*It is possible that Wangwu will possibly withdraw from this

competition. Is it possible?/Is it not possible?’

‘*It is possible that Wangwu should withdraw from this competition. Is it

possible?/Is it not possible?’

(164) 王五可能應該會退出這場比賽，可能嗎?/不可能嗎?/可不可能?

Wangwu keneng yinggai hui tuichu zhe chang bisai,

yinggai ma?/bu yinggai ma?/ying-bu-yinggai?

Wangwu possible should will withdraw this classifier competition

should prt?/ not should prt?/ should-not-should

‘It is possible that Wangwu should withdraw from this competition. Is it

possible?/Is it not possible?’

3.4.5 Various Clausal Constructions of the Antecedent Clause

Another aspect that past literature fails to address is the various causal constructions of the antecedent clause. Most antecedent clauses are single clauses, which are followed



by the tag questions interrogating the preceding proposition. Apart from single clauses, coordinated clauses, subordinated clauses, and embedded clauses are all plausible to serve as the antecedent clauses, as shown in the following examples.

Sentences (165) to (168) are instances where the antecedent clause is a coordinated clause. The tag questions in sentences (165), (166), (167) are interrogating the possibility of the proposition. For example, the tag question in sentence (165) expresses the speaker's concern about whether it is likely for the subject "he" to be a student and teacher simultaneously.

(165) 他是學生，也是老師，可能嗎？/不可能嗎？/可不可能？

ta shi xuesheng, yeshi laoshi, keneng ma?/ bu keneng ma?/ ke-
bu-keneng?

He be student also teacher possible prt not possible prt
possible-not-possible

'He is a student and he is also a teacher. Is it possible? Is it not possible?'

Although the modal *yinggai* relates to both the epistemic and deontic modality, it is the epistemic modality that is being referred to in sentence (166). Sentence (166) could be interpreted as "Is it possible for Huahua to enjoy singing and dancing?" The reason that the deontic modality is excluded in sentence (166) is that "to enjoy singing and dancing" should not be an obligation by which Huahua should abide. In contrast, it would

be much more natural for the sentence to be understood as an evaluation of the likelihood for Huahua's enjoyment of singing and dancing.



- (166) 花花喜歡唱歌，也喜歡跳舞，應該嗎？/不應該嗎？/應不應該？

Huahua xihuan change, ye xihuan tiaowu, yinggai ma?/ bu yinggai
ma?/ying-bu-yinggai?

Huahua like sing also like dance possible prt not possible prt
possible-not-possible

‘Huahua likes to sing and she also likes to dance. Is it possible? Is it not
possible?’

Sentence (167) is another instance where the epistemic modal *keneng* could be used in the tag question to interrogate the proposition in the antecedent clause.

- (167) 這本書不是張三的，而是李四的，可能嗎？/不可能嗎？/可不可能？

zhe ben shu bushi Zhangsan de, ershi Lisi de, keneng ma?/bu
keneng ma?/ ke-bu-keneng?

this classifier book is not Zhangsan's but Lisi's possible prt not
possible possible-not-possible

‘This book does not belong to Zhangsan, but belong to Lisi. Is it possible?
Is it not possible?’

Different from the above sentences, sentence (168) provides an instance where the

deontic modal *keyi* could be used in the tag question to interrogate the proposition in the preceding clause, which in this case, refers to the cancelling of a prior registration.

(168) 我報名了，又取消了，可以嗎？/不可以嗎？/可不可以？

wo booming le, you quxiao le, keyi ma?/bu keyi ma?/ye-bu-yeki?

I sign up asp and cancel prt can prt not can prt can-not-can

‘I have signed up but also cancelled it. Can it? Can’t it?’

Not only can coordinated clauses serve as the antecedent clauses of tag questions, subordinated clauses are also qualified, as shown in the following sentences. Tag questions with subordinated antecedent clauses exhibit an ambiguity in that it can interrogate either the proposition as a whole, or specifically target at the closest clause to the tag question, which may or may not be the matrix clause. For instance, in sentence (169), the tag question can be inquiring about the whole proposition that Zhangsan decides not to attend the concert because of the rain outside, or the subordinate clause that Zhangsan decides not to attend the concert.

(169) 外面下雨，所以張三決定不去鄒潔綸的音樂會，可能嗎？/不可能嗎？/

可不可能？

waimian xiayu, suoyi Zhangsan jueding bu qu Zoujielun de yinyuehui,

keneng ma?/bu keneng ma?/ke-bu-keneng?

outside rain so Zhangsan decide not go Zoujielun's concert

possible prt?/ not possible ma?/ possible-not-possible

'It is raining outside, so Zhangsan decides not to go to Zoujielun's concert.

Is it possible? Is it not possible?'

The similar pattern for the tag question to question the whole proposition or the subordinate clause only is also observed in sentences (170) and (171). In sentence (170), the tag question is interrogating either the whole proposition that the motivation for her to become a nurse is to care for more people or the possibility of wanting to care for more people. The interrogation of the subordinate clause is for the speaker to clarify the possibility of wanting to care for more people since caring for more people is perhaps one of the causes for people who want to become nurses in the future.



(170) 她想成為護士，為的是照顧更多人，可能嗎？/不可能嗎？/可不可能？

ta xiang chengwei hushi, weidishi zhaogu gengduo ren, keneng ma?/bu

keneng ma?/ ke-bu-keneng?

She want become nurse for care for more people possible prt?/

not possible prt?/ possible-not-possible

‘She wants to become a nurse to care for more people. Is it possible? Is it

not possible?’

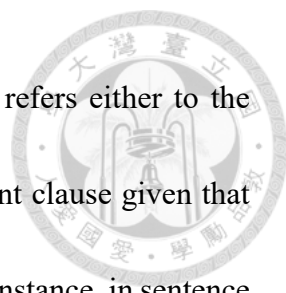
In sentence (171), the tag question is interrogating whether it is likely or not for the hearer to have the meal immediately after finishing washing the hands. The tag question can focus on the whole proposition or refer to the subordinate clause only. It is worthy to point out that the antecedent clause of sentence (171) is an imperative sentence and the employment of tag question here is used rhetorically to command the hearer (Hsin, 2016). This commanding relationship also entails the power relationship between the speaker and hearer. The speaker of such utterance usually assumes more authoritative power than the hearer within this context.

(171) 洗完手，就去吃飯，可以嗎？/不可以嗎？/可不可以？

xi wan shou, jiu qu chi fan, keyi ma?/ bu keyi ma?/ke-bu-keyi?

Wash finish hands then go have meal, can prt?/ not can prt?/can-not-can

‘Have your meal after you have washed your hands. Can it? Can’t it?’



On the contrary, in sentences (172) to (173), the tag question refers either to the whole proposition or the matrix clause of the subordinated antecedent clause given that the matrix clause is closest to the tag question in these examples. For instance, in sentence (172), the tag question is interrogating whether it is likely for the hearer to give it a try even though acknowledging that there are slim chances for success.

(172) 即使知道成功的機會不大，你還是放手一搏，會嗎？/不會嗎？/會不會？

jishi zhidao chenggong de jihui bu da, ni haishi fangshouyibo,
hui ma?/bu hui ma?/ hui-bu-hui

even know succeed mod opportunity not big you still give it a
try will prt?/ not will prt?/will-not-will

‘Despite knowing that there are slim chances to succeed, you will still give
it a try. Will you? Will you not?’

In sentence (173), the tag question is interrogating whether it should be the case for Lisi to watch the movie despite knowing that there is much homework to be completed. The deontic modality of *yinggai* is selected since students are morally obligated to complete their homework. The epistemic modality of *yinggai* would be the subordinate interpretation to this sentence, as the speaker could also be interrogating whether it is likely for Lisi to insist on watching the movie even though he has much homework to be completed.

(173) 雖然作業很多，李四還是要看電影，應該嗎？/不應該嗎？/應不應該？

suiran zuoye hen duo, Lisi haishi yao kan dianying, yinggai

ma?/bu yinggai ma?/ying-bu-yingai?

although homework very much Lisi still will watch movie should

prt?/not should prt?/ should-not-should

‘Although having much homework, Lisi will still watch the movie. Should

it? Shouldn’t it?’

Likewise, sentence (174) provides another instance for the tag question to interrogate the whole proposition or the matrix clause of the subordinated sentence. Similar to sentence (173), the tag questions in both sentences are used rhetorically to challenge the hearer. In this case, the speaker is implying that the matter being discussed is considered impossible by the speaker via the tag question featuring the deontic modal verb *keyi* as the sun would never rises from the west in reality.

(174) 如果太陽從西邊升起，我就給你五百萬，可以嗎？/不可以嗎？/可不可以？

ruguo taiyang cong xibian shengqi, wo jiu ge ni wu baiwan, keyi
ma?/ bu keyi ma?/ye-bu-keyi?

if sun from west rise I then give you five million can
prt?/ not can prt?/ can-not-can

‘If the sun rises from the west, I will give you five million dollars. Can it?
Can’t it?’

Besides coordinated sentences and subordinated sentences, sentences with embedded clause are one of the possibilities to be the antecedent clauses of tag questions, which Lin and Chiu (2023) have also discussed the possibility for embedded clauses to serve as the antecedent clause of tag questions. For instance, Zhangsan is the subject of the antecedent clause in sentence (175) and Lisi is the subject of the embedded clause. The tag question in sentence (175) is questioning the possibility of whether Zhangsan believes in Lisi’s personality, but not whether Lisi is a reliable person or not, indicating that tag questions exhibit a matrix clause effect by interrogating the properties of the matrix subject, but not the embedded subject.

(175) 張三相信李四是一個負責任的人，可能嗎？/不可能嗎？/可不可能？

Zhangsan xiangxin Lisi shi yi ge fuzeren de ren, keneng ma?/

bu keneng ma?/ke-bu-keneng?

Zhangsan believe Lisi is a classifier responsible mod person,

possible prt?/not possible?/possible-not-possible

‘Zhangsan believes that Lisi is a responsible person. Is it possible? Is it not possible?’

Akin to sentence (175), the tag question with the deontic modal verb *hui* in sentence (176) is used to interrogate whether the antecedent subject Wangwu knows that Zhaoliu has stolen the oranges, but not whether Zhaoliu has actually stolen the oranges or not, abiding by the prediction of the main clause effect.

(176) 王五知道趙六偷了橘子，會嗎？/不會嗎？/會不會？

Wangwu zhidao Zhaoliu tou le juzi, hui ma?/ bu hui ma?/hui bu hui?

Wangwu know Zhaoliu steal asp orange will prt not will prt will not will

‘Wangwu knows that Zhaoliu has stolen the oranges. Will it? Will it not?’

The tag question in sentence (177) interrogates whether it is possible for Huahua to decide to study abroad at France. As described previously, the dual modalities (i.e., epistemic and deontic modality) of *yinggai* are modulated by the sentential context. The deontic modality could be unsuitable in this case since studying abroad may not be

Huahua's obligation. Relative unacceptability, however, does not rule out the possibility of interpreting sentence (177) as "Should it be the case of Huahua to plan to study abroad?" because Huahua's economic circumstances might not permit her to study abroad and the speaker is expressing the surprise upon hearing about Huahua's decision.

(177) 花花打算到法國留學，應該嗎？/不應該嗎？/應不應該？

Huahua dasuan dao faguo liuxue, yinggai ma?/ bu yinggai
ma?/ying-bu-yinggai?

Huahua plan at France study abroad possible prt?/ not possible
prt?/possible-not-possible

'Huahua plans to study abroad at France. Is it possible? Is it not possible?'

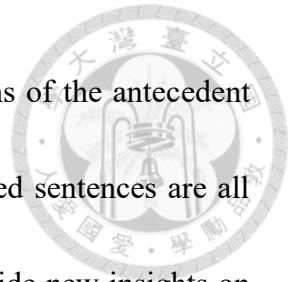
In brief, this section confirms the possibility for coordinated sentences, subordinated sentences, and embedded sentences to serve as the antecedent clauses of tag questions in addition to single clauses, which are widely discussed in past literature. The main clause effect is largely abided by in reference to the interpretation of tag questions with embedded sentences as antecedent clauses. With respect to the resolution of the interpretation of tag questions with subordinated sentences as antecedent clauses, the closest clause is of primary concern irrespective of its status as the antecedent clause, while the reference to the whole proposition is also permissible, thereby exhibiting interpretation ambiguity. In contrast, the proposition is only considered as a whole

regarding examples where coordinated sentences are the antecedent clauses of tag questions as there is no differentiation between antecedent clauses or subordinate clauses.

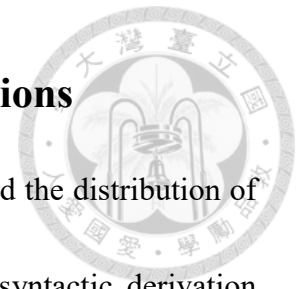
This section investigates the legitimate modal verbs in Chinese tag questions, antecedent clauses without modal verbs, the phenomenon of modal verb disharmony, multiple modal verbs in the antecedent clause, and various clausal constructions of the antecedent clause. The examination of the interaction between modal verb, antecedent clause, and tag questions so far reveals that the modal verb in the tag question is base-generated.

In brief, this section surveys the behavior of modal verbs in Chinese tag questions. In contrast to English tag questions which can be broadly categorized as declarative or invariant tag questions, the classification of Chinese tag questions is widely based on the type of discourse verbs involved. Modal verbs, therefore, merit careful examination due to the inconsistencies in past literature. Observing the interaction between modal verbs and Chinese tag questions, this study generalizes that both epistemic and deontic modal verbs are eligible to form tag questions in Chinese, but not dynamic modal verbs since they exert selectional restrictions on the animacy of subjects. Tag questions, anchoring the antecedent clauses, are inanimate sentential subjects, thereby disqualifies dynamic modal verbs to occur in them. In addition, it is perfectly acceptable for modal tag questions to co-occur with antecedent clauses without modal verbs, with different modal

verbs, or multiple modal verbs. Concerning the clausal constructions of the antecedent clause, coordinated sentences, subordinated sentences, and embedded sentences are all permissible to co-occur with tag questions. These explorations provide new insights on past literature primarily focusing on antecedent clauses with single sentences. The preliminary attempts provided in this study invite more extensive research to investigate how modal verbs are presented in Chinese tag questions.



Chapter 4 The derivation of Tag questions

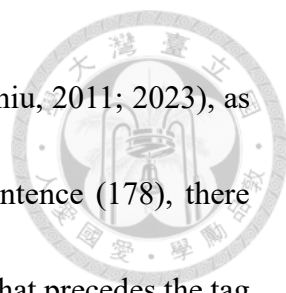


Having reviewed the plausible derivation schemas and surveyed the distribution of modal verbs in Chinese tag questions, this section proposes the syntactic derivation process of Chinese tag questions. Section 4.1 provides an overview of the derivation of Chinese tag questions. Section 4.2 comments on the syntactic structure of Chinese tag questions theorized by previous scholars, namely, Chiu (2011), Hsin (2016), Tang (2016), and Chiu (2023). Section 4.3 offers the author's revised version of the derivation pattern of Chinese tag questions after considering the patterns exhibited by the distribution of modal verbs in Chinese tag questions in this thesis. Section 4.4 extends the syntactic analysis of Chinese tag questions to the derivation of English tag questions.

4.1 Overview

Theoretically speaking, there are three approaches that can be adopted to derive tag questions in Chinese, namely, the empty *pro*-form analysis, LF copy (Chung, Ladusaw, & McCloskey, 1995; Lobeck, 1995), and PF deletion. Given the principle of language economy, only a single approach, but not a combination of approaches, is responsible for the derivation of elliptical categories. The employment of the three strategies is discussed in length.

Firstly, the adoption of empty *pro*-forms to analyze Chinese tag questions could be a feasible strategy. In Chinese, the demonstrative pronoun *zhe* is the overt realization of



the *pro*-form as it can be used to refer to the preceding CP clause (Chiu, 2011; 2023), as shown in the comparison between sentence (178) and (179). In sentence (178), there appears to be an empty *pro*-form, referring to the antecedent clause, that precedes the tag question. The demonstrative pronoun *zhe* realizes the empty *pro*-form on the exact identical position. Both sentence (178) and sentence (179) express the same proposition regardless of the presence of the demonstrative pronoun *zhe*.

(178) 聽說晨晨喜歡琪琪，對嗎？

tingshuo chenchen xihuan qiqi, dui ma?

rumor has it that Chenchen like Qiqi, correct prt

‘It is rumored that Chenchen likes Qiqi, isn’t it?’

(179) 聽說晨晨喜歡琪琪，[這]對嗎？

tingshuo chenchen xihuan qiqi, zhe dui ma?

rumor has it that Chenchen like Qiqi, this correct prt

‘It is rumored that Chenchen likes Qiqi, isn’t it?’

Although Tang (2006) perceives Chinese tag questions simply as questions with sentential subjects and argues that it would be unnecessary to set Chinese tag questions apart from other interrogatives in Chinese, the overt realization of the empty *pro*-form as the demonstrative pronoun *zhe* obviously proves this argument invalid. According to Tang (2006), tag questions are predicates predicating on the sentential subjects as shown in



sentence (180), (181), and (182).

(180) 你喜歡她，是嗎? (Tang, 2006:271)

ni xihuan ta, shi ma?

You like her, yes prt

‘You like her, is it correct?’

(181) 你喜歡她，不是嗎? (Tang, 2006:271)

ni xihuan ta, bu-shi ma?

You like her, not-yes prt

‘You like her, is it not correct?’

(182) 你喜歡她，對不對? (Tang, 2006:271)

ni xihuan ta, shi-bu-shi ma?

You like her, yes-not-yes prt

‘You like her, is it correct or not correct?’

The reason that Tang’s (2006) analysis merits careful consideration is the unlikelihood of establishing a subject-predicate relationship across two CPs. Sentences (180), (181), and (182) are all bi-clausal sentences and it is impossible for the second clause to predicate on the first clause, forming a subject-predicate relationship. As it is well-established that there are two types of sentences in languages worldwide— independent sentences and complex sentences, inclusive of coordinated sentences and

subordinated sentences (Taller, 2011), neither of the sentence types characterize the subject-predicate relationship identified by Tang (2006). We would not describe the relationship between the main clause and subordinate clause as constituting the subject-predicate relationship.

An alternative means to represent the subject-predicate relationship between the antecedent clause and the tag questions could be as in sentence (183), (184), and (185) where the tag questions are attached to the antecedent clause within the identical sentence.

(183) [你喜歡她]是嗎? (revised from Tang, 2006:271)

ni xihuan ta shi ma?

You like her yes prt

‘You like her is it correct?’

(184) [你喜歡她]不是嗎? (revised from Tang, 2006:271)

ni xihuan ta bu-shi ma?

You like her not-yes prt

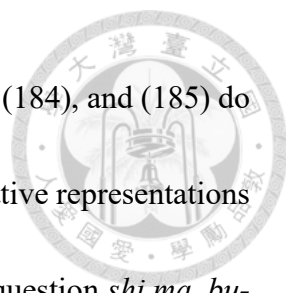
‘You like her is it not correct?’

(185) [你喜歡她]對不對? (revised from Tang, 2006:271)

ni xihuan ta shi-bu-shi ma?

You like her yes-not-yes prt

‘You like her is it correct or not correct?’

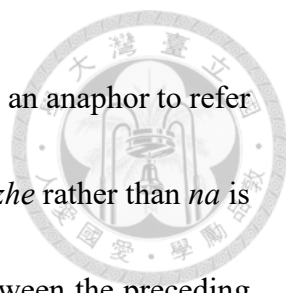


To view it differently, it is possible to claim that sentence (183), (184), and (185) do not exist in Chinese since sentence (183), (184), and (185) are alternative representations of sentence (180), (181), and (182) respectively. The function of tag question *shi ma*, *bu-shi ma*, and *shi-bu-shi* is to predicate on the preceding clause and this displays the pragmatic use of tag questions—to seek confirmation from the addressee. Although one might argue that the presence or absence of the punctuation mark differentiates the two types of syntactic structures that one is a sentence with a sentential subject (as in sentence (183), (184), and (185)), while the other is a sentence with a tag question (as in sentence (180), (181), and (182)), the development of punctuation marks evolve rather late in the human history and it should not be taken as a distinguishing criterion of different sentence structures. The invention of written punctuation marks is to record the spoken human language, but not to dictate the use of human language. For example, both sentence (186) and sentence (187) below illustrate tag questions in English and the absence of the comma in sentence (187) does not disqualify it to be regarded as a tag question.

(186) She is pretty, isn't she?

(187) She is pretty isn't she?

Despite the fact that the demonstrative pronoun *zhe* is used to support that overt realization of the empty *pro*-form, the demonstrative pronoun *na* does not function as *zhe* as it is illegitimate to be used in the sentence to refer to the preceding CP. This viewpoint



has been supported by Lu (1985) who argues that *zhe* is often used as an anaphor to refer to the preceding contextual information (Xu, 2001). The reason that *zhe* rather than *na* is adopted is that *zhe* portrays a psychologically proximal distance between the preceding information and the following clause, whereas *na* imply that the two contextual information does not seem to closely relate to each other in contexts. Generally speaking, the linguistic meaning carried by *zhe* and *na* can be metaphorically transferred into the relative relation between the aforementioned information and the current statement. Although *na*, as a deictic expression, could also be used to refer to previously stated information, it is far less frequent for *na* to assume this function than *zhe* via systematic corpus analyses (Cao, 2000; Yang, 2006; Yang, 2011). In other words, *zhe* is considered unmarked, contributing to its highly accessibility and prominent saliency in Chinese, while *na* is identified as a marked expression with more restricted application and limited distribution (Shen, 2004).

Therefore, sentence (188) is deemed ungrammatical by most native speakers of Chinese even though both *zhe* and *na* are demonstrative pronouns and the only difference between them is the contrast in distance. The former is an instance of proximal deixis and the latter distal deixis.



(188) *聽說晨晨喜歡琪琪，[那]對嗎？

tingshuo chenchen xihuan qiqi, na dui ma?

rumor has it that Chenchen like Qiqi, that correct prt

‘*It is rumored that Chenchen likes Qiqi, is that correct?’

It is found that only the singular demonstrative pronoun *zhe* is allowed to be realized as the *pro*-form as opposed to cases where both demonstrative pronouns (*zhe* and *na*) are combined with classifiers or represented in the plural form, as shown in the following sentences. For example, the DPs in sentence (189), (190), (191), and (192) exhibits absurdity since there is no accessible noun phrases to be referred to and quantified in the antecedent clause and that the antecedent clause is not a quantifiable unit either. Although some might argue that sentence (191) appears to be an acceptable sentence, we do not agree with this argument because the classifier *ge* should refer to a concrete object and the antecedent clause hosts a proposition rather than a quantifiable item.

(189) *聽說晨晨喜歡琪琪，[這些]對嗎？

tingshuo chenchen xihuan qiqi, zhexie dui ma?

rumor has it that Chenchen like Qiqi, these correct prt

‘*It is rumored that Chenchen likes Qiqi, are these correct?’



(190) *聽說晨晨喜歡琪琪，[那些]對嗎？

tingshuo chenchen xihuan qiqi, naxie dui ma?

rumor has it that Chenchen like Qiqi, those correct prt

‘*It is rumored that Chenchen likes Qiqi, are those correct?’

(191) *聽說晨晨喜歡琪琪，[這個]對嗎？

tingshuo chenchen xihuan qiqi, zhege dui ma?

rumor has it that Chenchen like Qiqi, zhege correct prt

‘*It is rumored that Chenchen likes Qiqi, is this correct?’

(192) *聽說晨晨喜歡琪琪，[那個]對嗎？

tingshuo chenchen xihuan qiqi, nage dui ma?

rumor has it that Chenchen like Qiqi, that correct prt

‘*It is rumored that Chenchen likes Qiqi, is that correct?’

In contrast to sentence (189), (190), (191), and (192) where the DPs should supposedly refer to the accessible NP in the antecedent clause, the DPs in sentence (193), (194), (195), and (196) would refer to a location either near or far from the speaker. The interpretations of demonstrative pronouns *zhe* and *na* in these sentences follow from their respective usages in discourse— proximal deixis and distal deixis—and both are not used to refer to the preceding CP; hence, leading to semantic incompatibility with the antecedent clause.



(193) *聽說晨晨喜歡琪琪，[這裡]對嗎？

tingshuo chenchen xihuan qiqi, zheli dui ma?

rumor has it that Chenchen like Qiqi, here correct prt

‘*It is rumored that Chenchen likes Qiqi, is it here?’

(194) *聽說晨晨喜歡琪琪，[那裡]對嗎？

tingshuo chenchen xihuan qiqi, nali dui ma?

rumor has it that Chenchen like Qiqi, there correct prt

‘*It is rumored that Chenchen likes Qiqi, is it there?’

(195) *聽說晨晨喜歡琪琪，[這邊]對嗎？

tingshuo chenchen xihuan qiqi, zhebian dui ma?

rumor has it that Chenchen like Qiqi, here correct prt

‘It is rumored that Chenchen likes Qiqi, is it here?’

(196) *聽說晨晨喜歡琪琪，[那邊]對嗎？

tingshuo chenchen xihuan qiqi, nabian dui ma?

rumor has it that Chenchen like Qiqi, there correct prt

‘*It is rumored that Chenchen likes Qiqi, is it there?’

The comparison of the sentences above corroborates the existence of empty *pro*-forms within Chinese tag questions and the overt realization of the demonstrative pronoun *zhe* in the identical sentential position. The demonstrative pronoun *zhe* in the tag question

is used to refer to the preceding CP, relating the tag question to the antecedent clause.

In addition to the utilization of an empty *pro*-form to account for the co-indexing relationship between the antecedent clause and the tag question, PF deletion might be another feasible strategy to derive Chinese tag questions. For instance, the underlying structure of sentence (198) could be as presented in sentence (197). The repetition of the identical information as presented in the antecedent clause is deleted in sentence (198), retaining only the tag question.

(197) 他昨天參加了一場音樂會，可能嗎？/不可能嗎？/可不可能？

ta zuotian canjia le yi chang yinyuehui, keneng ma?/bu keneng ma?/ ke-
bu-keneng?

he yesterday attend prt one cl concert possible prt/ not possible
prt?/possible-not-possible?

‘He attended a concert yesterday. Is it possible?/Is it not possible?’



- (198) 他昨天參加了一場音樂會，[他昨天參加了一場音樂會]可能嗎?/不可能嗎?/可不可能?

ta zuotian canjia le yi chang yinyuehui, ~~ta zuotian canjia le yi chang~~

~~yinyuehui~~ keneng ma?/bu keneng ma?/ ke-bu-keneng?

he yesterday attend prt one cl concert, ~~he yesterday attend prt one cl~~

~~concert~~ possible prt/ not possible prt?/possible-not-possible?

‘He attended a concert yesterday. Is it possible?/Is it not possible?’

The proposition (e.g., ‘his handwriting is really good at the age of three’), co-indexing with the antecedent clause, in the tag question is phonologically deleted to avoid PF redundancy, as the underlying structure of sentence (200) could be sentence (199) as well.

- (199) 他才三歲就寫得一手好字，應該嗎?/不應該嗎?/應不應該?

ta cai san sui jiu xie de yi shou hao zi, yinggai ma?/

bu yinggai ma?/ying-bu-yinggai?

he just three age then write prt one hand good character, possible

prt?/not-possible prt?/possible-not-possible

‘His handwriting is really good at the age of three. Is it possible? Is it not possible?’



(200) 他才三歲就寫得一手好字，~~[他才三歲就寫得一手好字]~~應該嗎?/不應該嗎?/應不應該?

ta cai san sui jiu xie de yi shou hao zi, ta ~~cai san sui~~

~~jiu xie de yi shou hao zi~~ yinggai ma?/ bu yinggai ma?/ying-bu-

yinggai?

he just three age then write prt one hand good character, ~~he just three~~

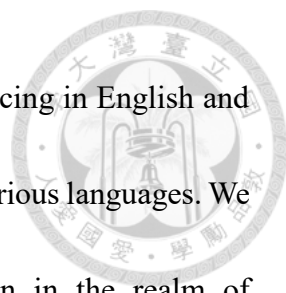
~~age then write prt one hand good character~~ possible prt?/not-possible

prt?/possible-not-possible

‘His handwriting is really good at the age of three. Is it possible? Is it not possible?’

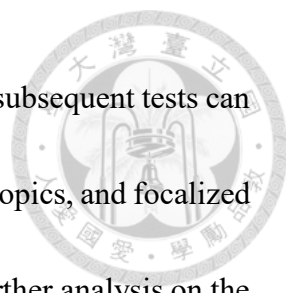
The difference between the application of PF deletion and the empty *pro*-form analysis is that the former phonologically deletes the constituent identical with the antecedent clause in the tag question to avoid repetition and the latter postulate that there is an empty *pro*-form, co-referring to the antecedent clause, which is predicated by the tag question.

The above two analyses, i.e., the empty *pro*-form analysis and PF deletion, addresses the derivation and the underlying structures of Chinese tag questions. In comparison to these two approaches, LF copy (Chung, Ladusaw, & McCloskey, 1995; Lobeck, 1995) could offer alternative semantic interpretations of Chinese tag questions across two CPs,



as this method has been employed to derive the interpretation of sluicing in English and other sentence structures involving the ellipsis phenomenon across various languages. We confirm that LF copy offers additional territories for exploration in the realm of interpretation of Chinese tag questions; however, since LF copy does not concern the syntactic derivation of Chinese tag question, we will not discuss this approach in detail and awaits future researcher to contribute to this field.

Both the formulation of an empty *pro*-form and the application of the LF copy are plausible strategies to represent the syntactic derivation and semantic interpretation of Chinese tag questions. Apart from these two strategies, there is another approach that could be employed to account for the derivation of Chinese tag questions—the adoption of the split CP hypothesis under the cartographic framework (e.g., Rizzi, 1997; Cinque & Rizzi, 2015; Rizzi, 2017; Rizzi & Bocci, 2017), which Chiu (2011) has also discussed. A clause can be represented by three interwoven layers—complementizer layer, inflectional layer, and lexical layer. Much discussion on the argument structure and valency of verbs concerns the lexical layer, whereas the issue of verb tenses resides in the inflectional layer. Within the complementizer layer, Rizzi (1997) explores the interaction between interrogatives, relative pronouns, topics, and focalized elements, which are units typically locate on the left periphery. Figure 4.1 displays the structure of the complementizer level identified by Rizzi (1997).



In Figure 4.1, there is no identification of the interrogatives, but subsequent tests can be employed to examine the relative position between interrogatives, topics, and focalized elements. Although Rizzi (2017) and Rizzi and Bocci (2017) offer further analysis on the location of the interrogatives, the data are based primarily in Italian or other languages and may not reflect the position of interrogatives, or tag questions in this study, in relation to other left peripheral elements, namely, force, topic, and focus in Chinese. There is no marking of force in Chinese, but tag questions display varying degrees of compatibility with different sentence moods (Chiu, 2011; 2023). For instance, tag questions can co-occur with declarative sentences and exclamative sentences, but cannot co-occur with imperative sentences and interrogative sentences. The reason for such incompatibility results from the rudimentary pragmatic and syntactic functions of tag questions. The need to seek for the addressee's approval or confirmation conflicts with the command issued by imperative sentences that demands the addressee to act accordingly to the speaker's order. With respect to the discordance between the tag questions and interrogatives, one plausible explanation is that interrogatives do not carry truth value and it would be illegitimate for tag questions to predicate on interrogatives, as the speaker cannot ask for the addressee's opinion on interrogatives.

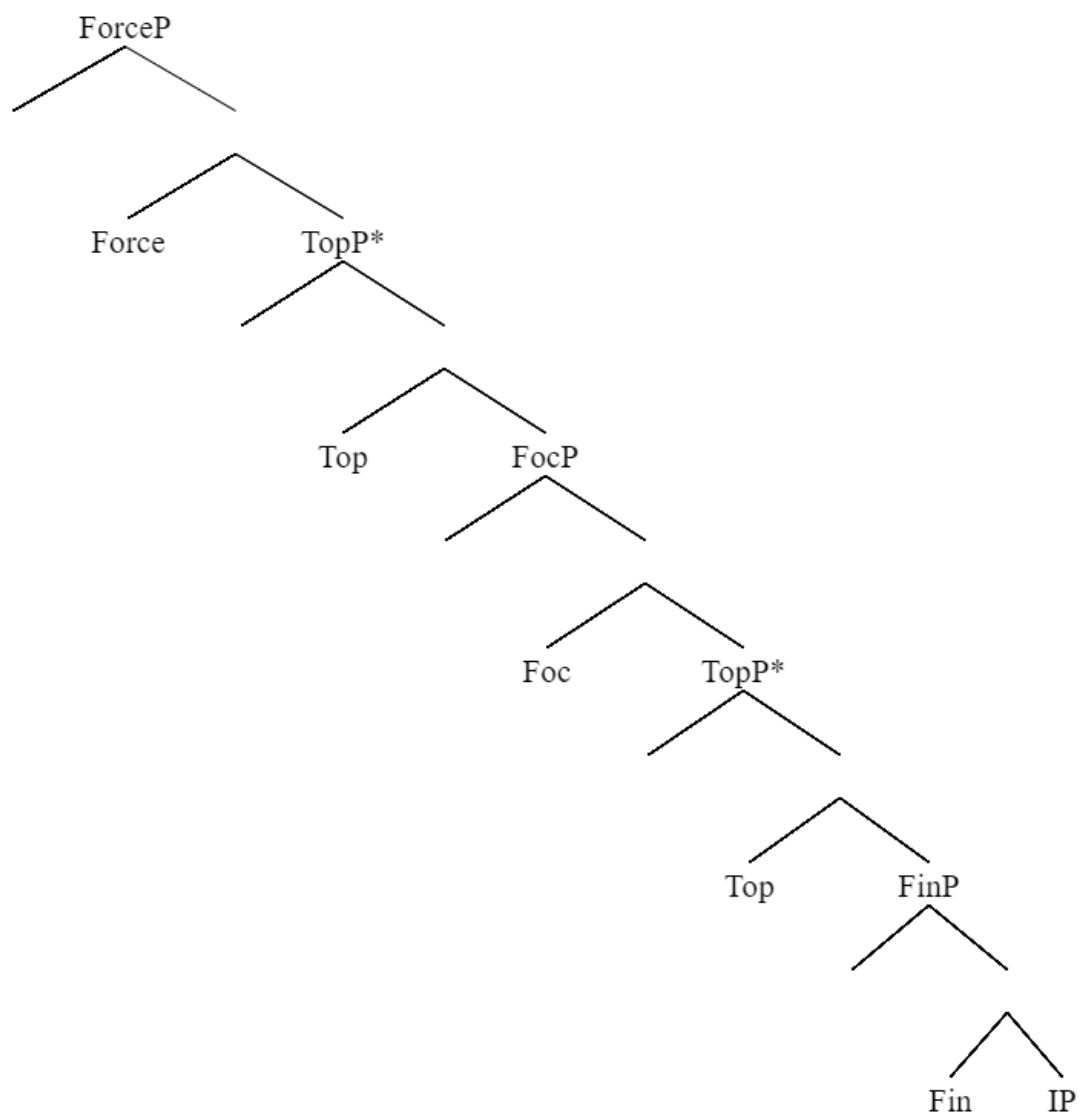


Figure 4.1 The structure for the complement level (Rizzi, 1997:297)

Regarding the interaction among topic, focus, and tag questions, consider sentences (201), (202), (203), (204), and (205) in the following (Chiu, 2011). Sentence (201) and (202) instantiate examples of topic, whereas sentence (203), (204) and (28) exhibit the marking of focus in Chinese. The comparison between sentence (201), (202), (203), (204), and (205) reveals that tag questions do not scope over topic, but do scope over focus in Chinese. For example, the tag questions in both sentence (201) and (202) do not predicate



on the topics, whereas the tag questions in sentence (203), (204), and (205) predicate on the focus of each sentence respectively.

(201) 蔬菜，張三喜歡苦瓜，是不是？

shucai zhangsan xihuan kugua shi-bu-shi

vegetables Zhangsan like bitter gourd yes-not-yes

‘As for vegetables, Zhangsan likes bitter gourd, doesn’t he?’

‘*As for vegetables, Zhangsan likes bitter gourd, isn’t it?’

(202) 昨天的會議，幸好你來了，是不是？

zuotian de huiyi xinghao ni lai le, shi-bu-shi

yesterday DE meeting fortunate you come asp yes-not-yes

‘As for the meeting yesterday, fortunately you came, aren’t you?’

‘*As for the meeting yesterday, fortunately you came, didn’t it?’

(203) 是李四明天要去高雄，對嗎？

shi lisi mingtian yao qu gaoxiong, dui ma

is Lisi tomorrow will go Kaohsiung correct prt

‘It is Lisi who is going to Kaohsiung tomorrow. Is it right (that Lisi is the one who will go to Kaohsiung)?’



(204) 李四是明天要去高雄，對嗎？

lisi shi mingtian yao qu gaoxiong, dui ma

Lisi is tomorrow will go Kaohsiung correct prt

‘It is tomorrow that Lisi will go to Kaohsiung. Is it right (that the date that Lisi is going to Kaohsiung is tomorrow)?’

(205) 李四明天是要去高雄，對嗎？

lisi mingtian shi yao qu Gaoxiong, dui ma

Lisi tomorrow is will go Kaohsiung correct prt

‘It is Kaohsiung that Lisi is going to. Is it right (that Kaohsiung is the place that Lisi will go to tomorrow)?’

Having located the position of interrogatives for tag questions, Figure 4.2 represents the interaction among force, topic, interrogative, and focus. Tag questions, in this tree diagram, occupies the interrogative position.

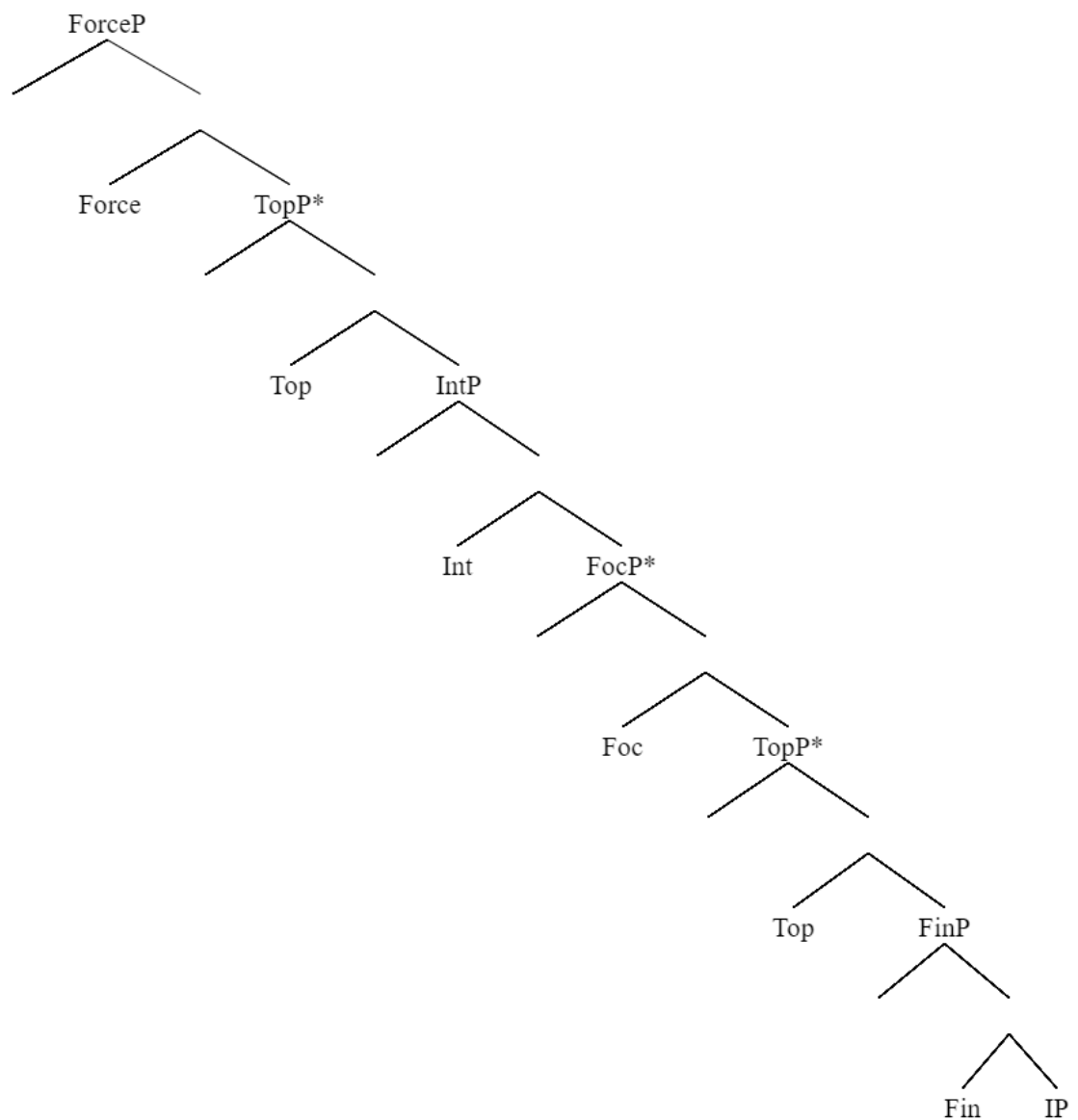


Figure 4.2 The interaction between force, topic, interrogative, and focus (Rizzi, 1997:297)

4.2 Responses to Past Scholars

Apart from the different classifications, many studies have analyzed the syntactic derivation process of Chinese tag questions.

For instance, Chiu (2011) proposes two analyses for invariable tag questions and verbal tag questions respectively. The author argues that verbal tag questions are derived from the predication between an empty subject *pro* and a tag predicate, as shown in Figure 4.3. In Figure 4.3, there is a *pro* co-indexing with the antecedent clause, and the tag question is the predicate of the empty *pro*.

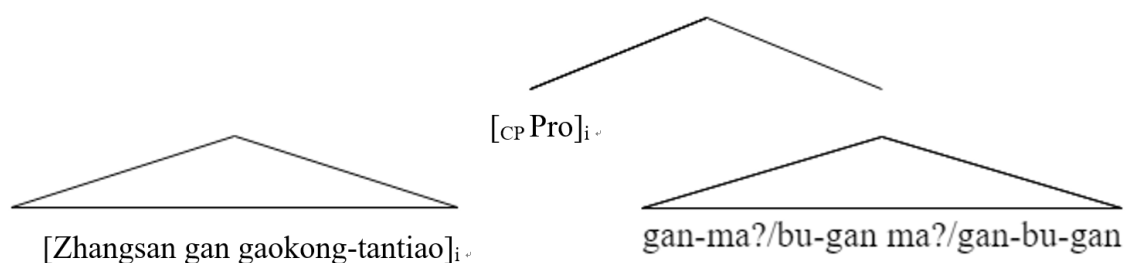


Figure 4.3 Chiu's (2011) predication analysis of verbal tag questions (Chiu, 2011:162)

The fact that tag questions could function as predicates follows from the reasoning that modal verbs are well-accepted predicates of either sentential subjects or nominal subjects as attested in Lin and Tang (1995), as shown in sentences (206) and (207). In sentence (206), the predicate describes a nominal subject, while in sentence (207), the predicate modifies a sentential subject. As it is widely recognized that Chinese is a *pro*-drop language (Huang, 1989; Huang, Li, & Li, 2009), the distribution of explicit subjects should overlap with that of an implicit null subject *pro*. The grammaticality of predicating on an empty subject *pro* leads to the validity of the predication analysis.



(206) 張三可以的! (Lin and Tang, 1995)

Zhangsan keyi de!

Zhangsan can/able DE

‘Zhangsan is capable (of doing something)’

(207) 張三不出席會議也可以。(Lin and Tang, 1995)

Zhangsan bu chuxi huiyi ye keyi

Zhangsan not attend meeting also can

‘It is okay for Zhangsan not to attend the meeting.’

Different from the predication analysis accounting for the derivation of verbal tag questions, Chiu (2011) utilizes the split CP hypothesis to decompose the structure of invariable tag questions (Rizzi, 1997; Rizzi & Cinque, 2016), as shown in Figure 4.4.

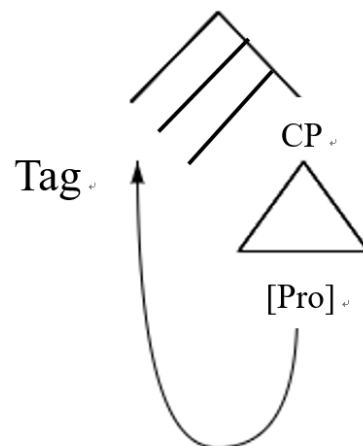


Figure 4.4 The split CP hypothesis (Chiu, 2011:177)



The adoption of the split CP hypothesis results from the interaction between tag questions and the FORCE of a sentence, verifying that tag questions should be regarded as belonging to the CP level. Under this framework, tag questions should occupy the INT position on the left periphery of the CP given that they scope over the focus, but not the topic, of a given sentence. Given that tag questions should follow the host sentences to derive the correct surface word order in Chinese, remnant movement of the CP *Pro* co-indexed with the antecedent clause is required.

On a par with Chiu (2011), Hsin (2016) adopts the split CP hypothesis and proposes a unified syntactic analysis of Chinese tag questions, where there is a co-indexing relationship between CP/IP in the antecedent clause and the sentence-final *pro*, functioning as the complement of the tag verb. The interrogative mood is represented by the question particle *ma* in the tag question. A syntactic representation of such derivation process is shown in Figure 4.5.

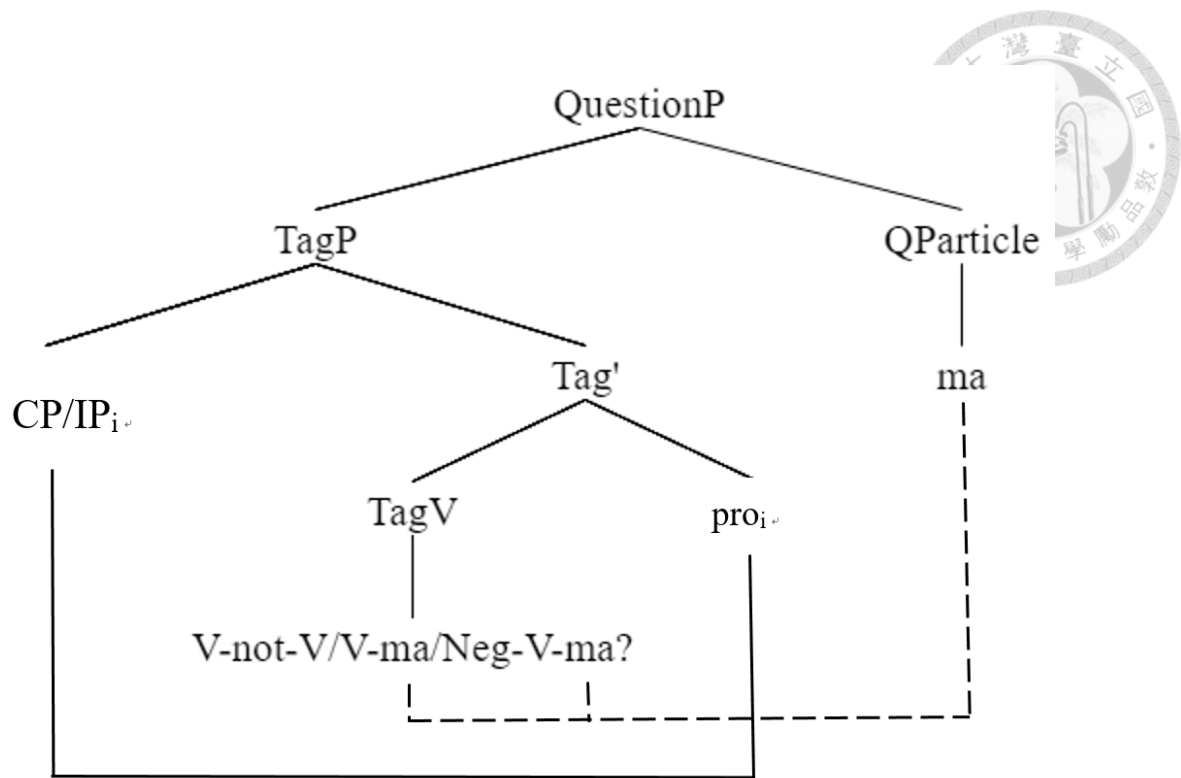


Figure 4.5 The unified syntactic analysis of Chinese tag questions (Hsin, 2016: 99)

The host sentence would occupy the specifier position of the tag phrase and the tag verb is the head of it. The tag verb and its null complement thus predicate on the preceding clause. Unlike Chiu (2011) that posits two separate derivation processes for verbal tag questions and invariant tag questions respectively, Hsin (2016) argues for a single analysis to represent the surface realizations of different types of tag questions. This single analysis could capture syntactic generalizations among various tag questions and differentiate tag questions with epistemic modal verbs from those with discourse verbs, since the former could interact with both sentential and discursive contexts, while the latter is only used in discourse.

Both Chiu (2011) and Hsin (2016) adopt the split CP hypothesis to account for the derivation of invariable Chinese tag questions. Nevertheless, this analysis is not pursued in Chiu (2023) where predication analysis is identified as the unified approach since employing the split CP hypothesis involves remnant movement, which is in violation of the instantiation of the minimalist program (Chomsky, 1995). According to Chiu (2023), both modal tag questions and invariant tag questions abide by the predication analysis. The antecedent clause, the first CP, and the tag question, the second CP, are conjoined by a silent coordinator (Tang, 2016; 2018), as shown in Figure 4.6.

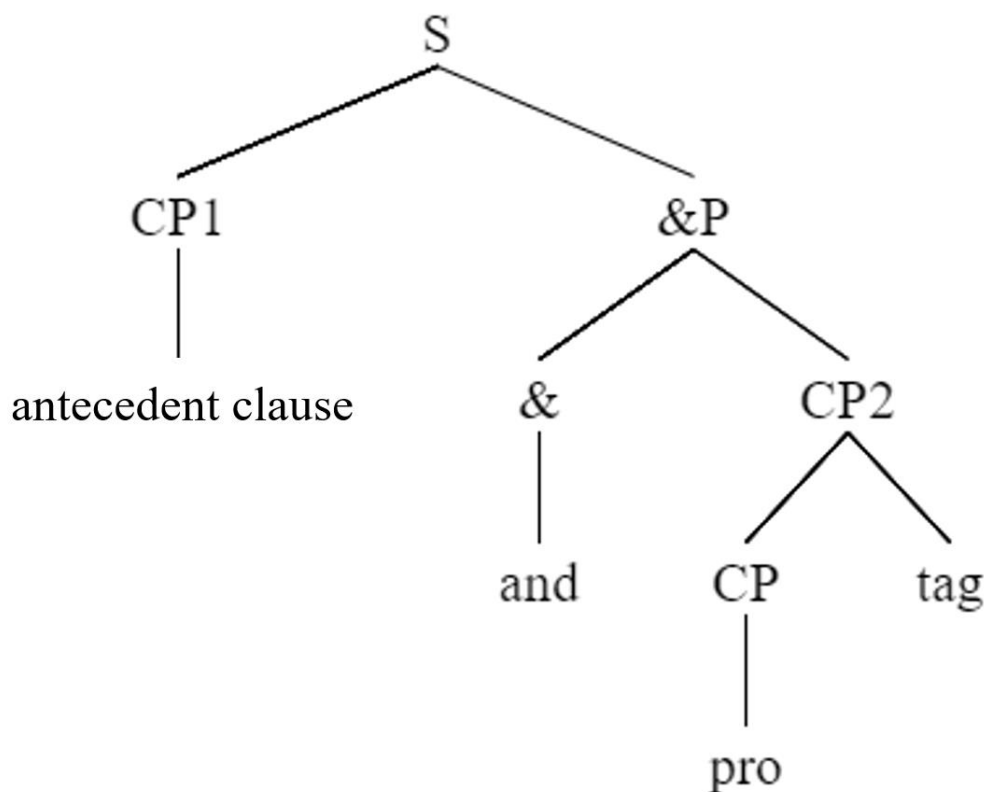
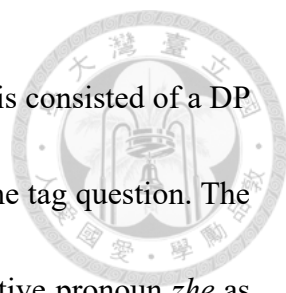


Figure 4.6 The coordinated structure between the antecedent and tag question (Chiu, 2023:523)



The two CPs constitute a coordinated structure. The second CP is consisted of a DP *pro*, which is co-indexed with the first conjunct, and predicated by the tag question. The existence of a DP *pro* is proven by the distribution of the demonstrative pronoun *zhe* as shown in sentences (208) and (209). In sentence (208), the null pronoun is overtly realized as the demonstrative pronoun *zhe*, referring to the preceding antecedent clause, while in sentence (209), the null pronoun is unpronounced in speech. The overlapping occurrence of the demonstrative pronoun *zhe* and null pronoun illustrates the existence of a null subject followed by the tag question. Sentence (210) presents an instance where the tag question precedes the demonstrative pronoun *zhe*. The ungrammaticality of sentence (210) exemplifies the fact that the null pronoun predicated by the tag question should precede the tag rather than follow it. This phenomenon argues against Hsin's (2016) analysis where the CP *pro* is generated sentence finally.

(208) 張三沒去學校，[這]行嗎？/[這]不對嗎？/[這]對不對？ (Chiu, 2023)

Zhangsan mei qu xuexiao, [zhe] xing-ma?/ [zhe] bu-dui-ma?/ [zhe]
dui-bu-dui?

Zhangsan not go school, this able-Prt this not-correct-Prt?/this correct-
not-correct

‘Zhangsan didn’t go to school, is it ok?’



(209) 張三沒去學校，[*pro*]行嗎?/[*Pro*]不對嗎?/[*Pro*]對不對? (Chiu, 2023)

Zhangsan mei qu xuexiao, [*pro*] xing-ma?/ [*Pro*] bu-dui-ma?/ [*Pro*]

dui-bu-dui?

Zhangsan not go school, able-Prt not-correct-Prt?/

correct-not-correct

‘Zhangsan didn’t go to school, is it ok?’

(210) *張三沒去學校，行嗎[這]?/不對嗎[這]?/對不對[這]? (Chiu, 2023)

*Zhangsan mei qu xuexiao, xing-ma[zhe]?/ bu-dui-ma [zhe]?/

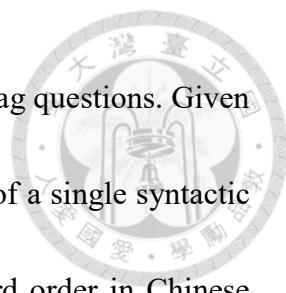
dui-bu-dui [zhe]?

Zhangsan not go school, able-Prt this not-correct-Prt this?/

correct-not-correct this

‘*Zhangsan didn’t go to school, is it ok?’

It is found that Chiu (2011) argues that there should be two underlying structures for Chinese tag questions as the predication analysis is used to account for the derivation of modal tag questions and the split CP hypothesis is used to justify the derivation of invariable tag questions. This view is challenged by Hsin (2016) as the adoption of two approaches violates language economy as it would be unnecessary for a sentence structure to be derived from two underlying structures. To achieve the minimalist program, Hsin (2016) employs the split CP hypothesis as the unified approach for the derivation of



Chinese tag questions, irrespective of the types of verbs featured in tag questions. Given that a unified approach would be more favorable for the derivation of a single syntactic structure and that the remnant movement to derive the correct word order in Chinese proves redundant, Chiu (2023) argues for the revised underlying structure of Chinese tag questions as she perceives the antecedent clause and tag question as the coordination of two clauses. The theorization of the bi-clausal analysis of tag questions can also be found in Tang's (2016) where the antecedent clause and the tag question are coordinated via a silent coordinator F. To date, Chiu's (2023) offers the latest syntactic approach to capture the derivation of Chinese tag questions and it successfully eliminates the violation of language economy by presenting a unified strategy. However sound this analysis appears, some modifications should be made considering the patterns of modal verbs in tag questions that have been introduced in this section.

A single, unified approach to describe the derivation has been documented in Hsin (2016), Tang (2016), and Chiu (2023), where the former adopts the split CP hypothesis and the latter two utilize the coordination strategy. The difference between the adoption of either approaches is that the former argues for a uniclausal treatment of tag questions and the latter advocates for a bi-clausal treatment of tag questions. Hsin's (2016) uniclausal analysis of tag questions is proven invalid due to the overt realization of the demonstrative pronoun *zhe*. According to Hsin (2016), the event pro co-indexing with the

antecedent clause should occur sentence finally. Nevertheless, a closer scrutinization of sentence (211), (212), and (213) shows that sentence (213) is ungrammatical. The ungrammaticality of sentence (213) challenges Hsin's (2016) claim for the event *pro* to occur sentence finally since it should be grammatical for the event *pro* to be realized as overt pronouns in Chinese. The comparison between sentence (211), (212), and (213) indicates that the co-indexing *pro* should precede the tag question, thereby supporting Chiu's (2023) and Tang's (2016) argumentation.

(211) 張三剛出門了，可能嗎？

Zhangsan gang chumen le, keneng ma?

Zhangsan just went out prt possible prt

'Zhangsan just went out. Is it possible?'

(212) 張三剛出門了，這可能嗎？

Zhangsan gang chumen le, zhe keneng ma?

Zhangsan just went out prt this possible prt

'Zhangsan just went out. Is it possible?'



(213) *張三剛出門了，可能嗎這？

Zhangsan gang chumen le, keneng ma zhe?

Zhangsan just went out prt possible prt zhe

*Zhangsan just went out. Is possible it?'

Even though Hsin's (2016) analysis fails to accurately represent the derivation of Chinese tag questions as evidenced by the overt realization of the demonstrative pronoun *zhe*, Hsin's (2016) research that epistemic modal verbs are possible candidates to occur in Chinese tag questions aligns with the findings of this study. Nonetheless, this study also argues for the legitimacy for deontic modal verbs to present in tag questions. Dynamic modal verbs are the only category that are unable to be used in tag questions given that they exert selectional restriction on the animacy of subjects and do not take CPs as subjects.

In contrast to Hsin (2016), both Tang (2016) and Chiu (2023) employ the bi-clausal approach to theorize the derivation of Chinese tag questions. Tang (2016) introduces the silent coordinator *F* to coordinate the clauses with an empty category *e* preceding the tag question, as expressed in sentence (214).



(214) [你們是九點鐘開門的]F[e 對不對]?(Tang, 2016:31)

nimen shi jiudianzhong kaimen de dui-bu-dui

You(pl.) are nine o'clock open prt yes-not-yes

'You open at nine o'clock. Is it correct?'

Tang (2016) distinguishes *shi*-type tag questions from other tag questions and argues that the empty *pro* does not occur in the derivation of *shi*-type tag questions. As shown in sentence (215), the derivation of *shi*-type tag questions undergoes phonological deletion where the repeated information in the tag question is deleted. Despite presenting examples to describe the difference between *shi*-type tag questions and other tag questions, Tang (2016) does not offer further explanation of why *shi*-type tag questions should be treated differently from other Chinese tag questions.

(215) [你要淘汰掉這匹馬]F[是你要淘汰掉這匹馬嗎?] (Tang, 2016:32)

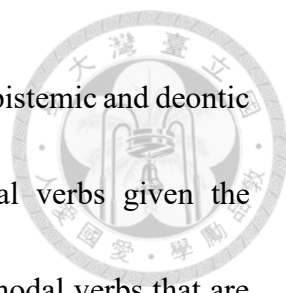
ni yao taotaidiao zhe pi ma shi ni yao taotaidiao zhe pi ma ma

you want retire this cl horse are you want retire this cl horse prt

'You want to retire this horse. Is it right?'

It should be noted that Tang (2016) does not discuss the hierarchical structure of Chinese tag questions, but only provide the linear representation of the derivation. The lack of a syntactic diagram hinders the understanding of the actual derivation process.

Chiu (2023) argues for both deontic and dynamic modal verbs to occur in Chinese



tag questions, the findings generated from this study argues for both epistemic and deontic modal verbs to present in tag questions, but not dynamic modal verbs given the requirement of the animacy of subjects. In addition to the types of modal verbs that are able to be used in tag questions, Chiu's (2023) study didn't account for the restriction of the occurrence of modal verbs in tag questions hypothesized in this study, as the comparison between sentence (216) and (217) shows. If Chinese tag questions are the coordination of two CPs where the pro in CP2 co-indexes with CP1, there is no obvious reason to find sentence (217) ungrammatical. The ungrammaticality of sentence (217) manifests that modal verbs occur in tag questions would abide by the hierarchical order of modal verbs in the antecedent clause and that those lower on the order are illegitimate to occur in tag questions, as the ungrammaticality of sentence (217) exhibits.

(216) 王五可能會退出這場比賽，可能嗎？/不可能嗎？/可不可能？

Wangwu keneng hui tuichu zhe chang bisai, keneng
ma?/bu keneng ma?/ke-bu-keneng?

Wangwu possible will withdraw this classifier competition possible prt?/
not possible prt?/ possible-not-possible

'It is possible that Wangwu will withdraw from this competition. Is it
possible?/Is it not possible?'

(217) *王五可能會退出這場比賽，會嗎?/不會嗎?/會不會?

Wangwu keneng hui tuichu zhe chang bisai,

hui ma?/hui-bu-hui?

Wangwu possible will withdraw this classifier competition will prt?/ not

will prt?/ will-not-will

‘*It is possible that Wangwu will withdraw from this competition. Will it?/ Will it not?’

In contrast to sentence (216) and (217), sentence (218) is a grammatical sentence despite the absence of the modal verb *keneng* in the antecedent clause. This instance demonstrates that the restriction of the occurrence of modal verbs in tag questions applies only to modal verbs that occur successively in the antecedent clause. For sentences where the modal verb in the tag question does not appear in the antecedent clause, it is grammatical for the modal verb in the tag question to occupy a higher position on the hierarchical order, as *keneng* is used to express epistemic modality.

(218) 我會想一個人暫時靜一靜，可能嗎?/不可能嗎?/可不可能?

wo hui xiang yi ge ren zhanshi jing yi jing, keneng ma?/bu keneng

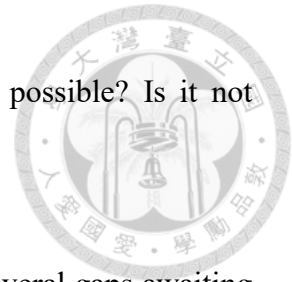
ma?/ke-bu-keneng?

I will want one cl person temporarily be alone possible prt?/ not

possible prt?/ possible-not-possible



‘I would like a few moments of peace by myself. Is it possible? Is it not possible?’



In a nutshell, a closer inspection of the past literature reveals several gaps awaiting further revision and clarification, especially when the patterns of modal verbs in Chinese tag questions are taken into consideration. For example, Hsin’s (2016) research could not account for the occurrence of *zhe* that precedes tag questions. Tang’s (2016) study does not elaborate on the difference *shi*-type tag questions and other tag questions and there is no tree diagram to illustrate the hierarchical order between the two coordinated CPs. Chiu’s (2023) analysis is inadequate to elucidate restriction of the occurrence of modal verbs in tag questions, repeated below as sentence (219).

(219) Restriction on the occurrence of modal verbs in tag questions

When there are more than one successive modal verbs in the antecedent clause, only the modal verb occupying a higher hierarchical level can be used in tag questions.

Aside from the inability to resolve this restriction, Chiu’s (2023) research could not satisfactorily clarify why this restriction applies only to consecutive modal verbs in the antecedent clause, as the comparison between sentence (216) and (217) evinces, but not

to sentences where the modal verb in the tag question does not occur in the antecedent clause, as sentence (218) indicates.



4.3 The Derivation of Chinese Tag Questions

Having reviewed past scholars' (e.g., Chiu, 2011; Hsin, 2016; Tang, 2016; Chiu, 2023) discussion on the derivation of Chinese tag questions, Section 4.3 offers the author's revised version of the derivation process of Chinese tag questions.

Following Chiu (2011) and Hsin (2016) that adopts the split CP hypothesis as the theoretical framework to derive Chinese tag questions, this thesis also builds on the postulation of the split CP hypothesis. Similar to Hsin (2016), this thesis locates Chinese tag questions within the split CP in the left periphery, as shown in Figure 4.7. In Figure 4.7, it can be observed that TagP scopes over FocusP, but does not scope over ForceP. The position of TagP is equivalent to INT (interrogative) as tag questions in essence are a type of question.

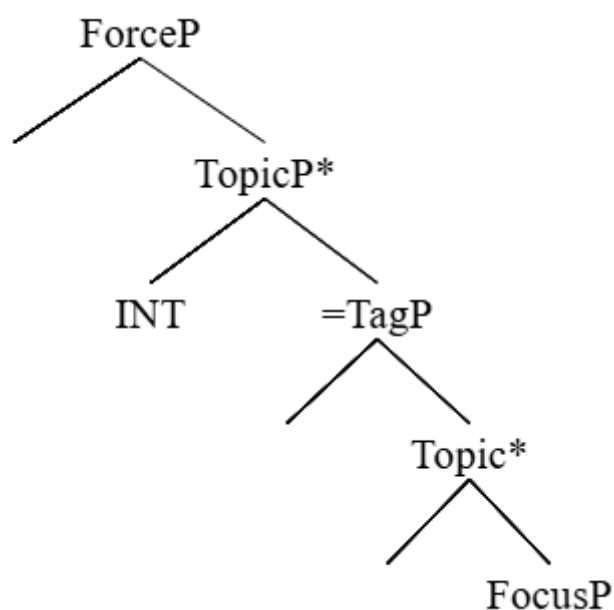


Figure 4.7 The location of Chinese tag questions within the split CP (Hsin, 2016:96)

The interaction among topic, focus, and tag questions can be better understood via the comparison of sentences (220), (221), (222), (223), and (224). Sentence (220) and (221) demonstrate the marking of topic, while sentence (222), (223) and (224) present the marking of focus in Chinese. The comparison between sentence (220), (221), (222), (223), and (224) confirm that tag questions do not scope over topic, but do scope over focus in Chinese. For instance, the tag questions in both sentence (220) and (221) do not predicate on the topics, whereas the tag questions in sentence (222), (223), and (224) predicate on the focus of each sentence respectively.

(220) 蔬菜，張三喜歡苦瓜，是不是？



shucaí zhangsan xihuan kugua shi-bu-shi

vegetables Zhangsan like bitter gourd yes-not-yes

‘As for vegetables, Zhangsan likes bitter gourd, doesn’t he?’

‘*As for vegetables, Zhangsan likes bitter gourd, isn’t it?’

(221) 昨天的會議，幸好你來了，是不是？

zuotian de huiyi xinghao ni lai le, shi-bu-shi

yesterday DE meeting fortunate you come asp yes-not-yes

‘As for the meeting yesterday, fortunately you came, aren’t you?’

‘*As for the meeting yesterday, fortunately you came, didn’t it?’

(222) 是李四明天要去高雄，對嗎？

shi lisi mingtian yao qu gaoxiong, dui ma

is Lisi tomorrow will go Kaohsiung correct prt

‘It is Lisi who is going to Kaohsiung tomorrow. Is it right (that Lisi is the one

who will go to Kaohsiung)?’

(223) 李四是明天要去高雄，對嗎？



lisi shi mingtian yao qu gaoxiong, dui ma

Lisi is tomorrow will go Kaohsiung correct prt

‘It is tomorrow that Lisi will go to Kaohsiung. Is it right (that the date that Lisi is going to Kaohsiung is tomorrow)?’

(224) 李四明天是要去高雄，對嗎？

lisi mingtian shi yao qu Gaoxiong, dui ma

Lisi tomorrow is will go Kaohsiung correct prt

‘It is Kaohsiung that Lisi is going to. Is it right (that Kaohsiung is the place that Lisi will go to tomorrow)?’

Apart from the adoption of the split CP hypothesis, this thesis argues that both epistemic and deontic modal verbs are permissible to occur in Chinese tag questions, excluding dynamic modal verbs as they exert selectional restrictions on the animacy of subjects. The *pro* in Chinese tag questions, co-indexing with the antecedent clause, is inanimate, thereby falsifying the occurrence of dynamic modal verbs in Chinese tag questions. This generalization differs from Chiu (2023) who argues only for the legitimacy of deontic and dynamic modal verbs to occur in Chinese tag questions and Hsin (2016) who argues for the exact opposite.

Having clarified the legitimacy for modal verbs to occur in Chinese tag questions, the syntactic structure of Chinese tag questions proposed in this study is presented in

Figure 4.8. The antecedent clause and the tag question characterize a topic-comment relationship.

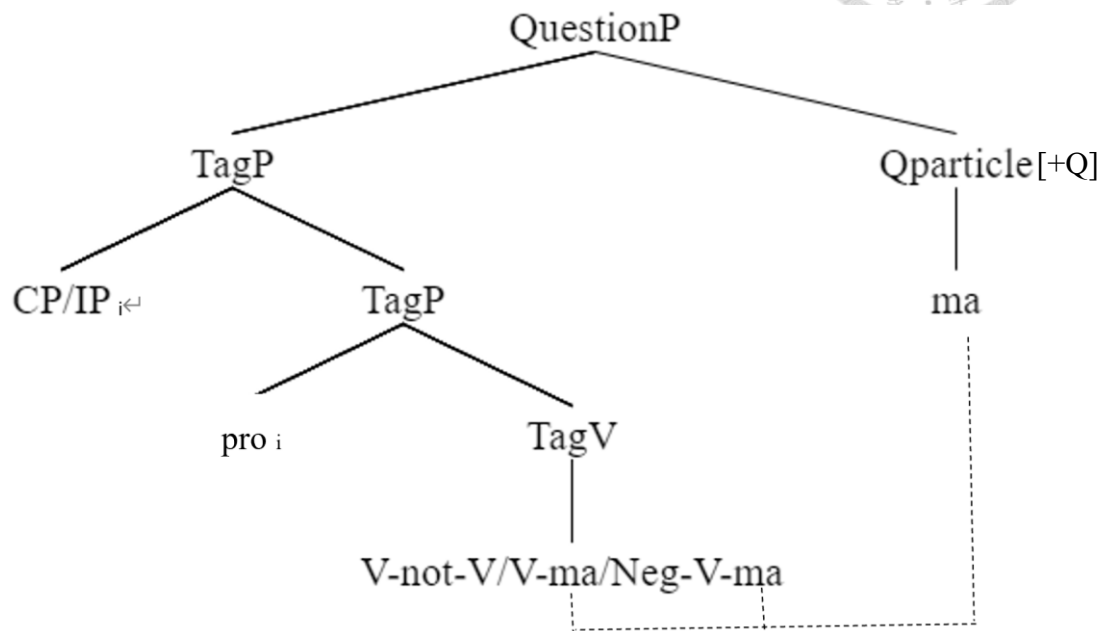
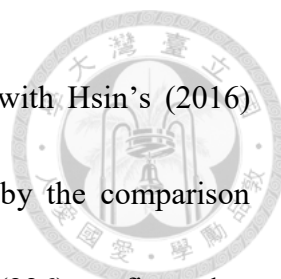


Figure 4.8 The syntactic structure of Chinese tag questions

As shown in Figure 4.8, akin to Hsin (2016), this study proposes that TagV should first merge with *pro* to form TagP. The antecedent clause co-indexes with the *pro* in the tag question. The subject *pro* of the tag question is predicated by the tag and that the *pro* features co-referentiality with the antecedent clause. Nonetheless, different from Hsin (2016), this study hypothesizes that the subject *pro* should occupy the specifier, instead of the complement since the overt realization of the demonstrative *zhe* sentence finally causes confusion and absurdity in the interpretation of tag questions, as shown in sentence (225), (226), and (227). The postulation of the subject *pro* sentence initially, supported by



the overt realization of the demonstrative pronoun *zhe*, contrasts with Hsin's (2016) hypothesis that the event *pro* should occur finally, as evidenced by the comparison between sentence (226) and (227). The grammaticality of sentence (226) confirms that the subject *pro* should precede the tag question in Chinese.

(225) 張三剛出門了，可能嗎？

Zhangsan gang chumen le, keneng ma?

Zhangsan just went out prt possible prt

'Zhangsan just went out. Is it possible?'

(226) 張三剛出門了，這可能嗎？

Zhangsan gang chumen le, zhe keneng ma?

Zhangsan just went out prt this possible prt

'Zhangsan just went out. Is it possible?'

(227) *張三剛出門了，可能嗎這？

Zhangsan gang chumen le, keneng ma zhe?

Zhangsan just went out prt possible prt zhe

*Zhangsan just went out. Is possible it?'

In other words, the subject *pro* and the TagV constitute a subject-predicate relationship. The antecedent clause (i.e., CP/IP) preceding the tag question serves as the topic of the sentence. It is worthy to point out that the subject *pro* can only refer to the

proposition of the antecedent clause CP/IP but not NP in TagP as the reference to NP in interrogatives introduces another follow-up question, which is not an instance of a true tag question. Tag question should predicate on the inanimate proposition, which is co-indexed and represented as *pro* in the tag question, and reference to animate NP entities should not be regarded as true tag questions.

For example, sentence (228) is not a true tag question as the question inquires about the agent, but not the proposition and should be considered an instance of false tags (Hsin, 2016). Although the empty *pro* should be able to refer to NP theoretically, this reference does not exist in tag questions, as the subject *pro* in TagP could only refer to the proposition in the antecedent clause.

(228) 張三不吃牛肉，吃不吃？

Zhangsan bu chi niurou, chi-bu-chi

Zhangsan not eat beef eat-not-eat

‘Zhangsan does not eat beef. Does he? Does he not?’

Discourse verbs, such as *hao*, *shi*, *dui*, etc. in addition to epistemic and deontic modal verbs discussed in this study are all permissible candidates to enter into this construction to form Chinese tag questions as long as the subject *pro* within the tag question strictly refers to the proposition in the antecedent clause. Nevertheless, there should be only a single discourse verb or modal verb occupying the TagV position, and the existence of

two or even three discourse verbs or modal verbs in tag questions contributes to ungrammaticality, as shown in sentence (229), (230), (231), and (232). The ungrammaticality of sentence (229), (230), (231), and (232) confirms the postulation of a single TagV within the tag question on the tree diagram as presented earlier.

(229) *李四打算明天出門，可以是嗎？

Lisi dasuan mingtian chumen, keyi shi ma

Lisi plan tomorrow go out can yes prt

‘*Lisi plans to go out tomorrow. Can it be correct?’

(230) *李四打算明天出門，可能對嗎？

Lisi dasuan mingtian chumen, keneng dui ma

Lisi plan tomorrow go out, possible yes prt

‘*Lisi plans to go out tomorrow. Is it correct possibly?’

(231) *李四打算明天出門，會好嗎？

Lisi dasuan mingtian chumen, hui hao ma

Lisi plan tomorrow go out, will good prt

‘*Lisi plans to go out tomorrow. Will it be good?’

(232) *李四打算明天出門，可能會對嗎？



Lisi dasuan mingtian chumen, keneng hui dui ma

Lisi plan tomorrow go out, possible will yes prt

‘*Lisi plans to go out tomorrow. Will it be correct possibly?’

Take sentence (233), (234), and (235) as an example, the visual representations of these sentences on the tree diagram are shown in Figure 4.9, 4.10, and 4.11. Sentence (233), (234), and (235) differs in that the antecedent clause in sentence (233) is a simple sentence, the antecedent clause in sentence (234) encompasses an epistemic modal verb *yinggai*, and the antecedent clause in sentence (235) is a complex sentence with an embedded clause. The modal verb (i.e., *keneng*) within the tag question in these three sentences are identical for the comparison among the antecedent clauses.

(233) 張三不到一年就成為公司的總經理，可能嗎？/不可能嗎？/可不可能？

Zhangsan budao yi nian jiu chengwei gongside zongjingli,

keneng ma?/bu-keneng ma?/ke-bu-keneng?

Zhangsan less than a year then become company's general manager,

possible prt?/not-possible prt?/possible-not-possible?

‘Zhangsan became the general manager of the company in less than a year. Is it possible? Is it not possible?’

(234) 美美明天應該是去台北，可能嗎？/不可能嗎？/可不可能？



Meimei mingtian yinggai shi qu taibei, keneng ma?/bu-keneng ma?/ke-bu-keneng?

Meimei tomorrow possible is go Taipei, possible prt?/not-possible prt?/possible-not-possible?

‘It seems that Meimei is going to Taipei tomorrow. Is it possible? Is it not possible?’

(235) 張三相信李四是一個負責任的人，可能嗎?/不可能嗎?/可不可能?

Zhangsan xiangxin Lisi shi yi ge fuzeren de ren, keneng ma?/ bu keneng ma?/ke-bu-keneng?

Zhansag believe Lisi is a classifier responsible mod person, possible prt?/not possible?/possible-not-possible

‘Zhangsan believes that Lisi is a responsible person. Is it possible? Is it not possible?’

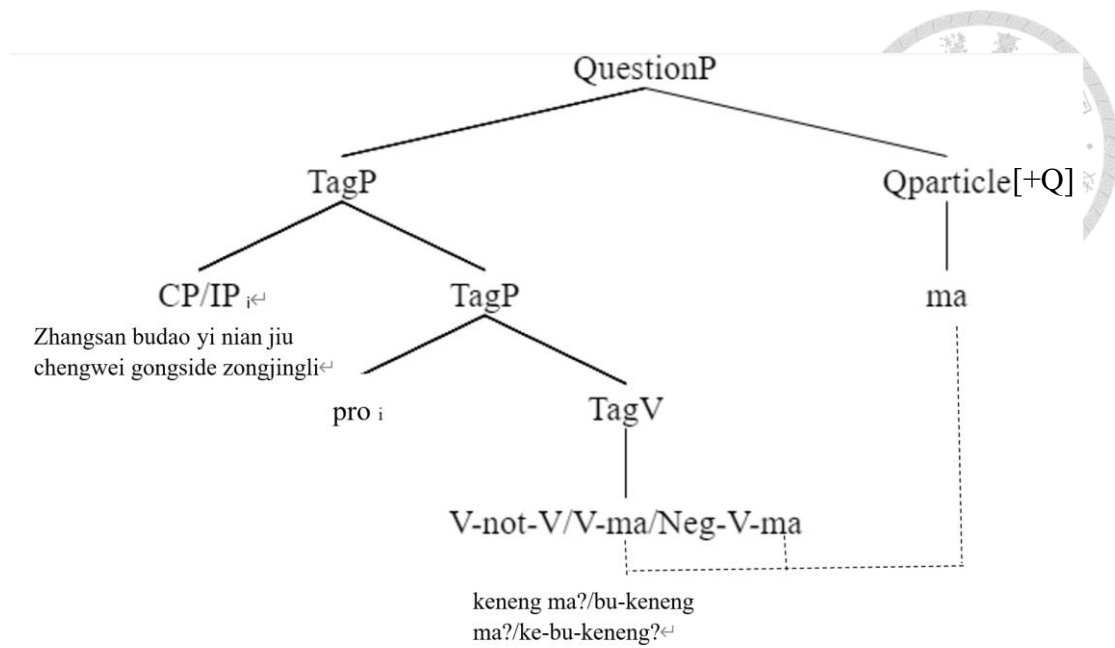


Figure 4.9 The visual representation of sentence (233)

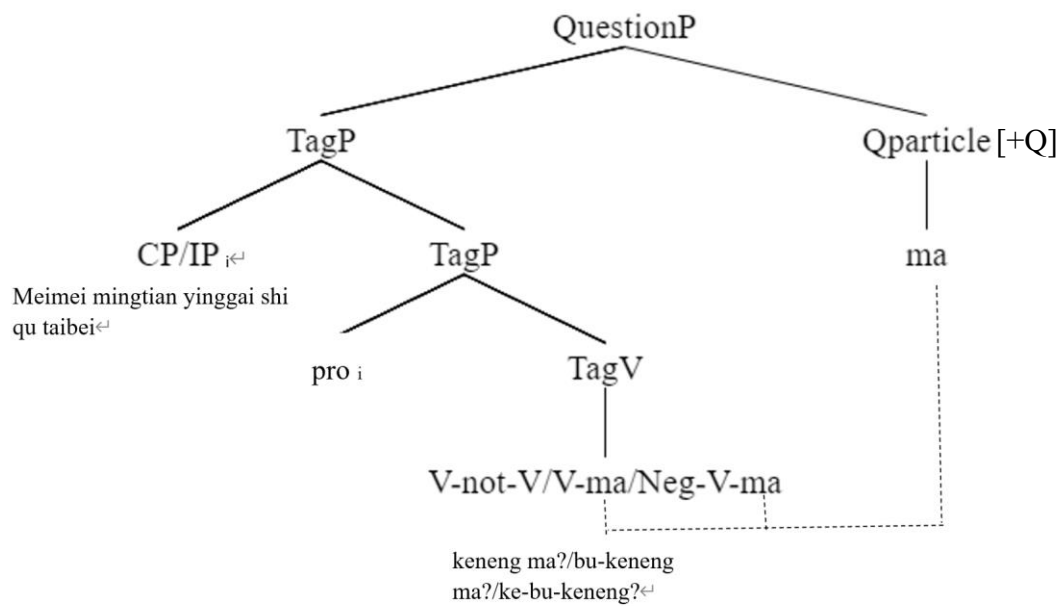


Figure 4.10 The visual representation sentence (234)

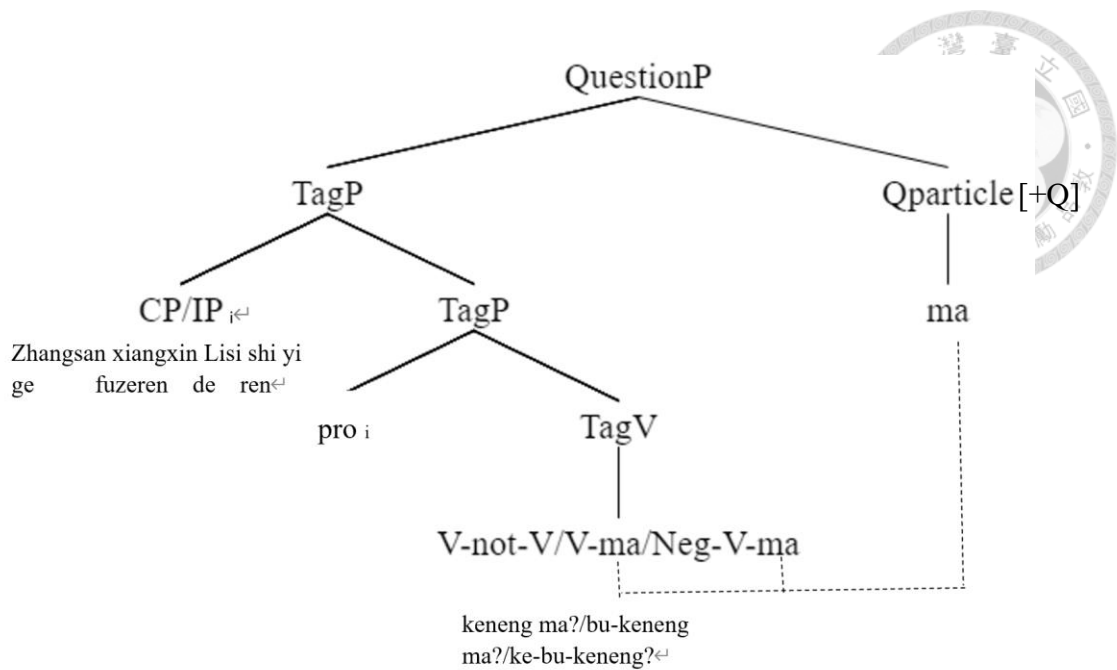


Figure 4.11 The visual representation of sentence (235)

In Figure 4.9, Figure 4.10, and Figure 4.11, the interrogative particle *ma* in the tag question merges with the Q particle *ma* on the left periphery, reaffirming that tag questions pertain to a type of question in Chinese. Given that tag questions are questions in essence, this study excludes sentences featuring sentence final particles other than *ma* as tag questions, such as sentence (236), (237), and (238). Sentence (236), (237), and (238) should be regarded as incremental sentences where there is a main clause and an increment (Tang, 2018). According to Tang (2018), the main clause and the increment are coordinated via a silent coordinator F, reflecting the bi-clausal nature of incremental sentences. There is an empty *pro*-form preceding the increment, which is co-indexed with the main clause.



(236) 小明打算明天去台北，(*pro*)應該吧。

Xiaoming dasuan mingtian qu taibei, yinggai ba

Xiaoming intend tomorrow go Taipei possible prt

‘Xiaoming intends to go to Taipei tomorrow. It seems possible.’

(237) 小明打算明天去台北，(*pro*)是喔。

Xiaoming dasuan mingtian qu taibei, shi wo

Xiaoming intend tomorrow go Taipei yes prt

‘Xiaoming intends to go to Taipei tomorrow. I see.’

(238) [說說]F[(*pro*)也好]。(Tang, 2018:50)

Shuo shuo ye hao

Speak speak too good

‘It is good to talk turkey.’

Excluding sentences that should not be regarded as tag questions (e.g., incremental sentences), this analysis nicely captures the predication relationship between the antecedent clause and the tag question and avoids the implementation of remnant movement to derive the correct word order in Chinese. Moreover, situating tag questions as INT on the left periphery confirms that tag questions are a type of question.

Considering the data pattern discussed in Chapter 3, Section 3.4, this derivation mechanism accounts for the legitimate modal verbs in Chinese tag questions (Section

3.4.1) and instances where there is no parallel relationship regarding the occurrence of modal verbs in the antecedent clause and tag questions (Section 3.4.2 Antecedent clauses without modal verbs and Section 3.4.3 The phenomenon of modal verb disharmony).

Given that the antecedent clause and the tag question manifest a topic-comment structure, the modal verbs in tag questions do not have to strictly agree with those in the antecedent clause and it is perfectly acceptable for antecedent clauses to lack modal verbs. With respect to the various clausal constructions of the antecedent clause (Section 3.4.5), this study observes that coordinated sentences, subordinated sentences, and embedded sentences are all permissible to serve as the antecedent clauses of tag questions. It is found that tag questions can refer to the proposition of the subordinated sentence as a whole, or refer to the closest clause to the tag question, irrespective of whether the clause is the matrix clause of the subordinated sentence or not, thereby exhibiting interpretation ambiguity. In addition to the aforementioned discussion in relation to the data pattern obtained in this study, the issue presented in Section 3.4.4 is left unaddressed as it is possible for multiple modal verbs to occur in the antecedent clause, yet the permissible occurrence of modal verbs in the tag questions differs slightly. Relevant examples illustrating this phenomenon is presented in sentence (239), (240), and (241) again.



(239) 王五可能會退出這場比賽，可能嗎?/不可能嗎?/可不可能?

Wangwu keneng hui tuichu zhe chang bisai, keneng
ma?/bu keneng ma?/ke-bu-keneng?

Wangwu possible will withdraw this classifier competition possible prt?/
not possible prt?/ possible-not-possible

‘It is possible that Wangwu will withdraw from this competition. Is it
possible?/Is it not possible?’

(240) *王五可能會退出這場比賽，會嗎?/不會嗎?/會不會?

Wangwu keneng hui tuichu zhe chang bisai, hui ma?/bu
hui ma?/hui-bu-hui?

Wangwu possible will withdraw this classifier competition will prt?/ not
will prt?/ will-not-will

‘*It is possible that Wangwu will withdraw from this competition. Will it?/
Will it not?’



(241) 我會想一個人暫時靜一靜，可能嗎？/不可能嗎？/可不可能？

wo hui xiang yi ge ren zhanshi jing yi jing, keneng ma?/bu keneng
ma?/ke-bu-keneng?

I will want one cl person temporarily be alone possible prt?/ not
possible prt?/ possible-not-possible

‘I would like a few moments of peace by myself. Is it possible? Is it not
possible?’

The comparison between sentence (239) and (240) demonstrates that when there are multiple modal verbs occurring consecutively in the antecedent clause, only the one that is highest in the hierarchical order is permitted to occur in the tag question. However, this restriction does not apply to instances where the modal verb in the tag question does not appear in the antecedent clause such as sentence (241) and it is grammatical for *keneng*, occupying a higher hierarchical order to occur in the tag question.

To account for this phenomenon where the modal verb in the tag question may or may not agree with those in the antecedent clause, this study hypothesizes an additional rule, repeated as sentence (242).

(242) Restriction on the occurrence of modal verbs in tag questions

When there are more than one successive modal verbs in the antecedent clause, only the modal verb occupying a higher hierarchical level can be used in tag questions.

As described previously, this rule is applied only to consecutive modal verbs in the antecedent clause, but not to sentences where the modal verb in the tag question does not occur in the antecedent clause. It is worthy to point out that Hsin (2016) and Chiu (2023), offering the latest discussion on the derivation of Chinese tag questions, does not address this phenomenon. To account for this issue, consider sentences (243), (244), (245), (246), and (247) in the following. From these sentences, it is apparent that only the modal verb occupying the highest hierarchical order is allowed to form A-not-A interrogatives, as evidenced by the grammaticality of sentence (243) and (244).

(243) 王五可不可能會退出這場比賽?

Wangwu ke-bu-keneng hui tuichu zhe chang bisai

Wangwu possible-not-possible will withdraw this classifier competition

‘Is it possible that Wangwu will withdraw from this competition?’



(244) 王五可不可能會想退出這場比賽?

Wangwu ke-bu-keneng hui xiang tuichu zhe chang bisai

Wangwu possible-not-possible will want withdraw this classifier competition

‘Is it possible that Wangwu will want to withdraw from this competition?’

(245) *王五可能會不會退出這場比賽?

Wangwu keneng hui-bu-hui tuichu zhe chang bisai

Wangwu possible will-not-will withdraw this classifier competition

‘*Is it possible that Wangwu will or will not withdraw from this competition?’

(246) *王五可能會不會想退出這場比賽?

Wangwu keneng hui-bu-hui xiang tuichu zhe chang bisai

Wangwu possible will-not-will want withdraw this classifier competition

‘*Is it possible that Wangwu will or will not withdraw from this competition?’

(247) *王五可能會想不想退出這場比賽?

Wangwu keneng hui xiang-bu-xiang tuichu zhe change bisai

Wangwu possible will want-not-want withdraw this classifier competition

‘*Is it possible that Wangwu will want to or not want to withdraw from this competition?’

The ungrammaticality and absurdity of sentence (245), (246), and (247) reveals that modal verbs lower in the hierarchical order are unable to enter A-not-A constructions.



This sharp contrast in the grammaticality supports the restriction in sentence (242) that only the highest modal verb can appear in tag questions and that topic-comment structure of the antecedent clause and the tag question follow the restriction on the occurrence of modal verbs in tag questions when there are multiple modal verbs appearing successively. The reason that sentence (241) does not obey this rule is that although *keneng* does not appear in the antecedent clause, it still occupies a higher hierarchical order (Tsai, 2010; 2015), and is therefore legitimate to appear in tag questions. Nonetheless, sentence (248) is ungrammatical because the modal verb *hui* occupies a lower hierarchical order than *keneng*, which appears in the antecedent clause.

(248) *我可能想一個人暫時靜一靜，會嗎？/不會嗎？/會不會？

wo keneng xiang yi ge ren zhanshi jing yi jing, hui ma?/bu-hui
ma?/hui-bu-hui?

I possible want one cl person temporarily be alone will prt?/not-
will?/will-not-will?

‘*It is possible that I would like a few moments of peace by myself. Will I?/
Will I not?’

The reason that only the modal verb occupying the highest hierarchical order is allowed to form A-not-A interrogatives in tag questions and that modal verbs lower in the hierarchical order are unable to enter A-not-A constructions results from the underlying

structure of Chinese A-not-A structures.

Discussions on the derivation of A-not-A questions have been theorized by many scholars. Traditionally, A-not-A questions have been treated on a par with disjunctive questions and the two are both derived from coordinate deletion. The directionality of the deletion is governed by the principle of directionality constraint, which states that the deletion goes forward if the reduplicated elements occupy the right branch of the coordinated structure and the deletion goes backward if the reduplicated elements occupy the left branch of the coordinated structure. In other words, the direction of the deletion is the reverse from the direction of the branch that the reduplicated elements occupy. The adoption of the coordinate deletion nicely predicts the deletion of the noun phrase to derive the A-not-AB form.

However, the grammaticality of AB-not-A form appears to contradict with the directionality constraint. This unified approach of taking A-not-A questions as a subtype of disjunctive questions and the application of coordinate deletion is challenged by Huang (2010) and later Huang, Li, & Li (2009) who calls for a modular approach to reconsider the derivation of A-not-A questions. For Huang, A-not-A questions should not be treated as a subtype of disjunctive questions synchronically, though the two do bear close relationships diachronically. Huang argues that there are two types of A-not-A questions: A-not-AB questions and AB-not-A questions and the underlying structures of the two



differ.

For A-not-AB questions, Huang states that the inflection of the [+Q] feature on the verb triggers phonological reduplication to reduplicate the element after [+Q] and insert the negative marker *bu* in between. Since [+Q] occupies the inflectional layer, the VP, occupying the lexical layer, is the element linearly following and hierarchically lower than the [+Q] feature, should therefore be reduplicated. The reduplication of the VP or elements with the VP gives rise to the realization of the A-not-AB form. It is worth pointing out that Ernst (1994) theorizes the [+Q] feature as a feature on the verb because the [+Q] feature originates very low in the sentence structure, which is supported by the grammaticality of the co-occurrence between A-not-A questions and different types of adjuncts. This postulation differs from Huang who considers the [+Q] feature as a feature existing in the inflectional layer.

For AB-not-A questions, the phonological reduplication triggers by the [+Q] feature is not adopted by Huang given the existence of B between the two As. The derivation of such questions is a result of anaphoric ellipsis where the second B is deleted in the coordinate predicate AB-not-AB. Note that anaphoric ellipsis contrasts with coordinate ellipsis as the former is not ruled by the directionality constraint. The difference in the grammaticality for AB-not-A questions and A-not-AB questions to be separated as two independent interrogatives implies that the two bear different origins. The former is

realized by the adoption of anaphoric ellipsis, whereas the latter is derived via the employment of phonological reduplication.



The parallel treatment of AB-not-A questions and A-not-AB questions is further extended and discussed in Tseng (2010). Tseng (2010) argues that both AB-not-A questions and A-not-AB questions are derived by the adoption of two steps of post-syntactic movement—Lowering and Local Dislocation. This unified two-step approach should account for both the derivation of AB-not-A questions and A-not-AB questions. Firstly, the reduplication morpheme [+Q], functioning as the delimitative aspect, merges with the closest morphosyntactic word via the implementation of Lowering. Secondly, Local Dislocation is applied to derive different forms of A-not-A questions, inclusive of the AB-not-A questions and A-not-AB questions.

This thesis follows Tseng (2010) who argues that the reduplication morpheme [+Q] merges with the closest morphosyntactic word as a result of Lowering. For antecedent clauses where multiple modal verbs occur, only the modal verb occupying the highest hierarchical order is allowed to form A-not-A questions given that it is the closest morphosyntactic word for the reduplication morpheme [+Q] to merge. Modal verbs lower in the hierarchical order are unable to enter A-not-A constructions since the reduplication morpheme could only merge with the closest morphosyntactic word, which is the modal verb highest in the hierarchical order.

The restriction in the antecedent clauses also applies in tag questions, contributing to the pattern where only the modal verb highest in the hierarchical order can appear in tag questions when there are multiple modal verbs occurring in the antecedent clause.

However, this restriction does not apply to sentences where the modal verb in the tag question does not appear in the antecedent clause despite the existence of multiple modal verbs in the antecedent clause, as evidenced by the difference in grammaticality between sentence (249), (250), and (251) repeated below. The reason to account for this distinction is that sentence (249) undergoes the merging between the reduplication morpheme [+Q] and the closest morphosyntactic word (i.e., the modal verb occupying the highest hierarchical order), while sentence (251) does not. As repeated in Figure 4.12, the [+Q] feature merges with the highest modal verb, blocking modal verbs lower on the hierarchical order to enter Chinese tag questions, contributing to the ungrammaticality of sentence (250).



(249) 王五可能會退出這場比賽，可能嗎？/不可能嗎？/可不可能？

Wangwu keneng hui tuichu zhe chang bisai, keneng
ma?/bu keneng ma?/ke-bu-keneng?

Wangwu possible will withdraw this classifier competition possible prt?/
not possible prt?/ possible-not-possible

‘It is possible that Wangwu will withdraw from this competition. Is it
possible?/Is it not possible?’

(250) *王五可能會退出這場比賽，會嗎？/不會嗎？/會不會？

Wangwu keneng hui tuichu zhe chang bisai, hui ma?/bu
hui ma?/hui-bu-hui?

Wangwu possible will withdraw this classifier competition will prt?/ not
will prt?/ will-not-will

‘*It is possible that Wangwu will withdraw from this competition. Will it?/
Will it not?’



(251) 我會想一個人暫時靜一靜，可能嗎？/不可能嗎？/可不可能？

wo hui xiang yi ge ren zhanshi jing yi jing, keneng ma?/bu keneng
ma?/ke-bu-keneng?

I will want one cl person temporarily be alone possible prt?/ not
possible prt?/ possible-not-possible

‘I would like a few moments of peace by myself. Is it possible? Is it not
possible?’

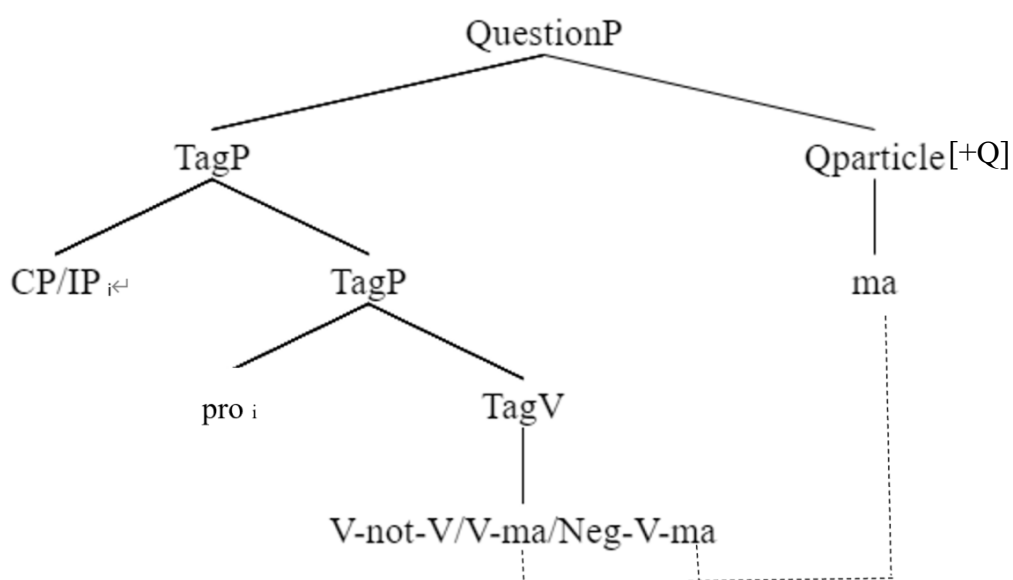


Figure 4.12 The syntactic structure of Chinese tag questions

For tag questions which are not realized as A-not-A forms, such as *keneng ma* and *bukeneng ma* in sentence (249), they are actually the realization of disjunctive questions from the base of A-not-A questions. Given that only the modal verb occupying the highest

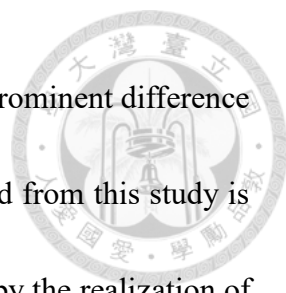
hierarchical order undergoes reduplication and merging with the [+Q] feature, so is it the only one that can present in tag questions, as shown by the sharp distinction in grammaticality between sentence (249) and (250).



All in all, this study offers a modified account with respect to the derivation of Chinese tag questions after surveying past scholars' (e.g., Chiu, 2011; Hsin, 2016; Tang, 2016; Chiu, 2023) fruitful endeavors. The data associated with the presentation of modal verbs (Chapter 3, Section 3.4) introduced in this study sheds new light on the derivation of Chinese tag questions. The restriction on the occurrence of modal verbs in tag questions stems from the derivation of A-not-A questions where the [+Q] feature could only merges with the highest morphosyntactic word, which is the highest modal verb in this study. The topic-comment relationship between the antecedent clause and tag question confirms that Chinese tag questions is a unique syntactic construction that merits further examination and exploration.

4.4 The Derivation of English Tag Questions

Having examined the derivation of Chinese tag questions, Section 4.4 extends the syntactic analysis of Chinese tag questions to the derivation of English tag questions. Differences between Chinese tag questions and English tag questions encompass the inclusion of the pronominal subject, the exhibition of polarity negation, and the requirement of the auxiliary-subject inversion word order. Typical examples of English



tag questions are provided in sentence (252), (253), and (254). One prominent difference between Chinese tag questions and English tag questions generalized from this study is that the former is to interrogate the whole proposition, as evidenced by the realization of the demonstrative pronoun *zhe* to represent the antecedent clause, whereas the latter is to inquire about the subject in the antecedent clause, as revealed by the indication of the pronominal subject in the tag question. Although the subject “you” is not explicitly mentioned in the antecedent clause in sentence (254), the addressee “you” is the de facto subject in the discourse, hence qualifying sentence (254) to be considered an instance of English tag questions.

(252) Jack is a great doctor, isn't he?

(253) Those residents can't speak French, can they?

(254) Open the door, will you?

With regard to English tag questions, much research has explored the involved syntactic derivation mechanism (e.g., Arbini, 1969; Culicover, 1992; Huddleston, 1970; Kay, 2002). For example, Arbini's (1969) research targets at tag imperatives, while Kay's (2002) specifically analyzes subjectless tagged questions. According to Kay (2002), the derivation of sentence (255) could be represented as in Figure 4.13. As shown in Figure 13, Kay (2002) argues that the underlying structure of sentence (255) could be “Didn't they fool us?” where the VP [t fooled us] is fronted to the [Spec, CP] position. Adopting

the verb phrase fronting (VPF) hypothesis could resolve the lack of a host subject in the antecedent sentence. The word “they” is raised from [Spec, VP] to [Spec, IP], as a bound trace is left when the VP [fooled us] is reconstructed at LF.

(255) Fooled us, didn’t they?

Despite providing the tree diagram for a sentence that is tagged onto an imperative sentence, Kay (2002) does not provide additional information on how an English tag question would be derived syntactically given that “subjectless tagged sentences” are the main focus of this study. The absence of the postulation of a uniformed derivation mechanism of English tag questions invites future research to answer this gap.

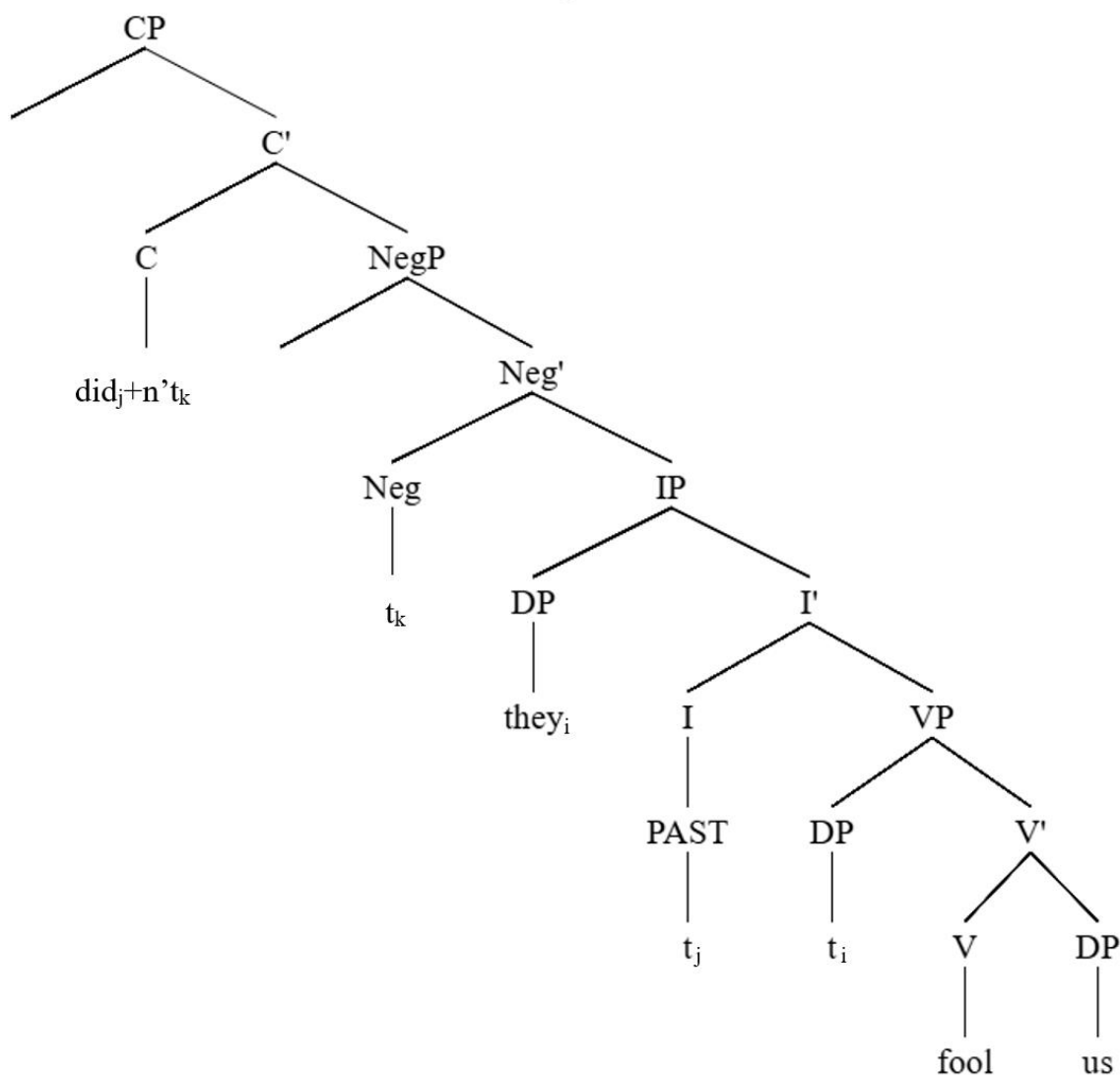


Figure 4.13 The syntactic analysis of sentence (255) (Kay, 2002:456)

Different from Arbini (1969) and Kay (2002) that investigate distinctive subcategories of English tag questions, as the former concerns tag imperatives and the latter subjectless tag questions, Culicover (1992) provides a tree diagram of sentence (256) to account for the derivation of English tag questions, as shown in Figure 4.14.

(256) John is here, isn't he? (Culicover, 1992: 202)

As shown in Figure 4.14, Culicover (1992) explains that the postulation of a polarity phrase (PolP) characterizes the negative polarity involved in English tag questions and that WH stands for a bound morpheme that triggers auxiliary-subject inversion and the coordination between IP and PolP. Given that only pronominal subjects are able to appear in tag questions, the [+pro] feature should be strictly abided by, as indicated on the Figure. This analysis offers one of the possible means to represent the structure of English tag questions; however, since WH morpheme should only exist in WH questions and that tag questions does not pertain to WH questions, this derivation mechanism could be further refined once English tag questions are compared with Chinese tag questions.

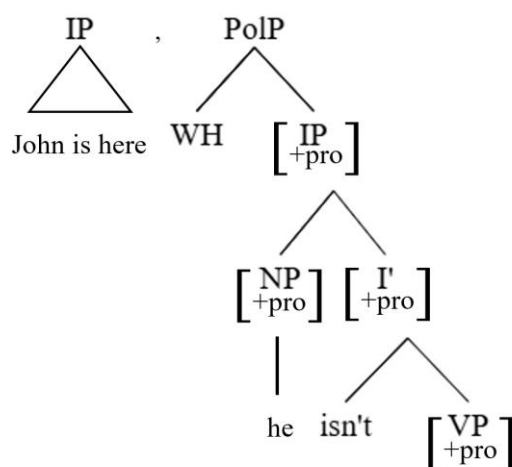


Figure 4.14 The syntactic analysis of English tag questions (Culicover, 1992:208)

Comparing English tag questions with Chinese tag questions, Hsin (2016) provides the structure of English tag questions (i.e., Tag P), as shown in Figure 4.15. In the Figure,

Hsin (2016) hypothesizes the antecedent sentence to be a positive sentence (as indicated by the positive S) and the NegIP to demonstrate the negative polarity in English tag questions. The Infl is moved to the Tag head to form tag questions, resulting in the subject-auxiliary reversed word order in interrogatives. The complement of the Infl, the VP, undergoes deletion once the head I moves to the Tag head. The subject of an English tag question should always appear in the pronominal form, as shown on the Figure. However, negativity should not be a feature on IP or I and that the theorization of Neg I and Neg IP could not faithfully represent instances where positivity is displayed in tag questions.

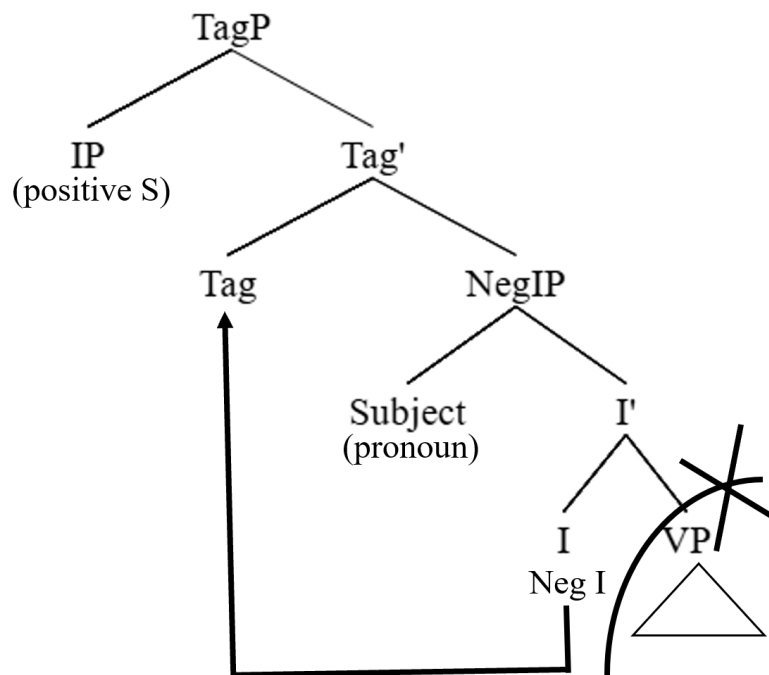


Figure 4.15 The structure of English tag questions (Hsin, 2016:103)

Generalizing from the past research on English tag questions (e.g., Arbini, 1969; Culicover, 1992; Huddleston, 1970; Kay, 2002) and revising from Hsin's (2016) figure, this study proposes a novel approach to represent the syntactic analysis of English tag questions, as shown in Figure 4.16.

In Figure 4.16, the PolIP rather than the Neg IP is employed to illustrate the negative polarity between the antecedent clause and the tag question. The [+Q] feature on the Tag head triggers the Infl to Tag head movement, giving rise to the subject-auxiliary inversed word order in English tag questions. Akin to Hsin's (2016) hypothesis, the VP, the complement of Infl, is deleted as the Infl undertakes the movement from I to Tag head. The requirement of the pronominal subject in English tag questions is specified by the "pronoun" attribute on the subject. This syntactic analysis of English tag questions captures the three characteristics of English questions: pronominal subject, subject-auxiliary inversed word order, and polarity negation. The adoption of the PolIP rather than the Neg IP demonstrates that the antecedent sentence could be either positive or negative, and that the tag question is not restricted to possess negativity only. The difference between this structure and Culicover's (1992) analysis is that the latter argues for the coordination between the antecedent clause and the tag question via a WH morpheme, while the former, following Hsin (2016), hypothesizes that the Tag is the head of Tag P, which is consisted of an antecedent sentence (i.e., IP) on the [Spec, IP] position

and takes PolIP as the complement. A single, unified approach to understand the structure of English tag questions applies universally when the syntactic structure of Chinese tag questions, as shown in Figure 4.17, is also considered in the following.

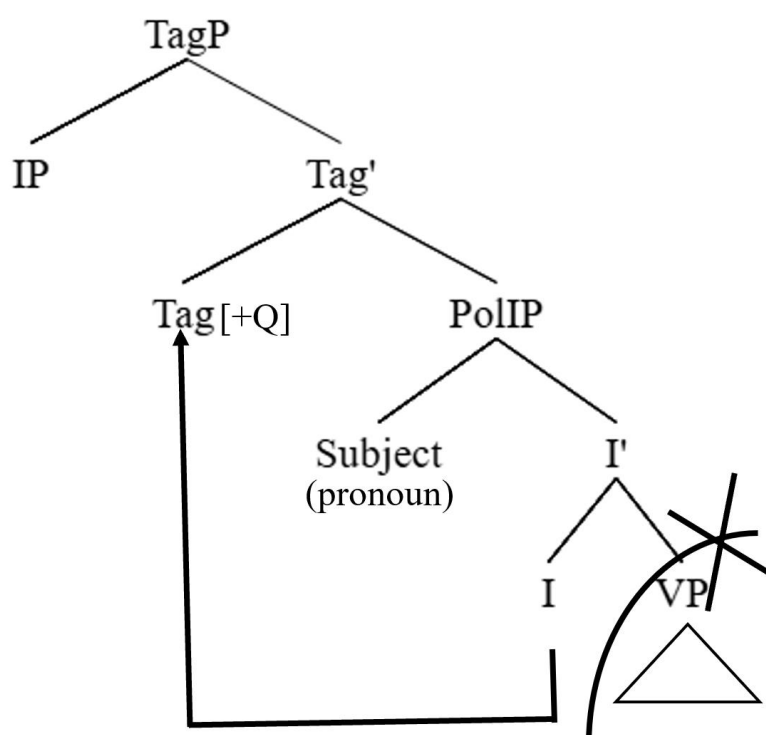
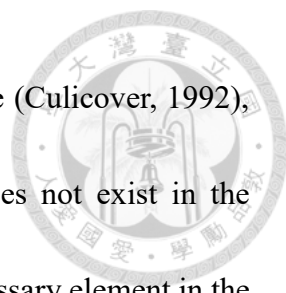


Figure 4.16 The syntactic structure of English tag questions

Figure 4.17 is a repetition of the syntactic structure of Chinese tag questions proposed in this study. Both English tag questions and Chinese tag questions could be theorized as the composition of a single sentence (i.e., Tag P in English tag questions and Question P in Chinese tag questions), inclusive of the antecedent sentence and the tag question. Similar to the analysis of English tag questions, the Q particle carries the [+Q]



feature to signal the formation of interrogatives. The WH morpheme (Culicover, 1992), which appears only in the derivation of English tag questions does not exist in the derivation of Chinese tag questions, should not be regarded as a necessary element in the derivation of tag questions in different languages. Although English tag questions do manifest parameters different from Chinese tag questions, such as the requirement of pronominal subjects, the negative polarity between the antecedent sentence and the tag question, and the subject-auxiliary reversed word order, these parameters do not contradict with the single-clause analysis of English tag questions (i.e., Tag P) and Chinese tag questions (i.e., Question P), showcasing the uniformity of analysis across languages worldwide. The Tag V serves as the head of the Tag P in English tag questions, while the Tag is also the head of Tag P in Chinese tag questions. One nuance between Chinese tag questions and English tag questions is that the Tag P would have to merge with the Q particle *ma* to form Question P. This merging with the Q particle *ma* demonstrates the abundance of sentence final particles in Chinese, exhibiting the minor dissimilarities among different languages under the principles and parameters framework.

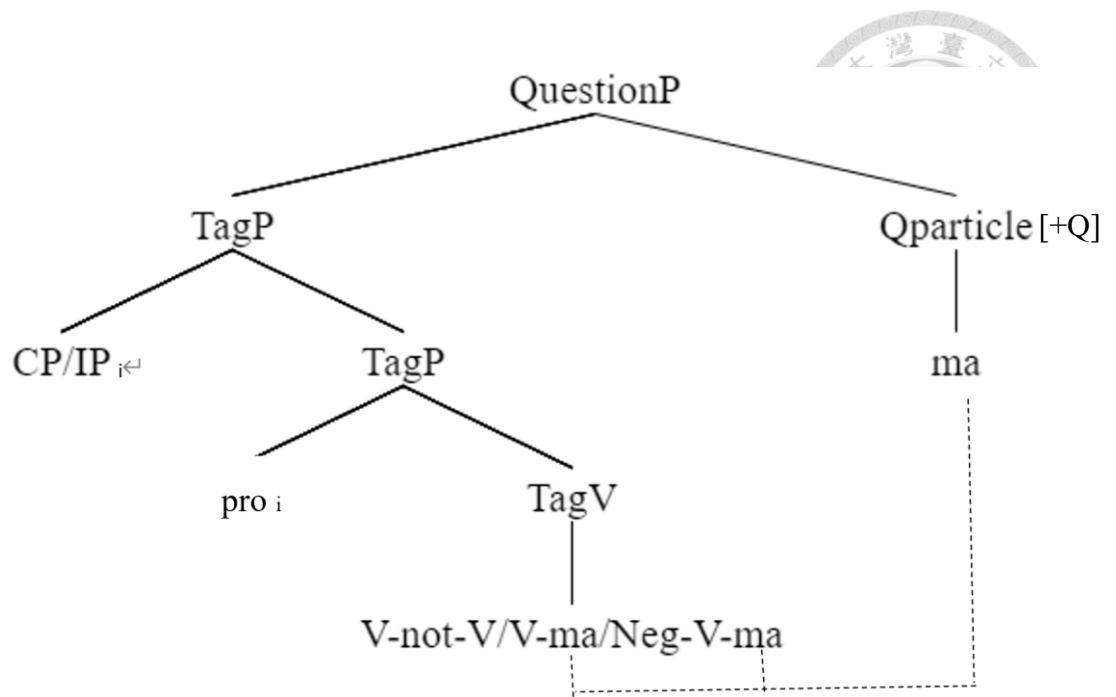


Figure 4.17 The syntactic structure of Chinese tag questions

In a nutshell, extending the syntactic analysis of Chinese tag questions to English tag questions enables cross-linguistic comparisons among languages. A single, unified approach should be utilized to derive tag questions in different languages, with parameters set for individual languages.

Chapter 5 Pedagogical Implications



5.1 Overview

Having explored the distribution of modal verbs in Chinese tag questions and proposed the relevant syntactic derivation mechanism to account for such pattern, Chapter 5 discusses the pedagogical implications of incorporating Chinese modal verbs (Li, 2024; Huang, 2018; Mao, 2017; Chang & Huang, 2018; Takahiro, 2021; Wu, 2009; Chen, 2000; Sun, 2010; Hsu, 2019; Huang, 2023; Zhang, 2019) and Chinese tag questions (Chen, 2007; Hung, 2024) into Chinese learning materials. The series of textbooks that has been chosen as the main focus of this study is *A Course in Contemporary Chinese*⁶ (Mandarin Training Center National Taiwan Normal University, 2015a, 2015b, 2016a, 2016b, 2018a, 2018b), the most representative series of Chinese learning textbooks in Taiwan. Being launched by the Mandarin Training Center of National Taiwan Normal University since 2015, this series of Chinese learning textbooks is composed of six volumes. Learners are expected to sequentially complete their Chinese learning from volume 1 to volume 6.

The organization of this chapter is as follows. Section 5.2 analyzes the current practices in Chinese textbooks, such as *A Course in Contemporary Chinese*. Section 5.2.1 thoroughly reviews the arrangements of Chinese modal verbs, whereas Section 5.2.2 displays the presentation of Chinese tag questions. Section 5.3 offers the author's

⁶ *A Course in Contemporary Chinese* refers to 當代中文課程.

suggestions on the current practices in *A Course in Contemporary Chinese*, with specific emphasis on Chinese tag questions. Section 5.4 concludes this chapter by providing the author's recommended teaching methods on Chinese tag questions.



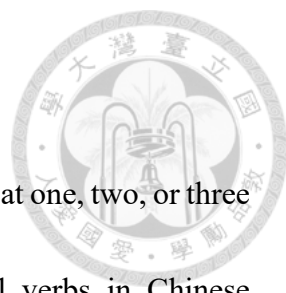
5.2 Current Practices in Chinese Textbooks: *A Course in Contemporary Chinese*

This section surveys the current practices in Chinese textbooks. Section 5.2.1 provides an overview of the demonstration of Chinese modal verbs by previous scholars. Section 5.2.2 is concerned with how Chinese tag questions are delivered in Chinese learning materials.

5.2.1 Chinese Modal Verbs

To date, much research has been devoted to study and document how Chinese modal verbs are represented in Chinese textbooks (Li, 2024; Huang, 2018; Mao, 2017; Chang & Huang, 2018; Takahiro, 2021; Wu, 2009; Chen, 2000; Sun, 2010; Hsu, 2019; Huang, 2023; Zhang, 2019). With respect to the accompany research methods, some research (e.g., Huang, 2018; Chang & Huang, 2018; Zhang, 2019) utilizes corpus analysis to unveil the use of the targeted modal verbs by native speakers of Chinese so as to faithfully untangle the distribution, function, and meaning of Chinese modal verbs. Different from those studies, Li (2024) and Takahiro (2021) investigate the occurrence of modal verbs in TOCFL Learner Corpus by Chinese learners for the sake of capturing a wider picture of how learners with different language backgrounds and proficiency levels learn to master

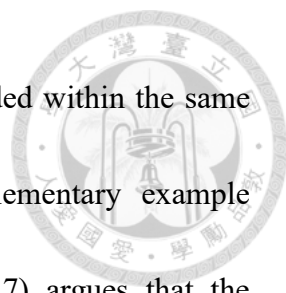
the use of modal verbs in Chinese.



Among this abundance of research, most studies choose to target at one, two, or three Chinese modal verbs and discuss the distribution of these modal verbs in Chinese textbooks (e.g., *A Course in Contemporary Chinese*, *New Practical Audio-Visual Chinese*, *Far East Every Day Chinese*, etc.) with the purpose of offering relevant teaching suggestions. For example, both Li (2024) and Zhang (2019) select the epistemic and deontic modal verb *yinggai* as the focus of the two studies. Huang (2018) and Chang and Huang (2018) examine dynamic modal verbs *xiang*, *yao*, and *xiangyao* and *yao* respectively. After surveying the usages of *xiang*, *yao*, and *xiangyao* in *A Course in Contemporary Chinese* and *New Practical Audio-Visual Chinese*, Huang (2018) describes that the lack of the instances for multiple modal verbs to occur in a single sentence could possibly causes confusion as learners might not be able to grasp the intended meaning or judge the grammaticality of the sequence of modal verbs, regardless of whether they pertain to the same category or not. In addition to Huang's (2018) observation, Chang and Huang (2018) explains that the identical English translation (i.e., to want) for *yao* and *xiang* in *New Practical Audio-Visual Chinese* would influence learners to equate the two as absolute synonyms without paying attention to the syntactic and semantic differences in between. The absence of the corresponding negative forms, structural analysis of modal verbs (e.g., the order of modal verbs and modifiers), and example sentences

differentiating the modal verbs hinder learner's understanding of the use of Chinese modal verbs. Chang and Huang (2018) recommends that these aspects should also be incorporated in textbooks for learners to truly decipher the similarities and dissimilarities of these dynamic modal verbs.

The other studies (Mao, 2017; Takahiro, 2021; Wu, 2009; Chen, 2000; Sun, 2010; Hsu, 2019; Huang, 2023) address the presentation of deontic and dynamic modal verbs such as *neng*, *hui*, and *keyi*. For instance, Mao (2017) comments that although the English translation of modal verbs *neng*, *hui*, and *keyi* are provided in the same lesson of *New Practical Audio-Visual Chinese*, no additional explanation are given to differentiate the three modal verbs. Different from *New Practical Audio-Visual Chinese* that choose to arrange the three modal verbs within the same lesson, the three are allocated in different lessons sequentially. Although the three modal verbs are all classified as auxiliary verbs and appear in volume 1, *neng* is first introduced in lesson 4, *hui* is covered in lesson 5 and 11, and *keyi* is covered in lesson 3 and 7. The dynamic modality of *hui* (to be able to) and the epistemic modality of *hui* (indicating possibility and likelihood) appear in lesson 5 and 11 respectively, enabling learners to comprehend the nuances between the two modalities via corresponding example sentences and explanations. Likewise, the epistemic modality (conveying possibility) and the deontic modality (signifying permission) of *keyi* are introduced in two separate lessons (i.e., lesson 5 and 11),

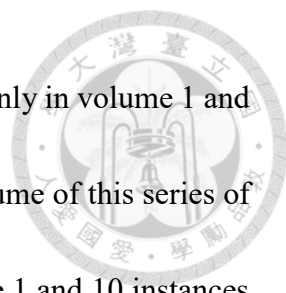


facilitating learners' understanding of the different modalities encoded within the same modal verb. Despite the sequential arrangement and the supplementary example sentences and explanations of the three modal verbs, Mao (2017) argues that the differences between *neng*, *hui*, and *keyi* is required to be explicitly stated in the textbooks (e.g., *neng* emphasizes the acquisition of a skill, while *hui* describes the possession of a skill) as learners have not been provided with sufficient opportunities to discriminate the senses and modalities of the three modal verbs.

Generalizing from the vast amount of studies accumulated so far, it is observed that the selective emphasis on the isolated cases of Chinese modal verb causes a few modal verbs to be omitted, as there are rarely studies that research the presentation of epistemic modal verbs such as *keneng* and dynamic modal verbs such as *ken* and *gan* in Chinese textbooks. This discrepancy in literature shows that more future studies are needed to bridge this gap to provide a better understanding of how modal verbs are instructed and displayed in Chinese learning materials.

5.2.2 Chinese Tag Questions

When it comes to the description of Chinese tag questions in textbooks, Chen (2007) and Hung (2024) are two of the pioneering studies that investigate this domain. Chen (2007) analyzes the distribution of different types of interrogatives (e.g., disjunctive questions, A-not-A questions, tag questions, wh questions, polar questions) in *Practical*



Audio-Visual Chinese. It is found that Chinese tag questions appear only in volume 1 and 2, as there are no instances of tag questions in volume 3, the last volume of this series of Chinese textbooks. There are 11 instances of tag questions in volume 1 and 10 instances of tag questions in volume 2, accounting for approximately 2.93% among all interrogative constructions. Hung's (2024) relatively study examines the distribution of A-not-A tag questions in *A Course in Contemporary Chinese* and *New Practical Audio-Visual Chinese* and labels the pragmatic function of each instance. However, Hung (2024) does not offer a full analysis of Chinese tag questions in Chinese textbooks, inclusive of V-particle, Neg-V-particle, and V-not-V forms, showcasing that this knowledge could be further researched and enhanced by future research.

To provide a comprehensive investigation of Chinese tag questions (i.e., V-particle, Neg-V-particle, and V-not-V forms) in Chinese textbooks, this study generalizes and documents the instances of the use of Chinese tag questions in *A Course in Contemporary Chinese*, as presented in Appendix A.

As shown in Figure 5.1, there are 31 instances of Chinese tag questions throughout the six volumes of *A Course in Contemporary Chinese*. There are 12 instances in volume 1 (39%), 7 instances in volume 2 (23%), 10 instances in volume 3 (32%), 1 instance in volume 4 (3%), and 1 instance in volume 6 (3%). It is worth pointing out that there are no instances of Chinese tag questions in volume 5 (0%). The 22 instances of Chinese tag

questions in volume 1 and volume 3 accounts for approximately 70% of all instances of Chinese tag questions.

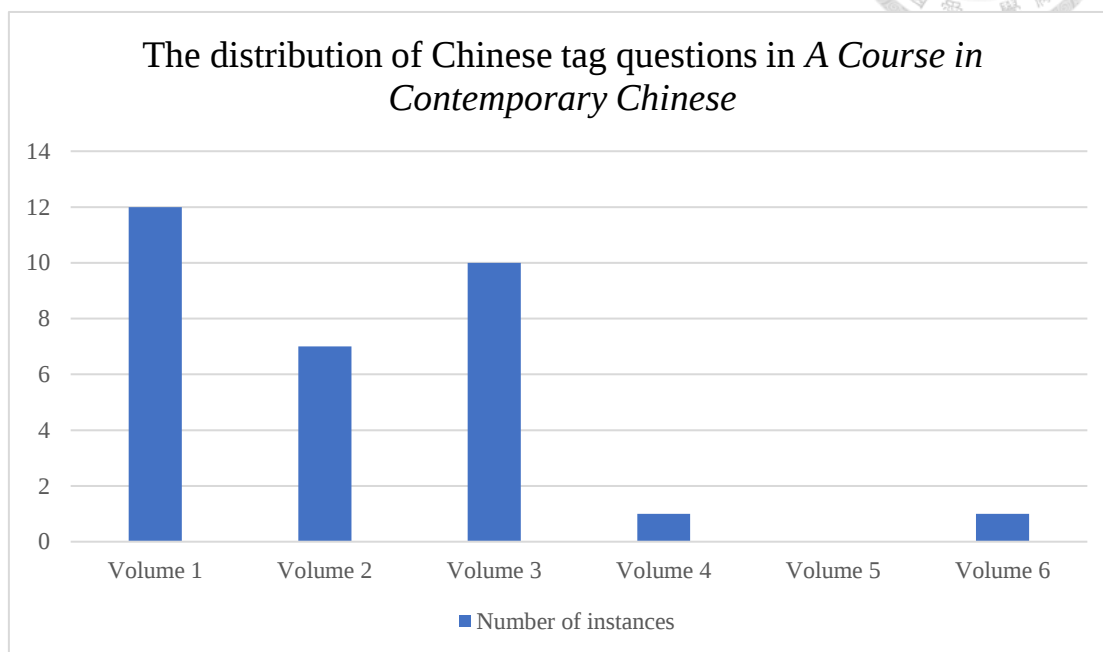


Figure 5.1 The distribution of Chinese tag questions in *A Course in Contemporary Chinese*

The examples of the 31 instances of Chinese tag questions in each volume of *A Course in Contemporary Chinese* are provided as follows.

There are 12 instances of Chinese tag questions in volume 1 in total, as shown in sentences (i) to (xii). The example of Chinese tag questions first appears in lesson 3 of volume 1, as shown in sentence (i). *Hao* is the discourse verb used in this construction, which is realized as *hao-bu-hao* sentence finally. The speaker is asking whether the addressee is interested in going to watch a movie with the speaker tonight in a dialogue.



- (i) 如玉:今天晚上我們去看電影, 好不好? [volume 1, lesson 3, page 47]

Ruyu: jintian wanshang women qu kan dianying, hao-bu-hao

Ruyu: today night we go watch movie good-not-good

‘Ruyu: Let’s go to watch a movie tonight. Is it OK?’

The tag question *hao-bu-hao* is provided as one of the phrases within the same lesson, as shown in sentence (ii). The meaning of *hao-bu-hao* is “How about...?” and “How does that sound?”. The placement of tag questions after the proposition is not particularly mentioned.

- (ii) 好不好 [volume 1, lesson 3, page 49]

Hao-bu-hao

Good-not-good

‘Is it OK?’

Having introduced *hao-bu-hao* as the default Chinese tag question, it also appears in the example sentences and practices of several grammar points in lesson 3, as shown in sentence (iii) and (iv). For example, sentence (iv) encourages learners to use *hao-bu-hao* to seek for the addressee’s opinion, as whether the addressee agree or disagree with the options suggested by the speaker.



(iii) 週末我們去打籃球，好不好? [volume 1, lesson 3, page 56]

Zhoumo women qu dalanqiu, hao-bu-hao

Weekend we go play basketball good-not-good

‘Let’s play basketball on the weekend. Is it OK?’

(iv) 我不喜歡____，我們____，好不好? [volume 1, lesson 3, page 57]

Wo bu xihuan _____, women _____, hao-bu-hao

I not like _____, we _____, good-not-good

‘I don’t like _____. Let’s _____. Is it OK?’

Interestingly, tag questions are specified as one the strategies to “from verb reduplication in interrogatives” in lesson 6, as shown in sentences (v) and (vi). It is the first time for modal verbs, such as *keyi*, to appear in Chinese tag questions, as in sentence (vi).

(v) 請幫幫我，好不好? [volume 1, lesson 6, page 116]

Qing bang bang wo, hao-bu-hao

Please help help me, good-not-good

‘Please help me. Is it OK?’

(vi) 請你教教我，可以嗎? [volume 1, lesson 6, page 116]

Qing ni jiao jiao wo, keyi ma

Please you teach teach me, can prt

‘Please teach me. Can it?’



In addition to the use of *hao* and the modal verb *keyi* as the discourse verb in tag questions, the discourse verb *dui* also appears in lesson 6, as shown in sentence (vii).

(vii) 你朋友的家在三樓，對嗎? [volume 1, lesson 6, page 118]

ni pengyoude jia zai sanlou, dui ma

your friend's home at third floor corret prt

‘Your friend’s house is at the third floor. Is it correct?’

Other instances of tag questions featuring discourse verbs such as the modal verb *keyi* and *hao*, which have been introduced in previous lessons, are shown in sentence (viii) and (ix). It is observed that the discourse verb *hao* mostly appears in the A-not-A form, while *keyi* appears in the A-particle form, similar to the occurrence of *dui ma* in lesson 6. The Neg-A particle form has not appeared in volume 1 and the three approaches to form Chinese tag questions, i.e., the A-particle form, Neg-A particle form, and A-not-A form are not explicitly stated and differentiated.



(viii) 我想吃你的包子，可以嗎? [volume 1, lesson 7, page 144]

wo xiang chi nide baozi, keyi ma

I want eat your steamed stuffed bun can prt

‘I want to eat your steamed stuffed bun. Can I do so?’

(ix) 你也一起去，好不好? [volume 1, lesson 9, page 185]

ni ye yiqi qu, hao-bu-hao

you also together go, good-not-good

‘Let’s go together. Is it OK?’

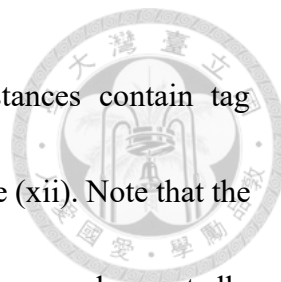
Other than *hao*, *keyi*, and *dui*, the discourse verb *haowan* is also used in tag questions, as shown in sentence (x). This type of tag questions is classified as rare tags in Hsin (2016), suggesting that despite their low frequency in actual speech, the occurrence of adjectival verbs as discourse verbs in tag questions does fulfill the criteria of tag questions—to predicate on the aforementioned proposition.

(x) 明華:你跟你女朋友上個月去花蓮玩，好玩嗎? [volume 1, lesson 10, page 205]

Minghua ni gen ni nüpengyou shangge yue qu hualian wan, haowan ma

Minghau: you and your girlfriend last month go Hualien play, fun prt

‘Minghau: You and your girlfriend visited Hualien last month. Was it interesting?’



Aside from the infrequent rare tags, the following two instances contain tag questions in the A-not-A form, as shown in sentence (xi) and sentence (xii). Note that the discourse verb *dui* and *hao* have been introduced in previous lessons and repeatedly appear in dialogues to remind learners of the practicality of the use of tag questions with other interlocutors in speech, as a means to seek for confirmation from the addressee.

(xi) 怡君:明天是你的生日, 對不對? [volume 1, lesson 13, page 270]

Yijun: mingtian shi nide shengri, dui-bu-dui

Yijun: tomorrow is your birthday, yes-not-yes

‘Yijun: Tomorrow is your birthday. Is it correct?’

(xii) 如玉:你這麼不舒服, 我陪你看病, 好不好? [volume 1, lesson 15, page 327]

Ruyu: ni zheme bushufu, wo pei ni qu kanbing, hao-bu-hao

Ruyu: you so uncomfortable I accompany you go see the doctor, good-not-good

‘Ruyu: You are so uncomfortable. Let me accompany you to go to see the doctor.

Is it OK?’

There are seven instances of Chinese tag questions in volume 2 and the discourse verb *hao* and *dui* are used repeatedly in tag questions in the A-particle form and A-not-A

form, as shown in sentence (xiii), (xiv), and (xv). It is the first time for the discourse verb *shi* to appear in Chinese tag questions, as shown in sentence (xvi). In sentence (xvi), the discourse verb *shi* is presented in the A-not-A form for the speaker to interrogate on the proposition—whether it is true that the redness of chili is a reliable indicator of the exact spiciness of it.

- (xiii) 請你按照我們約的時間在捷運站跟我見面，好嗎? [volume 2, lesson 4, page 89]

qing ni anzhao women yuedeshijian zai jieyunzhan gen wo
jianmian, hao ma

please you according to we appointed time at MRT station with me meet
good per

‘Please meet with me at the MRT station at the appointed time. Is it OK?’

- (xiv) 東健:老師，您看我這麼包，對嗎? [volume 2, lesson 10, page 241]

Dongjian: laoshi nin kan wo zheme bao, dui ma

Dongjian: teacher you see I like this make correct-prt

‘Dongjian: Teacher, am I doing this right?’



- (xv) 月美:如玉，我記得妳男朋友不吃肉，對不對? [volume 2, lesson 12, page 299]

Yuemei: ruyu, wo jide ni nanpengyou bu chi rou, dui-bu-dui

Yuemei: Ruyu, I remember your boyfriend not eat meat correct-not-correct

‘Yuemei: Ruyu, I remember that your boyfriend do not eat meat. Is it correct?’

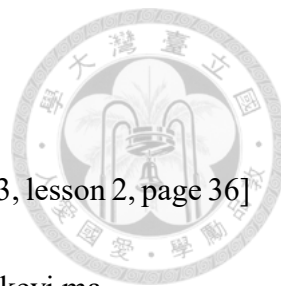
- (xvi) 我聽說辣椒越紅越辣，是不是? [volume 2, lesson 12, page 311]

wo tingshuo lajiao yue hong yue la, shi-bu-shi

I hear chili more red more spicy, yes-not-yes

‘I hear that the redder the chili, the more spicy it is. Is it right?’

There are ten instances of Chinese tag questions in volume 3. Similar to the instances in volume 1 and volume 2, the discourse verbs *keyi*, *hao*, *shi*, and *dui* appear in tag questions repeatedly in the A-particle and A-not-A form, as shown in sentences (xvii), (xviii), (xix), and (xx), implying that these are the most commonly used discourse verbs in Chinese tag questions. Apart from *keyi*, *hao*, *shi*, and *dui*, the adjectival verb *zhende* also appears in tag questions, as shown in sentence (xxi). This usage resembles the use of *haowan* in volume 1, as these are categorized as rare tags by Hsin (2016). The Neg-A particle form of Chinese tag questions is first introduced in a dialogue in volume 3, as shown in sentence (xxii), albeit without specific grammatical explanations. The tag question *bu-shi ma* is the only example of negative tag questions throughout the six



volumes.

- (xvii) 這是用 Word 寫的。我幫你存成 PDF，可以嗎? [volume 3, lesson 2, page 36]

zhe shi yong word xiede wo bang ni cuncheng pdf keyi ma

this is use Word written by I help you save as PDF can prt

‘This (document) is written by Word. Let me help you to save it as a PDF file,

OK?’

- (xviii) 我聽不懂他的話。請你幫我____中文，好嗎? [volume 3, lesson 2, page 36]

wo tingbudong tade hua qing ni bang wo ____ zhongwen hao ma

I do not understand his words please you help me ____ Chinese good prt

‘I do not understand his words. Please help me to (translate it into) Chinese, can you?’

- (xix) 這麼說，將來我就不能開服飾店了，是不是? [volume 3, lesson 11, page 271]

zhemeshuo jianglai wo jiu buneng kai fushidian le shi-bu-shi

in that case future I then cannot open clothing store prt yes-not-yes

‘In that case, I will not be able to open a clothing store in the future. Is it true?’

- (xx) 這麼說，____，對不對? [volume 3, lesson 11, page 272]

zhemeshuo ____ dui-bu-dui

in that case correct-not-correct

‘In that case. Is it correct?’

(xxi) 聽說這棟宿舍大樓住了很多外國人，真的嗎? [volume 3, lesson 5, page 110]

tingshuo zhe dong susedalou zhu le hen duo waiguoren zhende ma

hear this cl dormitory live prt very many foreigners true prt

‘It is said that many foreigners live in this dormitory. Is it true?’

(xxii) 再說，醫美也是幫助人找回自信，開始新生活的好方法，不是嗎? [volume 3, lesson 10, page 236]

zaishuo yimei yeshi bangzhu ren zhaohui zixin kaishi xin

shenghuode hao fangfa bu-shi ma

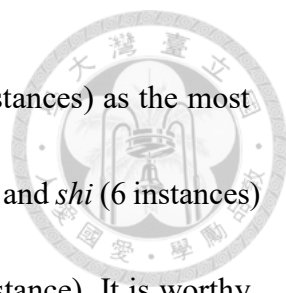
furthermore cosmetic surgery also help people rediscover confidence start new

life good strategy not-yes prt

‘Furthermore, cosmetic surgery is also a good strategy for people to rediscover their confidence and start a new life. Isn’t it?’

With regard to volume 4, 5, and 6, there are only two instances of Chinese tag questions and the discourse verbs used in the tag questions have appeared in previous volumes. No new discourse verbs are introduced in these three volumes.

Generalizing from the observations above, Table 5.1 displays the number of instances of discourse verbs in Chinese tag questions in *A Course in Contemporary Chinese*. As shown in Table 5.1, *hao*, *dui*, *keyi*, *shi*, *haowan* and *zhende* are the discourse verbs used



in Chinese tag questions in this series of textbooks, with *hao* (11 instances) as the most frequently used discourse verb, which is followed by *dui* (6 instances) and *shi* (6 instances) as well as *zhende* (4 instances), *keyi* (3 instances), and *haowan* (1instance). It is worthy to point out that *keyi* is the only example of modal verb used in Chinese tag questions. The rare tags, featuring *haowan* and *zhende* appear in volume 1 and volume 3 respectively, with *haowan* being the least frequently used discourse verb.

Table 5.1 The distribution of the number of instances of discourse verbs in Chinese tag questions

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5	Volume 6	Total
<i>hao</i>	7	3	1	0	0	0	11
<i>keyi</i>	2	0	1	0	0	0	3
<i>dui</i>	2	3	1	0	0	0	6
<i>haowan</i>	1	0	0	0	0	0	1
<i>shi</i>	0	1	4	0	0	1	6
<i>zhende</i>	0	0	3	1	0	0	4



The presentation of the number of instances of the forms of Chinese tag questions (i.e., A-particle form, Neg-A particle form, and A-not-A form) is shown in Table 5.2 and Table 5.3. Table 5.2 indicates the number of instances of the forms of Chinese tag questions in total, whereas Table 5.3 analyzes the instances of the forms of Chinese tag questions of individual discourse verbs.

Table 5.2 The number of instances of the forms of Chinese tag questions in total

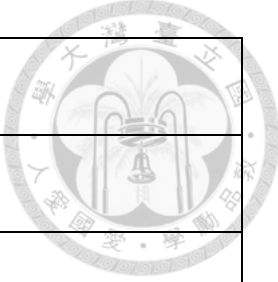
Forms of Chinese tag questions	Number of instances
A-particle form	14
Neg-A particle form	3
A-not-A form	14

In these two tables, it is found that the Neg-A particle form is the least commonly used form of Chinese tag question, with *bu-shi ma* as the only occurrence of this type of tag question.

Table 5.3 The number of instances of the forms of Chinese tag questions of individual discourse verbs



Discourse verb		Number of instances
<i>hao</i>	A-particle form	4
	Neg-A particle form	0
	A-not-A form	7
<i>keyi</i>	A-particle form	3
	Neg-A particle form	0
	A-not-A form	0
<i>dui</i>	A-particle form	2
	Neg-A particle form	0
	A-not-A form	4
<i>haowan</i>	A-particle form	1
	Neg-A particle form	0
	A-not-A form	0
<i>shi</i>	A-particle form	0
	Neg-A particle form	3
	A-not-A form	3



<i>zhende</i>	A-particle form	4
	Neg-A particle form	0
	A-not-A form	0

Speaking of the sequence of arrangement in the textbook, the A-not-A and A-particle form of tag questions are covered much earlier than the Neg-A particle form, as indicated in Table 5.4. The Neg-A particle form is only introduced in volume 3 throughout the six volumes, while the A-particle form and the A-not-A form appear in the different volumes repeatedly.

Table 5.4 The distribution of the forms of Chinese tag questions in each volume

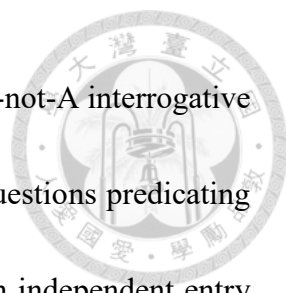
	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5	Volume 6
A-particle form	4	4	5	1	0	0
Neg-A particle form	0	0	3	0	0	0
A-not-A form	8	3	2	0	0	1

In short, this arrangement of Chinese tag questions in *A Course of Contemporary Chinese* merits careful consideration and refinement, which is addressed in the following section.

5.3 Suggestions on the Current Practices in *A Course in Contemporary Chinese*

Having reviewed how Chinese tag questions are presented in *A Course in Contemporary Chinese* in Section 5.2, Section 5.3 offers several adjustments that could be made to improve the arrangement in the textbooks.

For one, although *hao-bu-hao* first appears in the dialogue and is also categorized as one of the phrases in the vocabulary, as shown in sentence (xxiii) and (xxiv), learners



might not be able to differentiate the difference between a typical A-not-A interrogative and a Chinese tag question. Chinese tag questions are supposedly questions predicating on the antecedent proposition, and the isolation of *hao-bu-hao* as an independent entry decontextualizes the use of Chinese tag questions. Learners could experience difficulty figuring the reason for the placement of the A-not-A question sentence finally. Instead of being classified as a stand-alone phrase, Chinese tag questions should be incorporated as one of the grammatical constructions for learners to understand the function and form of Chinese tag questions, as these two important properties are not explicitly introduced in the textbooks. Chinese tag questions could be realized in three distinct forms: A-particle form, Neg-A particle form, and A-not-A form, resembling the formation of typical interrogatives in Chinese. Besides, discourse verbs other than *hao*, such as *dui*, *shi*, etc. are also permissible to enter into this construction, and the phrase *hao-bu-hao* would potentially inhibit learners from extending this A-not-A formation of Chinese tag question to other discourse verbs.

(xxiii) 如玉:今天晚上我們去看電影, 好不好? [volume 1, lesson 3, page 47]

Ruyu: jintian wanshang women qu kan dianying, hao-bu-hao

Ruyu: today night we go watch movie good-not-good

‘Ruyu: Let’s go to watch a movie tonight. Is it OK?’

(xxiv) 好不好 [volume 1, lesson 3, page 49]

Hao-bu-hao

Good-not-good

‘Is it OK?’



That Chinese tag questions should be recognized as an independent grammar construction is further supported by the following two instances of Chinese tag questions that co-occur with the verb reduplication construction, as shown in sentence (xxv) and (xxvi). In volume 1, lesson 6, tag questions are taken as one of the approaches to “form verb reduplication in interrogatives”. Nevertheless, such arrangement seems to imply that tag questions can only be used in this construction, which wrongly represents the distribution of tag questions in natural language. The function of tag questions is to ask for the addressee’s opinions and could appear in any circumstances, irrespective of whether they co-occur with the verb reduplication construction or not. The two constructions should be differentiated as they do not entail one another.

The modal verb *keyi* is the only modal verb that appears in Chinese tag questions in the textbooks and this arrangement fails to consider other modal verbs that are also able to occur in Chinese tag questions, inclusive of epistemic modal verbs and deontic modal verbs as discussed in prior chapters. More diversification of modal verbs being used in Chinese tag questions should be included in the following volumes for learners to

productively utilize this sentence structure in speech. Moreover, it is found that the examples of *keyi* in tag questions mainly appear in the A-particle form and there are no examples of *keyi* in the Neg-A particle form (e.g., *bu-keyi ma*) and the A-not-A form (e.g., *ke-bu-keyi*) in the example sentences. The variation of the different forms of tag questions should be indicated for learners to fully comprehend the grammar of Chinese tag questions.

(xxv) 請幫幫我，好不好? [volume 1, lesson 6, page 116]

Qing bang bang wo, hao-bu-hao

Please help help me, good-not-good

‘Please help me. Is it OK?’

(xxvi) 請你教教我，可以嗎? [volume 1, lesson 6, page 116]

Qing ni jiao jiao wo, keyi ma

Please you teach teach me, can prt

‘Please teach me. Can it?’

Classifying Chinese tag questions as an independent grammar point could avoid the uneven distribution of the A-particle form, Neg-A particle form, and A-not-A form of Chinese tag questions, as there are only 3 instances of the Neg-A particle form in the six volumes, with one of the examples shown in sentence (xxvii). The Neg-A particle form of Chinese tag questions is realized as *bu-shi ma* in all these three instances. Nonetheless,

the tag question *bu-shi ma* is far from representing the category of Neg-A particle tag questions and learners who are not exposed to other instances of Neg-A particle tag questions, such as *bu-dui ma*, *bu-hao ma*, and *bu-keyi ma* might not be able to infer that these different surface representations of Chinese tag questions all pertain to the identical category of negative Chinese tag questions.

(xxvii) 再說，醫美也是幫助人找回自信，開始新生活的好方法，不是嗎? [volume 3, lesson 10, page 236]

zaishuo yimei yeshi bangzhu ren zhaohui zixin kaishi xin
shenghuode hao fangfa bu-shi ma

furthermore cosmetic surgery also help people rediscover confidence start
new

life good strategy not-yes prt

‘Furthermore, cosmetic surgery is also a good strategy for people to rediscover
their confidence and start a new life. Isn’t it?’

In addition to being incorporated as one of the grammatical construction, the sequence of the arrangement should be reexamined as well. For example, although the discourse verb *haowan* in Chinese tag questions appears in volume 1, as shown in sentence (xxviii), the frequency of this type of rare tags featuring adjectival verbs is comparatively lower than other types of Chinese tag questions, such as the *shi*-type of tag

questions. However, the *shi*-type of Chinese tag questions is introduced in volume 2, suggesting that rare tags are more frequent and more unmarked than the *shi*-type of Chinese tag questions. The implication of this arrangement does not correspond to the empirical facts and alterations of the order in which the rare tags occur is required.

(xxviii) 明華:你跟你女朋友上個月去花蓮玩,好玩嗎? [volume 1, lesson 10, page 205]

Minghua ni gen ni nüpengyou shangge yue qu hualian wan, haowan ma

Minghau: you and your girlfriend last month go Hualien play, fun prt

‘Minghau: You and your girlfriend visited Hualien last month. Was it interesting?’

Considering the presentation of Chinese tag questions in *A Course in Contemporary Chinese*, several adjustments are needed: the inclusion of Chinese tag questions as an independent grammar point, the differentiation of Chinese tag questions from other sentence constructions, the incorporation of epistemic and deontic modal verbs in Chinese tag questions, the examples of other discourse verbs used in negative tag questions, and the reordering of the sequence in which different categories of tag questions appear in textbooks.

5.4 The Recommended Teaching Methods

Having explored and provided suggestions on the current practices in *A Course in Contemporary Chinese*, Section 5.4 offers the recommended teaching methods on Chinese tag questions.

Different from Hung (2024) that adopts materials from the Podcast for learners to practice and comprehend the usage of Chinese tag questions, we propose that identifying Chinese tag questions as an independent grammatical construction is of utmost importance for learners to pay attention to this sentence construction.

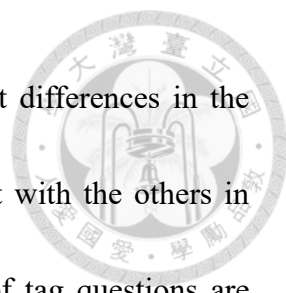
Given that the formation of Chinese interrogatives has been introduced in the first lesson of volume 1 and that the first instance of Chinese tag questions appears in lesson three of the same volume, we suggest that Chinese tag questions should be supplemented as a grammatical construction in the same lesson. Being equipped with the formation of Chinese interrogatives in prior lessons, learners can readily transfer the knowledge to the formation of Chinese tag questions. Table 5.5 demonstrates how Chinese tag questions can be incorporated as a grammar point for learners to familiarize with its function, structures, and usage. The function, structures, and usage are mainly provided in English, following the presentation of grammar points in *A Course in Contemporary Chinese*.

As shown in Table 5.5, learners are explicitly instructed the function of Chinese tag questions, enabling them to differentiate Chinese tag questions from other sentence

constructions, such as the verb reduplication construction. They are able to understand that Chinese tag questions, as a type of interrogative construction, serve additional purposes as they facilitate the conversation between the speaker and the addressee.

The six example sentences provided display the use of the six discourse verbs *hao*, *dui*, *shi*, *keyi*, *hui* and *haowan* in Chinese tag questions. Although the use of the discourse verb *shi* originally appears in volume 2, it is reordered to volume 1 since there is no apparent differences in difficulty among the six discourse verbs. The modal verb *hui* is included for learners to realize that modal verbs other than *keyi* are also possible candidates of discourse verbs to be used in Chinese tag questions. Despite the fact that there are more modal verbs in Chinese than the two presented in this grammatical construction, the other modal verbs are not provided in the example sentences given their relatively low frequency in actual speech. The tag question with the discourse verb *haowan* is provided as the last item in the list of example sentences because it is much less frequently to be used in Chinese tag questions. It is also categorized as “rare tags” in the usage section. Although Hsin (2016) also classifies rhetoric tags as an independent category, this type of tag questions is not included in the explanation because they are much less in use than regular tag questions featuring common discourse verbs, such as *hao*, *dui*, *shi* or modal verbs.

Regarding the forms of Chinese tag questions, the A-particle, Neg-A particle form,



and A-not-A particle form are introduced at the same time without differences in the acquisition sequence as the negative tag question does not contrast with the others in terms of its difficulty. The relevant examples of the three forms of tag questions are supplemented as well. Learners can productively produce Chinese tag questions in their speech after they have been informed of the grammar of this sentence structure. One thing to be bear in mind is that although Chinese tag questions are relatively easy to be produced, they do not have to appear at the end of every sentence, and this reminder has been documented in the usage section.

To evaluate learners' familiarity with the use of Chinese tag questions, five exercises are provided for learners to practice to fill in the blank and complete the conversation with their partners. Some discourse verbs (e.g., *keneng* and *ku*) which have not appeared in the example sentences are provided for learners to be exposed to the use of other discourse verbs in Chinese tag questions. Given that the nature of Chinese tag questions is for the speaker to interact with the addressee, having the learners to complete a dialogue with the assigned sentences imitates the use of Chinese tag questions in an authentic setting. Instructors can invite the learners to share the dialogue that they composed with the entire class and to check for learners' understanding of this sentence construction.

Table 5.5 A sample description of Chinese tag questions as a grammatical construction

Chinese tag questions V- <i>ma</i> 、Neg-V <i>ma</i> 、 V-not-V	
Function: Chinese tag questions are questions attached to another sentence. The main function of Chinese tag questions is to seek confirmation from the addressee or to soften the stance expressed in the prior sentence. It is usually used in a dialogue for speakers to build solidarity with the addressee.	
Examples: (xxix) 如玉:今天晚上我們去看電影，好不好? [volume 1, lesson 3, page 47] Ruyu: jintian wanshang women qu kan dianying, hao-bu-hao Ruyu: today night we go watch movie good-not-good ‘Ruyu: Let’s go to watch a movie tonight. Is it OK?’ (xxx) 你朋友的家在三樓，對嗎? [volume 1, lesson 6, page 118] ni pengyoude jia zai sanlou, dui ma your friend’s home at third floor correct prt ‘Your friend’s house is at the third floor. Is it correct?’ (xxxi) 花蓮很好玩，不是嗎? hualian hen haowan bu-shi ma Hualien very interesting not-yes prt	



‘Hualien is an interesting place. Isn’t it?’

xxxii) 請你教教我，可以嗎? [volume 1, lesson 6, page 116]

Qing ni jiao jiao wo, keyi ma

Please you teach teach me, can prt

‘Please teach me. Can it?’

xxxiii) 明天會下雨，會嗎?

mingtian hui xiayu, hui ma

tomorrow will rain will prt

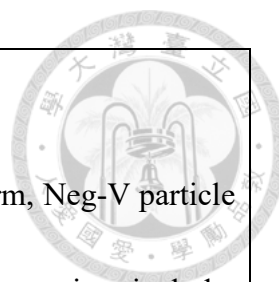
‘It is going to rain tomorrow. Is it?’

xxxiv) 明華:你跟你女朋友上個月去花蓮玩，好玩嗎? [volume 1, lesson 10, page 205]

Minghua ni gen ni nüpengyou shangge yue qu hualian wan, haowan ma

Minghau: you and your girlfriend last month go Hualien play, fun prt

‘Minghau: You and your girlfriend visited Hualien last month. Was it interesting?’



Structures:

There are three ways to form a Chinese tag question: V-particle form, Neg-V particle form, and V-not-V. The common verbs that can appear in Chinese tag questions include: 好 *hao*, 對 *dui*, and 是 *shi*, etc. Some modal verbs such as 可以 *keyi*, 會 *hui*, and 可能 *keneng*, etc can also appear in Chinese tag questions.

1. V-particle form e.g., 好嗎 *hao ma*, 對嗎 *dui ma*, 是嗎 *shi ma*
2. Neg-V particle form e.g., 不好嗎 *bu-hao ma*, 不對嗎 *bu-dui ma*, 不是嗎 *bu-shi ma*
3. V-not-V particle form e.g., 好不好 *hao-bu-hao*, 對不對 *dui-bu-dui*, 是不是 *shi-bu-shi*

Usage:

1. Note that we will not end every sentence with a Chinese tag question. We use Chinese tag questions only when we want to search for the addressee's opinions.

2. Rare tags

Rare tags are tag questions with adjectival verbs, such as *haowan* and *ku*. These tag questions are much less frequent than common tag questions with *hao*, *dui*, *shi*, etc.

Practice:

Try to fill in the blank and practice the dialogue with your partner. Finish the rest of the

dialogue.

xxxv) 我不喜歡____，我們____，好不好? [volume 1, lesson 3, page 57]

Wo bu xihuan _____, women _____, hao-bu-hao

I not like _____, we _____, good-not-good

‘I don’t like _____. Let’s _____. Is it OK?’

xxxvi) 你朋友的家在____，是嗎?

ni pengyoude jia zai _____, shi ma

your friend’s home at _____ yes prt

‘Your friend’s house is at _____. Is it correct?’

xxvii) _____，不對嗎?

_____ bu-dui ma

_____ not-correct prt

‘_____ . Isn’t it?’

xxviii) _____，可能嗎?

_____ keneng ma

_____ possible prt

‘_____ . Is it possible?’

xxxix) _____，酷不酷?



_____	ku-bu-ku
_____	cool-not-cool
‘_____’	. Isn’t it cool?’

The information offered in Table 5 emphasizes that Chinese tag questions should be presented as one of the independent grammar points in Chinese textbooks, as they should not be categorized as one of the idiomatic phrases. Although the formation of Chinese tag questions resembles that of other interrogatives in Chinese, it deserves special attention for learners to truly comprehend the function, structures, and usage of it. The primary function of Chinese tag questions is to predicate on the aforementioned proposition in the antecedent sentence and this is the greatest difference differentiating them from other interrogative constructions. Incorporating Chinese tag questions as one of the grammar points can set them apart from other sentence constructions, as they are falsely represented as one of the approaches to form the verb reduplication construction in *A Course in Contemporary Chinese*. The examples of the use of other discourse verbs in negative tag questions are provided for learners to know that *bu-shi ma* should not be taken as a stock phrase. Negative tag questions, similar to positive tag questions and A-not-A tag questions, are sentence constructions that can be applied productively to various discourse verbs. Modal verbs, other than *keyi*, are used in tag questions for learners to extend the incorporation of regular discourse verbs to modal verbs in Chinese tag

questions. On the other hand, rare tags, are elaborated as a subcategory, showcasing their uniqueness.





Chapter 6 Conclusion



Despite the scarce of research on the syntactic studies of Chinese tag questions as opposed to English tag questions, this research is one of the recent attempts to broaden this field of knowledge, particularly on the interaction between Chinese tag questions and modal verbs. After investigating the presentation of modal verbs in Chinese tag questions and theorizing the syntactic derivation mechanism of Chinese tag questions, this thesis answers the two research questions in the introduction, which are repeated in the following:

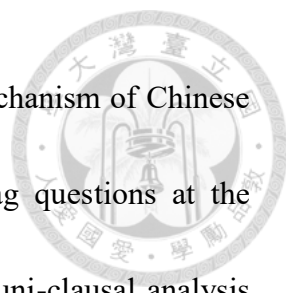
1. What are the criteria responsible for the legitimacy of modal verbs in Chinese tag questions?

The overt realization of the demonstrative pronoun *zhe* supports the existence of *pro* preceding the Chinese tag question. It is found that the *pro* in Chinese tag questions anchors to the proposition in the antecedent clause. As *pro* represents inanimate sentential subjects, they are incompatible with dynamic modal verbs as those modal verbs exert selectional restrictions on the animacy of subjects. Therefore, only epistemic and deontic modal verbs are able to form Chinese tag questions. The criteria responsible for the legitimacy of modal verbs in Chinese tag questions are determined by the modal verbs' eligibility to co-occur with the inanimate *pro*. This analysis provides new insights on Hsin's (2016) and Chiu's (2023) research.

2. How are modal verbs presented in Chinese tag questions with antecedent clauses lacking modal verbs, featuring non-correspondence of modal verbs between antecedent clauses and tag questions, or antecedent clauses containing multiple modal verbs? How do modal verbs in Chinese tag questions relate to varying antecedent clausal constructions?

This study generalizes that the correspondence between the modal verbs in the antecedent clause and Chinese tag question needs not to be strictly followed. Chinese tag questions are permitted to co-occur with antecedent clauses without modal verbs, with different modal verbs, or multiple modal verbs. In addition to the co-occurrence with antecedent clauses without the parallelism of modal verbs, the compatibility with various clausal constructions, i.e., coordinated sentences, subordinated sentences, and embedded sentences is also confirmed. This contribution offers a novel lens to explore Chinese tag questions, as most past literature mainly focuses on antecedent clauses with single sentences.

One phenomenon that has been observed is the difference in grammaticality in sentences featuring multiple modal verbs. The reason for such phenomenon is that the [+Q] feature on the Q particle *ma* merges with the highest morphosyntactic element, qualifying the modal verb that occupies the higher hierarchical order to appear in Chinese tag questions. The lower modal verb in the consecutive order is hence blocked to enter Chinese tag questions.



Based on the findings in this study, the syntactic derivation mechanism of Chinese tag questions is reconsidered and redevised. Locating Chinese tag questions at the interrogative position on the left periphery, the thesis argues for a uni-clausal analysis rather than a bi-clausal analysis of Chinese tag questions given the close syntactic and semantic relationship between the antecedent clause and the tag question.

The syntactic structure of Chinese tag questions can also be extended to the syntactic structure of English tag questions, supporting the principles and parameters framework that the antecedent clause should be an element within both Chinese and English tag questions. The existence of the Q particle and the [+Q] feature reflects the interrogative nature of tag questions cross-linguistically.

Aside from reformulating the syntactic structure of Chinese tag questions, the presentation of Chinese tag questions in Chinese textbooks are also explored. This thesis proposes that Chinese tag questions should be identified as an independent grammatical construction for students to fully understand the function, structure (i.e., A-particle form, Neg-A particle form, A-not-A particle form), and usage of Chinese tag questions and to differentiate them from other unrelated sentence structures. Chinese tag questions with modal verbs should also be included as *keyi* is by far the only modal verb that is able to form Chinese tag questions in *A Course in Contemporary Chinese*, which is definitely a wrong representation of the use of Chinese tag questions by native speakers of Chinese.

In addition to the common discourse verbs, such as *dui*, *shi*, and *hao*, modal verbs are another category of possible discourse verbs that can appear in Chinese tag questions, as what this thesis explores.

To conclude, this thesis argues that Chinese tag questions should be taken seriously in syntactic research, as their interaction with the abundance of modal verbs in Chinese evinces.

References



- Arbini, R. (1969). Tag questions and tag imperatives in English. *Journal of Linguistics*, 5(2), 205-214.
- Bouton, L. F. (1990). The imperative tag—a thing apart. *World Englishes*, 9(1), 37-51.
- Bybee, Perkins, and Pagliuca. (1994). *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*. Chicago: University of Chicago Press.
- Cao, X.-L. (2000). On Asymmetry of Chinese “zhe” and “na” in Contexts. *Chinese Language Learning*, 4, 7-11.
- Chao, Y.-R. (1968). *A Grammar of Spoken Chinese*. Berkeley: University of California Press.
- Chang, C.-L. (2006). Application of Politeness Theory to Tag Questions Translated from English to Chinese. Providence University, Taiwan: MA Thesis.
- Chen, P. (1988). Lun Xiandai Hanyu Shijian Xitong de Sanyuan Jiegou [On the ternary structure of the temporal system in contemporary Chinese]. *Zhongguo Yuwen* [Studies of the Chinese Language], 6, 401-422.
- Chen, Z., & Wang, M. (2021). The cognitive modal of expectation models and its types: On a series of phenomena related to *jingran/pianpian*. *Language Teaching and Linguistic Studies*, 211, 48-63.
- Chiu, L.-C. (2011). *The Phrasal Empty Categories in Mandarin Chinese*. National Tsing

Hua University, Taiwan: PhD dissertation.

Chiu, L.-C. (2021). The interaction between modals and SFPs in Mandarin Chinese: A Cartographic Approach. *Studies in Chinese Linguistics*, 42(2), 183-204.

Chiu, L.-C. (2023). Chinese tag questions: the CP/DP *pro*-form analysis. *The Linguistic Review*, 40(4), 499-525.

Chomsky, N. (1995). *The Minimalist Program*. US: The MIT Press.

Chung, S., Ladusaw, W., & McCloskey, J. (1995). Sluicing and Logical Form. *Natural Language Semantics*, 3, 239-282.

Cinque, G., & Rizzi, L. (2015). The cartography of syntactic structures. In H. Brend & N. Heiko (Eds.). *The Oxford Handbook of Linguistic Analysis* (pp. 51-65). USA: Oxford University Press.

Coates, J. (1983). *The Semantics of the Modal Auxiliaries*. London: Croom Helm.

Cook, W. A. (1978). Semantic Structure of the English Modals. *TESOL Quarterly*, 12(1), 5-15.

Culivocer, P. (1992). English tag questions in Universal Grammar. *Lingua*, 88, 193-226.

Chang, C., & Huang, Y.-Z. (2018). Multi-Functions of the Modal Expression YAO and Learners' Written Errors in Chinese: A Corpus-based Study. *Journal of Applied Language*, 7, 19-34.

Chen, Y.-H. (2000). *The Pedagogical Grammar of the Chinese Modal Verb "Keyi"*.

National Taiwan Normal University, Taiwan: MA thesis.



Chen, C.-Y. (2007). A Study of Question Types in the CSL Textbooks. *Journal of Chinese Language Teaching*, 4(1), 77-97.

Ernst, T. (1994). Conditions on Chinese A-not-A questions. *Journal of East Asian Linguistics*, 3, 241-264.

Haegeman, L. (1994). Introduction to Government and Binding Theory (2ed edition).
USA: Blackwell.

Hofmann, Th. R. (1993). *Reals of Meaning: An Introduction to Semantics*. London &
New York: Longman.

Hsieh, C.-L. (2002). Modal Verbs in Chinese. National Tsing Hua University, Taiwan:
PhD Dissertation.

Hsieh, C. L. (2005). Modal verbs and modal adverbs in Chinese: an investigation into the
semantic source. *UST Working Papers in Linguistics*, 1, 31-58.

Hsieh, C.-L. (2006a). Hanyu Qingtaici de Yuyi Jieding: Yuliauku wei Ben de Yianjiu (The
Semantic Definition of Chinese Modals: A Study Based on Corpus). *Zhongguo
Yuwen Yianjiu* 21: 45-63.

Hsieh, C. L. (2006b). A semantic study on Chinese modal expressions. *Journal of Chinese
Language Teaching*, 3(1), 1-25.

Hsin, A.-L. (2000). Huayu Qingtai Dongci de Yuyi Yu Jufa Chengfen Zhi Hudong [The

Interaction between the Syntax and Semantics of Modal Verbs in Mandarin Chinese].

In *Shijie Huayuwen Jiaoyu Xuehui* [World Chinese Language Association] (ed.),

Diliujie Shijie Huayuwen Jiaoxue Yantaohui Lunwenji: Yuwen Fenxi Zu

[Proceedings for the Sixth World Conference on Chinese Language Teaching], 258-

279. Taipei: Shijie Huawen Chubanshe [World Chinese press].

Hsin, A.-L. (2016). An analysis of Chinese Tag questions with a cross-linguistic comparison to English tags. *Taiwan Journal of Linguistics*, 14(1), 69-119.

Huang, Y.-C. (1999). A Semantic Study of Modal Verbs in Chinese. National Taiwan Normal University, Taiwan: MA Thesis.

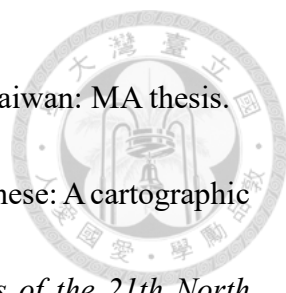
Huang, C.-T. J. (1987). A modular theory of A-not-A questions in Chinese (Hanyu zhengfan wenju de mozu yufa). *Zhongguo Yuwen*, 204, 247-264.

Huang, C.-T. J. (1988). On 'be' and 'have' in Chinese. *The Bulletin of the Institute of History and Philology, Academia Sinica*. Vol. LIX, Part I. Taipei, Taiwan.

Huang, C.T. J. (1989). Pro-Drop in Chinese: A Generalized Control Theory. In O. A. Jaeggli, K. J. Safir (Eds.). *The Null Subject Parameter: Studies in Natural Language and Linguistic Theory*, 15, pp. 185-214. Dordrecht: D. Reidel.

Huang, C. T. J., Li, Y.-H. A., & Li, Y. (2009). *The Syntax of Chinese*. Cambridge: Cambridge University Press.

Huang, X. Y. (2009a). Multiple-modal constructions in Mandarin Chinese: A cartographic

- 
- approach and MP perspective. National Tsing Hua University, Taiwan: MA thesis.
- Huang, X. Y. (2009b). Multiple-modal constructions in Mandarin Chinese: A cartographic approach and MP perspective. In Yun Xiao (Ed.). *Proceedings of the 21th North American Conference on Chinese Linguistics (NACCL-21)*, volume 2, , 524-540.
- Huang, C.-T. James. (2010). Modularity and Chinese A-not-A Questions. In By Huang, C. T. (Ed.). *Between Syntax and Semantics*, pp.106-130. New York: Routledge.
- Huddleston, R. D. (1976) Some theoretical issues in the description of the English verb. *Lingua*, 40, 331-383.
- Huddleston, R. (1970). Two approaches to the analysis of tags. *Journal of Linguistics*, 6(2), 215-222.
- Hu, C. (2001). Question Tags in Taiwan Mandarin: Discourse Functions and Grammaticalization. National Taiwan Normal University, Taiwan: MA Thesis.
- Huang, Y.-Z. (2018). *Error Types and Pedagogical Suggestions of Modal Verbs Xiang, Yao, and Xiangyao in Mandarin: A Corpus-Based Analysis*. National Tsing Hua University, Taiwan: MA thesis.
- Hsu, Y.-F. (2019). *The Error Analysis on Omission of Mandarin Modal Verb HUI and its Pedagogical Implications*. National Cheng Chi University, Taiwan: MA thesis.
- Huang, Y.-H. (2023). The Error Analysis of Modal Verb “Keyi” with Pedagogical Applications. *Journal of Chinese Language Teaching*, 20(2), 1-43.

Hung, H.-S. (2024). *A Gender-based Study of the Pragmatic Functions of Mandarin*

A-not-A Tag Questions in Podcast Conversation and its Pedagogical Suggestions.

National Taiwan Normal University, Taiwan: MA Thesis.



Kay, P. (2002). English subjectless tagged sentences. *Language*, 78(3), 453-481.

Kimps, D. (2007). Declarative constant polarity tag questions: A data-driven analysis.

Journal of Pragmatics, 39(2), 270-291.

Kimps, D., & Davidse, K. (2008). Illocutionary force and conduciveness in imperative

constant polarity tag questions: A typology. *Text & Talk*, 28(6), 699-722.

Li, C., & Thompson, S. (2009). *Mandarin Chinese: A Functional Reference Grammar.*

Berkeley, CA: University of California Press.

Lin, J.-W., & Tang, C.-C. (1995). Modals as verbs in Chinese: a GB perspective. *The*

Bulletin of Institute of History and Philology, 66, 53-105.

Lin, T. H. (2012). Multiple-modal constructions in Mandarin Chinese and their finiteness

properties. *Journal of Linguistics*, 48(1), 151-186.

Liu, Y.-H. (1996). *Modern Chinese grammar*. Taipei: Shida bookstore.

Lobeck, A. (1995). *Ellipsis: Functional Heads, Licensing, and Identification*. Oxford

University Press, New York.

Lu, S. (1985). *Jindai Hanyu Zhidaici* [The Deictic Expressions in Contemporary Chinese].

Shanghai: Xuelin Press.

Lu, S.-H. (2003). *Xiangdai Hanyu Babai Ci* [800 words in Contemporary Chinese].

Beijing: The Commercial Press.

Lu, F. (2014). On the nature, features, and categories of counter-expectation markers.

Journal of Yunan Normal University (Teaching and Research on Chinese as A Foreign Language Edition), 11(6), 53-59.

Lu, F., & Zeng, J. (2019). The Forms and Function of Counter-Expectation Marker.

Linguistic Sciences, 18(1), 40-49.

Lu, M. (2021). Hanyu “zhuanzhe” gainian dingyi ji fenlei de zai tantao—jian lun yihexing

zhuanzhe de shengcheng ji panding jizhi [Revisiting the definition and classification

of “transition” concepts in Chinese—addressing both the mechanism of generation

and judgement of conceptual transition]. *Qilailunheng: Donghua wenzhe yanjiu*

jikan [Journal of Donghua on the Research of Chinese Literature and Philosophy],

9, 83-113.

Lyons, J. (1977). *Semantics*. Cambridge: Cambridge University Press.

Li, Y.-C. (2024). *An Error Analysis of the Uses of Mandarin Chinese Modal Verb Yinggai*

Produced by English-Speaking and Japanese-Speaking Learners of Chinese and its

Pedagogical Suggestions—Based on TOCFL Learner Corpus. National Kaohsiung

Normal University, Taiwan: MA thesis.

McCrawley, D. J. (1994). Remarks on the syntax of Mandarin yes-no questions. *Journal*



of *East Asian Linguistics*, 3, 179-194.

Mandarin Training Center National Taiwan Normal University. (2015a). *A Course in Contemporary Chinese* (Volume 1). Taipei: Linking Publishing Company.

Mandarin Training Center National Taiwan Normal University. (2015b). *A Course in Contemporary Chinese* (Volume 2). Taipei: Linking Publishing Company.

Mandarin Training Center National Taiwan Normal University. (2016a). *A Course in Contemporary Chinese* (Volume 3). Taipei: Linking Publishing Company.

Mandarin Training Center National Taiwan Normal University. (2016b). *A Course in Contemporary Chinese* (Volume 4). Taipei: Linking Publishing Company.

Mandarin Training Center National Taiwan Normal University. (2018a). *A Course in Contemporary Chinese* (Volume 5). Taipei: Linking Publishing Company.

Mandarin Training Center National Taiwan Normal University. (2018b). *A Course in Contemporary Chinese* (Volume 6). Taipei: Linking Publishing Company.

Mao, S.-T. (2017). *A Study on Grammar and Pedagogical Suggestions of Mandarin Modality “Néng” “Huì” “Kěyǐ”*. National Taichung University of Education, Taiwan: MA thesis.

Palmer, F. R. (2001). *Mood and modality* (2nd edition). Cambridge: Cambridge University Press.

Palmer, F. R. (1988). *The English verb* (2nd edition). London: Longman.

Palmer, F. R. (1990). *Modality and the English modals* (2nd edition). London: Longman.

Rizzi, L. (1997). The fine structure of the left periphery. In L., Haegeman (Ed.). *Elements of Grammar*, pp. 281-337. Dordrecht: Kluwer.

Rizzi, L., & Cinque, G. (2016). Functional categories and syntactic theories. *The Annual Review of Linguistics*, 2, 139-163.

Rizzi, L. (2017). Locality and the functional sequence in the left periphery. In E. Aboh, E. Haeberli, G. Puskás, and M. Schönenberger (Eds.). *Elements of Comparative Syntax* (pp. 319-348). US: Walter de Gruyter.

Rizzi, L., & Bucci, G. (2017). Left Periphery of the Clause: Primarily Illustrated for Italian. In M. Everaert, & Riemsdijk, H. v. (Eds.). *The Wiley Blackwell Companion to Syntax, Second Edition* (pp. 1-30).

Searle, J. R. (1983). *Intentionality*. Cambridge: Cambridge University Press.

Shan, W. (2016). Fanyuqi biaoji “jingran” [The counter-expectation marker “jingran”]. *Language and Literature Learning*, 12, 1-2.

Shen, J. (2004). *Buduicheng he Biaojilun* [Asymmetry and the Markedness Theory]. Jiangxi: Jiangxi Education Publishing House.

Smith, C. S. (1997). *The Parameter of Aspect* (2nd edition). Dordrecht: Kluwer.

Sun, S.-H. (2010). *A Study on the Acquisition of Chinese Modal Verbs “Hui, Keyi, Neng” of English Native Speakers of Beginner Chinese Classes -A Case Study of Remedial*

Teaching Practice in the U.S.A.. Chung Yuan Christian University, Taiwan: MA thesis.



Tallerman, M. (2011). *Understanding Syntax* (3rd edition). UK: Hodder Education.

Tang, T.-C. (1981). A study of interrogative sentences in Chinese. *Journal of National Taiwan Normal University*, 26, 219-277.

Tang, T.-C. (1984). A further study of interrogative sentences in Chinese. *Journal of National Taiwan University*, 29, 381-437.

Tang, T.-C. (1988). *Papers on Chinese Morphology and Syntax*. Taipei: Student Book Co.

Tang, T.-C. & Tang, C.-C. J. (1997). Huayu qingtaici xulun [Introduction to Chinese modal auxiliaries]. In *Shijie Huayuwen Jiaoyu Xuehui* [World Chinese Language Association] (ed.), *Diwu Jie Shijie Huayuwen Jiaoxue Yantaohui Lunwenji: Yuwen Fenxi Zu* [Proceedings for the Fifth World Conference on Chinese Language Teaching], 175–197. Taipei: Shijie Huawen Chubanshe [World Chinese press].

Tang, T.-C. (2006). *Studies on Chinese Morphology and Syntax*. Taipei: Student Book Co., Ltd.

Tang, S.-W. (2016). A syntactic analysis of tag questions in English and Chinese. *Foreign Language Teaching and Research*, 48(1), 29-35.

Tang, S.-W. (2018). A syntactic analysis of incremental sentences. *Language Teaching and Linguistic Studies*, 191, 48-57.

Teng, S.-H. (1975). *A Semantic Study of Transitivity Relations in Chinese*. Taiwan: Student Book Co. Ltd.



Tottie, G., & Hoffman, S. (2006). Tag questions in British and American English. *Journal of English Linguistics*, 34(4), 283-311.

Tsai, W. T. D. (2010). On the syntax-semantics correspondences of Chinese modals. *Studies of the Chinese Language*, 3, 208-221.

Tsai, W.-T. D. (2015). On the topography of Chinese modals. In Ur Shlonsky (Ed.). *Beyond Functional Sequence*, pp. 275-294. New York: Oxford University Press.

Tsai, W.-T. D. (2020). Cartographic approach, head movement and flip-flop sentences. *Foreign Language Teaching and Research (bimonthly)*, 52(2), 176-187.

Tseng, W.-H. (2010). Generalized Post-syntactic Movement in Mandarin Chinese. National Tsing Hua University: MA Thesis.

Takahiro, W. (2021). *An Error Analysis of Mandarin Chinese Modal Verbs Neng, Keyi and Hui by Japanese Learners Based on TOCFL Learner Corpus and Pedagogical Suggestions*. National Kaohsiung Normal University, Taiwan: MA thesis.

Vendler, Z. (1967). *Linguistic in Philosophy*. Ithaca: Cornell University Press.

Wu, P.-H. (2009). *Interlanguage Analysis of “Hui”: The case of Japanese learners*. National Taiwan Normal University, Taiwan: MA thesis.

Xu, M.-F. (2001). Reviews on the Research of “Zhe” and “Na”. Chinese Language

Learning, 5, 47-54.

Yang, Y.-L. (2006). A study on the asymmetry of individual zhe and individual na in contexts. *Chinese Teaching in the World*, 4, 33-41.

Yang, Y.-L. (2011). Kejixing lilun ji zhe na pianzhang buduicheng yanjiu [On the asymmetry of zhe and na in contexts and the accessibility theory]. *Henan Social Sciences*, 19(2), 201-204.

Yu, X.-X. (2014). The Similarity and Difference between Evidential *Yinggai* and Epistemic *Keneng*. *Monumenta Taiwanica*, 10, 61-97.

Zhu, D.-X. (2007). *Yufa Jian Yi*. Beijing: The Commercial Press.

Zhang, Y.-A. (2019). *A Study on the Function of Mandarin Modal Verb “Yinggai”: A Corpus-based Analysis with String Matching Algorithm*. National Taichung University of Education, Taiwan: MA thesis.



Appendix A



The instances of Chinese tag questions in *A Course in Contemporary Chinese* in each

volume

	Volume	Lesson	Page	Content
1	Volume 1 (12)	3	47	如玉:今天晚上我們去看電影,好不好?
2		3	49	好不好
3		3	56	週末我們去打籃球,好不好?
4		3	57	我不喜歡____,我們____,好不好?
5		6	116	請幫幫我,好不好?
6		6	116	請你教教我,可以嗎?
7		6	118	你朋友的家在三樓,對嗎?
8		7	144	我想吃你的包子,可以嗎?
9		9	185	田中:謝謝你。我決定帶她去貓空。你也一起去,好不好?
10		10	205	明華:你跟你女朋友上個月去花蓮玩,好玩嗎?
11		13	270	怡君:明天是你的生日,對不對?
12		15	327	如玉:你這麼不舒服,我陪你看病,



				好不好？
13	Volume 2 (7)	4	89	請你按照我們約的時間在捷運站跟我見面，好嗎？
14		7	166	我不喜歡臭豆腐，請你拿出去，好嗎？
15		10	241	月美:我跟馬丁以前上過做菜的課，包過水餃，對不對？
16		10	241	東健:老師，您看我這麼包，對嗎？
17		11	275	我要搬家的事請你別告訴__朋友，好嗎？
18		12	299	月美:這也不一定，我室友吃素，但是有一點胖。如玉，我記得妳男朋友不吃肉，對不對？
19		12	311	我聽說辣椒越紅越辣，是不是？
20	Volume 3 (10)	2	36	這是用 Word 寫的。我幫你存成 PDF，可以嗎？
21		2	36	我聽不懂他的話。請你幫我__中文，好嗎？
22		5	110	聽說這棟宿舍大樓住了很多外國人，真

				的嗎?
23		9	220	聽說在台灣，賣得最好的汽車是 Benz，真的嗎?
24		10	231	陳敏萱:我聽說大醫院的急診室總是擠滿了病人。如果情況不是那麼緊急的話，有時候要等幾天才等得到病床，真的嗎?
25		10	236	再說，醫美也是幫助人找回自信，開始新生活的好方法，不是嗎?
26		11	271	A:現在上網購物越來越普遍，這幾年大家的購物習慣真的改變了很多。 B:這麼說，將來我就不能開服飾店了，是不是?
27		11	272	A:大明說小王不但愛抱怨，還喜歡亂罵人。 B:這麼說，_____，對不對?
28		12	283	高橋健太:妳的話雖然有道理，可是要不要核能電廠是一個專業的問題，應該由專家來討論、決定。再說，一般人對這



				個問題沒有辦法全面了解。既然我們選了民意代表，就應該由他們代表人民處理這些問題，不是嗎?
29		12	283	高橋健太:可是如果大家都像妳一樣，不去投票，投票的結果就不能反映真正的民意，不是嗎?
30	Volume 4 (1)	5	110	A:我聽說現在有不少大學生想延後畢業的時間，是真的嗎? B:現在的確有不少學生，因為要逃避就業而延後畢業的時間。
	Volume 5	N.A.	N.A.	N.A.
31	Volume 6 (1)	10	248	長期在屋內，人容易憂鬱，是不是?

*N.A. stands for “not applicable”.