A COGNITIVE-PRAGMATIC STUDY ON
MODAL VERBS OF POSSIBILITY IN CHINESE

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by
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ABSTRACT

This dissertation aims to unveil the cognitive-pragmatic properties of two near-synonymous modals of possibility in Chinese, keyi (可以) and neng (能), which are also counterparts of can and may as well as their preterite forms in English, by integrating the methodological rigor of Interactional Linguistics and theoretical insights of Cognitive Linguistics. This study relied on the NCCU Corpus of Spoken Taiwan Mandarin as the main source of data, which are spontaneous, face-to-face conversations among friends and family.

This study first examined the usage patterns and discourse functions of keyi and neng in conversation with respect to the three utterance types in which both modals can occur: affirmative declaratives, negative declaratives, and interrogatives. For the overall distributions, keyi features most prominently in affirmative declaratives, while neng, in negative declaratives. While both modals can be preceded by adverbs when used in affirmative declaratives, each modal prefers different co-occurring adverbs.

Affirmative declarative utterances modalized by keyi and those by neng both can be used as assertives with the informing function of providing elaboration. The keyi-modalized assertives tend to occur in incremental elaboration sequences, providing further details to support earlier claims or assessments. In contrast, the neng-modalized assertives are more commonly used in retroactive elaboration sequences to reformulate a prior utterance. Affirmative declaratives with the use of keyi can also serve as directives or commissives, which are not found with the instances of neng in the conversational data.

The negative declarative utterances modalized by keyi and those by neng both can serve the directive function of issuing prohibition or admonition. But negative declaratives modalized by neng can also be used as assertives with an informing or counter-informing function. The information delivered in such acts tends to involve refuting/challenging assumptions or expectations of some sort. The interrogatives modalized by keyi and those by neng differ in terms of their discourse functions.
Additionally, *neng*-modalized questions are much more likely to conduce, namely, to convey the speaker’s preference for a given answer, than *keyi*-modalized ones.

This study further examined the cognitive underpinnings of the usage patterns and discourse functions of *keyi* and *neng* in conversation via the theoretical lenses of force dynamics and mental spaces. The former lens is applied to reveal the force schemata manifested in *keyi*- and *neng*-modalized assertives with the functions of informing and counter-informing in the discourse process of argumentation. Specifically, informing assertives modalized by *keyi* involve the ABSENCE OF BARRIER while those by *neng* tend to involve the REMOVAL OF BARRIER schema. As for counter-informing assertives, those modalized by *keyi* involve the REMOVAL OF BARRIER schema, whereas those by *neng* can involve the BLOCKAGE schema or the COUNTERFORCE schema. From a mental-spaces perspective, while both modal verbs can serve as space builders, the meaning construction of *neng* is more prone to alternativity, that is, involving both the positive and negative spaces of possibility. It is hoped that the useful synergy of discourse-analytic methods and Cognitive Linguistic frameworks demonstrated by this study can add more empirical rigor and theoretical insight to the current literature on Chinese modality.
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Chapter 1

Introduction

This chapter opens with an introduction to the motivations for this study, followed by a listing of the research questions and brief explanations of how they are addressed, and ends with a presentation of the organization of the dissertation.

1.1 Motivations for this study

Modality, which attests to a unique property of human language—the ability to communicate about situations removed from the actual here and now, generally revolves around two core concepts, namely, possibility and necessity, and can be linguistically expressed by various grammatical devices, the most predominant of which are modal verbs. The traditional tripartite division of modality includes epistemic, deontic and dynamic modalities (Nuyts, 2005; Palmer, 1990/2013). Epistemic modality indicates the speaker’s commitment to the content expressed in the proposition (e.g., It may rain later.) while deontic modality concerns obligation, permission and moral judgement (e.g., You should come on time.). The third subtype, dynamic modality, has received much less attention and pertains mainly to ability, circumstantial possibility and volition (e.g., She can speak many languages).

As in English, modal verbs have been researched most among all the modal markers in Chinese.¹ Earlier studies, generally holding the view that Chinese modals constitute a closed class (e.g., Sun, 1996; Tang & Tang, 1997), have tried to delimit the boundary of this class based on their grammatical behaviors. Li and Thompson (1981), for example,

¹ For a more comprehensive meaning-based discussion on the inventory of Chinese modal expressions beyond modal verbs, see Hsieh (2006a, 2006b).
have identified 14 modal verbs in Chinese according to a set of eight distributional properties of modals. Yet Tang (1988) insightfully points out the inadequacy of these grammatical criteria in that not even the 14 modals enumerated meet all of them. It follows that these grammatical properties are better taken as determinants of the prototypicality degree of a modal candidate in this natural class.

To fully grasp the systematicity of Chinese modals, the form-focused approach needs to be augmented with a meaning-oriented analysis. One fine-grained semantic categorization of Chinese modal verbs is provided by Peng (2007), which shows that the traditional tripartite division of modality (i.e., epistemic, deontic and dynamic) is also applicable to Chinese. For each subtype, three levels of modal strength are further distinguished; in the case of deontic modality, for example, the strongest is necessity/imperative (e.g., bixu ‘must’) and the weakest is permission (e.g., keyi ‘can’), with obligation (e.g., yīnggāi ‘should’) in between. The meaning-based system of Chinese modals proposed by Peng (2007), partly based on corpus-illustrated examples and partly on introspection, can be usefully placed under the scrutiny of more and different types of empirical data.

In general, previous studies on Chinese modal verbs have offered descriptively adequate accounts of various uses associated with this particular class of modal markers. While a number of recent studies start to draw authentic examples from written Chinese corpora to illustrate the referential meanings of modals verbs, the focus of analysis is still on their local, sentential level uses. The dynamic nature of modal meanings in discourse contexts are rarely attended to. To remedy the limitations and fill the gaps in the existing literature of Chinese modality, this dissertation aims to unveil the cognitive-pragmatic properties of two near-synonymous modals of possibility in Chinese, namely, keyi and neng, both of which can be considered as counterparts of can and may as well as their preterite forms in English, by examining their distinctive uses in face-to-face conversation.
1.2 Research questions

The following two research questions guided this study:

1. What are the usage patterns and discourse functions of *keyi* and *neng* in conversation?

2. What are the cognitive underpinnings of the use of *keyi* and *neng* in conversation?

To address the questions, this dissertation integrates the methodological rigor of Interactional Linguistics and theoretical insights of Cognitive Linguistics (CL). As part of the usage-based paradigm, CL posits that the study of linguistic structure should be based on contextualized instances of authentic language use (Zima & Brône, 2015), which leads to the popular use of corpus data in CL research (Janda, 2015). Still, most CL studies rely on introspection data alone or written samples only, and thus CL has been criticized for suffering from a written language bias (Cienki, 2015; Linell, 1998). In view of the underrepresentation of interactional data in CL research, this study intends to evaluate the potential of “Interactional Cognitive Linguistics” (Zima & Brône, 2015, p.495), a synergetic approach that combines the insight from both CL and interaction studies. In so doing, the study plans to “take well-established concepts from CL, to confront them with interactional discourse data, and to see how they react to this confrontation” (ibid., p.489), echoing the need of an “interactional turn” for further development of CL.

Relying on the NCCU Corpus of Spoken Taiwan Mandarin (Chui & Lai, 2008; Chui et al., 2017) as the main source of data, this study first addresses the distinctive usage patterns and discursive functions of the two near-synonymous modals in conversations. In so doing, the relevant lexi-co-grammatical co-text and how different systems of sequential organization of talk-in-interaction would bear on the interpretations of *keyi* and *neng* will be highlighted. To further probe into the cognitive underpinnings of the interactional uses of *keyi* and *neng*, this study also adopts two theoretical frameworks in Cognitive Linguistics: Force Dynamics and Mental Spaces. The analytical focus is on how the force-dynamic potential inherent in the lexical semantic content of *keyi* and *neng* contributes to the discourse-level meaning construction of argumentation. In addition, the
mental-space configurations at work in utterances modalized by keyi and neng vis-à-vis the preceding and following discourse will also be examined.

1.3 Organization of the dissertation

The dissertation is organized into seven chapters, including this introduction. Chapter 2 provides a critical review of the literature on modality in general and Chinese modality in particular. Chapter 3 introduces the source of data, the methodological framework of Interactional Linguistics and the two theoretical frameworks in Cognitive Linguistics adopted in this study. Chapters 4 and 5 present the findings on the usage patterns and discourse functions of the two Chinese modals of possibility, keyi and neng, respectively. Chapter 6 discusses the cognitive underpinnings of the use of the two Chinese modals of possibility in naturally occurring conversation. Chapter 7 concludes the dissertation with a summary of its findings as well as a discussion of their implications and limitations.
Chapter 2

Literature Review

This chapter reviews the literature pertinent to the present study from a cognitive-functional perspective. To begin with, Section 2.1 surveys the various notions used to define ‘modality’ and explains how the concept is defined in this study. This is followed by a discussion on different subtypes of modal meanings (i.e., epistemic, deontic and dynamic modality) in Section 2.2. Then Section 2.3 offers an overview of previous studies on modality in Chinese, as well as earlier analyses on the grammatical properties and semantic classification of Chinese modal verbs. Finally, Section 2.4 summarizes the prior accounts on the modal meanings of keyi and neng, and pinpoints the gap in the literature that this dissertation aims to fill.

2.1 Definitions of modality

While commonly treated on a par with tense and aspect (Palmer, 2001), modality is generally considered more difficult to define than the other two linguistic concepts, and there has been no consensus regarding the range of meanings subsumed under the label of modality. As Bybee et al. (1994, p.176) put it, “it may be impossible to come up with a succinct characterization of the notional domain of modality and the part of it that is expressed grammatically.” Salkie (2009, p.79-80) has observed that previous studies on modality have approached the concept in various ways. Palmer (2001, p.1), for example, takes a broad view and considers modality to be “concerned with the status of the proposition that describes the event [reported by the utterance].” Such vague definition can certainly cover most, if not all, of the domains that different researchers have decided
to include in modality; however, it also fails to provide a semantic/conceptual basis to delimit the boundary of the category of modality.

In contrast, van der Auwera and Plungian (1998, p.80) adopt a much narrower perspective of modality in their typological study, limiting the term to the “semantic domains that involve possibility and necessity as paradigmatic variants”, a more predominant position also held in the treatments of modality by Depraetere and Reed (2006) as well as Huddleston and Pullum (2002). As pointed out by Salkie (2009), such restrictive strategy has the merit of starting with notions that have received broader agreement on their core membership in the category, but meanwhile it suffers from the limitation of excluding domains that many researchers regard as members of modality (e.g., volition and evidentiality).

Some attempt the definition of modality by providing a list of representative notions traditionally treated as the core of modality. Downing and Locke (2002, p.382), for instance, describe modality as “a semantic category which covers such notions as possibility, probability, necessity, volition, obligation, and permission”. This approach, particularly common among pedagogical and reference grammars, fails to pinpoint the essential properties shared by all the members in the category of modality.

Different concepts have been resorted to in the literature in search for a linguistic definition of modality; the two most dominant ones are subjectivity and factuality. The former can be witnessed in Bybee et al. (1994, p.176), which, based on the discussion of Lyons (1977), refers to modality as the “grammaticalization of speakers’ (subjective) attitudes and opinions”. Narrog (2005) points out that such subjectivity-based definition falls victim to the problem of fuzzy boundary between ‘subjective’ and ‘objective’ (attitudinal vs. non-attitudinal). It has been well documented that modal markers like modal verbs in English have subjective as well as non-subjective uses. Moreover, he argues that expression of subjectivity in actual discourse is distributed across the lexicon and across various grammatical categories, including but not limited to aspect and voice; therefore, the concept of subjectivity does not serve to distinguish modal markers from expressions of other categories.
More specifically, Narrog (2005) argues that such vague notions as ‘subjective’ or ‘speakers’ attitude’ should be abandoned in favor of the more delimiting concept of factuality, as shown in the definition of modality below.

Modality is a linguistic category referring to the factual status of a state of affairs. The expression of a state of affairs is modalized if it is marked for being undetermined with respect to its factual status, i.e., neither positively nor negatively factual. (p.184)

He maintains that, via the concept of factuality, modality can be semantically defined on the same level as other grammatical categories like tense, aspect and negation. Collins (2009, p.11) also indicates that the semantic notions associated with modality all involve some sort of ‘non-factuality’, namely, “a situation is represented not as a straightforward fact, as not being known”. In a similar vein but from a Cognitive Grammar perspective, Radden and Dirven (2007) distinguish different types of reality status of situations based on Langacker (1991) and link modality to the expression of situations that involve potential reality (as opposed to factual and projected reality expressed by tenses), which is showcased in their definition of modality below.

Modality is an assessment of potentiality, depending either on the speaker’s judgment of the reality status of a state of affairs or on the speaker’s attitude towards the realization of a desired or expected event. (p.246)

This definition of modality has two advantages. First, it highlights the cognitive-pragmatic nature of modality by elegantly integrating the two most important pertinent concepts reviewed above, ‘factuality’ and ‘subjectivity’. In addition, it (somewhat) delineates the boundaries of the subtypes of modality widely recognized in the literature to be reviewed in the next section.
2.2 Divisions of the domain of modality

As noted by van der Auwera and Plungian (1998, p.80), “modality and its types can be defined and named in various ways” and “there is no one correct way.” Still, some of the prior attempts to classify the subtypes of modality are more widely accepted in the literature than the others. One of such traditional division consists of three basic semantic dimensions of modality: epistemic, deontic and dynamic (cf. Nuyts, 2005, 2006). The following subsections will first review the scope of each of them as well as the controversies involved and then discuss the meaning relations among the subtypes of modality.

2.2.1 Epistemic modality

Epistemic modality is traditionally held to be concerned with “the degree of likelihood or the degree of personal commitment of the speaker toward the truth of the proposition” (Mortelmans, 2007, p.870). The definition suggests that epistemic modality is inherently gradient: the factuality of the situation can be assessed on a scale from weak possibility (e.g., He may come later) to strong necessity (e.g., It must have rained). In addition, the speaker’s judgment on the truth-value of the proposition is closely tied to the speaker’s knowledge and inferences drawn based on the facts or evidence available to the speaker. Radden and Dirven (2007, p.234) even go so far to say that, strictly speaking, epistemic modality indicates “the speaker’s lack of sufficient knowledge.”

Conceptually, epistemic assessments can be cast based on the reliability of information source, a qualification encoded in the cross-linguistic grammatical category of evidentials. In general, two broad subcategories of evidential values are distinguished (cf. Aikhenvald, 2004; Chafe & Nichols, 1986; Cornillie, 2009; de Haan, 2006; Givón, 1982; Plungian, 2001): direct versus indirect evidentiality. Direct evidentials indicate that the speaker has obtained the information through first-hand sensory experience, while indirect evidentials are used when the speaker deduces the information (coded by
inferentials) or receives the information from others (coded by hearsay markers or reportatives).

There is no unanimity as to whether evidentiality should be subsumed in the domain of modality. The researchers considering evidentiality as modal mostly recognize its conceptual proximity to epistemic modality (as opposed to deontic or dynamic). Bybee (1985), for example, includes evidentiality within epistemic modality, and Palmer (2001) adjoins the two concepts under the supercategory of ‘propositional modality’. Narrog (2005, p.187-188), based on his factuality-oriented definition discussed in Section 2.1, considers evidentiality modal. Using the German modal sollen (‘is said to’, ‘allegedly’) as an example, he states that the factuality of the proposition (‘died in an accident’) in (1) is undetermined with respect to sources of information other than the speaker. Such analysis contradicts with Cornille’s (2009, p.52) view that “when speakers use an evidential marker, they check versions of the evidentially qualified state of affairs, but the state of affairs is in no case questioned”. Put differently, evidentials, unlike other modal markers, are not concerned than with the speaker’s assessment of the potentiality of the state of affairs.

(1) Er soll bei einem Unfall umgekommen sein. (Narrog, 2005, p.187)
‘He allegedly died in an accident.’

Still, previous studies have observed a strong cross-linguistic connection between information source and epistemic commitment. Direct evidence, generally considered more reliable than inferred or reported information, tends to evoke stronger speaker commitment (Givón, 1982). Stating that evidentiality overlaps with epistemic modality, Givón (2001, p.326) teases out the relation between the two domains in terms of a mediated causal chain (evidential source > evidential strength > epistemic certainty):

Rather than pertaining directly to subjective certainty, grammaticalized evidential systems code first and foremost the source of the evidence available to back up an assertion, and only then, implicitly, its strength. It is that implicit connection that, in turn, links evidentiality to subjective certainty. (Givón, 2001, p.326, italics original)
Compared to sensory and hearsay evidentials, indirect evidentials based on inference and reasoning is conceptually more relevant to epistemic judgments. The evidential overtone of epistemic use of the English modal must has been most cited as an example in this respect. Coats (1983) comments that the modal in (2) expresses “the speaker’s confidence in the truth of what he is saying, based on a logical process of deduction from facts known to him.” Also recognizing the inferential reading carried by must, Van der Auwera and Plungian (1998, p.86) contend that inferential evidentiality overlaps with epistemic necessity: “for both categories we are dealing with the certainty of a judgment relative to other judgments.” The overlap, they add, can explain why inferential evidentials in other languages are often translated into English with epistemic must. De Haan (2006), on the other hand, points out that such one-to-one correspondence across languages is not always possible.

(2) His teeth were still chattering but his forehead, when I felt it, was hot and clammy. He said, “I must have a temperature”. (Coates, 1983, p.41)

Recently more scholars have argued that epistemic assessments do not necessarily correlate with evidential values. Cornillie (2009) points out that, while direct evidence generally suggests higher degrees of speaker commitment, such evidential value does not block a weaker epistemic assessment, exemplified by the use of may in (3). Similarly, Nuyts (2005, 2006) mentions that hearsay markers, often held to convey lower likelihood of the state of affairs, can have the opposite effect if given appropriate context, for example, when reporting on the opinion of experts or information from authoritative sources. In other words, epistemic implications of evidential devices can be cancelled (although more difficult for inferentials than for direct evidentials and hearsay markers) and thus are not part of the inherent meanings of evidentials.

(3) There is a wounded dog lying on the other side of the street. It may be in pain. (Cornillie, 2009, p.50)

In short, evidentiality and epistemic modality can be clearly defined in distinct terms and thus should be kept as separate categories: “evidentiality refers to the reasoning processes that lead to a proposition and epistemic modality evaluates the likelihood that this proposition is true (Cornillie, 2009, p.46-47). Different degrees of reliability, or
strength, ascribed to various sources of evidence should not be straightforwardly translated to levels of epistemic speaker commitment: “it is better not to lump epistemic modality and evidentiality together on an a priori basis and to treat them as separate categories even if one may expect intricate interactions between them” (Nuyts, 2005, p.12).

2.2.2 Deontic modality

While epistemic modality concerns the speaker’s own attitude towards the factual status of the proposition, deontic modality is relevant to social interaction and traditionally defined in terms of the notions of ‘obligation/prohibition’ and ‘permission’ (Palmer, 2001; Radden & Dirven, 2007). Nuyts (2006, p.4) broadens the scope of deontic modality, defining it as “an indication of the degree of moral desirability of the state of affairs expressed in the utterance, typically, but not necessarily, on behalf of the speaker.” Given the definition, deontic modality is also scalar by nature. He adds that the notion of ‘morality’ involved in this definition should be understood widely, with the ‘deontic sources’ (Huddleston & Pullum, 2002, p.178) ranging from societal norms to “strictly personal ethical criteria of the individual responsible for the deontic assessment” (Nuyts 2006, p.5).

Further distinctions of deontic modality can be drawn according to whether the deontic source is subjective, deriving from the speaker as in (4), or objective, externally initiated as in (5). The use of must in (4) has the illocutionary force of a speaker-initiated directive for the purpose of eliciting an action, while the same modal in (5) has the force of an assertion or report.

(4) You must let me smell it. (Collins, 2009, p.28)

(5) If you are the registered keeper of a vehicle and you change your address or name (on marriage, for example) you must tell DLVA, using the back of the registration document. (Collins, 2009, p.28)
The subjective, directive orientation of deontic modality has also been connected to the notion of performativity in the literature. In Nuyts’s (2006, p.15) terminology, the modal *must* in (4) is a *performative* expression that “marks an attitude to which the speaker is fully committed at the moment of speech” while the use of *must* in (5) is *descriptive*, a case where the speaker is “only reporting on an attitude regarding some state of affairs held by someone else”. In contrast, Palmer (2013, p.69) argues that performativity, a distinguishing feature impertinent to dynamic modality, is essential to and can be applied to all cases of deontic modality: “By using a deontic modal, a speaker may actually give permission (*may, can*), lay an obligation (*must*) or make a promise or threat (*shall*).” In any case, two functions of deontic modality can still be discerned: presenting the speaker’s own assessment versus reporting an external assessment.

Radden and Dirven (2007, p.238) have pinpointed some useful major differences between deontic and epistemic modality. Whereas deontic modality is always future oriented, epistemic modality does not have this constraint. In addition, deontic modality applies to events, and epistemic modality typically involves the assessment of the likelihood of states. The last one is concerned with semantic scope: deontic modality expressions have scope over only parts of a proposition, specifically, the hearer, but an epistemic modality expression takes the whole proposition under its scope. In other words, deontic modality has a narrower scope than epistemic modality. The difference in terms of semantic scope may account for the sequence preference in the co-occurrences of modal verbs in some dialects of English (e.g., in Southern American English) (cf. Nagle, 1994) and maybe in other languages like Chinese as well.

### 2.2.3 Dynamic modality

Dynamic modality (Palmer, 2001), also termed as ‘facultative modality’ (Goossens, 1985), is the most controversial subtype of modality. Previous studies do not agree on the meanings to be subsumed under this label and the dynamic uses of modal markers have been considered peripheral in the literature (cf. Salkie, 2009).
Traditional accounts of dynamic modality (e.g., Goossens, 1985; Huddleston & Pullum, 2002) mostly limit the category to the ability/capacity inherent to the subject participant in the clause. Palmer (2001), for example, considers dynamic modality to derive from and affect the subject referent, as in (6), contrasting with deontic modality, which derives from an external source and affects a discourse participant. Nuyts (2005, 2006) rightfully points out that dynamic modality should be better defined in terms of a property of the first argument of the predicate or of the controlling participant in the state of affairs to account for passive cases like (7), in which the capacity expressed by the modal should be ascribed to the implicit controlling agent rather than to the grammatical subject.

(6)  He can run a mile in five minutes. (Palmer, 2001, p.10)

(7)  The door has a key lock now, so that it can be opened and closed from both sides. (Nuyts, 2006, p.3)

More importantly, Nuyts (2005, p.3-4) expands the foregoing traditional, narrower definition of dynamic modality and allows its scope to surpass the domain the ability and include potentials and necessities. This broader scope has the obvious advantage of bringing dynamic modality more in line with epistemic and deontic modality in that all three revolve around the concepts of possibility and necessity. He further distinguishes three subtypes of dynamic modality based on whether the ability/potential or necessity can be attributed to an individual/participant, a situation, or a mixture of both. The first two subtypes are ‘participant-inherent dynamic’ and ‘participant-imposed dynamic’: the meanings of abilities/potentials and needs/necessities are entirely inherent to the first-argument participant in the former and determined by the local circumstances of that participant in the latter. To illustrate, the properties of ability in (6) and necessity in (8) can be exclusively ascribed to the first-argument participants. In contrast, the similar properties are conditioned by external factors, explicitly mentioned in (9), or implicit in the situation depicted in (10). The third subtype, ‘situational dynamic’, involves potentials or necessities/inevitability deriving from the situation depicted in the clause, as in (11). However, it appears that the boundary between ‘participant-imposed dynamic’ and ‘situational dynamic’ is not always clear, especially
in the cases with animate first-argument participant. For example, Nuyts (2006) considers the use of phrasal modal in (12) an instance of situational dynamic, even though such usage also fits the definition of ‘participant imposed dynamic’. That is, van der Auwera and Plungian’s (1998) distinction between ‘participant-external’ and ‘participant internal’ modalities could be an alternative to distinguish subtypes of dynamic modality.

(8) I must eat something now, or I’ll starve.
(9) I’ve unlocked the back door, so you can enter the house there.
(10) I’ll be home in half an hour or so but I need to get fuel first.
(11) The book need not be in the library. It can also be on my desk.
(12) We all have to die someday.

Another more problematic concept commonly associated with dynamic modality is ‘volition/intention’. While van der Auwera and Plungian (1998) simply exclude the concept from modality, Palmer (2001) includes it in dynamic modality and Bybee et al. (1994) treat it as similar to ability and root possibility, all under the category of agent-oriented modality. Larreya (2009) argues that the modal system in German involves a verb (wollen) that essentially expresses volition, which offers an argument in favor of subsuming volition in the domain of modality. As will be seen in Section 2.3, volition (and willingness) is also considered an important member of dynamic modality in the Chinese modal system.

Previous studies have observed some semantic/pragmatic properties shared by epistemic and deontic modality but not by dynamic modality. Nuyts (2005) argues that, unlike epistemic and deontic modality, dynamic modality is arguably non-scalar, which seems to be supported by Salkie’s (2009) claim that there is no scale relevant to the volition use of will in “Will you please open the door?” Larreya (2009) holds an opposite view, distinguishing among strong volition (I WILL stay here), weak volition (Ok, I’ll do the dishes) and indefinite volition (I think I’ll have one more small whisky). Chinese also have different dynamic uses of modals that convey distinct strengths of volition and possibly ability (see Table 2-1); therefore, whether dynamic modality is gradient like epistemic and deontic modality can be further examined based on the modal system in Chinese.
In addition, subjectivity is commonly held to be one important criterion to judge whether a modal use is prototypical. Salkie (2009, p.89) maintains that the ability meaning of can as in “I can track him, and he won’t know” has a low degree of modality because it does not involve reference to other possible worlds; that is, dynamic modality has the property of factuality. Using Halliday’s (1970) terms, Verstraete (2001) also argues that dynamic modals are always objective, with ideational content-related functions, while epistemic modals are always subjective, with interpersonal speaker-related functions, and deontic modals can serve both functions. The common belief that dynamic uses of modals convey merely factual meanings and never involve speaker’s commitment or attitudes should also be closely examined in discourse data.

2.2.4 Relations among different types of modality

Aside from the tripartite division of the domain of modality reviewed above, some studies (e.g., Coates, 1983; Sweetser, 1990) operate with a two-way distinction between ‘root’ and ‘epistemic modality’. One corollary of this operation is that deontic and dynamic modality, lumped together in the subcategory of root modality, are by default conceptually closer to each other than they are respectively to epistemic modality. Nuyts (2005) points out that in fact deontic modality is arguably more akin to epistemic modality than to dynamic modality: in particular, deontic and epistemic modality are both fully speaker-oriented while (participant-internal) dynamic modality is agent- or first-argument-participant-oriented. The lack of a broader category subsuming deontic and dynamic modality in the three-way partitioning of modality thus leaves open the possibility that deontic and dynamic modality are no less different from each other than they are respectively from epistemic modality. Still, the term ‘root’ suggests that non-epistemic modality is conceptually more basic, which is supported by diachronic evidence that epistemic meanings tend to extend from root meanings in the grammaticalization of modals.
Modals verbs in English (and in other languages) have been observed to display root-epistemic polysemy in their present-day usage, a feature unique to this class of modal markers. Different cognitive-pragmatic mechanisms have been proposed to account for the meaning extensions of modal verbs. From a synchronic point of view, the polysemic relationship between root and epistemic modality can be explained by unidirectional metaphorical transfer (Johnson, 1987; Sweetser, 1990), a process also witnessed in other instances of grammaticalization (e.g., the shift of be going to from a concrete meaning of spatial motion to a more abstract temporal meaning). Specifically, Sweetser (1990), following Talmy’s (1988, 2000) theory of force dynamics, postulates a conceptual mapping of image schemata of force between the external domain of socio-physical interaction and the internal domain of reasoning, the former pertinent to root meanings whereas the latter, epistemic uses.

As pointed out by Heine (1995), the abrupt, discrete conceptual shift from one domain to another assumed in such metaphorical analysis, however, appears to be incongruent with the continuous, gradient nature of grammaticalization. Alternatively, the diachronic development of epistemic uses out of root meanings has been explicated in terms of a metonymic process involving conventionalization of implicature (e.g., Bybee et al., 1994; Traugott, 1989; Traugott & Dasher, 2002; Traugott & König, 1991). In this metonymy-based account, invited inferences arising from the uses of a modal verb in specific contexts, with sufficient frequency, become gradually entrenched as regular meanings of the modal. For example, Bybee et al. (1994, p.198) found many instances of may in Middle English used in contexts where an epistemic possibility reading can be inferred along with the expressed root possibility sense (as in the case where ‘someone can sneak in here’ implies ‘someone may sneak in here’). Despite the fundamental differences in these two positions, neither metaphor nor metonymy precludes the other. Whether metaphorical mapping plays a more crucial role than metonymic inferencing in the semantic change may vary from modal to modal. Both cognitive-pragmatic processes are needed to adequately account for the conceptual as well as linguistic/grammatical shifts of modal meanings.
2.3 Modality and Chinese modal verbs

A definition of modality commonly adopted in the Chinese linguistics literature can be found in Tang and Tang (1997, p.177): modality refers to the speaker’s viewpoint or mental attitude towards the propositional content of a sentence. Similarly, Peng and Liu (2012, p.243) state that modality is about the speaker’s subjective attitude towards the truth value of the proposition or the reality status of the events expressed in the sentence, concluding that the fundamental feature of modality is subjectivity. These two representative definitions reflect that Chinese linguists’ characterizations of modality are more concerned with subjectivity rather than factuality. One corollary of this bias is that a number of devices that merely express subjectivity (i.e., the speaker’s attitudes, assumptions, etc.) tend to be categorized as modal expressions in Chinese as well (cf. Hsieh, 2006b).

By such subjectivity-based definition, Tang and Tang (1997, p.177) point out that modal expressions in Chinese include (a) sentence-final modal particles (e.g., ne, a); (b) modal adverbs, which occur sentence-initially or between the subject and the predicate (e.g., huoxu ‘perhaps’, dagai ‘probably’, yiding ‘definitely’); (c) modal verbs and modal adjectives, which occur before predicative verb phrases or adjective phrases (e.g., yinggai ‘should’, keyi ‘can’, ken ‘be willing to’). With regard to how Chinese sentence-final particles can serve as a modal marker, Chu (2009) observes that the core meaning of the particle ba involves speaker’s uncertainty towards the propositional content of its host utterance. This so-called “modality meaning” also shows that the particle is a marker for subjectivity.

As in English, modal verbs have been researched most among all the modal markers in Chinese. In fact, researchers have used different Chinese names to refer to the class of modal verbs. The most common one is zhudongci ‘auxiliary verb’ (cf. Fu & Zhou, 1991; Lu, 2006; Sun, 1996; Zhu & Gao, 2013), a term highlighting the syntactic functions of these verbs. The second one is nengyuandongci ‘can-wish verbs’ (cf. Liu et al., 2001; Ma,1998; Meng, 2011); this term seems to suggest the importance of dynamic notions of ability and volition in the Chinese modal system. Some recent studies have
started to use *qingtai(dong)ci* (‘modal verbs or modals’) (cf. Hsieh, 2006b; Peng, 2007; Zhu, 2005); the coinage of this new term shows that research on modality in Chinese is heavily influenced by the theorizations of modality based on Western languages.

Previous studies generally hold the view that Chinese modal verbs constitute a closed class (e.g., Sun, 1996; Tang & Tang, 1997), but do not agree on the exact number of members in this natural class. Some studies rely mainly on (more lenient) syntactic criteria and thus a greater number of modal verbs are included; two examples are Ma (1988) and Sun (1996), which list 58 and 43 auxiliaries respectively. Others take both syntactic and semantic properties into consideration and thus have a smaller inventory of modal verbs; such sources, mostly reference grammars, include Liu et al. (2001) and Lǚ (1999), which have 20 and 17 auxiliaries, respectively. In other words, prior research on Chinese modals has all resorted to the grammatical properties of modal verbs in an attempt to delimit the boundary of this class.

### 2.3.1 Grammatical properties of Chinese modal verbs

The grammatical behaviors of Chinese modals are observed to share some properties with those of verbs and adverbs. Fu and Zhou (1991, p.185) suggest that modal verbs are situated at an intermediary state between verbs and adverbs. Li and Thompson (1981, p.172-174) pinpoint a set of eight distributional properties of modals that distinguish them from verbs and adverbs. With the eight criteria below, they have identified a total of 14 modals in Chinese. Their discussion serves as a useful starting point to tease out the fluid syntactic status of modals.

(i) An auxiliary verb may be negated.
(ii) An auxiliary verb may occur as the A element in A-not-A questions.
(iii) An auxiliary verb does not take aspect markers.
(iv) An auxiliary verb must co-occur with a verb (or an “understood” verb).
(v) An auxiliary verb cannot take a direct object.
(vi) An auxiliary verb cannot be modified by intensifiers.
(vii) An auxiliary verb cannot be nominalized.

(viii) An auxiliary verb cannot occur before the subject.

The first two properties are shared by verbs. Chinese modals, like their English counterparts, can be negated. Li and Thompson (1981) only illustrates this property with the neutral negator *bu*, bypassing another main negator *mei*(you), which negates the completion of an event. While Ross and Ma (2006, p.73) indicates that modal verbs are never negated with *mei*(you), Peng (2007, p.322) points out that dynamic uses of modals, due to their factual character and objective tendency, are compatible with *mei*(you).

The affirmative and negative forms of Chinese modals can also be juxtaposed to form an A-not-A question that can be answered in similar way as yes-no questions are. This second property poses problems for deontic modals. For example, *bixu* ‘must’, with its morphed negated counterparts as *bubi* or *wuxu*, cannot be used in an A-not-A form and therefore it has been considered a less prototypical modal or even excluded from the inventory.

The least controversial property, shared by all modal candidates in Chinese, is probably their incompatibility with aspect markers (iii), a criterion that serves to clearly distinguish modal auxiliaries from regular verbs. The next two properties, (iv) and (v), have to do with the types of constituents that can follow modal verbs. Li and Thompson (1981) indicate that an auxiliary verb cannot be used without a verb unless the meaning of the main verb is understood from the context. Lu (2006) also points out, in a more elaborate manner, that the majority of modal verbs, except for *yao* ‘need; want to’, *ying* ‘should’ and *dei* ‘have to’, can serve as the predicate alone, mostly used as short answers in responses.

The claim that modal verbs cannot take a direct object is more problematic. Li and Thompson (1981) argue that *yao* ‘want’ and *xiang* ‘want; think’ are not auxiliary verbs because they can have a noun phrase or a clause (expressing an event) as the direct object. Tang (1988) points out actually five modal verbs in their list (i.e., *yinggai* ‘should’, *yindingang* ‘should’, *gai* ‘should’, *dei* ‘have to’, *keyi* ‘can’) can take a clause as the direct object. Therefore, most researchers only attend to whether a modal auxiliary
can fit into the “subject + auxiliary + verb” frame (cf. Fu & Zhou, 1991; Sun, 1996),
ignoring the fact that some modals can also be followed by a noun phrase or a clause.

Whether (and if so how) Chinese modals can be modified by intensifiers or
similar kinds of adverbs has also been a matter of dispute among researchers. Li and
Thompson (1981) claim that it is ungrammatical for auxiliary verbs to be modified by
intensifiers such as hen ‘very’ and geng ‘even more’ (vi), using neng ‘can’ and hui ‘can’
as examples, the same and only two modals pinpointed by Ross and Ma (2006) in their
discussion of acceptable modification of modal verbs by intensifiers. Tang (1988) also
points out that, out of the 14 modal verbs in Li and Thompson’s list, the following five
allow modification by intensifiers: neng ‘can’, hui ‘can; will’, keyi ‘can’, gan ‘dare’, ken
‘be willing to’. Lu (2006) gives a somewhat different list of modals that can be used with
degree adverbs like hen ‘very’: neng, hui, keneng ‘possible’, xiang ‘to want; to think’,
yuanyi ‘be willing to’. It is worth noting that most of the modals in these two (intuition-
based) lists express dynamic modal meanings (i.e., ability and volition), even though, as
discussed in Section 2.2.3, dynamic modality is generally held by researchers to be non-
scalar as contrasted with epistemic and deontic modality.

The next property is concerned with whether Chinese modal verbs can be
nominalized (vii). According to Li and Thompson (1981), modal auxiliaries, unlike
regular verbs, cannot be followed by the nominalizer particle de, with neng ‘can’ as an
example. Tang (1988) and Zhou (2010) both have identified some counterexamples (e.g.,
hui ‘can’, gan ‘dare’, yinggai ‘should’) to this claim, showing that Li and Thompson’s
observation cannot be generalized to all members in the class of modal auxiliaries.

Most Chinese modal verbs indeed cannot occur before the subject of the clause
(viii); one exception is keneng ‘might’. Li and Thompson (1981) argue that since keneng
can occur in sentence-initial position, it should be more correctly analyzed as an
adjectival verb. Tsao (1996) observes that other epistemic modals like yinggai ‘should’
can also be moved to the beginning of a sentence. The fact that epistemic modals do not
follow this pattern can be attributed to their wider semantic scope (i.e., their scope over
the whole proposition).
Apparently, the grammatical properties identified in previous studies cannot adequately delineate the boundary of the class of modal verbs in Chinese. As Tang (1988) insightfully points out, the adverb *chang* ‘often’ is clearly not a modal but it actually meets all the eight grammatical criteria for modals by Li and Thompson (1981). Still, these grammatical criteria can help determine the degree of prototypicality of a modal candidate in this category. More importantly, lexical items expressing modal meanings in Chinese should not be syntactically categorized into modal verbs, modal adverbs, or modal adjectives on an *a priori* basis. Various uses of a modal verb need to be addressed at a higher granularity; yet it is still methodologically feasible to identify and exclude less prototypical modal or even non-modal uses of a modal.

### 2.3.2 Semantic categorization of Chinese modal verbs

By the criterion of whether a modal’s meaning is part of the propositional content, Yu (1996) distinguishes three subcategories of Chinese modals: (a) modals whose meanings are always part of the propositional content (e.g., *xiang* ‘want to’, *ken* ‘be willing to’); (b) modals whose meanings are never part of the propositional content (e.g., *keneng* ‘might’ and *yinggai* ‘should’); (c) modals whose meanings can be part of or outside of the propositional content depending on context (e.g., *neng* ‘can’, *hui* ‘can; will’, *keyi* ‘can’). He adds that, grammatically speaking, the modals in the first subcategory have more adverbial properties, whereas those in the second subcategory behave more like regular verbs. The resulting categorization again reflects that distinct subtypes of modal meanings have different semantic scope: epistemic modality have a wider scope than root modalities.

Tiee (1985) provides a preliminary semantic categorization of Chinese modals based on (1) the traditional tripartite division of epistemic, deontic and dynamic modality and (2) two levels of strengths: possibility and necessity. His categorization is problematic in two aspects: the strength of some modals should be placed somewhere between possibility and necessity (e.g., the epistemic use of *yinggai* ‘should’); namely, an
intermediary level of modal strength is needed. Another serious issue is that the polysemous property of some modals is overlooked in his categorization. For example, hui ‘can’ is classified as an epistemic modal only, but it can also express dynamic ability.

A more accurate, fine-grained semantic categorization of Chinese modal is offered by Peng (2007, p.160) and presented in Table 2-1. As can be seen, three levels of modal strength are distinguished; however, he confesses that the scale for dynamic modals is based on his intuitive judgment rather than on some objective evidence. In addition to the semantics of the modal (represented in small capital letters), he also labels the pragmatic functions of the modals (displayed within brackets). Nonetheless, the assignment of categories for certain modals need to be re-examined; for example, nenggou ‘can’ can express not only epistemic possibility as shown in the table but also dynamic ability.
Table 2-1: The modality system expressed by Chinese modals

<table>
<thead>
<tr>
<th><strong>NECESSITY</strong> <em>(biran)</em></th>
<th><strong>PROBABILITY</strong> <em>(gairan)</em></th>
<th><strong>POSSIBILITY</strong> <em>(keneng)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>[Presumption <em>(tuiding)</em>]</td>
<td>[Inference <em>(tuiduan)</em>]</td>
<td>[Conjecture <em>(tuice)</em>]</td>
</tr>
<tr>
<td>• biran ‘necessary’</td>
<td>• hui ‘can; will’</td>
<td>• keneng ‘might’</td>
</tr>
<tr>
<td>• kending ‘certainly’</td>
<td>• yinggai (yingdang,</td>
<td>• neng (nénggòu) ‘can’</td>
</tr>
<tr>
<td></td>
<td>ying, gai, dang) ‘should’</td>
<td></td>
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<tr>
<td>EPISTEMIC</td>
<td></td>
<td></td>
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<tr>
<td>• yiding ‘definitely’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• zhun ‘‘definitely’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• dei ‘have to’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• yao ‘will’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Hypothesis <em>(jiading)</em>]</td>
<td></td>
<td></td>
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<tr>
<td>• yao ‘if’</td>
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</table>

<table>
<thead>
<tr>
<th><strong>NECESSITY</strong> <em>(biyao)</em></th>
<th><strong>OBLIGATION</strong> <em>(yiwu)</em></th>
<th><strong>PERMISSION</strong> <em>(xuke)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>[Command <em>(mingling)</em>]</td>
<td>[Instructions <em>(zhiling)</em>]</td>
<td>[Permission <em>(yunxu)</em>]</td>
</tr>
<tr>
<td>• dei ‘have to’</td>
<td>• yinggai ‘should’</td>
<td>• neng ‘can’</td>
</tr>
<tr>
<td>[Guarantee <em>(baozheng)</em>]</td>
<td>[Promise <em>(chengnuo)</em>]</td>
<td>• zhun ‘‘permit’</td>
</tr>
<tr>
<td>• kending ‘certainly’</td>
<td>• yao ‘need to’</td>
<td>• xu ‘permit’</td>
</tr>
<tr>
<td>• yiding ‘definitely’</td>
<td>• hui ‘will’</td>
<td>[Consent <em>(yúnnuò)</em>]</td>
</tr>
<tr>
<td>• zhun ‘‘definitely’</td>
<td></td>
<td>• keyi ‘can’</td>
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<tr>
<td></td>
<td>[ABILITY <em>(nenglì)</em>]</td>
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</tr>
<tr>
<td></td>
<td>• keyi ‘can’</td>
<td>[Volition <em>(yiyuan)</em>]</td>
</tr>
<tr>
<td></td>
<td>• hui ‘can; will’</td>
<td>• xiang ‘want to’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• yuanyi ‘be willing to’</td>
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<tr>
<td></td>
<td>[DYNAMIC <em>(yongqì)</em>]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• yao ‘want to’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ken ‘be willing to’</td>
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<tr>
<td></td>
<td></td>
<td>• be willing to’</td>
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<tr>
<td></td>
<td>[COURAGE <em>(yongqi)</em>]</td>
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<tr>
<td></td>
<td>• gan ‘dare’</td>
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</tbody>
</table>
2.4 Earlier accounts of Chinese modal verbs of possibility

This dissertation research focuses on two modal verbs of possibility in Chinese: *keyi* and *neng*. These two modals are generally considered near-synonymous in the literature (cf. Liu et al. 2001; Lu, 1999; Peng, 2007). Like their English counterpart (i.e., *can*), both modals can express more than one type of modal meanings. The modal *keyi* has dynamic ability/utility/possibility and deontic permission meanings. Compared to *keyi*, the modal *neng* can express a wider range of modal meanings: it can convey dynamic ability/utility/possibility, deontic permission, and epistemic probability; however, the latter two meanings mostly occur in negation and questions.

2.4.1 The modal meanings of *keyi*

The first type of modal meanings that *keyi* pertains to is dynamic modality. The modal can express the ability of animate subject-referents as in (13) and the utilities of inanimate subject-referents like cotton in (14). It can also convey circumstantial possibility, as in (15), in which the modal indicates that the objective condition of the room allows for three people to live in it at the same time. As will be seen later, these dynamic uses of *keyi* appear to overlap with those of *neng*.

(13) 他 可以 说 三种 外语  (Liu et al., 2001, p.181)

\[
ta \text{ keyi shuo san-zhong wai-yu}
\]

3SG can speak three-kind foreign-language
‘He can speak three foreign languages.’

(14) 棉花 可以 织布  (Lu, 1999, p.337)

\[
mianhua \text{ keyi zhibu}
\]
cotton can weave
‘Cotton can be woven.’
(15) 这个房间很大，可以住三个人 (Liu et al., 2001, p.181)

\[\text{zhe-ge fangjian hen da, keyi zhu san-ge ren}\]

this-CL room very big can live three-CL person

‘This room is very big; it can accommodate three people.’

The deontic meaning of keyi, namely, ‘to be reasonably permissible’ (“情理上许可”) or ‘permission’ (“准许”) (Liu et al., 2001:182), is illustrated in (16) and (17). However, as pointed out by Lu (2004), for this kind of examples, without sufficient contextual information, the modal can have either a deontic or dynamic interpretation.

(16) 休息室里可以抽烟。 (Liu et al., 2001, p.182)

\[\text{xiuxishi li keyi chouyan.}\]

loung inside can smoke

‘People can smoke in the lounge.’

(17) 我可以进来吗? (Lu, 1999, p.337)

\[\text{wo keyi jinlai ma?}\]

1SG can come-in Q

‘Can I come in?’

The modal keyi has another more controversial use noticed by previous accounts (e.g., Fu & Zhou, 1991; Liu et al., 2001; Lu, 1999): it can mean “be worth (doing something)”, a type of meaning rarely mentioned in the literature of modality. Peng (2007) argues that “worthiness” can constitute one of the reasons a given event is permitted and therefore the concept is related to deontic permission. However, this use of keyi, which tends to occur in indirect speech acts of recommendations, as in (18), seems to shares with the dynamic implication meaning of can (Palmer, 1990/2013). Whether this use of keyi should be subsumed under dynamic or deontic meaning can be further examined.
26

(18) 这本书 写得不错，你 可以 看 看 (Liu et al., 2001, p.182)
  zhe ben shu xie de bu cuo, ni keyi kan-kan
  this CL book write DE not.bad 2SG can see-see
  'This book is well-written; you can take a read at it.'

While keyi can express both dynamic and deontic modality, it has been pointed out that the primary use of keyi is permission (Ross & Ma, 2006). In fact, its dynamic uses such as the ability sense are not even mentioned in earlier reference grammars like Chao (1968). The secondary status of the dynamic uses of the modal can also be seen in its negative form. When negated, keyi only has the deontic meaning of prohibition; the negation of the dynamic meanings associated with modal need to be expressed by neng.

2.4.2 The modal meanings of neng

The modal neng has been regarded as one of the most prototypical modal verbs in Chinese (Wang, 2007). It is also one of the most versatile modals in Chinese: neng can convey dynamic ability/utility/possibility, deontic permission, and epistemic probability. First of all, it has been pointed out that neng can express a wide range of ability-related meanings (cf. Lu, 1999; Liu et al., 2001), including innate ability, like the ability to raise somebody up in (19), learned or knowledge-based ability like understanding a foreign language in (20) and abilities once lost but then recovered, as in (21). Like keyi, neng can also denote the utilities of inanimate subject-referents like garlic in (22) as well as circumstantial possibility, as in (23).

(19) 我 能 把 你 举起来，你 信不信? (Liu et al., 2001, p.184)
  wo neng ba ni ju-qilai, ni xin-bu-xin?
  1SG can BA 2SG raise-up 2SG believe-NEG-believe
One specialized ability-related meaning associated with neng, but not with keyi, is “to be good at”, as in (24). One may argue that the “good at” reading of neng in (24) can be attributed to the degree adverb that co-occurs with the modal (i.e., hen ‘very’). This particular dynamic use seems to challenge the widespread view in the literature of modality that dynamic meanings, in particular, ability, are non-scalar, unlike epistemic and deontic meanings (Nuyts, 2005).

(24) 他 非常 能 团结 周围 的 人  (Lu, 1999, p.414)

\[ ta \ hen \ neng \ tuanjie \ zhouwei \ de \ ren \]

3SG very can unite around NOM person

‘He is good at uniting the people around him.’
As for the deontic uses of *neng*, it means ‘to be reasonably or circumstantially permissible’ ("情理上或环境上的许可") and occurs mostly in interrogative or negative utterances, as in (25). The affirmative counterparts of such deontic use of *neng* is *keyi* (Liu et al., 2001).

(25) 没有我的命令你不能动 (Liu et al. 2001, p.181)

\[ \text{mei-you wo-de mingling ni bu neng dong} \]

NEG-have 1SG-GEN order 2SG NEG can move

‘You cannot move without my order.’

Finally, the modal *neng* can also express epistemic possibility. Similar to its English counterpart *can* (cf. Quirk et al. 1985; Sweetser, 1990), the epistemic use of *neng* generally occurs in interrogative or negative utterances (Peng, 2007). To illustrate, *neng* in (26) expresses the speaker’s epistemic assessment on the possibility that the addressees have serious business to do.

(26) 你们能有什么正经事? (Peng, 2007, p.151)

\[ \text{nimen neng you shenme zhengjing shi?} \]

2PL can have what serious matter

‘What kinds of serious business can you have?’

To conclude, previous Chinese linguistics studies have provided descriptively adequate accounts of the multiple modal meanings associated with the two modal verbs of possibility, *neng* and *keyi*. Nonetheless, it remains unclear how the two modals are used in interactional contexts and what the core conceptual differences between the two are, a gap that this study aims to fill.
Chapter 3

Methodological and Theoretical Frameworks

This chapter is organized as follows. Section 3.1 introduces the data used by this corpus-based study. Section 3.2 elucidates the methodological framework of this study, namely, Interactional Linguistics (Couper-Kuhlen & Selting, 2001), for analyzing the usage patterns and discourse functions of keyi and neng. Section 3.3 explicates the two theoretical frameworks in Cognitive Linguistics resorted to in this study, force dynamics (Johnson, 1987; Talmy, 1988, 2000) and mental-spaces theory (Fauconnier, 1994, 1997) to unveil the cognitive underpinnings of the interactional uses of the two Chinese modals of possibility.

3.1 Data collection

This study relied on The NCCU Corpus of Spoken Taiwan Mandarin (Chui & Lai, 2008; Chui et al., 2017), which at the time of data collection contained roughly 10 hours of spontaneous face-to-face conversations among native speakers across age groups. The samples, each involving a different pair/group of speakers, are casual conversations among family, friends or classmates talking about their daily life events and personal experience. The data were transcribed in traditional Chinese characters; features such as pauses and overlapping speech were also marked (see Appendix B for the transcription convention). In the transcriptions, the speakers are indicated based on

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2 NCCU is short for National Chengchi University. The corpus data, including the transcriptions and audio files, have been continually updated and can be accessed at http://spokentaiwanmandarin.nccu.edu.tw/. The researcher obtained the data from the principal investigator of the corpus project on January 13, 2017.
their gender (M for male and F for female) and numbered if more than one speaker of the same gender is involved in the conversation (i.e., F1, F2…).

The spoken corpus yields an initial total of 396 tokens of keyi and 117 tokens of neng. These tokens were manually checked to screen out improper instances. First, since the modal keyi can also function as an adjective (with the meaning of ‘fine, okay’), only the tokens unambiguously used as a modal verb (based on whether it is followed by another verb) are included. In addition, tokens that occur in incomplete utterances (i.e., without the main verb) and later get discarded in a repair are excluded, as can be seen in the use of keyi in (27):

(27) 所以 那個 是 可以 會 炸死 人 嗎
    so that-CL COP can will explode-die person Q
‘So that can…will kill people (with an explosion)?’

Also, exact-repeats are only counted once in frequency counts. A final total of 312 instances of keyi and 117 instances of neng from the conversational data are analyzed.3

3.2 Methodological framework of Interactional Linguistics

This dissertation research adopts the methodology of Interactional Linguistics (IL), “a perspective on language structure and use informed by language’s natural habitat in the interactional order” (Couper-Kuhlen & Selting, 2001, p.1). IL is interdisciplinary within linguistics and thus heavily influenced by the methodology of Conversation Analysis (CA), discourse-functional linguistics, anthropological linguistics, among others (Barth-Weingarten, 2008; Couper-Kuhlen & Selting, 2001; Lindström, 2009). IL is concerned with how linguistic structures and interaction mutually shape each other.

3 The modal neng has been found to be more frequent than keyi in Lancaster Corpus of Mandarin Chinese (McEnery and Xiao, 2004; Xiao, 2017; Xiao et al. 2009), a corpus predominantly composed of written texts published in Mainland China. The issue of whether the two modals are used differently in terms of their relative frequency in spoken versus written Chinese as well as in Mainland Mandarin versus Taiwan Mandarin, while beyond the scope of this study, no doubt deserves further exploration.
(Couper-Kuhlen & Selting, 2001). The goal of IL is to “describe linguistic structures and meanings as they serve social goals in naturally spoken, in a broad sense, conversational language, viz. ‘talk-in-interaction’” (Lindström, 2009, p.96). This study employs IL to examine how participants use the two Chinese modals of possibility in conjunction with other relevant linguistic devices to fulfill various discourse functions in naturally occurring, face-to-face conversation.

This study starts out by delving into the discursive functions of keyi and neng, taking the relevant lexico-grammatical co-text and multiple types of interactional organization into consideration. A bottom-up, inductive analysis unveils the relevance of the types and polarity of the utterances modalized by keyi and neng, that is, whether the modals occur in declaratives or interrogatives and whether the modals are used in affirmative or negative utterances. In addition, three lexico-grammatical aspects of these utterances are also found to pertain to the identification of the discourse functions of the two modals: (a) subject-referents (e.g., first-person or second-person) and (b) the connectives prefacing the utterances (e.g., keshi ‘but’ and ranhou ‘and then’); (c) the utterance-final particles attached. Finally, two syntagmatic patterns that involve keyi and neng are also pertinent: (i) the co-occurrence with scope adverbs (e.g., zhi ‘only’) and degree adverbs (e.g., man ‘quite’); (ii) the serialization of modal verbs (e.g., yinggai keyi ‘should be able to’). To examine whether the uses of keyi and neng have distinct preferred linguistic context, frequency counts of the usage patterns aforementioned are performed.

In addition to the surrounding linguistic-contextual features, this study also attends to the interactive environments in which keyi and neng are used. In the spirit of CA, I will scrutinize how different systems of sequential organization of talk-in-interaction such as turn-taking (Sacks, Schegloff & Jefferson, 1974), adjacency pairs (e.g., question-answer) (Schegloff & Sacks, 1973) and repair (Schegloff, 1979; Schegloff et al., 1977) would bear on the interpretations of the discourse functions of the two Chinese modals of possibility.

The discourse functions of the two Chinese modals of possibility are analyzed and categorized based on the speech-act functions (Searle, 1976, 1979), such as assertive and
directive, performed by the pertinent utterances. Specifically, the analysis focuses on the illocutionary forces, direct or indirect, of the declaratives and interrogatives modalized by keyi and neng. Frequency counts are further conducted to paint a general picture of which discourse functions are more commonly fulfilled by the two modals respectively in the conversational data examined.

3.3 Theoretical frameworks of Cognitive Linguistics

With an enhanced understanding of the diverse uses of the two Chinese modals of possibility in situated contexts, this study will further probe into the cognitive underpinnings of their usage patterns and discourse functions through the theoretical lens of two Cognitive Linguistics (CL) frameworks, each of which will be explained below.

3.3.1 Force dynamics

Researchers in CL have proposed that modal verbs encode grammatically how entities interact with respect to forces and barriers in various ways (cf. Johnson, 1987; Sweetser, 1990; Talmy, 1988, 2000). Take the deontic use of the modal may in (28) as an example; Figure 3-1 illustrates how the permission meaning can be represented in terms of force dynamics. In this case, the permission-seeker (i.e., the hearer as the agent) has weaker force (indicated by the “>” sign) while the permission-grantor (i.e., the offstage speaker) has stronger counter-force (indicated by the “◆” sign). The speaker’s lifting of the potential barrier enables the hearer to carry out the action of going home.

(28) You **may** come home.
Earlier force dynamic accounts of modal meanings have typically been interested in lexical-semantic issues like the synchronic polysemic relations between root (dynamic and deontic) and epistemic modality. Precisely, Sweetser (1990) postulates a conceptual mapping of image schemata of force between the external domain of socio-physical interaction, where root meanings are situated, and the internal domain of reasoning pertinent to epistemic uses. To illustrate, the obligation meaning of must (as in He must leave) indicates that the subject is compelled by a real-world force imposed by the speaker or some other agent to act, whereas the epistemic must (as in He must have left) indicates that the speaker is compelled by “an epistemic force applied by some body of premises” to reach some conclusion (Sweetser, 1990, p.64, italics original). The root-epistemic polysemy in the present-day usage of modals like must can be explained by unidirectional metaphorical transfer.

Yet force dynamics functions not only on the lexico-grammatical level but also on the discourse level. Talmy (2000) indicates that, for example, the points deployed to argue for or against particular positions in the process of argumentation in discourse can be construed as forces opposing or reinforcing one another. Force dynamics is also held to operate in the function of ‘discourse expectation’, which refers to “the moment-to-moment expectations of participants in a discourse as to the direction and content of succeeding turns” (Talmy, 2000, p.453). The question of how much explanatory power a force-dynamic treatment has with regard to argumentation in discourse and discourse expectation should be further examined in light of interactional data.

Figure 3-1: Force-dynamic constellation of deontic may (Radden & Dirven, 2007, p.244)
Whether the meanings and uses of Chinese modals of possibility can be explicated in terms of force dynamics has not yet been systematically investigated. One pioneering study in this area is Guo (1995), which finds that one of the discourse functions of the modal *neng* in child speech is to signal challenge to the addressee’s assumption(s). From the perspective of force dynamics, he adds, the *neng*-utterances produced by Mandarin-speaking children can be viewed as a counter-force that blocks the beliefs assumed by adult addressees. Therefore, the framework of force dynamics appears to have great potential in explaining the interactional functions of Chinese modals as well. Building on the foundation of previous research in this vein, this study aims to illuminate how the force dynamic potential inherent in the lexical semantic content of Chinese modals of possibility contributes to the meaning construction of argumentation by analyzing the force schemata (e.g., REMOVAL OF RESTRAINT, COUNTERFORCE, etc.) (Johnson, 1987) involved in the utterances modalized by *keyi* and *neng*.

### 3.3.1 Mental-spaces theory

Another CL framework that has great potential to characterize the interactional uses of *keyi* and *neng* in conversation is mental-spaces theory (Fauconnier, 1994, 1985/1997). Mental spaces are defined as “very partial assemblies constructed as we think and talk for purposes of local understanding and action” (Fauconnier, 2007, p.378). Oakley (2009) further elaborates on the properties of mental spaces: this cognitive model of language has to be discourse-based and dynamic enough to account for incessant proliferation of discourse and knowledge structures. That is, mental spaces are “dynamic models of the moment-by-moment understanding of state of affairs” (Oakley, 2009, p.163).

In terms of grammatical categories, mental-spaces theory has been applied to explicate the conceptual structure of conditionals (e.g., Dancygier & Sweetser, 2005), negation (e.g., Sweetser, 2006), as well as tense and mood (subjunctive vs. indicative) (e.g., Fauconnier, 1994). Conditionals are considered typical space-builders, as shown in
(29) and its representation, Figure 3-2. In this case, if p sets up a hypothetical space (H), in which my VW from the reality space (R) corresponds to the rolls in the counterfactual space. Take the classic negative sentence in (30) (Fauconnier, 1994) as another example. The negator can be analyzed to set up two alternative spaces rather than just one: the negative space depicted in the sentence as well as its positive alternative. This example tends to be used in the context where the presence of milk is expected and thus it can be interpreted as a complaint or request. In other words, the interpretation of negative sentences crucially relies on the alternative positive space.

(29) If I were a millionaire, my VW would be a Rolls.
(30) There is no milk in the fridge.

![Figure 3-2: Mental-spaces representation for (29) (Fauconnier, 1994, p.31)](image)

This study posits that, like the connector if and the negator no, modal verbs can also serve as space builders that set up alternative mental spaces of possibility. Radden and Dirven (2007, p.257) provide a useful starting point toward this direction, claiming that the use of can in examples like I can see my house now blends two mental spaces: an earlier space, in which it was not possible for the speaker to see her house, and a present space, in which she actually (and unexpectedly) sees it. Unfortunately, this is the only (dynamic) use of can discussed in terms of mental spaces in their work; it remains to be seen whether the uses of other modals of possibility can also be analyzed in this framework. Their discussion, like the majority of studies adopting the framework, is based on introspection rather than on authentic usage data.

With Chinese conversation data, I will examine the mental-space configurations at work in modalized utterances vis-à-vis the preceding and following discourse. The mental-spaces account of keyi and neng can provide insights into why the two modal
verbs have distinct preferred patterns of use in naturally occurring, face-to-face conversation.
Chapter 4

Usage Patterns and Discourse Functions of Keyi in Conversation

This chapter presents and discusses the findings on the usage patterns and discourse functions of keyi, a polysemous modal that has dynamic meanings of ability/utility and circumstantial possibility as well as a deontic meaning of permission, in conversational Taiwan Mandarin.

4.1 Usage patterns of keyi in conversation

The modal keyi is found to be far more frequently used in the spoken corpus than neng. Table 4-1 presents the distribution of the tokens of keyi in terms of the utterance types in which the modal occurs in the data.

Table 4-1: The distribution of the utterance types of keyi instances

<table>
<thead>
<tr>
<th></th>
<th>Declarative</th>
<th>Interrogative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Affirmative</td>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>Number of instances</td>
<td>269 (86.2%)</td>
<td>8 (2.6%)</td>
<td>312 (100%)</td>
</tr>
<tr>
<td>instances (%)</td>
<td>35 (11.2%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As can be seen, 88.8% of the tokens of keyi occur in declarative utterances, and the remaining 11.2% are used in interrogative utterances. Moreover, they vast majority of the keyi tokens in declaratives and all in interrogatives are in the affirmative. As noted in the literature (e.g., Fu & Zhou, 1999; Liu et al., 2001; Lu, 2004; Peng, 2007), negated keyi has a deontic meaning (i.e., prohibition) only; the negation of the dynamic uses of keyi needs to be expressed by neng. The asymmetry of the meanings of keyi in the
affirmative versus in the negative may account for why the uses of the modal keyi in conversation are strongly biased towards the positive pole.

Close to one-third (88 out of 277 instances, 31.8%) of the tokens of keyi in declarative utterances are preceded by an adverb. The adverbs found to co-occur with the modal include jiu ‘then; just’ (34 instances), hai ‘also; still’ (21 instances), ye ‘also’ (13 instances), dou ‘all’ (13 instances), cai ‘then; just’ (7 instances) and you ‘also’ (3 instances). In particular, the frequent co-occurrences of the modal with the consecutive adverb jiu (Chang, 2012, 2015) and the additive adverb hai (Biq, 2015; Shen, 2001) pertain to the prominent elaborative-informing function of keyi-modalized assertives in conversation, as will be explicated in Section 4.2.1.1.

Another usage pattern that deserves some attention is how keyi co-occurs with another modal in the conversational data. While double modals (e.g., “will can” or “might could”) is only used in some dialects of English like in Scottish English or in some dialects of Southern U.S. (Nagle 1994), modal verbs in Chinese can serialize with one another in a more productive manner (Chao, 1968; Liu et al., 2001; Ma, 1988; Peng 2007). Even though grammatically both keyi and neng can serialize with another modal, the phenomenon of modal serialization is only found to be associated with the instances of keyi, but not with those of neng, in the spoken corpus. A total of four instances of “yinggai keyi” ‘should be able to’ and one instance of “keneng keyi” ‘might be able to’ have been retrieved from the corpus. In all the five instances, the two modals preceding keyi are in their epistemic use, functioning to weaken the force of keyi-modalized assertives. In other words, speakers combine yinggai ‘should’ or keneng ‘might’ with keyi to express a lower degree of certainty, a function that will be illustrated in excerpt (38) in Section 4.2.1.3.

The sections below will discuss the discourse functions of keyi with respect to the utterance types in which the modal is used in conversation.
4.2 Discourse functions of keyi in affirmative declarative utterances

As noted in Section 4.1, the majority of the tokens of keyi are used in affirmative declarative utterances. The functions of these instances fall into three major categories: assertives, directives, and commissives. Table 4-2 presents the distribution of the discourse functions of keyi in affirmative declaratives with respect to the three speech-act categories.

Table 4-2: The distribution of the functions of keyi-modalized affirmative declaratives

<table>
<thead>
<tr>
<th>Functions</th>
<th>Number of instances (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Assertives</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Informing</td>
<td>156 (73.60%)</td>
</tr>
<tr>
<td>(b) Counter-informing</td>
<td>31</td>
</tr>
<tr>
<td>(c) Expressing surprise</td>
<td>8</td>
</tr>
<tr>
<td>(d) Soliciting alignment</td>
<td>3</td>
</tr>
<tr>
<td><strong>2. Directives</strong></td>
<td>62 (23.05%)</td>
</tr>
<tr>
<td>(a) Giving advice/suggestions/ recommendations</td>
<td>48</td>
</tr>
<tr>
<td>(b) Issuing a proposal</td>
<td>11</td>
</tr>
<tr>
<td>(c) Granting permission</td>
<td>3</td>
</tr>
<tr>
<td><strong>3. Commissives</strong> (Extending an offer)</td>
<td>9 (3.35%)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>269 (100%)</td>
</tr>
</tbody>
</table>

As can be seen, the category of assertives represents close to three-fourths of the uses of keyi in affirmative declaratives. The subsections below will then start with the discussion of the interactional uses of keyi-modalized assertives.
4.2.1 Uses of keyi in assertives

This section discusses the four interactional uses of keyi-modalized assertives identified in the conversational data: informing, counter-informing, soliciting alignment, and expressing surprise. Not surprisingly, in these assertives, the modal is used almost exclusively in its dynamic meanings of ability/utility or circumstantial possibility.

4.2.1.1 Informing

The corpus data reveal that most of the instances of keyi-modalized assertives constitute an act of informing. In so doing, the speaker provides elaborative information to support their claims made in the prior discourse. The elaboration often involves connectives such as erqie ‘moreover’, ranhou ‘and then’ and jiushi ‘precisely’, an expression that can serve as a textual connective to indicate further elaboration or clarification in conversation (Biq, 2001)

Moreover, such elaborative type of informing mostly occurs in the following types of sequential environment. In the majority of cases, the speaker would produce a keyi-modalized assertive to elaborate on the claim made earlier within the same turn, as illustrated in excerpt (31). Here, the speaker M first made a mildly positive assessment of his last year’s experience of attending the conference that F1 is interested in. Then he explains why listening to the talks at the conference would be beneficial, especially to first-year graduate students; that is, the experience could make them feel that they have “seen the world” (jiānshìmiàn) (line 04). M further elaborates on what he meant by “see the world” with an assertive that involves the dynamic meaning of keyi (i.e., circumstantial possibility) (line 05).

(31) M004: Conference
01 F1: ..那 你 去年 去 ..你 是 真的 覺得 不 好 喔
       ..na ni qunian qu ..ni shi zhende juede bu hao ou
       ‘You went (to the conference) last year. You really think it’s bad?’
也 不錯 啦 其實 (0.7) 就 聽 聽 聽 聽...

就聽聽聽聽 listen listen listen

因為 那個 時候 (1.5) 才 剛 進 研究所 嘛

because that time PRT only just enter grad.school

你去那邊 (0.9) 會 覺得

You go there and then you would feel that you have seen the world.

你就可以知道 人家 怎麼 做研究

You then know how they do research.

Yeah. You then know how they do research.
M2 has not yet finished with his informing, M1 produces a backchannel, or a non-lexical vocalic form that serves as a ‘continuer’ (Schegloff, 1982) (i.e., *hum*), to display his interest and understanding. Having received M1’s reactive token, M2 continues with more elaboration, including an assertive that involves the dynamic use of *keyi*, on the utilities of the phone based on his personal experience of using it during his last trip to the U.S. (line 03-04).

(32) M005: Cell phone

01 M2: \[eh wo nabian you yi zhi shouji la\]
‘Eh, I have a cell phone.’

02 M1: ‘Hum’

03 → M2: \[zai meiguo keyi tong de\]
‘It can be connected in America. The one I used when I went to the U.S. last time.’

In such elaborative informing sequence, the intervening talk from the non-primary speaker, besides reactive tokens, may also take the form of short follow-up questions that prompt the primary speaker to provide more details that support the assessment made earlier. Consider excerpt (33), which comes from a conversation between an older sister (F) and a younger brother (M) in their teens. Prior to the excerpt, M had asked F for her advice on what kind of cram schools may be more suitable for him. Here M first tries to elicit F’s confirmation of his conjecture about the size of the classrooms of a famous cram school (line 01). F then confirms with an upgraded assessment (line 02). M further presses for details with two short questions (line 03), to which F responds with hearsay information to elaborate on her earlier assessment on the classroom size (line 04, 06-08).
The three excerpts presented so far illustrate how *keyi*-modalized assertives can be used by speakers to furnish additional details to support their earlier claims or assessments. Such elaborative type of informing, termed “incremental elaboration” in this study, can also be done collaboratively between the co-participants, as observed in excerpt (34), which is drawn from a multi-party conversation among three female classmates in their teens. Before the excerpt, F1 has asked her co-participants whether they know their own blood type. Here F2 first makes a claim about the “necessity” to have friends with type O blood (line 01), followed by a reactive token by F3 that repeats the most important portion of F2’s speech (line 02). Then F2 adds with a *keyi*-modalized
assertive that explains her claim earlier (i.e., because type O can be joined with any blood type) (line 03). After F1 displays her understanding with the particle ou ‘oh’ (line 05), F3 elaborates on F2’s previous explanation with an inference drawing on the utilities of type O blood in more dramatic cases (e.g., organ transplant) (line 06).

(34)  M016: Blood type

01 F2: ..要 跟 <L2 O L2> 型 的 人 做 朋友
need with O type NOM person make friends
‘(We) need to make friends with people with type O blood.’

02 F3: .. <L2 O L2> 型
<xL2 O L2> xing O type
‘Type O.’

03 → F2: ..因為 他 跟 每個 血 那個 ..[可以] 相溶
because 3SG with every-CL blood that-CL can compatible
‘Because their blood is compatible with that of people with all the other blood types.’

04 F3: [<L2 O L2> 型]
<xL2 O L2> xing O type
‘Type O.’

05 F1: ..喔
..ou
‘Oh.’

06 → F3: (0) 就是 ..死了 之後 可以 救 你 就 對 了
(0) jiushi ..si-le zhihou keyi jiu ni jiu dui le
precisely die-PFV after can save 2SG then right PRT
‘That is, they can save you after they die.’

It is also noted that keyi-modalized assertives used in the context of providing an explanation, as in line 03 of excerpt (34), are often prefaced by the connective yinwei ‘because’ in conversation. Such explanatory assertives can also be used without the elaborative function, as in line 11 and 14 of excerpt (35). In this extract, which is drawn from a conversation between a couple in their late twenties, the speakers are talking about a training workshop for eyeglass salespeople. As a direct response to F’s question regarding the motivations for the participants to attend the training (line 10), M produces
a series of explanatory assertives that involve *keyi* in affirmative declaratives (line 11-14) to inform F of how the eyeglass salespeople may find the workshop useful.

(35) M022: Training
01 M: ...(0.6) 我們 在 那個 會談 真的 超 無聊 的
   ...women zai na-ge huitan zhende chao wuliao de
   1PL LOC that-CL talk really super boring PRT
   ‘We were really super bored at the talk.’

02 F: ...(1.3) 想 也 知道 啊
   ...(1.3) xiang ye zhidao a
   think also know PRT
   ‘It’s a no-brainer.’

03 M: ...(1.0) 就是 他們 在 裡面 上課 啊
   ...(1.0) jiushi tamen zai limian shang-ke a
   that.is 3PL LOC inside take-class PRT

04 ...(我們 也 不能 走
   ...(women ye bu neng zou
   1PL also NEG can leave

05 ...(0.7) 就是 一直 ...(0.4) 站 在 外面 ...(0.4) 聊天 啊
   ...(0.7) jiushi yizhi ...(0.4) zhan zai waimian ...(0.4) liaotian a
   that.is all.along stand LOC outside chat PRT

06 ...
   ..[然後 就是]...
   ..[ranhou jiushi]
   and.then that.is

   ‘They were having a class inside, but we couldn’t leave. We were just standing outside and chatting all along. And then….’

07 F: [ 上什麼課 啊]
   [shang-shenme-ke a]
   take-what-class PRT
   ‘What kind of class were they having?’

08 M: ...(1.9) 講習 啊 ..X 就是 什麼 ..新 產品 啊
   ...(1.9) jiangxi a ..X jiushi shenme ..xin chanpin a
   training PRT that.is what new product prt

09 ...(還是 那個 ..TSK
   ...(haishi na-ge ..TSK
   or that-CL

   ‘(Short-term) training, that is, on new products, or that….’

10 F: ...(0.3) 怎麼 會 有人 要 參加
    ...(0.3) zenme hui you ren yao canjia
    how.come will there.be person.want.to participate
    ‘Why would there be people wanting to participate (in the training)?’
Because they come and can hear some, you know, sales pitch for introducing eyeglasses. And then (they) learn one or two sentences. The key is then they can do that with customers.

In addition to providing an elaboration or explanation, *keyi*-modalized assertives in an informing sequence can also constitute an act of complaining, as observed in excerpt (36). Prior to the excerpt, F1 has complained about her daughter, who got angry after F1 asked her to go practicing playing piano. After knowing that F1’s daughter did do some practicing, F2 comforts F1 by sharing her own “philosophy” of educating children: parents need to care only about the outcome, not about the process (*bu-yaoqiu guocheng, yaoqiu jieguo*) (line 01-02). F1 then continues to complain about her daughter constantly getting distracted and not being able to focus while practicing (line 03-05, 07), using a *keyi*-modalized assertive to sum up her complaint (line 08).

(36) M006: Practicing playing the piano

01 F2: ...(0.4) 就 跟 我 平常 ..叫 她們 練琴 一樣 啊
...(0.4) jiu gen wo pingchang ..jiao tamen lianqin yiyang a
just with 1SG usually ask 3PL practice.piano same PRT

02 ...我都 ...不 要求 過程 啦 ..啊 要求 結果 啊
...wo dou ...bu yaoqiu guocheng la ..a yaoqiu jieguo a
1SG all NEG demand process PRT PRT demand outcome PRT

‘It’s same as how I usually ask them (my kids) to practice playing piano. I don’t care about the process; I just care about the outcome.’

03 F1: ..可是 她們 家 的 小孩 不會
..keshi nimen jia de xiaohai bu-hui
but 2PL home ASSOC kid NEG-will
...起來 喝 水 啊 ...抱 小孩 啊
get up drink water PRT cuddle kid PRT

[然後 看 電視 啊]
[ranhou kan dianshi a]
and.then watch TV prt
‘But your kids wouldn’t get up (while practicing) to drink water, cuddle babies, and then watch TV.’

06 → F2: [我們 家 沒有 小孩 可以 抱 啊]
[women jia mei-you xiaohai keyi bao a]
1PL home NEG-have kid can cuddle PRT
‘There is no baby that they can cuddle at our home.’

07 F1: ...看 電視 吃 東西 ...(0.4) 喝 水
..kan dianshi chi dongxi ...(0.4) he shui
watch TV eat stuff drink water

eh 彈個琴 可以 起來 好幾 次 耶
eh tan-ge-qin keyi qilai haoji ci ye
eh play-CL-piano can get.up several time PRT
‘Watching TV, eating stuff, drinking water. (She) can get up several times while practicing playing the piano.’

09 F2: ..啊 ...沒有 辦法 啊
..a ...mei-you banfa a
PRT NEG-have solution PRT

..啊 那 是 她的 習慣 問題 啊
..a na shi ta-de xiguan wenti a
PRT that COP 3SG-GEN habit problem PRT
‘There is no solution. That’s the problem of her (bad) habit.’

11 F1: ...習慣 不好 啊 ..@@@
...xiguan bu-hao a ..@@@
habit NEG-good PRT
‘Bad habit. (laughter)’

Note that in excerpt (36), there is another assertive that also involves the modal keyi (line 06). This assertive, produced during overlapping talk, functions as a counter-informing in which F2 makes a correction to part of the information imparted in the prior turn by her co-participant. Similar acts of counter-informing performed by keyi-modalized assertives will be the focus of the next subsection.
4.2.1.2 Counter-informing

Apart from informing, keyi-modalized assertives can also serve as a counter-informing, in which the speaker makes a correction or provides a solution in response to the problems or issues pointed out by their co-participants in earlier turns. A case in point is extract (37), which is taken from a conversation between a couple in their thirties. Here the speakers are talking about the fish that M had bought a while ago.

(37) M014: Fish
01 F: ..我 整個 圓鰍 到 現在我也 沒 看到 啊
..wo zheng-ge yuanxue dao xianzai wo ye mei kan-dao a
1SG whole-CL sea.bass until now 1SG also NEG see-arrive PRT
02 ..[凍]壞 了 吧
..[dong-]huai le ba
freeze-bad CRS PRT
‘I haven’t seen the Chilean sea bass (you bought). It’s gone bad, right?
03 M: [＠]
[＠]
04 F: ..凍傷 [[了 吧]]
..dong-shang [[le ba]]
freeze-injure CRS PRT
‘It should be injured now.’
05 M: [[[應該]] ..放 在 裡面
[[yinggai]] .fang zai limian
should put LOC inside
‘It was probably put in there (freezer).’
06 F: ..你 幹嘛 不 煎 給 我 吃
..ni ganma bu jian gei wo chi
2SG why NEG pan-fry to 1SG eat
‘Why don’t you pan-fry it for me to eat?’
07 M: ..帶來 也 冷掉 了
..dai-lai ye leng-diao le
bring-come also cold-fall PFV
08 ..好 啦 我 煎 [啊]
..hao la wo jian [a]
good PRT 1SG pan-fry PRT
‘It would be cold if I brought it over here. Fine, I’ll pan-fry it.’
09 → F: [冷]掉 也 可以 吃 啊
[leng-]diao ye keyi chi a
cold-fall also can eat PRT
10 我用微波熱一熱就好了
wo yong weibo re-yi-re jiu hao le
‘It can still be eaten if it’s cold. I’ll heat it up with the microwave and then it’s okay.’

11. M: (0)用烤箱可能比較好
(0) yong kaoxiang keneng bijiao [hao]
use oven possible relatively good
‘It may be better to use the oven.’

12 F: [也] 可以啊
[ye] keyi a
also fine PRT

13 ..我都有的啊
..wo dou you a
1SG both have PRT
‘That’s fine, too. I have both.’

14 M: ..好吧
..hao a
good PRT
‘Okay.’

In the excerpt above, after knowing that the fish that M bought a while ago is still in the freezer and may be wasted, F asks him why he has not pan-fried the fish for her to eat (line 06). M responds by indicating that the pan-fried fish would not be in an ideal condition to be eaten by the time it is brought to her house (line 07). F then produces a counter-informing using keyi, pointing out the issue that M brought up is untenable and can be resolved (lines 09-10).

4.2.1.3 Soliciting alignment

The conversational data reveal that keyi-modalized assertives can also be utilized by speakers to solicit alignment from their co-participants, as can be observed in excerpt (38). Both the speakers F1 and F2 have been volunteering at an after-school tutoring program. Prior to the excerpt, F2 had complained about the difficulties of working with a male tutee that F1 also knew. F2 commented that the tutee lacks motivation for learning and shared her previous experience of failing to teach him phonetic symbols for learning
English. In the excerpt, F2 expresses her frustrated feelings of working as a volunteer in the after-school program (line 01-03) and then tries to solicit F1’s alignment, hoping that she can identify with her frustration (line 04). In response, F1 first shows alignment, almost immediately, but also adds that it is the tutee’s own fault, and therefore F2 should not feel responsible (line 05-06).

(38) M001: After-school program
01 F2: ...(1.6)反正 就是 去 帶
anyway precisely go take
02 ..然後 有時候 就 覺得
..ranhou youshihou jiu juede
..and.then sometimes then feel
03 ..han ..不知道 要 怎麼 帶 才 好
..han ..bu-zhidao yao zenme dai cai hao
.. NEG-know need how take then good
04 → ..你 應該 可以 了解 那個 ..感覺 吧
..ni yinggai keyi liaojie na-ge ..ganjue ba
2SG should can understand that-CL feeling PRT
‘Anyway, I just go there to teach (the students), and then I sometimes feel that I don’t know how to teach (them). You probably can understand the feeling, right?’
05 F1: ..了解 可是 ..你 說 的 那個 男生
..liaojie keshi ..ni shuo de na-ge nansheng
..understand but 2SG say REL that-CL boy
06 他 是 真的 不想 學 耶
ta shi zhende bu-xiang xue ye
3SG COP really NEG-want learn PRT
‘I understand, but for the boy that you mentioned, he really doesn’t want to learn.’

Note that this specific instance of affirmative declarative in line 04 of excerpt (38) involves not only the dynamic use of *keyi* but also the epistemic use of another modal, *yinggai* ‘should.’ Adding the epistemic modal weakens the force of the *keyi*-modalized assertive, conveying an even lower degree of certainty on the part of the speaker. Another linguistic feature worth noting is the co-occurrence of the utterance-final particle *ba* in this *keyi*-modalized assertive. The particle, which signals solicitation of agreement/approval from the hearer comparable to the function of a tag question in English (Li & Thompson 1981), is found to be attached to all the three instances of *keyi*-
modalized affirmative declaratives that serve the function of soliciting alignment in the conversational data.

### 4.2.1.4 Expressing surprise

In some cases, the assertives that involve the modal *keyi* can be utilized by speakers to convey their surprise towards the information that they have just received from their co-participants, as in excerpt (39). Right before the excerpt, F1, a clothing clerk, had informed F2 of the reason why she did not get to sell the overcoats that had been sold well at a department store during its anniversary sale. In the extract, F2 further elaborates on how she got hold of the sales information (line 01-03). The elaboration is interrupted by F1’s expression of her surprise at the fact that F1 can have access to the sales information at another store (line 04). Here the pro-form *zheyang* ‘like this’ in F2’s speech, used as the head of the predicate expression, (cf. Liu et al., 2001; Lu, 1999), substitutes for the verb phrase in line 01-02 of the prior turn by F2.

(39) M008: Sale

01 F2: ..因為 我們 從 電腦 上面 可以 看到 說
..*yinwei* women cong diannao shangmian *keyi* kan-dao shuo
because 1PL from computer on.top.of can see-arrive say

02 ...(0.5) <L2 SOGO L2> 到底 賣了 些 什麼 東西
...(0.5) <L2 SOGO L2> daodi mai-le xie shenme dongxi
(department store) on.earth sell-PFV some what stuff

03 ..[然後 我們 就] 看
..*[ranhou women jiu] kan
and.then 1PL just look

‘Because we can see on the computer screen what kinds of things SOGO (department store) has sold. And then we saw…’

04 → F1:  [可以 這樣 喔]
 *[keyi zheyang ou]*
can like.this PRT
‘You can do that?’

05 ..喔
*ou*
oh
‘Oh.’
Then I found that (recently) it has sold several…more than ten overcoats every day.'

‘Is that so?’

‘I was really not happy.’

Note that the keyi-modalized assertive in line 04 of excerpt (39) is also attached with the utterance-final particle ou. In this case, the particle, occurring in responsive position, is produced with a low, flat pitch, an unmarked use of ou that can signal a stance of surprise associated with the “newsworthy” status of the prior talk (Wu, 2004). That is, the ou-suffixed, keyi-modalized utterance serves in response to the prior turn at talk, which contains information previously unknown or unexpected to the recipient.

This section has covered the discourse functions of the instances of keyi in affirmative declaratives used as assertives, which involve the dynamic meanings (i.e., ability/utility and circumstantial possibility) of the modal. In contrast, affirmative declaratives involving keyi in its deontic meaning (i.e., permission) pertain to directive uses, which are the focus of the next subsection.

4.2.2 Uses of keyi in directives

As shown in Table 4-2, around one-fourth of the keyi-modalized affirmative declarative utterances perform a directive function. It is found in the conversational data that these declaratives, with keyi in its deontic (i.e., permission) meaning, can fulfill three directive functions: giving advice/suggestions/recommendations, issuing a proposal, and
granting permission. The subsections below will illustrate and explicate how keyi can help perform each of the actions aforementioned.

4.2.2.1 Giving advice/suggestions/recommendations

The most common directive function of keyi-modalized affirmative declaratives is for speakers to give advice, suggestions, or recommendations to their co-participants, as exemplified in excerpt (40), which is drawn from the same conversation as excerpt (38). Here, in response to the issues that F1, a volunteer at an after-school tutoring program, raised regarding a male tutee that she finds difficult to work with (line 01-02, 04), F3 advises F1 to talk to the tutee about more than schoolwork so that she can better understand his situation and background (line 12, 14).

(40) M001: Tutee

01 F1: 我 已經 跟 你 講過 了 我 覺得 ..wo yijing gen ni jiang-guo ..wo juede 1SG already with 2SG tell-EXP 1SG think

02 那 男生 是 我 最 不喜歡 教 的 類型 na nansheng shi wo zui bu-xihuan jiao de leixing that boy COP 1SG most NEG-like teach REL type ‘I already told you that I think that boy is the type that I dislike teaching the most.’

03 F2: 你 講過 啊 ..ni jiang-guo a 2SG tell-EXP PRT ‘You told me before.’

04 F1: 就 他 又 不想 學 他 又 很 愛 鬧 ..jiu ta you bu-xiang xue ta you hen ai nao that.is 3SG also NEG-want learn 3SG also very love disturb ‘That is, he doesn’t want to learn and likes to disturb others.’

05 F2: ...可是 我 覺得 我 有一次 就 問 他 說 你 幹嘛 來 ...keshi wo juede wo youyici jiu wen ta shuo ni gamma lai but 1SG think 1SG once just ask 3SG say you why come

06 F1: ..就 還 蠻 直接 的 那 你 幹嘛 來 ..jiu hai man zhijie de na ni gamma lai just still quite direct PRT then 2SG why come
07 我觉得他还是蛮乖的
wn juede ta hai man guai
1SG think 3SG still quite obedient

08 他就说他妈妈叫他就来啊
..ta jiu shuo ta ma jiao ta lai ..ta jiu lai a
3SG just say 3SG mom ask 3SG come 3SG just come PRT

09 ‘But I think I asked him once why he came here. Just very directly, “Why do you come here?” I think he is quite obedient. He said that his mom asked him to come and then he just did. At least a bit…’

10 F3: [也可能]
[ye keneng]
also possible

11 那你有没有问过
..na ni you-mei-you wen-guo
then 2SG have-NEG-have ask-EXP

12 ‘But I thought…’

13 F2: …(1.1)可是我觉得我想说]
…(1.1)keishi wo juede [wo xiang shuo]
but 1SG think 1SG think say

14 F3: [你可能会比较了解他啊]
[ni hui bijiao] liaojie ta a
2SG will relatively understand 3SG PRT

15 F2: 我会..有啊我就一直..跟那个
..wo hui ..you a wo jiu yizhi ..gen na-ge
1SG would have PRT 1SG just all.along with that-CL

16 男的啊有沒有..我就一直就是
nan de a you-mei-you ..wo jiu yizhi jiushi
male NOM PRT have-NEG-have 1SG just all.along precisely

17 ‘譬如关心他或是跟他聊天什么的"
..piru guanxin ta huo gen ta liaotian shenmede
for.example care.for 3SG or with 3SG chat or.something

18 ..但是另外一個志工人員叫我
..danshi..lingwai yi-ge zhigongrenyuan jiao wo
but another one-CL volunteer ask 1SG
不要忽略那两个女的啊

I would… I have… I have been working with that male student, right? I have been, for example, caring for him, chatting with him, or something like that. But another volunteer asked me not to ignore those two female students.’

‘Yeah, that’s correct.’

In the excerpt above, the advice-giving by F3 occurs after F1 and F2 express seemingly conflicting opinions about the male tutee. Note also that F3’s advice in the form of a keyi-modalized directive is mitigated in that the modalized declarative is framed by the grammaticalized epistemic stance marker “wo jue” ‘I think’, which is often used to posit a hedged opinion (Endo, 2012; Huang, 2003; Lim, 2011).

Perfomative verbs for the directives in action such as jianyi ‘to suggest’ and tuijian ‘to recommend’ can also be found in the talk surrounding keyi-modalized directives. Consider excerpt (41), in which the speakers are talking about the bento box meals of a restaurant. This excerpt contains two instances of keyi used in affirmative declaratives. The first instance (line 09) is an informing assertive produced by F1 to reinforce the positive assessments she made earlier (line 01, 05, 07) and persuade F2 to try out the bento box meals, especially those with the entrée of braised pork belly with pickled vegetables. Such act of elaborative-informing is also performed in the ‘incremental elaboration sequence’ discussed in Section 4.2.1.1, where some intervening talk from the co-participant, in this case, a reactive token (zhede ou ‘really?’) signaling that the information F1 provides earlier is new to F2 (line 08), occurs between the claims or assessments and the supporting details.

(41) M026: Bento box

01 F1: 啊..港味食堂的便當也很好吃
.a.Gangwei-Shitang de bianzhang ye hen haochi
PRT (restaurant) GEN bento.box also very tasty

02 ..[你有]去吃过嗎
..[ni you] qu chi-guo ma
2SG have go eat-EXP Q
The bento box by Gangwei Shitang is also very delicious. Have you eaten it before?

Very good, outstanding. In particular, its Meigankourou (braised pork belly with pickled vegetables) is very tasty. Really. You definitely need to give it a try. Their bento boxes are very tasty.

Moreover, you can choose the side dishes for the bento box, just like what you do at a cafeteria.

Because I think Meigankourou really too tasty.

Never eat-EXP this tasty NOM (dish)
20 →  ...(9)對..可以去吃
...(9)dui ..keyi qu chi
right can go eat
‘I recommend Meigankourou to you because I think it’s really tasty. I have never had Meigankourou that good. Yeah, you can go give it a try.’

The second instance of *keyi* used in an affirmative declarative, which occurs later in the conversation (line 20), pertains to the directive function of recommendations. The *keyi*-modalized directive is prefaced by the use of the performative verb, *tuijian* ‘to recommend’ (line 17), followed by the reiteration of how tasty the speaker finds the bento box meals with the entrée of braised pork belly with pickled vegetables (line 18-19). When used in indirect speech acts of recommendations, the modal has been designated the meaning of “be worth (doing something)” by some of the earlier treatments of the polysemy of *keyi* (e.g., Liu et al., 2001; Lu, 1999). However, Peng (2007) argues that “worthiness” can serve as one of the reasons a given event is permitted and therefore the concept is still related to deontic permission. Whether such implicative meaning of *keyi* in the directives of recommendations has gone through sufficient entrenchment to become a separate sense of the modal remains to be explored.

4.2.2.2 Issuing a proposal

When used with first-person subjects, *keyi*-modalized directives can perform the function of issuing of a proposal, as observed in excerpt (42). Here F1 first expresses her desire to visit Kenting (line 01), a national park in southernmost area of Taiwan that is famous for its sunshine and beach. In response, F2 makes a negative assessment of Kenting (albeit immediately downgraded), implicitly dismissing the national park as an ideal travel destination (line 02). F1 further provides her reason for wanting to visit Kenting (line 03), implying that she is not insisting on her choice. F2 then proposes an alternative travel destination during spring break (line 04-05).
(42) M026: Seaside

01 F1: ...(1.7) 好想去墾丁喔
...(1.7) hao xiang qu kending ou
very want go Kenting PRT
‘I really want to go to Kenting!’

02 F2: ...可是墾丁很髒耶...(1.1)有點髒
...keshi kending hen zang ye ...(1.1) youdian zang
but Kenting very dirty PRT a.bit dirty
‘But Kenting is very dirty…a bit dirty.’

03 F1: ...嗯...我只是想去海邊曬太陽而已
...en...wo zhishi xiang qu haibian shai taiyang eryi
...en 1SG just want go seaside bask sun only
‘Hm, I just want to go to the seaside to bask in the sun.’

04 → F2: ...(2.0)那我們可以...那我們可以去宜蘭啊
...(2.0) na women keyi ...na women keyi qu yilan a
then 1PL can then 1PL can go Yilan PRT

05 ...春假的時候
...chunjia de shihou
...spring.break assoc time
‘Then we can...we can go to Yilan during spring break.’

06 F1: ...嗯...兩天一夜
...en...liang tian yi ye
...hm two day one night
‘Hm. It could be a two-day-and-one-night trip.’

07 F2: ...對呀
...dui ya
...correct PRT
‘Yeah.’

Note that the keyi-modalized directive in (42), prefaced by the connector na ‘in that case’, is used in a problem-solution sequence. In other words, the proposal issued with the use of a declarative modalized by keyi is produced to solve the problem established in the prior turns.

4.2.2.3 Granting permission

The modal keyi, similar to its English counterparts may and can, can also be used in the directive function of Permissive (e.g., you may/can go now) (Palmer, 2001). As expected, granting (and seeking) permission is rare in daily conversations among friends.
and family. The few instances of keyi found in the corpus data to perform the permissive function all occur in reported speech. A case in point is excerpt (43), in which the speaker F2 is quoting what her boss would say to another employee, granting him permission to leave earlier than his co-workers (line 07-08).

(43) M003: Getting off work

01 F2: ..你 知道 ..就是 我 ..他 ...他 要 上課
..ni zhidao ..jiushi wo ..ta ...ta yao shangke
2SG know that.is 1SG 3SG 3SG need.to attend.class

02 ..所以 我們 會 通融 他
..suoyi women hui tongrong ta
so 2PL would stretch.rules 3SG

03 ..譬如 說 ..可能 六點 下班
..piru shuo ..keneng liu-dian xiban
for.example say possibly six-o’clock get.off.work
‘You know…that is, I…he…he needs to attend a class. So we would stretch the rules to accommodate him. For example, we possibly get off work at six…’

04 F1: ..um
‘Um.’

05 F2: ..可是 ..um 譬如 說 他 有 三點 的 課
..keshi ..um piru shuo ta you san-dian de ke
..but um for.example say 3SG have three-o’clock ASSOC class

06 ..三點半 的 課
..san-dian-ban de ke
three-o’clock-half ASSOC class

07 → ..我們 老闆 就 說 好 啊
..women laoban jiu shuo hao a
1PL boss then say fine PRT

08 → ..那 你 兩點半 可以 走
..na ni liang-dian-ban keyi zou
then 2SG two-o’clock-half can leave
‘But…um like he has a class at three, three-thirty. Our boss would say, “Fine, then you can leave at two-thirty.”’

09 F1: ..喔
..ou
‘Oh.’

Previous analyses on the polysemy of keyi have commented on how the three directive functions discussed above all relate to the deontic sense of the modal as well as the key role of context in determining what directive function is at play. For example,
Hsieh (2006b) argues that the advisory meaning of *keyi* arises when the speakers considered themselves to have insufficient authority or do not want to exert too much influence on their addressees; therefore, this meaning can be considered an extension of the more authoritative permission sense of the modal. Lu (2001, 2004) also points out that what is being suggested or proposed by the speaker is already within the scope of permission in his/her epistemic world. Therefore, the same *keyi*-modalized directive can be interpreted as giving advice or granting permission, depending on different interactional context.

### 4.2.3 Uses of *keyi* in commissives

In addition to assertives and directives, the modal *keyi*, like one of its English counterparts *can*, can also be used in the commissive function of extending an offer (Palmer, 1990/2013), as can be seen in excerpt (44). Here the speaker M makes an indirect offer to ask his friend working at a human resources employment agency, on behalf of F1, to introduce some jobs for her (line 03-04). Apart from the use of *keyi*, the offer is also hedged in that it is conditional and therefore sounds less imposing on the recipient.

(44) M035: Job

01 M: ...(1.1) 對我有一個朋友是做人力仲介的 ...(1.1) dui wo you yi-ge pengyou shi zuo renlizhongjie de right 1SG have one-CL friend COP do HR.agency PRT

02 ...(1.3) 他...就是還蠻 ...(1.3) ta ...jiushi hai man 3SG precisely still quite

03 → ..如果 你 有 興趣 ..ruguo ni you xingqu if 2SG have interest

04 → 我 可以 請 他 幫 你 介紹 工作 wo keyi qing ta bang ni jieshao gongzuo 1SG can ask 3SG help 2SG introduce work

‘I have a friend working in Human Resources. He is quite…. If you’re interested, I can ask him to help introduce work to you.’
When used in the indirect speech act of extending an offer like the one in excerpt (44), the modal keyi is used in its dynamic meanings of ability or circumstantial possibility. This commissive function of keyi-modalized affirmative declaratives has received almost no attention in the literature and, as can be seen in Table 4-2, only represents less than ten percent of the instances in the conversational data.

4.3 Discourse functions of keyi in negative declarative utterances

As noted in Section 4.1, the use of the modal keyi in negative declarative utterances is marginal (less than 3%). Previous studies (e.g., Fu & Zhou, 1999; Liu et al., 2001; Lu, 2004; Peng, 2007) have pointed out that, when negated by bu ‘not’, the modal keyi only expresses the deontic meaning of prohibition. It is then no surprise that the utterances with negated keyi, all of which have a directive function in the conversational data, are intended and interpreted as an issuance of prohibition or admonition, mostly with second-person you or first-person we as the explicit or implicit subject.

Consider excerpt (45), which is taken from a conversation between two female classmates in their mid-twenties. Here, as a response to F2’s informing of her sleepiness (line 01), F1 issues a prohibition that uses an indirect address term (zhewei tongxue ‘this
classmate’) (line 02), instead of the second-person you, to mitigate the potentially face-threatening act.

(45) M007: Sleep
01 F2: ...(1.1) 糟糕 ..我想睡觉 ..[@@]
   ...(1.1) zaogao ..wo xiang shuijiao
too.bad 1SG want sleep
   ‘Oops, I want to sleep.’

02 → F1: [你 想 睡]
   [ni xiang shui]
   2SG want sleep

03 → ..這位 同學] ..不 可以 睡
   ..zhe-wei tongxue] ..bu keyi shui
   this-CL classmate NEG can sleep
   ‘You want to sleep. This classmate, (you) can’t sleep.’

The utterances with negated keyi can also be intended as an admonition, which has a weaker force than prohibition. Consider excerpt (46), which comes from the same conversation as excerpt (45). After excerpt (45), the speakers moved on to talk about F2’s plans when she goes home later this week. In excerpt (46), the speakers are talking about F2’s cousin and his girlfriend, who are going to visit F2 this Sunday.

(46) M007: Cousin’s girlfriend
01 F2: ..啊 我 表弟 禮拜天 要 來 找 我
   ..a wo biaodi libaitian yao lai zhaow wo
   PRT 1SG cousin Sunday want come find 1SG
   ‘My cousin is going to meet with me this Sunday.’

02 F1: ..喔
   ..ou
   PRT
   ‘Oh’

03 F2: ..他 會 帶 小 女朋友 來 喔
   ..ta hui dai xiao nupengyou lai ou
   3SG will bring little girlfriend come PRT
   ‘He will bring his little girlfriend.’

04 F1: ..你 看過 嗎
   ..ni kan-guo ma
   2SG see-EXP Q
   ‘Have you seen her before?’
5. Everyone has seen her photo.

6. F1: Oh, haven't you seen her?
   F2: I haven't.

7. F1: Are you looking forward to seeing her?
   F2: (0) No, I'm not.

8. F1: Are you looking forward to seeing her?
   F2: How about in person? Have you seen her in person?

9. F2: By her photo, I think she's okay-looking. But it's my cousin who's more unworthy of her.

10. F1: Really?
    F2: It's just that she is a young lady.

11. F1: Really?
    F2: My cousin is mature and steady-headed.

12. F1: No, it's not fair to judge people by outward appearance.
    F2: [Laughing]

13. F1: [Laughing]

14. F2: My cousin is mature and steady-headed.

15. F1: [Not] can judge people by outward appearance.
In excerpt (46), F2 makes some comments on the suitability of the relationship between her cousin and his girlfriend based on their relatively large age difference (line 10, 12, 14), implying that he may be too old for his girlfriend. F2’s judgement is received by F1 first with some laughter (line 13) and then with an admonishment against F2’s action, which is to judge people by their outward appearance (line 15, 16). Note that the second instance of the admonishment (line 16) is attached with the particle la. As observed by Lin (2010), such la-imperatives are rarely followed by any elaboration or explanation, which is also the case here. While aligning with F1’s admonishment (line 17), F2 also appeals to an ‘Extreme Case Formulation’ (Pomerantz, 1986) (i.e., dajia dou zai yimaoquren ‘everybody is judging other people solely by their appearance’) to legitimize her action of judgement (line 18).

**4.4 Discourse functions of keyi in interrogative utterances**

As mentioned in Section 4.1, slightly more than one-tenth of the tokens of keyi in the spoken corpus are used in interrogative utterances and all of them are in the affirmative form. Four discourse functions of keyi-modalized interrogatives are identified and the distribution of these functions is presented in Table 4-3. As can be seen, more than half of the instances of keyi in interrogatives are used to solicit information or confirmation. One-fifth of the keyi-modalized interrogatives have the illocutionary force
of making a request. The remaining one-fourth of the instances are used to express surprise or seek permission.

Table 4-3: The distribution of the functions of keyi-modalized interrogatives

<table>
<thead>
<tr>
<th>Functions</th>
<th>Number of Instances (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Soliciting information or confirmation</td>
<td>19 (54.3%)</td>
</tr>
<tr>
<td>2. Making a request</td>
<td>7 (20.0%)</td>
</tr>
<tr>
<td>3. Expressing surprise</td>
<td>5 (14.3%)</td>
</tr>
<tr>
<td>4. Seeking permission</td>
<td>4 (11.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>35 (100%)</td>
</tr>
</tbody>
</table>

The subsections below will illustrate and delineate each of the discourse functions of keyi-modalized interrogatives aforementioned.

4.4.1 Soliciting information or confirmation

The majority of keyi-modalized interrogatives are real questions in the sense that the speakers produce them to solicit information or confirmation from their co-participants. A case in point is excerpt (47), which is taken from a conversation between a couple in their thirties. Here, the participants are trying to figure out whether there is a taboo in Taiwanese culture against couples visiting temples together, and if so, whether the taboo applies to the specific temple they want to visit.

(47) M014: Temple

01 F: (0) 我 真的 覺得 我 今年 是 怎樣
     (0) wo zhende juede wo jin-nian shi zenyang
     1SG really think 1SG this.year COP how

02 ..我們 禮拜五 先 去 媽祖 廟 拜個拜
     ..women libaiwu xian qu Mazu miao bai-ge-bai
     1PL Friday first go (person) temple worship-CL-worship
‘I really thought, “What’s happening to me this year?” Let’s first go to the Mazu Temple to worship this Friday.’

‘Hm, sounds good.’

‘You (should) worship, too.’

‘Is it not okay?‘

‘I don’t know.’

‘It should be okay. There is no taboo for this, right?’

‘Didn’t people say couples cannot go to some temples? Oh, Ludongbin’s temple or something. Only that, right?’
In extract (47), after inviting M to visit a temple to worship with her later this week, F questions, as an after-thought, whether they are culturally/religiously permissible to do so (line 07). F’s yes-no question, which uses the modal keyi in its deontic sense, is interpreted by M as possibly expressing her negative stance towards the matter at hand (line 08). However, it can be further observed from F’s response in the next turn that she poses the question to solicit confirmation from M that they can visit the temple together (line 09).

4.4.2 Making a request

A widely documented interactional use of the English modal can in interrogatives is to make indirect requests (e.g., “Can you pass the salt?”) (Huddleston & Pullum 2002; Palmer 1990/2013). Between the two Chinese counterparts of can examined in this study, only keyi, but not neng, is found to be used to perform the function of making an indirect request in the form of a question. To illustrate, in excerpt (48), which is a continuation of excerpt (47), the couple, after brief discussion, are still unsure of whether the taboo that a couple cannot visit some temples together applies to the specific temple they want to visit. F then indirectly requests M to ask his mother (line 14) because she believes that people in the older generation should know more about the taboo (line 16).

(48) M014: Temple
14  →  F:  ..你 可以 問 一下 你 媽 嗎
    ..ni keyi wen yixia ni ma ma
  2SG can ask once 2SG mom Q
  ‘Can you ask your mom?’
15  M:  ..她 應該 ..應該 <L3 毋知 影 L3>
    ..ta yinggai ..yinggai <L3 m-zaiya” L3>
  3SG should should NEG-know
  ‘She probably doesn’t know.’
In particular, for the indirect request (line 14), F uses a keyi-modalized question concerning M’s ability to carry out the action (i.e., asking his mom about the taboo) to ask for the performance of the action itself (c.f. Searle, 1975). Such indirect speech act can be understood as an instantiation of the ABILITY FOR ACTION metonymy, which is an elaboration of the more general POTENTIALITY FOR ACTUALITY metonymy (Panther and Thornburg, 1999, 2003; Thornburg and Panther, 1997).

4.4.3 Expressing surprise

Earlier in Section 4.2.1.4, it has been pointed out that the modal keyi can be used in affirmative declaratives for speakers to convey surprise, or to signal that the information they have just received from their co-participants counters to the speakers’ own expectations. The same function can also be observed in interrogatives modalized by keyi, with either zenme ‘how come’ or weishenme ‘why’ as the questions words. Consider excerpt (49), prior to which the speakers had been talking about the pictures that F1 took while visiting a well-known theme park in Taiwan. The extract below is about a specific photo of F1 with a pony that the tourists can pay to ride in the theme park.
Based on the extract, F2 seems to assume that tourists cannot take a photo with the pony without paying to ride it. After receiving a negative answer from F1, F2 produces a question with zenme ‘how come’ (line 04), a question word that can convey a sense of puzzled surprise (Wiedenhof, 2015), showing that the information she has received is counter to her own expectation. Then F1 simply confirms the possibility without providing further details (line 05), showing that F2’s question is not interpreted as a real question asking for a reason.

4.4.4 Seeking permission

As expected, seeking (and granting) permission is rare in face-to-face conversations among friends and family. Excerpt (50) showcases one of the very few cases found in the corpus data. Prior to the extract, the speakers had been talking about
their classmates. Here the speaker M1, feeling thirsty, digresses from the topic and asks for his co-participants’ permission to drink their water/beverage on the floor (line 01).

(50) M031: Water

01 → M1: 我 可以 偷喝 那個 水 嗎

wo keyi tou-he na-ge shui ma
1SG can steal-drink that-CL water Q

‘Can I sneak that water to drink? I’m super thirsty.’

02 F: ..可以 啊 ..那 他的

..keyi a ..na ta-de
can PRT then 3SG-GEN

‘You (can). Then his…’

03 M1: ...什麼 ..那個 地板 上 的 [水]

...shenme ..na-ge diban shang de [shui]
what that-CL floor on REL water

‘What is that water on the floor?’

04 F: [這]個 ...老虎牙子

[zhe]-ge ...laohuyazi
this-CL (sports drink)

‘This is Laohu Yatzi.’

05 M1: ..你們 有 嗎

..nimen you ma
2PL have Q

‘Do you have (more of) it?’

06 M2: (0) 有 啊

(0) you a
have PRT

‘We do.’

07 M1: ...(0.8) 超渴 的

...(0.8) chao ke de
super thirsty PRT

‘I’m super thirsty.’

As have been seen in the examples in Section 4.4, keyi-modalized interrogatives can involve both the dynamic and deontic meanings of the modal.
4.5 Recapitulations

This chapter focuses on the usage patterns and discourse functions of the modal *keyi* in conversation with respect to the three utterance types in which the modal occurs: affirmative declaratives, negative declaratives, and interrogatives. Affirmative declarative utterances with the use of *keyi* can serve as assertives, directives, or commissives: the first and third function mostly involve the dynamic meanings (i.e., ability/utility and circumstantial possibility) of the modal whereas the second, the deontic meaning (i.e., permission). Four interactional uses of *keyi*-modalized assertives are identified: informing, counter-informing, soliciting alignment, and expressing surprise. In particular, acts of informing performed by the *keyi*-modalized assertives tend to occur in incremental elaboration sequences in which the elaborative assertives are used to provide details supporting the claims or assessments made earlier. The *keyi*-modalized affirmative declaratives can also have directive functions of giving advice/suggestions/recommendations, issuing a proposal, and granting permission, as well as the commissive function of extending an offer. These directive and commissive functions are found to be associated only with *keyi*, but not with *neng*, in the conversational data. It follows that, when occurring in affirmative declarative utterances, *keyi* has a wider range of interactional uses than *neng*.

The modal *keyi* can also be used, marginally, in negative declarative utterances with the directive function of prohibition or admonition. As for the interactional uses of *keyi*-modalized interrogatives, these questions are found to have four discourse functions in the conversational data: soliciting information or confirmation, making a request, expressing surprise, and seeking permission. As will be seen in Chapter 5, the interactional uses of *neng*-modalized interrogatives are very different from those of *keyi*-modalized interrogatives discussed in this chapter.
This chapter presents and discusses the findings on the usage patterns and discourse functions of neng in conversational Taiwan Mandarin. Similar to keyi, neng also has dynamic meanings of ability/utility and circumstantial possibility. Additionally, the polysemous modal has a deontic ‘permission’ sense and an epistemic ‘probability’ sense, but the two meanings mostly occur in negation and questions.

5.1 Usage patterns of neng in conversation

The modal neng is found to be much less frequently used in the spoken corpus than keyi. Table 5-1 presents the distribution of the tokens of neng in terms of the utterance types in which the modal occurs in the conversational data.

Table 5-1: The distribution of the utterance types of neng instances

<table>
<thead>
<tr>
<th></th>
<th>Declarative</th>
<th>Interrogative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Affirmative</td>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>Number of instances (%)</td>
<td>28 (24.1%)</td>
<td>77 (66.4%)</td>
<td>116 (100%)</td>
</tr>
</tbody>
</table>

As can be seen in the table, more than ninety percent (90.5%) of the tokens of neng occur in declarative utterances; only about ten percent are used in interrogative utterances. Moreover, among the neng tokens in declaratives, about three-fourths (77 out of 105, 73.3%) are in the negative. In other words, the usage of neng in conversation is
strongly biased towards the negative pole, which stands in stark contrast with the positive-oriented usage of *keyi* discussed in the previous chapter.

Among the 28 tokens of *neng* in affirmative declarative utterances, more than four-fifths (85.7%, 24 out of 28 tokens) are preceded by an adverb. The adverbs found to co-occur with *neng* include *zhi* ‘only’ (16 instances), *cai* ‘(only) then’ (4 instances), *jiu* ‘(and) then’ (1 instance), *ye* ‘also’ (1 instance), *man* ‘quite’ (1 instance), and *bijiao* ‘relatively’ (1 instance). Interestingly, two-thirds of the adverb-*neng* co-occurrences involve the scope adverb *zhi* ‘only’; in contrast, the adverb is not found to co-occur with *keyi*. The strong association of *zhi* and *neng* found here is consonant with the tokenization decision made by some corpora (e.g., Lancaster Corpus of Mandarin Chinese) to segment the combination of “*zhi neng*” as one word.

Apart from *zhi*, degree adverbs such as *man* ‘quite’ and *bijiao* ‘relatively’ are also found to be associated only with *neng*, but not with *keyi*, in the conservational data. Indeed, among the previous studies that pinpoint the Chinese modals that can be used with degree adverbs, most (e.g., Lu, 2006; Ross & Ma, 2006) mention *neng* but not *keyi*, except for Tang (1988), which claims that both modals can be modified by intensifiers. Lu (2004) further points out that *neng* can co-occur with degree adverbs that convey a higher degree, like the two adverbs found in the data, but not with those that express a lower degree such as *shaowei* ‘slightly’ and *youdian* (er) ‘a bit’. As will be seen in the analysis later, the co-occurrences of the two degree adverbs (*man* and *bijiao*) and the modal *neng* are used in acts of counter-informing, namely, delivering information that the speaker believes to be not previously known to the co-participant.

5.2 Discourse functions of *neng* in affirmative declarative utterances

One major difference between *keyi* and *neng* in terms of their interactional uses is that the former modal is found in affirmative declaratives with directive and commissive functions whereas the latter is not. Since directive functions mostly pertain to the deontic uses of modals, such discrepancy can be accounted for by the restrictive uses of deontic
neng (i.e., in negative declaratives or interrogatives mostly). The affirmative declaratives involving tokens of neng are all found to be used as assertives with an informing function. The specific informing acts performed with neng-modalized assertives include providing elaboration or explanations, which will be illustrated and discussed below.

5.2.1 Providing elaboration

As discussed in the previous chapter, the keyi-modalized assertives, when functioning as an act of informing, tend to occur in ‘incremental elaboration’ sequences, in which the speaker uses affirmative declaratives involving the modal to provide supporting details for prior claims or assessments. Assertives modalized by neng with an elaborate-informing function can also occur in similar sequential environment, as showcased in (51), which comes from a multi-party conversation among three friends, two females and one male. Prior to the excerpt, F1 expressed her surprise at seeing many salespeople who can communicate in Chinese during her trip to South Korea earlier. Here F2 informs F1 that there are a lot of immigrants from China in South Korea (line 01-02), and that these immigrants have a lower social status (line 04) because they are not considered “real” Koreans (line 06). Then F1 cites her tour guide, an overseas Chinese, during the trip as an example to display her positive epistemic stance towards F2’s claims about the immigrants in South Korea, a country that follows the personal principle rather than the territorial principle. F1 provides further elaboration based on what the tour had told her with regard to some of the restrictions or challenges that immigrants like him/her experience while living in South Korea.

(51) TM028: Immigrants in South Korea
01 F2: ...(1.7) 那邊 不是 也 蠻 多 那個 就是
       ...(1.7) nbian bu-shi ye man duo na-ge jiushi
       there NEG-COP also quite many that-CL precisely

02 ...咦 哈爾濱 還是 哪邊 過去 迎娶 他們 的
       ...yi Haerbin haishi nbian guoqu yingqu tamen de
       PRT Harbin or where go.over marry 3PL PRT
       ‘Aren’t there [South Korea] many people from Harbin who go there to marry them [Koreans]?’
F1: 喔 是 喔 所以 是 從 ... (0.9) 中國 那邊 去 喔
... ou shi ou suoyi shi cong ... (0.9) zhongguo nabian qu ou
PRT COP PRT so COP from China there go PRT
‘Oh. Is that so? So (they are) from China?’

F2: 對 但是 他們的 地位 基本上 很 低
.dui danshi tamen-de diwei jibenshang hen di
right but 3PL-GEN status basically very low
‘Yeah, but their social status basically is very low.’

F1: 為什麼
...weishenme
Why
‘Why?’

F2: 就 不是 正統 韓國人 啊
.jiu bu-shi zhengtong hanguoren a
then NEG-COP legitimate Korean PRT
‘(They) are not real Koreans.’

F1: (0) 喔 好像 ..因為 我 那 時候 我們的 導遊
(0) ou haoxiang ..yinwei wo na shihou women-de daoyou
PRT seem because 1SG that time 1PL-GEN tour.guide
他們 是 韓國人 就算 是 他 是 韓國 出生
tamen shi hanguoren jiusuan shi ta shi hanguo chusheng
3PL COP Korean even.if COP 3SG COP Korea be.born
... 所以 他 是 領 台胞證
...suoyi ta shi ling taibaozheng
so 3SG COP receive MTP
‘S/he said the Korean government would not acknowledge that they
[immigrants] are Koreans, even though they were born in South Korea. So
s/he has MTP (Mainland travel permit for Taiwanese residents).’

F2: (0) 喔
(0) oh
‘Oh.’
M: (0) 嗯
(0) en ‘Hm.’

F1: (0) 他 他的 ...他 就是 台灣人
(0) ta ta-de ...ta jiushi taiwanren
3SG 3SG-GEN 3SG precisely Taiwanese
‘He is (considered) Taiwanese.’

F2: (0) 嗯
(0) en ‘Hm.’

F1: (0) 然後 他 在 那邊 只 能 念 華僑 學校
(0) ranhou ta zai nabian zhi neng nian huaqiao xuexiao
and.then 3SG LOC there only can go.to overseas.Chinese school

...然後 出來 可能 就是 當 廚師
...ranhou chulai keneng jiushi dang chushi
and.then come.out might precisely work.as cook

或者 是 當 一些 比較
huozhe shi dang yixie bijiao
or COP work.as some relatively
...uh ...就 沒有 辦法 像 他們
...uh ...jiu mei-you banfa xiang tamen
uh that.is NEG-have way like 3PL

...當地 的 韓國人 那麼 容易 找到 工作
...dangdi de hanguoren name rongyi zhaodao gongzuo
local ASSOC Korean that easy find job
‘And s/he could only attend the schools for overseas Chinese there. And
when they come out of the school, they might work as cooks or other
relatively...uh couldn’t find a job as easily as local Koreans.’

F2: (0) 嗯 ...所以 他們 找 工作 ...有 ...很 大 的 難度
(0) en ...suoyi tamen zhao gongzuo ...you ...hen da de nandu
hm so 3PL look.for job have very big NOM difficulty
‘Hm. So they have a lot of difficulty finding jobs.’

The neng-modalized assertive in this excerpt (line 17) occurs in a similar
sequential environment where the keyi-modalized assertives with an incremental
elaboration function are used. Specifically, the turn in which the assertive is situated
immediately follows a short turn with a continuer (en) by the co-participant. In addition,
the assertive is prefaced by the connective ranhou ‘and then’ and provides additional
information to support earlier claims about the immigrants in South Korea.
Still, *neng*-modalized assertives are found to perform, more frequently, a distinct type of elaborative-informing, in which such affirmative declaratives are used by the current speaker to revise or reformulate their own or the co-participant’s utterances in earlier turns. Such practice, termed as ‘retroactive elaboration’ in this study, may also qualify as non-error repair, as can be observed in excerpt (52). This excerpt is drawn from a multi-party conversation among four friends, two males and two females, between the ages of late twenties to early thirties. The participants, while conversing, are also having a hot pot and watching TV. Immediately prior to this excerpt, the participants had been talking about the protagonist of a computer-animated film that was being played on TV. The extract below starts with a transition to a new topic about the food being cooked.

(52) M005: Food
01 → F1: ...(0.3) 要 煮 熟 一點 比較 好吃
     ...(0.3) yao zhu shou yidian bijiao haochi
     need cook cooked a.bit relatively delicious
     ‘(It) needs to be cooked more thoroughly for it to be more delicious.’
02 M1: ..什麼 東西
     ..shenme dongxi
     ‘What (thing)?’
03 M2: ..通通 放 進去 好 了
     ..tongtong fang jinqu hao le
     all put into good PRT
     ‘Put them all in.’
04 → F1: ..就是 要 煮 得 夠 長 才 能 吃
     ..jiushi yao zhu de gou jiu cai neng chi
     precisely need cook CSC enough long then can eat
     ‘That is, it needs to be cooked long enough so that it can be eaten.’
05 M1: ..喔 ..這 是 什麼
     ..ou ..zhe shi shenme
     oh this COP what
     ‘Oh…What is this?’
06 F2: 那 我 剛剛 撈 了 一個 可以 吃 嗎
     na wo ganggang lao le yi-ge keyi chi ma
     then 1SG just.now fish.up PFV one-CL can eat PRT
     ‘Then can the one that I just fished up be eaten?’
07 F1: ..可以 啊
     ..keyi a
     ..can PRT
     ‘It can be.’
The topic-shift starts with F1 giving a piece of advice to her friends (line 01), who may be trying to fish some food out of the hot pot to eat. F1’s advice is followed by M1’s other-initiation of repair that involves a category-specific interrogative (Shenme dongxi? ‘What things?’), indicating that he has trouble hearing or understanding her (subject-less) utterance. F1 resolves the repair by reformulating her advice using a neng-modalized assertive (line 04), which also involves the parametric use of the adverb cai (Biq 1988; Chu 1998). Specifically, cai links two clauses and focuses on the antecedent (zhu de gou jiu ‘cook long enough’) as a condition necessary for the consequent (neng chi ‘can be eaten’) to hold. While the repairable (line 01) and the reformulation (line 04) are both framed by the high-value modal yao ‘need’, the latter, with the conditional frame aforementioned, is an upgrade with a stronger advisory force. In response to F1’s reformulated advice, F2 then produces a question with the modal keyi to solicit F2’s confirmation about the edibility of the food she fished up earlier (see Section 4.4.1 for more discussion on this function of keyi-modalized interrogatives).

Another motivation for retroactive elaboration is the lack of (sufficient) recipient uptake (cf. Ford et al., 2002; Schegloff, 2000). Consider excerpt (53), which comes from a conversation among three sisters in their fifties. Prior to the extract, the participants had been talking about how land leasing works in Mainland China. Here, the speakers are talking about the fact that F1’s ex-boss can collect a great amount of rent from the houses he built (lines 04-06, 08-10).

(53) M013: Rent
01 F3: ..ei 你們 [以前] 那個 ..[[老闆]]
        ..[yiqian] na-ge ..[[laoban]]
        PRT 2PL before that-CL boss
        ‘Eh, your former boss…’
(Line 02 is omitted)
03 F1: ..he
        PRT
        ‘Heh.’
F3: \text{就是你跟他做的那個老闆}
\text{jiushi ni gen ta zuo de na-ge laoban}
\text{precisely 2SG with 3SG do REL that-CL boss}
\text{‘The boss that you worked with’}

F1: \text{..he}
\text{PRT}
\text{‘Heh.’}

F3: \text{(0)現在都沒有..都退出來了}
\text{xianzai dou mei-you ..dou tui-chulai le}
\text{now all NEG-have all withdraw-out PFV}
\text{‘Now (he) does not…(he) withdrew (from the business)’}

F1: \text{...(1.4)但是那所有}
\text{..(1.4) danshi ta na ..suoyou de}
\text{but 3SG there all NOM}
\text{‘But he rents out all the houses built there. This…’}

F3: \text{[這]個一}
\text{[zhe]-ge yi}
\text{this-CL one}
\text{‘But he rents out all the houses built there. This…’}

F1: \text{..一個月聽講說都...收了一}
\text{..yi-ge yue tingjiang shuo dou ..shou le yi}
\text{one-CL month hear.of say all collect PFV one}
\text{‘But he rents out all the houses built there. I’ve heard that he collected more than one million NT dollars a month.’}

F3: \text{..hioh}
\text{PRT}
\text{‘Hioh’}

F1: \text{(0)每個月收..回來...房租收}
\text{(0) mei-ge yue shou ..huilai ..fangzu shou}
\text{every-CL month collect back rent collect}

F3: \text{..能收到..台幣一百多万吶}
\text{..neng shou-dao ..taibi yi-bai duo wan}
\text{can collect-arrive NT one-hundred more ten.thousand}
\text{‘Every month (he) collects rent, can collect more than one million NT dollars’}
In the extract above, F1 first informs F3 how much rent her previous boss collected from his houses this month (line 04-06, 08-09). The delivery of such information is received with minimal uptake by F3, in the form of a particle in a dialect of Chinese (Taiwanese or Southern-min), hioh, which signals the speaker’s realization or understanding (Lin, 2015). Such minimal uptake prompts F1 to reformulate her earlier statement, which is only based on a single case (i.e., this month), to a more generalized one (i.e., every month) (line 11-12). The upgrade then elicits a positive assessment (bucuo a ‘That’s pretty good’) from F3 (line 13).

In the two examples of retroactive elaboration above, the statements being repaired and the reformulations are uttered by the same speaker. In contrast, excerpt (54) showcases a slightly different sequence, in which the repairable and the reformulation are produced by different participants. This excerpt comes from a conversation between two friends, both male, in their twenties. M1 and M2 have been talking about the weight change of a common female friend:

(54) M011: Weight

01 M1: 他 那個 時候 他 去 考試 的 時候
ta na-ge shihou ta qu kaoshi de shihou
3SG that-CL time 3SG go test NOM time
02 我 就是 我 在 補習班 看到 他
wo jiushi wo zai buxiban kan-dao ta
1SG that.is 1SG LOC cram.school look-arrive 3SG
03 就 那個 時候 就 真的 就
jiu na-ge shihou jiu zhende jiu
then that.CL time then really then
04 ..人 肉 ..整個 人 是 肉肉 的
..ren rou ..zheng-ge ren shi rourou de
..person chubby whole-CL person COP chubby PRT
05 ..然後 結果 他 考上 的 時候
..ranhou jieguo ta kao-shang de shihou
and.then as.a.result 3SG test-up NOM time
我 就 在 學校 圖書館 看到 他 哇
wo jiu zai xuexiao tushuguan kan-dao ta wa
1SG then LOC school library see-arrive 3SG wow

..怎麼 那麼 瘦
..zenme name shou
how.come that thin
‘When she was preparing for the test and I saw her at the cram school, she was chubby. And then after she got admitted, I saw her at the school’s library. My reaction was “Wow! How did she become that thin?”

08 M2: 他 那個 時候 超 好笑
ta na-ge shihou chao haoxiao
3SG that-CL time super funny

09 他 那個 時候 我 在 路上 就
ta na-ge shihou wo zai lu-shang jiu
3SG that-CL time 1SG LOC road-up then

..于 書婷 ..是 誰 把 你 打成 這個 樣子
..Yu Shuting ..shi shei ba ni da-cheng zhe-ge yangzi
(person) COP who BA 2SG hit-become this-CL appearance
‘At that time, it was funny. I saw her on my way and I said “Yu Shuting, who hit you and made you look like this?”

11 M1: ..@@@

13 M1: (0)eh 沒有 然後 我 就 覺得
(0)eh meiyou ranhou wo jiu juede
PRT NEG then 1SG just think

14 ..我 覺得 他 好 厲害
..wo juede ta hao lihai
1SG think 3SG really impressive

16 → M2: ..其實 他 本來 就 蠻 會 ..那個 啊
..qishi ta benlai jiu man hui ..nage a
actually 3SG originally just quite can that PRT
‘Actually, she is quite good at…that’
At the beginning of the excerpt, M1 is recounting seeing her at two different locations and times (line 01-07). Within the short period of time between the two encounters, their female friend had lost a lot of weight; the adjective used by M1 to describe her goes from chubby (rou rou de) to thin (shou). Later M1 further expresses his surprise at how thin their friend had become with a question modalized by keyi (line 15) (see Section 4.4.3 for more discussion on this function of keyi-modalized interrogatives).

In response to M1’s expression of surprise, M2 produces a counter-informing prefaced by qishi ‘actually’ (line 16). In this case, the adverb is involved in the action of disclosing a fact the speaker believes to be not previously known to the co-participant (Hsieh & Huang, 2005). The disclosing also involves the degree adverb man ‘quite’, indicating that the ability under discussion may be on a higher scale than what the co-participant expects. In the next turn, M1 reformulates what M2 said earlier, making it more specific (from na-ge ‘that’ to tiaojie ‘adjust’) with a different modal (neng) (line 17). Such reformulation displays M1’s affiliation and is well-received by M2 (line 18-19).

5.2.2 Providing explanations

In addition to providing elaboration, neng-modalized assertives can also fulfill another informing function—providing an explanation. The conversational data reveal that neng-modalized assertives with this informing function tend to occur in sequences where the co-participants’ actions display a stance of non-alignment. Consider excerpt
(55), the first part of which (line 01-06) has been discussed in Section 4.2.1.1. with regard to the informing function of the keyi-modalized assertives (line 3 and line 6) in an incremental elaboration sequence. After the speakers finishes talking about the “advantages” of having friends with type-O blood, F2 further makes a contrastive claim about not to make friends with people with type-AB blood (line 07). Instead of displaying affiliation with F2’s claim, F1 produces a why-question (line 09), which accomplishes the action of directly soliciting an account from F2 for her bold claim in the prior turn. F2’s explanation using a neng-modalized assertive (line 10) starts even before F1’s turn ends, showing that she expects the questioning of her own claim from her co-participant.

(55) M016: Blood type

01  F2: ..要 跟 <L2 O L2> 型 的 人 做 朋 友
      ..yao gen <L2 O L2> xing de ren zuo pengyou
      ‘(We) need to make friends with people with type O blood.’

02  F3: .. <L2 O L2> 型
      .. <L2 O L2> xing
      O type
      ‘Type O blood.’

03  F2: ..因為 他 跟 每 個 血 那 個 ..[可以] 相溶
      ..yinwei ta gen mei-ge xue na-ge ..[keyi] xiangrong
      because 3SG with every-CL blood that-CL can compatible
      ‘Because their blood is compatible with that of people with all the other blood types.’

04  F3: [<L2 O L2> 型]
      <L2 O L2> xing
      O type
      ‘Type O blood.’

05  F1: ..喔
      ..ou
      ‘Oh.’

06  F3: (0) 就 是 ..死了 之 後 可 以 救 你 就 對 了
      (0) jiushi ..si-le zhihou keyi jiu ni jiu dui le
      precisely die-PFV after can save 2SG then right PRT
      ‘That is, they can save you after dying.’

07  F2: (0) 對 對 對
      (0) dui dui dui
      right right right
‘Right. And then don’t make friends with people with type AB blood.’

‘Oh yeah! Nah. Why not?’

‘Because people with type-AB blood can only save people with type-AB blood.’

‘Then isn’t type O…also…’

‘People with type O blood can save all.’

Similar to what Bolden and Robinson (2011) have found with why-questions in English, the interactional functions of F1’s why-question in this excerpt are two-fold. On the one hand, it indexes an epistemic gap between F1 and F2 and thus the possibility for F2 to provide an account not previously known to F1. On the other hand, such why-interrogative also signals F1’s challenging stance towards F2’s claim in the prior turn as unwarranted or inappropriate. Given the overlapping talk, such action of non-affiliation by F1 appears to be expected by F2.
For another example of the occurrence of neng-embedded explanations in disaffiliation sequences, consider excerpt (56). Prior to the excerpt, F1 has been talking about her friend, who returned to her parents’ home to take postpartum rest rather than staying at her in-laws’ house with her husband. F1 has also informed F2 that her boyfriend, who is the older brother of F2, is fine with her having the postpartum care in her parents’ home if they have a child later. Here F1 adds the reason why such arrangement of postpartum confinement would not make a huge difference to the relationship with her boyfriend. F2 then cautions F1 about the need for both parties to be totally on board for such arrangement so that it would not become a source of quarrel later. F2’s turn is also prefaced by meiyou ‘not; no’, a discourse marker that tends to occur in non-agreement or disagreement turns (Wang et al., 2007). In response, F1 first acknowledges the validity of F2’s concern but then provides explanations for why her boyfriend is relatively understanding of the necessity and benefits of such arrangement.

(56) M013: Postpartum confinement

01 F1: 我们已经常常分开了

women yijing changchang fenkai xiguan le

1PL already often separate be.used.to CRS

02 没差

mei-cha

NEG-difference

‘We are often separated and we are used to it. It doesn’t make a difference.’

03 F2: 没有啊但是没有讲好的话可能 会

meiyou a keshi mei-you jiang-hao dehua .keneng hui

NEG-have PRT but NEG-have talk-good CONJ might will

04 因为这种事情然后就会有争吵

yinwei zhe-zhong shiqing ranhou jiu hui you zhengchao

because this-kind matter and.then then will have quarrel

‘No, but if it’s not agreed upon, probably (later) because of this there will be quarrels.’

05 F1: 对啦但是就是就是

dui la .danshi jiushi jiushi

right PRT but precisely precisely

06 就是 因为之前 朋友坐月子

jiushi yinwei zhiqian .pengyou .zuo yue zi

precisely because before friend do.postpartum.confinement
That’s true. But because earlier our friend had her postpartum confinement and then he was there, too. That is, when your older brother was there, he heard a little bit about it, so he can understand more why it’s like that. Right.’

The neng-modalized assertive in excerpt (56) (line 10-11) is produced by F1, after being questioned by F2, to defend her earlier stance. The assertive also involves the degree adverb, bijiao ‘relatively’, which indicates that the ability in question may be on a higher scale than expected by the co-participant because of the reasons given in the prior utterances.

To recap, affirmative declaratives modalized by neng are used as assertives with two primary informing functions: providing elaboration or explanations. When performing an elaborative-informing act, these neng-modalized assertives are found in two types of sequences: incremental and retroactive elaboration, the latter (9 instances) occurring more frequently than the former (5 instances). That is, affirmative assertives modalized by neng are more commonly used to revise or reformulate a prior utterance. In addition, the explanatory-informing done by affirmative assertives modalized by neng tend to occur in sequences where co-participants’ actions display a stance of non-alignment, explicitly or implicitly soliciting an account from the current speaker.
5.3 Discourse functions of neng in negative declarative utterances

As can be observed in Table 5-1, the majority of the tokens of neng occur in negative declarative utterances. Most of these utterances are used as assertives with the function of informing or counter-informing; only 6% (5 out of 77 instances) are used as directives with the function of issuing prohibitions. As the analysis unfolds, it will become clear that the discourse functions of the negative declaratives modalized by neng tend to involve refuting assumptions or expectations of some sort.

5.3.1 Issuing prohibition

As mentioned earlier, negative declaratives modalized by neng in its deontic sense of permission/prohibition are not commonly used as directives in conversation. Like permission seeking and granting, issuing prohibition is also rare in conversation among friends and family. Most of the instances with this directive function are found in reported speech, as observed in excerpt (57). Prior to the excerpt, the speakers have been talking about when F2 and her husband (also present in the conversation) got engaged and married. Here F2 provides explanations for why they waited two years after their engagement to get married by quoting what her father said to her. The reported speech contains two directives connected by the contrastive conjunction keshi ‘but’: the first of which involves the modal keyi in the affirmative for granting permission (line 2), and the second, the modal neng in the negative for issuing prohibition (line 3).

(57) M006: Engagement
01 F2: ..就 那 時候 訂婚 ..的 時候
     ..jiu na shihou dinghun ..de shihou
     that.is that time get.engaged NOM time
02 →  我 爸爸 就 說 ..可以 先 訂婚 呃
     ...wo baba jiu shuo ...keyi xian dinghun na
     1SG father then say can first get-engaged PRT
03 →  可是 不 能 這麼 早 嫁
     ...keshi bu neng zheme zao jia
     but NEG can this early get.married
'When I got engaged, my father said, “You can get engaged first, but you can’t get married this early.”'

04  ..@@@ @@@ [@@@ @@@]

05 F1:  [對 ..因為 很 年輕 啊]
       [dui ..yinwei hen nianqing a]
       right because very young  PRT
       ‘Yeah, because you were very young then.’

06 F2:  ...對 啊 ...因為 那 時候 訂婚 ...才 差不多
       ...dui a ...yinwei na shihou dinghun ...cai chabuduo
       right PRT because that time get.engaged only approximately

07   ...(0.1) 才 二十 歲 啊
       ...(0.1) cai ershi sui a
       only twenty years.of.age  PRT
       ‘Yeah, because when I got engaged, I was about…only twenty years old.’

The directive of prohibition with negative declaratives modalized by neng can concurrently accomplish other negatively-valenced interactional work, as can be seen in extract (58), which comes from a conversation between a couple in their mid-twenties. After requesting M to take back his wallet (line 01), F informs him that she put a one-hundred-dollar bill in his wallet (line 04) and that she will take her money back later (line 05). In response, M produces a directive of prohibition (i.e., prohibiting the money from getting out of his wallet) (line 06) and further solicits an account for her action (line 07-08).

(58) M022: Money

01 F:  ...(3.2) 錢包 拿走 啦
       ...(3.2) qianbao na-zou la
       wallet take-away  PRT

02   ...(0.6) 不要 放 我 這 ..等 一下 忘記
       ...(0.6) bu-yao fang wo zhe ..deng yixia wangji
       NEG-want put 1SG here wait a.short.while forget
       ‘Take back your wallet. Don’t put it here, or you may forget about it later.’

03 M:  ...(3.6) 不 會 忘記 的
       ...(3.6) bu hui wangji de
       NEG will forget  PRT
       ‘I won’t forget about it.’

04 F:  ..我 今天 又 塞 了一百 塊 進來
       ..wo jintian you sai le yi-bai kuai jin-lai
       1SG today again stuff PFV one-hundred dollar enter-come
05  "等一下把它拿走"
   "...deng yixia ba ta na-zou"
   "wait a short while BA 3SG take-away"
   ‘I stuffed one-hundred dollars in your wallet again. I’ll take it back later.’

06  → M:  "(0.8) eh ...(0.4) 进去之后就不能出去了"
   "...(0.8) eh ...(0.4) jinqu zhihou jiu bu neng chu-qu le"
   "PRT enter-go after then NEG can exit-go CRS"

07  "(0.8) 你干嘛塞一百块进去的"
   "...(0.8) ni ganma sai yi-bai kuai jin wo de"
   "2SG why stuff one-hundred dollar enter 1SG GEN"

08  皮夹然后 [拿出来]  "wallet and then take out"
   "pijia ranhou [na chulai]"
   ‘Once it (the money) gets in, it cannot get out. Why did you put one-hundred dollars in my wallet and then (want to) take it back?’

09  F:  "[因为我要买] 东西啊"
   "[yinwei wo yao mai] dongxi a"
   "because 1SG want buy thing PRT"

10  "...后来没有买啊"
   "...houlai mei-you mai a"
   "..later.on NEG-have buy PRT"
   ‘Because I wanted to buy something and then didn’t.’

It can be observed from the excerpt above that F’s informing in line 05 is interpreted by M as asserting her ‘deontic authority,’ or the right to determine (others’) future actions (Stevanovic & Perakyla, 2012), to decide on what do with her money in his wallet. M’s response with the directive of prohibition (line 06) serves to deny F’s assumption and reclaim the deontic right. Notably, the neng-modalized directive is constructed in a dispreferred format; namely, it is produced with hesitation (Levinson, 1983; Pomerantz, 1984) and prefaced by the reactive token eh, which foreshadows an upcoming dispreferred response.

5.3.2 Informing

Negative declaratives modalized by neng are more commonly used as assertives with an informing function. Such informing acts usually involves refuting some background assumptions or assumptions implied in the prior utterances. To illustrate,
consider excerpt (59), which comes from a conversation between teenage siblings (an older sister and a younger brother). Prior to the excerpt, M has told F that when he was little, their mother, seeing F learning to play Erhu, a two-stringed bowed musical instrument, while in elementary school, asked him to learn as well. Here the speakers are talking about why F would want to learn to play the “Chinese violin” in the first place.

(59) M012: Erhu

01 M: ...(1.0) ni shi weishenme hui qu xue Erhu
   2SG COP why would go learn Erhu
   ‘Why would you go learn how to play Erhu?’

02 F: ...(2.6) wo yijing wangji le ...keshi jiushi xiang xue ba
   1SG 1SG already forget PFV but just want learn PRT

03 ...(...2.2) erqie wo juede qishi wo youdian
   moreover 1SG think actually 1SG a.bit

04 ...(0.8) wo zhiyao you xue dongxi
   1SG think 1SG as.long.as have learn stuff

05 haoxiang dou xue de man bu-cuo de
   seem all learn COMP quite NEG-bad PRT

06 ...ranhou keshi wo juede youdian
   and.then but 1SG think a.bit

07 ...(0.7) gufu na-ge laoshi-de ...dui wo de ...kanzhong ba
   disappoint that-CL teacher-GEN to 1SG NOM value PRT

08 → ..yinwei yiqian na xiao shihou a
   because before that little time PRT

09 → zhongwu [bu neng shuijin] hai yao qu na lianxi
   noon NEG can sleep also need go there practice
   ‘I already forgot. But I just wanted to learn. And I think I’m actually a little bit…I think as long as I start learning something, it seems that I end up learning it quite well. And…but I think I kind of failed to live up to the attention that the teacher paid to me. Because when I was little, I couldn’t take a nap during the lunch break. I still needed to go there to practice.’
M: [忘記]
[wangji]
forget
‘Forget…’

F: ...(1.2) 然後 還 我 記得 還有 去 老師 家
...(1.2) ranhou hai wo jide haiyou qu laoshi jia
and.then also 1SG remember also go teacher house

然後 也 沒有 繼續 學
ranhou ye mei-you jixu xue
and.then also NEG-have continue learn
‘And I remember I had also gone to the teacher’s house to practice. Then I never contacted him/her again, and I didn’t continue learning to play.’

The negative declarative modalized by neng in excerpt (59) (line 09) involves refuting a background assumption that elementary school students in Taiwan usually take a nap during the lunch break. This assertive is produced by F to inform M how seriously she took learning Erhu (therefore she got good at playing Erhu and her teacher thought highly of her).

For another example, consider excerpt (60), in which the speakers are talking about the upcoming karaoke contest held by F1’s company. F2 is interested to know when exactly the karaoke contest, which also has a raffle at the end, will take place.

(60) M015: Training
01 F2: 你們 學校 卡拉 OK ... 喔 不 是 學校 ..是 ..公司
nimen xuexiao kalaOK ...oh bu shi xuexiao ..shi .gongsi
2PL school karaoke oh NEG COP school COP company
02 ...(1.6) [啊 是 幾 點 ...你 說
...(1.6) [a shi ji dian ...ni shuo
PRT COP how many o’clock 2SG say
03 幾 點 到 幾 點]
ji dian dao ji dian]
how many o’clock to how many o’clock
‘The karaoke contest at your school…oh not school, company, starts at what o’clock, you said, from what o’clock to what o’clock?’
04 F1: [um ..對 啊 卡拉 OK 比賽 啊]
[um ..dui a kalaOK bisai a]
PRT ..correct PRT karaoke contest PRT
‘Yeah, the karaoke contest.’
F2: ...(0.3) 到 幾 點
...(0.3) dao ji dian
to how many o'clock
'To what o'clock?'

F1: ...五 點 半 到 七 點 半 啊
...wu dian ban dao qi dian ban a
five o'clock half to seven o'clock half
'From five-thirty to seven-thirty.'

F2: ...喔 ...然後 就 ...就 可以 ..下班 了
...ou ...ranhou jiu ...jiu keyi ...xiaban le
'Oh and then you can get off duty.'

F1: ...(1.1) 這 中間 你 要 ..你 要 ..下班
...(1.1) zhe zhongjian ni yao ..ni yao ..xiaban
this middle 2SG want 2SG want get off work

F2: ...喔 ...然後 就 ...就 可以 ..下班 了
...ou ...ranhou jiu ...jiu keyi ...xiaban le
'Oh and then you can get off duty.'

F1: ...是 如果 中間 你 要 ..你 要 ..下班
...ni yao xian huijia ye keyi a
2SG want first return home also okay

F2: ...(0.3) 喔 ...七 ...[最後]
...(0.3) ou ...qi ...[zuihou]
PRT seven at the end
'Oh...seven...at the end…'

F1: [因為 這] 中間 有 摸彩 [[啊]]
[yinwei zhe zhongjian you mocai [[a]]
because this middle have raffle PRT
'Because there will be a raffle in between.'

F2: [[七 點]]
[[qi dian]]
seven o'clock
'seven o'clock'

F3: ...喔 中間 有 摸彩
...ou zhongjian you mocai
oh middle have raffle
'Oh, there will be a raffle in between.'
In the extract above, the negative declarative modalized by *neng* in its meaning of circumstantial possibility (line 11) co-occurs with the conjunction *zhishi*, a contrastive marker that “prefaces a message that contrasts with the expectancy that has been set up in the preceding discourse” (Wang, 2005, p.488). That is, the speaker uses *zhishi* to signal that the information conveyed in the assertive is not congruent with the prior utterance.

5.3.3 Counter-informing

Negative declaratives modalized by *neng* used as assertives can also serve a counter-informing function, conveying a stance that involves refuting or challenging the co-participant’s or the speaker’s own assumptions in prior talk. A straightforward case is excerpt (61), which comes from a conversation between two friends. Up to this point, it has been established that F wants to take some civil service examinations. In the extract below, the participants are discussing whether in such exams ‘spot reaction’ (*linchang fanying*), which in this context means the ability to make up responses to the essay questions on the spot, can help.

(61) M019: Test-taking
01 F: ...(2.8) 就 覺得 唸書 考試 這種 事 jiu juede nianshu kaoshi zhe-zhong shi
   just think studying test-taking this-kind thing
02 實在 是 很 不 一定 shizai shi hen bu yiding
   really COP very NEG certain
   ‘I just think that studying and test-taking this kind of things are really
certain.’
03 M: ...(2.4) 什麼 唸書 考試 很 不 一定 shenme nianshu kaoshi hen bu yiding
   what studying test-taking very NEG certain
   ‘What do you mean by “study and test-taking are uncertain”? ’
04 F: ...就 覺得 說 你 要 努力 唸 啊 jiu juede shuo ni yao nuli nian a
   just think say 2SG need.to hard study PRT
05 ..然後 [反而] ..ranhou [faner],
   and.then instead
‘I just think that you need to study hard and instead…’

06 M: [ou ou] ..不 會 考上
[08] PRT PRT NEG will test-up
‘oh, will not be admitted’

07 F: (0) 對 [[對]]
(0) dui [[dui]]
right right
‘Yeah.’

08 M: [[那 要]] 有 點 機運 啊
[[na yao]] you dian jiyun a
that need have a.bit luck PRT

09 ...還有 那個 臨場 反應
 haiyou na-ge linchang fanying
also that-CL on.the.spot reaction
‘That needs some luck and also spot reactions.’

10 F: ...(3.1) 臨場 反應 真的 還 好
 ...(3.1) linchang fanying zhende hai hao
on.the.spot reaction really just okay

11 → ...

12 → [反應]
[fanying]
reaction
‘Reacting on the spot…not really. Taking the test really cannot rely on on-the-spot reaction.’

13 M: [要 砍] 啊 ...喔 你們 ..沒有
[yao bai] a ...ou nimen ..meiyou
need make.up PRT PRT 2PL NEG
..有些 那個 ..你們 都 申論題
..youxie na-ge ..nimen dou shenlunti
some that-CL 2PL all essay.question
‘You need to make stuff up. Oh, you don’t have some…you have all essay questions.’

14 F: ...(1.8) 就是 你 砍
 ...(1.8) jiushi ni bai
that.is 2SG make.up

15 ..你 要 有 東西 可以 [砍]
..ni yao you dongxi keyi [bai]
2SG need have stuff can make.up
‘That is, when you make up the responses, you need to have stuff to write about.’
In this excerpt, the negative declarative modalized by *neng* (line 11), in direct opposition to what has been asserted in the prior turn (line 09), serves to refute or challenge the co-participant’s assumption. That is, F’s utterance with the negated modal disconfirms M’s proffered understanding of what is required to ace the civil service examinations. In addition, F’s disagreeing action is done in a dispreferred manner: it is substantially delayed by more than three seconds, which is indicative of an upcoming disconfirming response, and prefaced by a mitigation (*zhende haihao* ‘just okay’), showing F’s orientation to it as a disagreement.

Assertives in the form of negative declaratives with *neng* can also be used to correct the co-participant’s assumption in the prior turns, as can be seen in extract (62), in which the speakers are talking about the church services for tomorrow. Here F2 thought their common friend (*Zhenhui*) is going to the church and F1 counter-informs her that she actually cannot go (line 06). The negative *neng*-modalized assertive is also attached with the particle *a*, signaling that the information delivered is not previously known to the co-participant (Wu, 2004).

(62) M006: Church service

01 F2: ...(1.7) 啊 珍 ..珍惠 他們 是 明天 早上 下去 ...(1.7) a  Zhen- ..Zhenhui tamen shi mingtian zaoshang xiaqu ah (person name) 3PL COP tomorrow morning go.down ‘Ah, Zhenhui and them are going South tomorrow morning?’

02 F1: ...珍惠 不 去 啊 ...Zhenhui bu qu a (person name) NEG go PRT ‘Zhenhui is not going.’

03 F2: ..她 不 去 ...卓蘭 喔 ..ta bu qu ...zhuolan ou 3SG NEG go (place name) PRT
‘She isn’t going to Zhuolan?’

04 F1: ..對 啊
.dui a
right PRT
‘Right.’

05 F2: ..[她 不 是 要 去 嗎]
..[ta bu shi yao qu ma]
3SG NEG COP want go Q
‘Isn’t she going?’

06 → F1: [她 不 能 去 啊]
[tu bu neng qu a]
3SG NEG can go PRT
‘She can’t go.’

07 F2: (0) 沒有 嗎
(0) mei-you ma
NEG-have Q
‘No?’

08 F1: (0) 她 沒有 要 去
(0) ta mei-you yao qu
3SG NEG-have want go
‘She is not going.’

The neng-modalized assertives in the form of negative declaratives and with a counter-informing function can also serve to preempt a potential assumption, as can be observed in excerpt (63), which is extracted from a conversation between two female classmates. Right before the excerpt, F2 had make a claim that middle school students who do not behave themselves should have a P.E. teacher as their homeroom teacher. Here F2 recounts her own experience of working with a P.E. teacher to deal with her students. The solution of the P.E. teacher was to require the ill-behaved students to do some physical fitness training, rather than allowing them to do the activities they like (e.g., playing ball sports) during P.E classes.
就 跟 我 講 說 好 啊
jiu gen wo jiang shuo hao

如果 他們 不 乖 你 就 告訴 我
ruguo tamen bu guai ni jiu gaosu wo

Like before my class were afraid of their P.E. teacher because that teacher told me: “Fine, if they don’t behave, just tell me.”

“Then during P.E. class, if they (the students) like playing ball sports, I won’t let them. We’ll have a fitness class instead.”

And also this is done in an open and legal manner. That is, you…

You can’t say this is corporal punishment.’

because that’s P.E. class’
In extract (63), the negative declarative modalized by *neng* (line 12) involves the third-person you and serves to preempt a potential assumption related to the negative assessment (*na hen leiren* ‘that is very tiring’) made by F1 on the fitness class in the prior turn (line 09). In this case, F2 talks from the perspective of the P.E. teacher, denying the potential accusation on the part of the students or their parents that engaging students in physical activities is a form of corporal punishment. Note that the negative declarative with *neng* in line 12 is attached the particle *a*, which is used here to address a (potential) faulty presupposition (Wu, 2004). It can also be observed that the stance confronted by the *neng*-modalized assertive is co-constructed by the co-participant, whose assessment displays her alignment and understanding of the matter at hand.

### 5.4 Discourse functions of *neng* in interrogative utterances

As noted in Section 5.1, the instances of *neng* in interrogative utterances are rare, only accounting for less than ten percent of the modal tokens. As shown in Table 5-2, two discourse functions are identified for the eleven instances of *neng*-modalized interrogatives in the conversational data: soliciting confirmation or information as well as challenging the co-participant’s assumption.

<table>
<thead>
<tr>
<th>Functions</th>
<th>Number of Instances (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Soliciting confirmation or information</td>
<td>6 (54.5%)</td>
</tr>
<tr>
<td>2. Challenging the co-participant’s assumption</td>
<td>5 (45.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>11 (100%)</td>
</tr>
</tbody>
</table>
The most striking feature of *neng*-modalized interrogatives is their strong conduciveness. A conducive question conveys the speaker’s preference for a given answer, one that is expected or desired (Bolinger, 1957; Quirk et al., 1985; Stenström, 1984). Negative questions, in particular, are always conducive. Take the question “Hasn’t John told his students what to do?” as an example: the negative form indicates that the speaker assumes John already told his students what to do and expects an affirmative answer. Ten of the eleven *neng*-modalized questions, five in the negative and five in the affirmative, are conducive. It follows that even positive questions embedded with the modal can be highly conducive. The subsections below will illustrate the two discourse functions of *neng*-modalized interrogatives aforementioned and delineate their shared conducive property in conversation.

5.4.1 Soliciting confirmation or information

While both *keyi*-modalized and *neng*-modalized interrogatives can serve to solicit confirmation or information, the questions using *neng* are more likely to be conducive. One of the reasons is that the *keyi*-modalized questions found in the data are all positive ones. In contrast, more than half of the *neng*-modalized questions are negative ones, which are always conducive. As an example, consider extract (64), which comes from a multi-party conversation among three female friends in their twenties. Prior to the excerpt, F2, who works at an after-school tutoring program, asked F1 whether she can join her for the tutoring class tomorrow because F2 was worried that she cannot take care of all the tutees by herself. While interested, F1 informed F2 that she needed to help with a departmental entrance exam tomorrow. And then F1 and F2 moved on to another topic, talking about one difficult student in the tutoring program. The extract below marks the return to the topic of whether F1 can join F2 for the tutoring class tomorrow.
M001: Leaving early

01 F1: ...(1.6) 你 那 是 ...(1.6) ni na shi 2SG that COP ‘You…that…’

02 F2: ..huh? ‘Huh?’

03 F1: ...都 四 點 過去 嘛 ...dou si dian guoqu ma all four o’clock go.over PRT ‘(You) usually go there at four o’clock, right?’

04 F2: ..對.. dui correct ‘Correct.’

05 F1: ..可是 我 明天 可能 要 做 到 五 點 ..keshi wo mingtian keneng yao zuo dao wu dian ..but 1SG tomorrow possibly need do to five o’clock ‘But tomorrow I possibly need to work until five o’clock.’

06 → F2: ..真的 喔 ..你 不 能 提 早 走 嗎 ..zhende ou ..ni bu neng zitao zou ma really PRT 2SG NEG can early leave Q ‘Really? Can’t you leave early?’

07 F1: ..助教 是 叫 我 要 ..收 椅 ..zhujiao shi jiao wo yao ..shou yi assistant COP ask 1SG need put.away chair

08 ..收 桌 椅 啊 ..我 是 最後 ..shou zhuo yi a ..wo shi zuihou put.away table chair PRT 1SG COP last ‘The teaching assistant asked me to put away the chairs…the tables and chairs. I will be the last (to leave).’

09 F2: ..那 可能 你 明天 ..會 不 會 來 不 了 啊 ..na keneng ni mingtian ..hui-bu-hui lai-bu-liao a ..then possibly 2SG tomorrow will-NEG-will come-NEG-result PRT ‘Then possibly tomorrow, will you be unable to come?’

10 F1: ..um ..可能 會 ..um ..keneng hui um possibly will ‘Um, probably will (unable to).’

At the beginning of extract (64), F1 first seeks confirmation with F2 on when she usually starts the after-school tutoring class (line 01, 03) and then informs F2 that her shift will probably not end before the class starts (line 05). Knowing that F1 probably
would not be able to join her, F2 then poses a negative yes/no question with the modal neng (line 06), inquiring about the possibility of F1 leaving early. Instead of directly disconfirming the possibility, F2 elaborates on the reasons why she has to stay and be the last one to leave (line 07-08). As can be seen, the negative neng-modalized question in this excerpt is built to display F2’s preference for a positive response but also her expectation for a negative response.

Positive, neng-modalized questions can also be conducive. To illustrate, consider extract (65), the first part (line 01-14) of which has been discussed in Section 4.2.1.2 with respect to the counter-informing function of the keyi-modalized assertive in line 09. Up to line 14, the speakers have been talking about a possible scenario in which M pan-fries the fish and brings it to F’s place and what F should do if the fish gets cold. After the participants have figured out the best way to heat up the fish, F produces a neng-modalized question (line 15) to seek confirmation on whether the fish has gone bad.

(65) M014: Fish
01 F: ..我 整個 圓鰨 到 現在 我 也 沒 看到 啊
   wo zheng-ge yuanxue dao xianzai wo ye mei kan-dao a
   1SG whole-CL sea.bass until now 1SG also NEG see-arrive PRT
02 ..[凍] 壞 了 吧
   ..[dong-]huai le ba
   freeze-bad CRS PRT
   ‘I haven’t seen the Chilean sea bass (you bought). It’s gone bad, right?
03 M:  [@]
      [@]
04 F: ..凍傷 [[了 吧]]
   ..dong-shang [[le ba]]
   freeze-injure CRS PRT
   ‘It should be injured now.’
05 M:  [[應該]] ..放 在 裡面
   [[yinggai]] .fang zai limian
   should put LOC inside
   ‘It was probably put in there (freezer).’
06 F: ..你 幹嘛 不 煎 給 我 吃
   ..ni ganma bu jian gei wo chi
   2SG why NEG pan-fry to 1SG eat
   ‘Why don’t you pan-fry it for me to eat?’
M: 帶來也冷掉了
..dai-lai ye leng-diao le
bring-come also cold-fall PFV

F: 好啦我煎啊
..hao la wo jian [a]
good PRT 1SG pan-fry PRT

‘It would be cold if I brought it over here. Fine, I’ll pan-fry it.’

F: 冷掉也可以吃啊
[leng]-diao ye keyi chi a
cold-fall also can eat PRT

‘It can still be eaten if it’s cold. I’ll heat it up with the microwave and then it’s okay.’

M: (0) 用烤箱可能比較好
(0) yong kaoxiang keneng bijiao [hao]
use oven possible relatively good

‘It may be better to use the oven.’

F: 也行啊
[ye] keyi a
also fine PRT

‘That’s fine, too. I have both.’

M: 好啊
..hao a
good PRT

‘Okay.’

F: (0) 那個還能吃嗎
(0) na-ge hai neng chi ma
that-CL still can eat PRT

‘Can we still eat that?’

M: 应該不要了吧..好久了
..yinggai bu-yao le ba ..hao-jiu le
should NEG-want CRS PRT very-long CRS

‘Probably not. It’s been there for a long time.’

F: (0) 你問一下< L2 fish manager L2> 好了
(0) ni wen yi-xia < L2 fish manager L2> hao [le]
2SG ask one-time fish manager fine PRT

‘Why don’t you ask the fish manager?’
F2’s question in line 05 by itself may seem to have no bias for eliciting a positive or negative response, namely, having ‘neutral polarity’ (Quirk et al., 1985, p.808). However, in prior turns (line 02, 04), F2 has expressed her belief that the fish has been in the freezer for so long that it could be inedible now. Therefore, F2 actually expects a negative answer to her question, and M’s response indeed aligns with her expectation. In short, the nen-modalized positive yes/no question displays a negative epistemic stance.

5.4.2 Challenging a prior utterance

One variant of conducive questions is rhetorical questions (Stenström, 1984), which have “strong force of assertion” (Quirk et al., 1985, p.825). In the research adopting a Conversation Analysis approach, rhetorical questions are also termed as ‘reversed polarity questions’ (RPQs) (Koshik, 2002, 2003, 2005), which convey an assertion of the opposite polarity to that of the grammatical form of the question. In other words, a positive RPQ (or rhetorical question) is like a strong negative assertion, while a negative question is similar to a strong positive assertion.

One important discourse function of RPQs is to challenge a prior utterance (Koshik, 2003). To illustrate how a nen-modalized RPQs can display a challenging stance, consider excerpt (66), which is taken from a conversation between two female friends in their twenties. Prior to the excerpt, the participants had been calculating how much F2 can earn in one day based on her monthly salary. F2 has also mentioned that she
can goof at work, using chatting with F1 the other day at work as an example. In the excerpt F1 makes an assertion that F2 was still technically earning (good) money while chatting with her (line 01-02). F2 responds with an RPQ (line 02), which makes the assertion that it was not possible for her to earn a lot within half an hour. Then the participants start calculating how much F2 can actually earn in half an hour.

(66) M003: Salary

01 F1: 你看我在跟你聊天那半小時
    2SG see 1SG ASP with 2SG chat that half hour

02 ..你 就 已經 賺到了 呢
    ..ni jiu yijing zhuan-dao le ne

03 F2: ..XX半小時才能賺多少錢
    ..XX ban xiaoshi cai neng zhuan duoshao qian

04 F1: ..[半小時多少錢]
    ..[ban xiaoshi duoshao qian]

05 F2: [一天]
    [yi tian]

06 ...(0.7)一個小時大概一百一吧
    ...(0.7) yi-ge xiaoshi dagai yi-bai-yi ba

07 ..一百一 一百二
    ..yi-bai-yi yi-bai-er

08 F1: ..um
    ‘Um.’

In excerpt (66), the modal neng is used in a positive wh-question, through which F2 conveys a negative assertion that challenges F1’s assumption in the prior turn. The polarity reversal involved in this neng-modalized interrogative is co-constructed by the use of the adverb cai, which in measurement phrases (in this case, about the amount of
money) expresses the stance of “less than expected” (Cao, 1976; Chu, 1998). Therefore, this question also conduces (namely, expecting a negative answer) but does not compel a given response. F1’s wh-question in the following turn, due to its dispreferred nature, then indicates her non-alignment with F2’s stance conveyed by the RPQ.

5.5 Recapitulations

This chapter focuses on the usage patterns and discourse functions of the modal *neng* in conversation with respect to the three utterance types in which the modal occurs: affirmative declaratives, negative declaratives, and interrogatives. It is found that, as opposed to the positive-oriented usage of *keyi*, *neng* features prominently in negative declaratives. When used in affirmative declaratives, the modal is found to be strongly associated with the scope adverb *zhi* ‘only.’

Affirmative declaratives modalized by *neng* are found to be used as assertives with two informing functions. The first one is to provide incremental or retroactive elaboration. That is, these assertives can be used to provide information to further support prior claims or assessments. But more commonly, they are used to revise or reformulate a prior utterance. The second informing function performed by the assertives in the form of affirmative declaratives modalized by *neng* is to provide explanations. Such informing acts tend to occur in sequences where the co-participants’ actions display a stance of non-alignment and the current speaker feels that an account is warranted.

The negative declaratives modalized by *neng* are marginally used as directives of prohibition and much more frequently used as assertives with an informing or counter-informing function. The information delivered in such acts tends to involve refuting/challenging assumptions or expectations of some sort, such as a background assumption, expectancy set up by preceding utterances, or the co-participant’s assumptions displayed in prior turns.

As for the uses of *neng* in interrogatives, most of these questions conduce, or convey the speaker’s preference for a given answer. While sharing the feature of strong
conduciveness, these questions can be used to perform two actions: solicit confirmation or information and challenging a prior utterance. In particular, *neng*-modalized interrogatives with the latter function are designed as rhetorical questions or reversed-polarity questions, which act more like assertions than questions.
Chapter 6

Cognitive Underpinnings for the Use of Keyi and Neng in Conversation

Based on the findings on the usage patterns and discourse functions of keyi and neng discussed in Chapter 4 and Chapter 5, respectively, this chapter aims to explicate the cognitive underpinnings of the interactional uses of the two modal verbs in conversational Taiwan Mandarin through the lens of two theoretical framework in Cognitive Linguistics (CL).

6.1 Force-dynamic patterns of keyi and neng in discourse

One of the CL approaches to the meanings of modal verbs is to treat this natural class as a grammatical system that encodes how entities interact with respect to forces and barriers in various ways (cf. Johnson, 1987; Sweetser, 1990; Talmey, 1985, 1988, 2000). Most influential in this area has been Talmy’s force-dynamic framework (Talmey, 1985, 1988, 2000), which was originally developed to provide a generalization over the linguistic notion of “causative.” Modal verbs then are viewed as the grammatical category that corresponds to the semantic category of force dynamics. Specifically, Talmey argues that the core meanings of English modals involve force opposition between an Agonist, the focal force entity, and an Antagonist, the force element opposing the former. To illustrate, Figure 6-1 represents how the semantic content of English modals may and can, as used affirmatively in examples (67) and (68), can be represented in force-dynamic terms. Here, the Agonist, which is linguistically realized as the subject, namely, you in (67) and flyball in (68), has a tendency toward the action expressed by the main verb. Since the Antagonist (indicated by a concave) with the stronger force is out of the way of the Agonist (indicated by a circle), the event can be realized. In the negative
counterpart (Figure 6-2), the intrinsic tendency of the Agonist is overcome by the stronger Antagonist, and thus the realization of the event is blocked (the resultant, or the tendency toward rest, indicated by the large dot). The difference between may and can, in Talmy’s framework, is that the root usage of may mostly refers to psychosocial, rather than physical, interaction that involves a sentient Agonist as the subject, as in (67), whereas can (not) seems to have regular physical reference, as in (68).

(67) You **may** go to the playground.  
(Talmy, 2000, p.445)

(68) A flyball **can** sail out of the stadium.  
(Talmy, 2000, p.445)

Another prominent framework in this area is Johnson’s (1987) treatment of force interactions as a group of image schemas, which are “abstract representations of recurring dynamic patterns of bodily interactions that structure the way we understand the world” (Hurtienne, Weber, & Blessing, 2008, p.109). Building on Sweetser’s (1990) analysis,
Johnson (1987) argues that the modal meanings of *may* and *can* involve distinct force schemata: the former is based on the ABSENCE OR REMOVAL OF RESTRAINT schema (Figure 6-3), and the latter is based on the ENABLEMENT schema (Figure 6-4). That is, instances of *may* like in (69) primarily focus on the removal of potential or actual barrier (by someone else), whereas instances of *can* like in (70) emphasizes the potentiality or capacity to act.

(69) You **may** go anytime after the bell rings.  
(70) I **can** do anything you **can** do better.

As pointed out by Talmy (2000), force dynamics also functions extensively in the domain of discourse in general and figures prominently in the process of argumentation in particular. In this process, the points made to argue for or against certain positions or conclusions can be construed as forces opposing or reinforcing one another. Such view is also consonant with Turner’s (1991) treatment of arguments as a force-dynamic concept. Crucial to the process of argumentation is a specific range of closed-class expressions and constructions, or “logic gaters,” that every language has for constructing “argument space.” In English, force dynamic logic gaters include such forms as *yes but, moreover, nevertheless, even so, granted, after all,* etc. To illustrate the argumentational meaning of the logic gater *yes but,* consider example (71). In this constructed example, A’s utterance is making a point about Eric’s vocal beauty to argue towards the conclusion that he
should perform publicly. The force dynamic push of A’s point is, however, blocked by B’s point about Eric’s tunefulness in the next turn, which leads to the opposite conclusion. The logic gater prefacing B’s utterance (i.e., yes but), while acknowledging the truth of A’s point, also presents B’s own point as a more important issue at stake, thus superseding A’s point.

(71) A: You know I think Eric should sing at a recital—he has a beautiful voice.
   B: Yes, but he can’t stay on key.

   (Talmy, 2000, p.453)

The subsections below will focus on the two most common and shared interactional uses of keyi- and neng-modalized assertives, namely, their informing and counter-informing functions. The analysis will illuminate how the points or arguments made by such modalized assertives, in conjunction with logic gaters, can be construed as epistemic forces that reinforce or oppose one another in the process of argumentation in conversation.

### 6.1.1 Informing assertives modalized by keyi and neng

As discussed in Section 4.1.1.1, assertives in the form of affirmative declaratives modalized by keyi, when serving an informing function, tend to occur in incremental elaboration sequences. Such modalized assertives are used by speakers to furnish additional details to support earlier claims or assessments. In force-dynamic terms, the points made with these assertives add further argumentative force towards the overall same conclusion. The reinforcing effects of these assertives are also evidenced in the connectives, or logic gaters, frequently prefacing these utterances, namely, erqie ‘moreover’, ranhou ‘and then’ and jiushi ‘precisely’.

In some cases of incremental elaboration, between the claim and the elaboration made by the primary speaker, there is intervening talk from the co-participant, which mostly involves reactive tokens or laughter. Such minimal contribution from the co-participant does not constitute interactional barriers. Take excerpt (72) as an example.
Prior to the excerpt, M1 had asked M2 whether he enjoyed his trip to Iceland. As a way of responding to M1’s question, M2 expresses his interest to go back to Iceland. Then M2 explicitly solicits an account from M1, in this case showing his interest rather than signaling a challenging stance. In response, M2 first makes a positive assessment of the scenery in Iceland (line 03), followed by a series of assertives in support of his assessment and claim (i.e., he wants to go back). In between the turns of the primary speaker (M2), M1 contributes continuers, displaying his understanding that an extended turn at talk is progress, and thus posing no barrier for the primary speaker’s argumentative force. Note that the elaborative utterances before and after the keyi-modalized assertive (line 05, 07, 09) involve the connectives erqie ‘moreover’ and ranhou ‘and then’, which are logic gators with an argumentaional meaning similar to that of moreover—“The point I am now making reinforces the preceding one in arguing towards the same overall conclusion” (Talmy, 2000, p.453). In short, the incremental elaboration sequence like this involves the schema of ABSENCE OF BARRIER.

(72) M010: Iceland

01 M2: ...(5.8) 我 會 想 要 再 回去 啊
   ...(5.8) wo hui xiang yao zai huiqu a
   1SG would think want again go.back PRT
   ‘I would want to go back (to Iceland).’

02 M1: ..真的 喔 ..為什麼
   ..zhende ou ..weishenme
   really PRT why
   ‘Really? Why?’

03 M2: ...(3.6) 因為 還 滿 漂亮 的
   ...(3.6) yinwei hai man piaoliang de
   because still quite beautiful PRT
   ‘Because (the scenery) is quite beautiful.’

04 M1: ..uh-mm
   ‘Uh-mm’

05 M2: (0) 而且 我 覺得 它 非常 的 適合 海艇
   (0) erqie wo juede ta feichangde shihe haihe
   moreover 1SG think 3SG very suitable yacht
   ‘Moreover, I think it (this place) is very suitable to tour with yacht cruise’

06 M1: ...(1.0) um
   ‘Um.’
As discussed in Section 4.2.1.1, incremental elaboration that involve keyi-modalized assertives can also be done collaboratively. In this case, not only the current speaker but also the co-participant contributes points that argue for/against the same position or conclusion. A case in point is except (73). Here F2 first informs F1 that she wants to have laser eye surgery but then concedes that she is also aware of the negative perception of the surgery by the general public. Such informing has the argumentative force pushing towards the position that she probably should not have the surgery. F1’s point in the next turn (i.e., even laser eye surgeons who can use the surgery do not have it themselves) (line 03-04) also supports the reported negative assessment, arguing towards the same position. In response, F2 produces a keyi-modalized assertive (line 05-07) that involves an ‘Extreme Case Formulation’ (Pomerantz, 1986) (i.e., waiting until all the laser eye surgeons have the surgery themselves), further elevating the argumentative force towards the overall same conclusion. In this incremental elaboration sequence, not only does the force of the primary speaker’s own points encounter no interactional barrier, but it further receives reinforcement from the co-participant’s argument.

(73) M026: Laser eye surgery

01 F2: 而且 我 也很 想 要 去 做 雷射
erqie wo ye hen xiang yao qu zuo leishe
moreover 1SG also very want go do laser

02 ..雖然 大家 都 說 雷射 不 好
..suiran dajia dou shuo leishe bu hao
though everybody all say laser NEG good
‘I also want to have laser eye surgery although everybody says it’s not good (for your body).’
Every one of the laser eye surgeons is wearing eyeglasses. Have you noticed?

I have. They say that you need to wait until laser eye surgeons all have the surgery themselves then you can go have it.

Yeah.
repair (line 02). M1’s reactive token (line 05) that displays his understanding then indicates the interactional barrier has been removed. In short, retroactive elaboration sequences like this involve the REMOVAL OF BARRIER schema.

(74) M005: Food
01 → F1: ...(0.3) 要 煮 熟 一點 比較 好吃
   ...(0.3) yao zhu shou yidian bijiao haochi
   need cook cooked a.bit relatively delicious
   ‘(It) needs to be cooked more thoroughly for it to be more delicious.’
02 M1: ..什麼 東西
    ..shenme dongxi
    ‘What (thing)?’
03 M2: ..通通 放 進去 好 了
    ..tongtong fang jinqu hao le
    ‘Put them all in.’
04 → F1: ..就是 ..要 煮 得 夠 久 才 能 吃
    ..jiushi ..yao zhu de gou jiu cai neng chi
    precisely need cook CSC enough long then can eat
    ‘That is, it needs to be cooked long enough so that it can be eaten.’
05 M1: ..喔 ..這 是 什麼
    ..ou ..zhe shi shenme
    ‘Oh…What is this?’

Another informing function of assertives modalized by neng is to provide explanations, and these assertives tend to occur in sequences where co-participants’ actions display a stance of non-alignment. Such stance then constitutes as the interactional barrier that the explanatory neng-modalized assertive intends to remove. Take excerpt (75), which has been discussed in Section 5.2.2, as an example. Here F1’s non-affiliation stance is displayed in line 03-04, via the use of the discourse marker meiyou ‘no’ and the contrastive logic gator keshi ‘but’. In response to the interactional obstacle, F2 provides further explanations (line 05-11), which involve another contrastive logic gator dashi ‘but’ and an informing neng-modalized assertive, trying to convince F1 why there will be no foreseeable issues.
M013: Postpartum confinement

01 F1: ...我們 已經 常常 分開 習慣 了
...women yijing changchang fenkai xiguan le
1PL already often separate be.used.to

02 ... NEG-difference
We are often separated and we are used to it. It doesn’t make a difference.’

03 F2: ...沒有 啊 可是 沒有 講好 的話 ...可能 會
...meiyou a keshi mei-you jiang-hao dehua ...keneng hui
NEG-have PRT but NEG-have talk-good CONJ might will

04 yinwei zhe-zhong shiqing ranhou jiu hui you zhengchao
because this-kind matter and.then then will have quarrel
‘No, but if it’s not agreed upon, probably (later) because of this there will be quarrels.’

05 F1: ...對 啦 ...但是 就是 就是
...dui la ...danshi jiushi jiushi
right PRT but precisely precisely

06 ...就是 因為 之前 ...朋友 ...坐月子
...jiushi yinwei zhiqian ...pengyou ...zuo yue zi
precisely because before friend do.postpartum.confinement

07 ...然後 ...(0.7) um ...他 也 有 在 ...um
...ranhou ...(0.7) um ...ta ye you zai ...um
and.then um 3SG also have LOC um

08 ...就是 妹 哥 在 的 時候
...jiushi ni ge zai de shi hou
precisely 3SG older.brother LOC NOM time

09 他 有 稍微 聽到 一些些
ta you shaowei ting-dao yixiexie
3SG have slightly listen.arrive some

10 → ...然後 所以 他 ...他 就 ...比較 ...能 理解 說
...ranhou suoyi ta ...ta jiu ...bijiao ...neng lijie shuo
and.then so 3SG 3SG then relatively can understand COMP

11 → ...為什麼 ...這樣子 ...對 啊
...weishenme ...zheyangzi ...dui a
why this.way right PRT
‘That’s true. But because earlier our friend had her postpartum confinement and then he was there, too. That is, when your older brother was there, he heard a little bit about it, so he can understand more why it’s like that. Right.’
A stance of surprise can also constitute an interactional barrier that *neng*-modalized assertives intend to remove, as showcased in except (76). Here the speakers are talking about the land that F1 invested and whether she earned a return on this investment. After knowing that F1 sold half of the land she bought but did not earn any return (line 09), F2 expresses her surprise, as can be seen from her uses of the interjection *hei* in a doubtful tone (line 10 and 14) as well as her negative, follow-up question (line 12), a conducive one that displays her expectation that the price of the land should have risen by the time F1 sold half of it. F2’s disbelief can further be observed in her confirmation question with the use of *eryi* ‘only’ (line 17), an adverb indicative of her negative evaluation of the amount of money F1 got from selling half of her land. Up to this point, F1 feels that an explanation of why she sustained loss is warranted, and her explanation involves a *neng*-modalized assertive (line 19-20), produced to remove the interactional barrier of a stance of surprise by her co-participants.

(76) M013: Investment
01 F3: ..你 以前 不 是 有 在 ..買 ..那個
   ..ni yiqian bu shi you zai ..mai ..na-ge
 2SG before NEG COP have PROG buy that-CL
02 ...(0.9) 還 有 沒 [[有]]
   ...(0.9) hai you mei [[you]]
     still have NEG have
   ‘Weren’t you in the business of buying that before? Do you still do that?’
03 F1:  [[土]]地 啊
   [[tu]]di a
     land PRT
   ‘Land?’
04 F3: ..<L3 heh1 ah1 heh1 ah1 L3>
   ..<L3 heh1 ah1 heh1 ah1 L3>
     right PRT right PRT
   ‘Right. Right.’
05 F1: ...啊 後來 就 賣掉 一半 了 ..賣掉 一半
   ...a houlai jiu mai-diao yiban le ..mai-diao yiban
     PRT afterwards then sell-out half CRS sell-out half
06 ...好像 拿了 十 幾 萬
   ...haoxiang na le shi ji wan
     seem take PFV ten some ten.thousand
十...八万回来
‘Later (I) sold half of it. (I) seemed to take over one hundred thousand dollars...one hundred and eighty thousand dollars back.’

F2: 那 所以 有 沒 有 賺
‘So did you make money?’

F1: ...(0.8) 沒 賺
‘I didn’t.’

F2: ...hei ...(0.9) 那 時候 ...你
‘Hei? At that time you…’

F3: ...你 不 是
‘Didn’t you…?’

F2: ...賣 的 時候 價錢 ...沒 有 漲 嗎
‘The price didn’t rise when you sold it?’

F1: ...沒 有 漲
‘It didn’t.’

F2: ...hei ...買 了 多久
‘Hei? How long did you have it?’

F1: ...(1.2) 那 ...那個 時候 我 拿 五十 萬 出去
‘At that time, I spent fifty hundred thousand dollars for investment.’

F2: ...那 ...拿 ...十八 萬 回來 而已 喔
‘then take eighteen ten.thousand back only’
‘Then you took only one hundred and eighty thousand dollars back?’

18  F1: ..拿 十八 萬 回來
..na shiba wan huilai
take eighteen ten-thousand back

19  →  ..聽講 說 要...要 賣 的 時候 就是
..tingjiang shuo yao ...yao mai de shihou jiushi
hear COMP want want sell REL time precisely

20  →  ..可能 只 能 賣 ...賣到 ...一半 的 錢 回來
..keneng zhi neng mai ...mai-dao ...yiban de qian huilai
possible only can sell sell-arrive half NOM money back
‘(I) took one hundred and eighty thousand dollars back. I heard that when
I was going to sell it, it was possible that I could only get half of the
money back.’

21  F2: ..ha
‘Ha?’

22  F1: ...(0.8) 那
...(0.8) na
then
‘Then…’

23  F3: ..倒賠 喔
..daopei ou
sustain.loss.in.business PRT
‘You sustained loss in the business?’

24  F1: ...<L3 heh1 ah1 L3> ..就是 ..[跌]
...<L3 heh1 ah1 L3> ..jiushi ..[die]
right PRT that.is fall
‘Yeah. That is, (the price) dropped.’

This subsection reveals that informing assertives modalized by keyi and those by
neng in the discourse process of argumentation involve the ABSENCE OF BARRIER and
REMOVAL OF BARRIER schema, respectively. In the next subsection, the focus will be on
the force schemata involved in modalized assertives with the counter-informing function.

6.1.2 Counter-informing assertives modalized by keyi and neng

As shown in Chapter 4 and Chapter 5, assertives modalized by keyi and those by
neng can both constitute a counter-informing act. However, keyi-modalized assertives
with a counter-informing function are in the form of affirmative declaratives, while neng-
modalized assertives with the similar function are in the form of negative declaratives. Therefore, the force schema manifested in the counter-informing assertives modalized by keyi and by neng, respectively, are expected to differ. To illustrate, consider excerpt (77), which has been discussed in Section 4.2.1.2 (but only the part most relevant to the counter-informing act is replicated here). Here F asks M why he has not pan-fried the fish he bought long time ago for her to eat (line 06). In response, M argues that by the time the pan-fried fish is brought to her house, it would not be in an ideal condition to be eaten (line 07). The point M presents here can then be construed as a barrier that prevents him from performing the action requested by F. F then produces a keyi-modalized assertive, counter-informing M that the issue he brought up earlier can be resolved (line 09-10). F’s point can then be thought of as removing the barrier set by M in the prior turn, manifesting the REMOVAL OF BARRIER schema.

(77) M014: Fish

06   F: 你 幹嘛 不 煎 給 我 吃
    ni  ganma  bu  jian  gei  wo  chi
    2SG  why  NEG  pan-fry  to  1SG  eat
    ‘Why don’t you pan-fry it (the fish) for me to eat?’

07   M: 帶來 也 冷掉了
    dai-lai  ye  leng-diao  le
    bring-come  also  cold-fall  PFV
    ‘It would be cold if I brought it over here. Fine, I’ll pan-fry it.’

08   F:  好 啦 我 煎 [啊]
    hao  la  wo  jian  [a]
    good  PRT  1SG  pan-fry  PRT
    ‘It can still be eaten if it’s cold. I’ll heat it up with the microwave and then it’s okay.’

09 → F: [冷]掉 也 可 以 吃 啊
        [leng]-diao  ye  keyi  chi  a
    cold-fall  also  can  eat  PRT

10   我 用 微波 熱一熱 就 好 了
    wo  yong  weibo  re-yi-re  jiu  hao  le
    1SG  use  microwave  heat-one-heat  and.then  good  PRT
    ‘It can still be eaten if it’s cold. I’ll heat it up with the microwave and then it’s okay.’

In contrast, counter-informing assertives modalized by neng, mostly in the form of negative declaratives, can involve the BLOCKAGE schema (Figure 6-3) in which the assertives constitute the barriers that block the force of prior assumptions. A case in point
is excerpt (78), which has been discussed in Section 5.3.3. Here F2 thought their common friend (Zhenhui) is going to the church with them, an assumption blocked by F1’s counter-informing (i.e., their friend actually cannot go).

Figure 6-5: BLOCKAGE (Johnson, 1987, p.46)

(78) M006: Church service
01 F2: ...(1.7) 啊 珍 ..珍惠 他們 是 明天 早上 下去
...(1.7) a Zhen- ..Zhenhui tamen shi mingtian zaoshang xiaqu
ah (person name) 3PL COP tomorrow morning go down
‘Ah, Zhenhui and them are going South tomorrow morning?’
02 F1: ...(1.7) Zhenhui 不 去 啊
...(1.7) Zhenhui bu qu a
(person name) NEG go PRT
‘Zhenhui is not going.’
03 F2: ..她 不 去 ...卓蘭 喔
..ta bu qu ...zhuolan ou
3SG NEG go (place name) PRT
‘She isn’t going to Zhuolan?’
04 F1: ..對 啊
..dui a
right PRT
‘Right.’
05 F2: ..[她 不 是 要 去 嗎]
..[ta bu shi yao qu ma]
3SG NEG COP want go Q
‘Isn’t she going?’
06 → F1: [她 不 能 去 啊]
[ta bu neng qu a ]
3SG NEG can go PRT
‘She can’t go.’
Counter-informing assertives modalized by *neng* can also involve the COUNTERFORCE schema (Figure 6-4), which can be best seen in disagreement sequences. As observed in excerpt (79), which has been discussed in Section 5.3.3, *neng*-modalized assertives in the form of negative declaratives can be used in direct opposition to what has been asserted in the prior turn, performing a counter-informing function that refutes the prior assumptions. In this case, M’s informing assertives (line 08-09) and F’s counter-informing assertives (line 10-11) exhibit opposing epistemic forces with respect to the issue of whether the ability to make up responses to the essay questions matters in civil service exams.

![Figure 6-6: COUNTERFORCE (Johnson, 1987, p.46)](image)

(79) M019: Test-taking

04 F: ...就 覺得 說 你要 努力 唸 啊
   ...jiu juede shuo ni yao nuli nian a
   just think say 2SG need.to hard study PRT

05 ..然後 [反而]
   ..ranhou [faner],
   and.then instead
   ‘I just think that you need to study hard and instead…’

06 M: [喔 喔] ..不 會 考上
   [ou ou] ..bu hui kao-shang
   PRT PRT NEG will test-up
   ‘oh, will not be admitted’

07 F: (0) 對 [[對]]
   (0) dui [[dui]]
   right right
   ‘Yeah.’

08 M: [[那 要]] 有點 機運 啊
   [[na yao]] you dian jiyun a
   that need have a.bit luck PRT

09 ...還有 那個 臨場 反應
   ...haiyou na-ge linchang fanying
   also that-CL on.the.spot reaction
   ‘That needs some luck and also spot reactions.’

10 F: ...(3.1) 臨場 反應 真的 還 好
    ...(3.1) linchang fanying zhende hai hao
    on.the.spot reaction really just okay
For another example of neng-modalized assertives used in a disagreement sequence, consider excerpt (80), which comes from the same conversation as excerpt (78). The participants, after talking about the church services they are going to perform tomorrow, moved on to the topic of sleeping pills, which both F1 and F2 are taking. Here the speakers are arguing about whether the drug that F2’s doctor prescribed for her is indeed sleeping pills. After receiving the information of how long F2’s doctor prescribed the drug, F1 reaches the conclusion, with some degree of uncertainty displayed in the epistemic use of yinggai ‘should’, that the drug is not sleeping pills (line 03). The conclusion is challenged by F2 in the next turn (line 04), which involves a short utterance ending in la, a particle that can be attached to a direct disagreement (Lin, 2010). In response to F2’s non-alignment, F1 further makes a point using a negative declarative modalized by neng that argues for her prior conclusion (line 05).

(80) M006: Sleeping pills
01 F1: eh 他 開 給 你 多少
eh ta kai gei ni duoshao
‘How many (sleeping pills) did he prescribe for you?’
02 F2: ...兩個 禮拜 而已 啊
...liang-ge libai eryi a
two-CL week only PRT
‘For only two weeks.’
03 F1: ...嗯 那 應該 不 是 安眠藥
...en na yinggai bu shi anmianyao
en that should NEG COP sleeping.pill
‘En…then those should not be sleep pills.’
04 F2: ...是 啦
...shi la
yes PRT
‘Yes, they are.’
05 → F1: ...是 嗎 ...一般 醫生 不 能 開 那麼 多
...shi ma ...yiban yisheng bu neng kai name duo
yes Q generally doctor NEG can prescribe that many
一般安眠藥 "會開那麼多"

generally sleeping pill NEG can prescribe that many
‘Are they? Doctors in general cannot prescribe that many. Sleeping pills in general wouldn’t be prescribed in an amount that high (at a time).’

F2: [我 我 還要 簽 那個]
[wo wo hai yao qian na-ge] 1SG 1SG also need sign that-CL

那 是 [[管制藥 我 還要 簽名]]
na shi [[guanzhiyao wo hai yao qianming]]
that COP controlled drug 1SG also need sign
‘I also needed to sign that….That is controlled drug. I also needed to sign.’

F1: [[喔...對對對]]
[[ou...dui dui dui]]
oh right right right

...一般 不能 開 那麼 久
...yiban bu neng kai name jiu
generally NEG can prescribe that long

...(0.4) 像我 去那個 藥房 買 啊
...(0.4) xiang wo qu na-ge yaofang mai a
like 1SG go that-CL pharmacy buy PRT

...(0.6) 他還會問 說 她要..做什麼
...(0.6) ta hai hui wen shuo ni yao ..zuo shenme
3SG also will ask say 2SG want do what

..然後 不能 開 太久
..ranhou bu neng kai tai jiu
and then NEG can prescribe too long
‘Oh, right right right. (The drug) can’t be prescribed for that long. Like when I went to the pharmacy to buy (the sleeping pills), s/he (the pharmacist) would also ask me, “What do you buy (the pills) for? And (I) can’t prescribe for too long.”’

F2: (0) 對 啊 那是 管制藥 啊
(0) dui a na shi guanzhiyao a
right PRT that COP controlled drug PRT
‘Yeah, that is controlled drug.’

The disagreeing sequence in this excerpt also involves the COUNTERFORCE schema.

F1 and F2 each makes points arguing for conflicting positions, namely, F1 thinks that the drug F2 got is not sleeping pills but F2 think it is. F1’s point that sleeping pills usually cannot be prescribed for as long as two weeks and F2’s point that she needed to sign a document to obtain the controlled drug can be construed as opposing argumentative
forces. In this case, the participants’ disagreement on the state of affairs arise from the
different epistemic access that F1 and F2 each have: one is based on her own experience
of buying sleeping pills in the pharmacy whereas the other is based on her experience of
obtaining the controlled drug prescribed from doctors. Towards the end of the excerpt, F1
appears to be convinced by F2’s point, which has more authoritative epistemic right and
thus stronger argumentative force.

In short, it is found that counter-informing assertives modalized by keyi in
argumentation process involve the REMOVE OF BARRIER schema. In contrast, neng-
modalized assertives with the similar functions manifest BLOCKAGE or COUNTERFORCE
schema.

6.2 Mental-space configurations of keyi and neng in discourse

This section focuses on the mental-space configurations at work in the keyi- and
neng-modalized utterances vis-à-vis the preceding and following discourse. A general
picture that emerges from the analysis based on the three utterance types, namely,
affirmative and negative declaratives as well as interrogatives, is that the neng-modalized
utterances, compared to those modalized by keyi, are much more likely to involve
alternative spaces of possibility.

6.2.1 Affirmative declaratives modalized by keyi and neng

When used in affirmative declaratives, both modal verbs can set up a new positive
space of possibility in the discourse. Consider excerpt (81), in which the participants are
talking about their past experience of organizing a forum in which the invited professors
did not eat the tomatoes prepared by them. F2 then cites a piece of hearsay information to
account for this observation, and the explanation evokes a mental space where the
tomatoes are eaten with forks. In response, F1 produces a counter-informing with a keyi-
modalized assertive (line 07), and the modal, along with the adverb ye ‘also’, sets up another space where tomatoes are eaten with hands.

(81) M027: Tomatoes

01 F1: ..話說 我們 上次 ...不是 ...辦 那個 ...專家 座談
  ..huashuo women shangci ...bu-shi ...ban na-ge ...zhuanjia zuotan
  anyway 1PL last.time NEG-COP hold that-CL expert seminar
  ‘Anyway, didn’t we organize the forum…’

02 F2: ..嗯哼
  ..enheng
  ‘Hm.’

03 F1: ..我 發現 ...老師 他們 都 不 吃 ..某 一種 水果
  ..wo faxian ...laoshi tamen dou bu chi ..mou yi-zhong shuiguos
  1SG find teacher 3PL all NEG eat certain one-kind fruit
  ‘I noticed that all the teachers didn’t eat certain kind of fruit.’

04 F2: ..啊 ..對 對 對 對 對 [對]
  ..a ..dui dui dui dui dui dui [dui]
  ah right right right right right
  ‘Ah, right right right.’

05 F1: ..是 番茄 嗎
  ..shi fanqie ma
  COP tomato Q
  ‘Was it tomatoes?’

06 F2: ...好像 是 番茄 ...聽說 番茄 很 難 叉 啊
  ...haoxiang shi fanqie ...tingshuo fanqie hen nan cha a
  seem COP tomato hear.of tomato very difficult fork PRT
  ‘It seemed to be tomatoes. I’ve heard that tomatoes are difficult to be eaten with forks.’

07 → F1: ...可是 ...他們 可以 用 手 拿
  ...keshi ...tamen keyi yong shou na
  but 3PL can use hand take
  ‘But they could have used their hands to take (them).’

08 F2: ...他們 不 要 用 手 拿
  ...tamen bu yao yong shou na
  3PL NEG want use hand take

09 ...他們 大概 就是 就是 覺得 手 髒
  ...tamen dagai jiushi jiushi juede shou zang
  3PL probably that.is that.is think hand dirty

10 ..不想 用 手 拿
   ..bu xiang yong shou na
   NEG want use hand take
   ‘They didn’t want to use hands to take (them). They probably thought that their hands were dirty and didn’t want to use hands to take (them).’
The conversational data also reveal that, when used in affirmative declaratives, both modals can co-occur with adverbs. One of such syntagmatic patterns worth noting is the strong association of *neng* with, *zhi* ‘only’, a scope adverb that is not found to co-occur with *keyi*. As will be argued, the *zhi-neng* utterance, while affirmative in form, concurrently involves a negative space of possibility; it is this alternative space from which the matter at hand is viewed. Consider excerpt (82), in which the speakers are talking about the kinds of contact lens that F1 can and cannot wear:

(82) M026: Contact lens

01 F1: ..我 跟 你 說 ..我 覺得 我 真是 賤 命
1SG with 2SG say 1SG think 1SG really ill-fated life

02 ..那個 太 好 的 ..太 好 的
..na-ge tai hao de ..tai hao de
that-CL too good NOM too good NOM

03 ..那個 隱形眼鏡 我 裝下去 會 痛
..na-ge yinxingyanjing wo dai-xiaqu hui tong
that-CL contact.lens 1SG put.on-down will hurt

04 ...(1.0) [[然後]]
...(1.0) [[ranhou]]
and.then
‘I’m telling you. I think my life is really ill-fated. For the contact lens that are too good, it hurts when I put them on. And then…’

05 F2: [[妳 說 太 貴]] 的 嗎
[[ni shuo tai gui]] de ma
2SG say too expensive NOM Q
‘Are you talking about the contact lens that are too expensive?’

06 F1: ..對 ..然後 ..然後 我 那 天 就是
..dui ..ranhou ..ranhou wo na tian jiushi
right and.then and.then 1SG that day precisely

07 ..打 比賽 之前 ..我 就是
..da bisai zhiqian ..wo jiushi
play contest before 1SG precisely

08 ..匆匆忙忙 的 跑 去 眼鏡 部 買 了
..congcongmangmang de pao qu yanjing bu mai le
hastily ADV run to eyeglasses department buy PFV

09 ...一百 二十五 塊 十片 的
...yi-bai ershiwu kuai shi-pian de
one-hundred twenty-five dollar ten-CL NOM
「那妳就是只能戴這個的命啊」「然後就是很舒服」「對呀...氣死我」「反正它...你就戴舒服就好」「Yeah, and that day before the competition, I went to the eyeglass shop and bought the kind of contact lens, ten for 125 dollars. And when I put them on, there is no foreign body sensation at all. It was comfortable.」「Then you just have a life in which you can only wear this one.」「That's true. For those that cost four, five hundred dollars, you cannot put them on. You can only wear those that cost one hundred dollars.」「This is fine. Anyway it...as long as you feel comfortable wearing it.」

In this excerpt, F1 starts with a self-deprecating remark, claiming that she has an “ill-fated life” (line 01), and then continues to explain why she thinks so. Her explanation evokes two possibility spaces (Figure 6-7): first a negative scenario in which she cannot
put on the more expensive kind of contact lens because they hurt her eyes, and then a second, positive scenario in which she can easily put on the cheaper kind without any foreign body sensation. In response, F2 produces a neng-modalized assertive to reformulate F1’s self-deprecatig remark based on her explanation (line 13). Such retroactive elaboration sequence (discussed in Section 5.2.1) can also be observed in line 14-16. Based on the discourse context, the two neng-modalized assertives that also involve the scope adverb zhi ‘only’ actually relates to both possibility spaces. Specifically, the zhi-neng utterance, while focusing the attention on the positive possibility space, actually evaluates the state of affairs in question from the viewpoint of the negative possibility space.

**Figure 6-7:** Mental-space representation of (82)

For another example of how zhi-neng utterances blend the positive and the negative possibility spaces, consider excerpt (83), which has been discussed in Section 4.2.1.1 with regard to the incremental elaboration function of the keyi-modalized assertive in line 03. Prior to the excerpt, the participants had been talking about M1’s upcoming trip to the U.S. Here M2 first informs his friends of his ownership of another phone (line 01) and then provides further elaboration based on his personal experience of
using the phone during his last trip to the U.S (line 03-04). M2’s informing up to this point is perceived by F2 as an act of offering, leading to her explicit question asking whether M2 wants to lend that phone of his to M1 (line 05). Instead of giving out a preferred response, that is, confirming, M2 adds that that phone has limited utilities (i.e., to be used for talking on the phone only), using an affirmative neng-modalized assertive that also involves the adverb zhi ‘only’ (line 06). M1 then expresses his concerns for using the no-frills phone while in the U.S because it cannot fulfill his need to video-chat with F2 (i.e., Xiaoxian) (line 07).

M1’s response (line 07) to M2’s informing with the zhi-neng utterance shows that the modalized assertive does not just evoke a positive possivility space, one that profiles
a specific utility of the cell phone. The assertive actually blends the positive space with a negative space, which profiles the functions the no-frills phone lacks. It is this implicitly blended, negative possibility space from which M1’s response in line 7 is perspectivized.

In short, when used in affirmative declaratives, both modals can evoke a positive possibility space. One special type of affirmative declaratives found to pertain to alternative spaces is the zhi-neng utterances, which involve the scope adverb zhi ‘only’. The finding that the adverb only occurs in neng-modalized assertives but not the keyi-modalized ones also suggests that neng, in contrast to keyi, prefers to be used in utterances that involve more than one space of possibility.

6.2.2 Negative declaratives modalized by keyi and neng

In the mental-spaces framework, negation has been treated as one of the primary examples of alternativity (Fauconnier, 1994; Sweetser, 2006). That is, negators like no and not are analyzed to build not just one but two alternative spaces: the negative space depicted in the utterance and its positive alternative. The alternativity account of negation can be further supported by the use of grammatical devices relying on the accessibility of the alternative space. Consider example (84) (Fauconnier, 1985/1997), in which the first sentence would make sense in the context where the purchase is expected or cognitively accessible. Moreover, the mentioning of the negated scenario also makes the entity in it (i.e., the car not bought) accessible for subsequent reference, as can be seen in the definite pronominal reference to the car that would have been bought in the alternative positive scenario.

(84) I didn’t buy a car. There was no room for it in the garage.

Negative declaratives modalized by keyi and neng, due to the existence of the negator bu ‘not’ as a space-builder, inevitably involve alternative spaces of possibility. In some cases, the corresponding positive space has already been set up in the prior
discourse, as can be seen in the utterance with negated *keyi* in excerpt (85), which has been discussed in Section 4.3 with regard to its function of issuing prohibition.

(85) M007: Sleep

01  F2: ...(1.1) 糟糕 ..我想 睡覺 ..[@@]

...(1.1) zaogao ..wo xiang shuijiao
too.bad 1SG want sleep

‘Oops, I want to sleep.’

02  → F1: [你 想 睡]

[ni xiang shui]
2SG want sleep

03  → ..這位 同學] ..不 可以 睡

..zhe-wei tongxue] ..bu keyi shui
this-CL classmate NEG can sleep

‘You want to sleep. This classmate, (you) can’t sleep.’

More commonly, the alternative positive space of possibility is not already built in prior discourse; it is set up by the negator in the modalized declaratives themselves. Consider excerpt (86), which has been discussed in Section 5.3.3 with regard to the counter-informing functions of negative declaratives modalized by *neng*. In this case, F2’s utterance (line 12) concurrently evokes two possibility spaces: a positive one in which some people (referred to by the third-person *you*) make the potential accusation that engaging students in physical activities is a form of corporal punishment inhabits, and a negative one in which is such accusation is denied or preempted. It is the stance constructed in the alternative positive space, not the co-participant, that the negative declarative modalized by *neng* is confronting.

(86) M007: P.E. Teacher

01  F2: ...(2.0) 像 以前 我們 班 ..就很 怕 那個

...(2.0) xiang yiqian women ban ..jiu hen pa na-ge
like before 1PL class then very fear that-CL

02  ..體育 老師 ..(0.7) 因為 ..那 體育 老師

..tiyu laoshi ..(0.7) yinwei ..na tiyu laoshi
P.E. teacher because that P.E. teacher

03  ..就 跟 我 講 說 ..好 啊

..jiu gen wo jiang shuo ..hao a
then with 1SG tell say fine PRT
..如果 他們 不 乖 ..你 就 告訴 我
ruguo tamen bu guai ni jiu gaosu wo
if 3PL NEG well-behaved 2SG then tell 1SG
‘Like before my class were afraid of their P.E. teacher because that teacher
told me: “Fine, if they don’t behave, just tell me.”’

05 F1:  um
‘Um.’

06 F2:  那 體育 課 的 時候 ..他們 愛 打球
na tiyu ke de shihou tamen ai da-qiu
then P.E. class REL time 3PL love hit-ball

07 ..就不 讓 他們 打球
jiu bu rang tamen da-qiu
then NEG let 2PL hit-ball

08 ..我們 就 來 上 體能 課
women jiu lai shang tineng ke
1PL then come have fitness class

09 F1:  喔 ..那 很 累人
ou na hen leiren
oh that very tiring
‘Oh, that is very tiring.’

10 F2:  那是 (0.7) 堂而皇之 的 ..[就是] 你
erqie shi ...(0.7) tangerhuangzhi de ..[jiushi] ni
moreover COP openly.and.legally 2SG
‘And also this is done in an open and legal manner. That is, you…’

11 F1:  um
‘Um.’

12 F2:  你 不 能 說 我 體罰 啊
ni bu neng shuo wo tifa a
2SG NEG can say 1SG corporal.punishment PRT
‘You can’t say this is corporal punishment.’

13 ..[[對]]
..[[dui]]
correct
‘Yeah.’

14 F1:  【因為 那個】 是 【體育 課】
【yinwei na-ge】 shi 【tiyu ke】
because that-CL COP P.E. class
‘because that’s P.E. class’
As discussed in previous chapters, the usage of *keyi* in conversation is overwhelmingly positive—only less than 3 percent of the tokens are used in negative declaratives. The usage of *neng*, in contrast, is strongly biased towards the negative pole, with approximately two-thirds of the tokens found in negative declaratives, which also accounts for why *neng*-modalized utterances are more likely to involve alternative spaces.

### 6.2.3 Interrogatives modalized by *keyi* and *neng*

As discussed in Chapter 5, *neng*-modalized interrogatives are mostly conducive questions, namely, questions that convey the speaker’s preference for a given answer. From a mental-spaces perspective, some conducive questions can also be treated as concurrently setting up alternative spaces: one that is described in the question, and an alternative space of opposite polarity. It is the alternative space where the speaker’s preferred or expected answer inhabits. Consider the conducive question in (87), which is a positive question with a negative orientation (i.e., the speaker hopes for a negative response) due to the effect of the adverb *really*. The question itself not only relates to a positive space possibly evoked by the addressee’s expression of his/her desire to leave but also sets up an alternative negative space, with which the speaker hopes that the addressee’s response would align. This mental-spaces approach to conducive questions can also explain why negative questions are always conducive, that is, because of their shared alternativity.

(87) Do you really want to leave now? (Quirk et al., 1985, p.808)

As a variant of conducive questions, rhetorical questions, or “reversed polarity questions” (RPQs) (Koshik, 2002, 2003, 2005), convey an assertion of the opposite
polarity to that of the grammatical form of the question and thus always involve alternative spaces. Take the rhetorical question modalized by *neng* in excerpt (88), which has been discussed in Section 5.4.2 with regard to its function of challenging a prior utterance, as an example. In response to the co-participant’s assertion that she was still technically earning (good) money while chatting with her (line 01-02), F2 produces an RPQ (line 02), which takes the form of a positive *wh*-question but makes the negative assertion that it was not possible for her to earn a lot within half an hour. In other words, the question modalized by *neng* not only builds upon the positive belief space evoked by the co-participant’s utterance but also sets up a negative belief space with which the questioner’s epistemic stance aligns.

(88) M003: Salary

01 F1: 你 看 我 在 跟 你 聊 天 那 半 小 時

\[ ni \, kan \, wo \, zai \, gen \, ni \, liaotian \, na \, ban \, xiaoshi \]

\[ 2SG \, see \, 1SG \, ASP \, with \, 2SG \, chat \, that \, half \, hour \]

02 ..你 就 已 經 賺 到 了 呢

\[ ..ni \, jiu \, yijing \, zhuan-dao \, le \, ne \]

\[ 2SG \, then \, already \, earn-arrive \, PFV \, PRT \]

‘You see, during the half an hour I was chatting with you, you already earned the money.’

03 F2: ..XX 半 小 時 才 能 賺 多 少 錢

\[ ..XX \, ban \, xiaoshi \, cai \, neng \, zhuannuo \, duoshao \, qian \]

‘How much money can I earn in just half an hour?’

04 F1: ..[半 小 時 多 少 錢]

\[ ..[ban \, xiaoshi \, duoshao \, qian] \]

‘How much money in half an hour?’

05 F2: [一 天] ...一 天 九 小 時

\[ [yi \, tian] \quad ...yi \, tian \, jiu \, xiaoshi \]

‘One day, nine hours.’

06 ...(0.7) 一個 小 時 大 概 一百 一 吧

\[ ...(0.7) \, yi \, ge \, xiaoshi \, dagai \, yi-bai-yi \, ba \]

‘One hour, probably one hundred and ten.’

07 ..一百一 一百二

\[ ..yi-bai-yi \quad yi-bai-er \]

‘One hundred and ten, one hundred and twenty.’
Interrogatives modalized by keyi can also be conducive, albeit much less frequently, and involve alternative mental spaces. Consider excerpt (89), which has been discussed in Section 4.4.3 with regard to how keyi-modalized questions can display a stance of surprise. In this case, the modalized question produced by F2 (line 04) signals that the information she received from F1 counters to her own assumption that tourists cannot take a photo with the pony without paying to ride it. That is, this question modalized by keyi is conducive in that it expects a negative response. It also involves alternative spaces opposite in polarity: one positive, reality space as well as a corresponding negative, belief space.

(89) M002: Photo

01 F1: 耶 這 是 我 跟 小馬 拍照
   ye zhe shi wo gen xiaoma paizhao
   ‘Ya, this is a photo of me and the pony.’

02 F2: ...(1.0) 你 有 騎 嗎
   ...(1.0) ni you qi ma
   2SG have ride Q
   ‘Did you ride it?’

03 F1: ...沒有 啊 ..因為 那個 好像 要 付錢
   ...meiyou a ..yinwei nage haoxiang yao fuqian
   NEG-have PRT because that-CL seem need pay
   ‘No, I didn’t, because it seemed that you need to pay to do that.’

04 F2: ..那 怎麼 可以 跟 牠 拍
   ..na zenme keyi gen ta pai
   ..then how.come can with 3SG photograph
   ‘Then how come (you) can have a photo taken with it?’

05 F1: ..可以 啊 可以 跟 牠 拍
   ..keyi a keyi gen ta pai
   can PRT can with 3SG photograph
   ‘(You) can, (you) can have a photo taken with it.’

Ten out of the eleven neng-modalized interrogatives in the spoken corpus data are conducive questions that involve alternative spaces, while only 14.3 percent (5 out of 35) of the keyi-modalized interrogatives are. In other words, compared to questions
modalized by *keyi*, those modalized by *neng* are much more likely to involve both the positive and the negative possibility spaces.

### 6.3 Recapitulations

This chapter discusses the cognitive underpinnings of the usage patterns and discourse functions of *keyi* and *neng* in conversation from the theoretical lenses of force-dynamics and mental-spaces. The first focus is on the force schemata manifested in *keyi*- and *neng*-modalized assertives with the functions of informing and counter-informing in the discourse process of argumentation. Specifically, informing assertives modalized by *keyi*, commonly found in incremental elaboration sequences, involve the **ABSENCE OF BARRIER** schema in that the points made by these assertives can be construed as (reinforcing) forces arguing for the current speaker’s prior position or conclusion without encountering any obstacle (from the co-participant). In contrast, informing *neng*-modalized assertives tend to involve the **REMOVAL OF BARRIER** schema. When used in retroactive elaboration sequences, these assertives serve to reformulate prior utterances, commonly to remove an interactional barrier such as other-initiation of repair or the lack of recipient uptake. The informing assertives modalized by *neng* can also be used to provide an explanation, one that is solicited by the co-participant or the current speaker thinks is warranted. Such explanatory-informing assertives usually occur when the co-participant displays a challenging stance towards the current speaker’s prior claim; the non-affiliation from the co-participant then constitute an interactional barrier that the *neng*-modalized assertive intends to remove via the act of explaining. As for counter-informing assertives, those modalized by *keyi* are used by the current speaker to lift the blocking force of the point made by the co-participant and thus involve the **REMOVAL OF BARRIER** schema. In contrast, assertives modalized by *neng* with the similar function can involve the **BLOCKAGE** schema whereby the assertives block the force of prior assumptions, or the **COUNTERFORCE** schema, which mostly pertains to disagreement sequences.
The second focus of the chapter is on the mental-space configurations at work in the utterances modalized by *keyi* and *neng* vis-à-vis the preceding and following discourse. The overall finding is that the *neng*-modalized utterances, compared to *keyi*-modalized ones, are much more likely to involve alternative spaces of possibility. Put differently, *neng* is more frequently used in utterances that relate to both the positive and negative spaces of possibility. Such utterances include affirmative declaratives that involve the scope adverb *zhi* ‘only’, negative declaratives, and interrogatives that conduce. This finding suggests that, while both modal verbs can serve as space builders, the meaning construction of *neng* differs from that of *keyi* in that the former is more prone to alternativity.
Chapter 7

Conclusions

This dissertation aims to unveil the cognitive-pragmatic properties of two near-synonymous modals of possibility in Chinese, keyi and neng, by integrating the methodological rigor of Interactional Linguistics and theoretical insights of Cognitive Linguistics. This chapter first summarizes the main findings of this study (Section 7.1), then delineates their theoretical, methodological and pedagogical implications (Section 7.2), and finally discusses the limitations of the results (Section 7.3).

7.1 Summary of the findings

This study first examined the usage patterns and discourse functions of keyi and neng in conversation with respect to the three utterance types in which both modals can occur: affirmative declaratives, negative declaratives, and interrogatives. For the overall distributions, keyi and neng feature most prominently in affirmative declaratives and negative declaratives, respectively. In other words, the use of keyi in conversational Taiwan Mandarin is strongly biased towards the positive pole, while that of neng, the negative pole.

One usage pattern that the instances of keyi and those of neng in affirmative declaratives have in common is the co-occurrences with adverbs, but the preferred adverbs that precede each modal differ. Specifically, the consecutive adverb jiu ‘(and) then’ and the additive adverb hai ‘also’ are found to be more strongly associated with keyi than with neng, which has to do with the prominent informing function, namely, incremental elaboration, of keyi-modalized assertives in conversation. In contrast, the scope adverb zhi ‘only’ is found to be used only with neng, which has to do with the
alternativity of zhi-neng utterances. Moreover, degree adverbs such as man ‘quite’ and bijiao ‘relatively’ are also found to be associated only with neng in the conservational data. The instances of neng co-occurring with degree adverbs are found in acts of counter-informing, in which the speaker indicates that the ability in question is on a higher scale than what the co-participant expected. There is also a usage pattern associated only with keyi, that is, modal serialization, in which the modals found to precede keyi, including yinggai ‘should’ and keneng ‘might’, function to weaken the force of keyi-modalized assertives, contributing to expressing a lower degree of certainty.

Affirmative declarative utterances modalized by keyi have a wider range of interactional uses than those by neng. Affirmative declaratives with the use of keyi can serve as assertives, directives, or commissives. Four interactional uses of keyi-modalized assertives are identified: informing, counter-informing, soliciting alignment, and expressing surprise. In particular, acts of informing performed by the keyi-modalized assertives tend to occur in incremental elaboration sequences in which the elaborative assertives are used to provide details supporting the claims or assessments made earlier. The affirmative declaratives modalized by keyi can also have directive functions of giving advice/suggestions/recommendations, issuing a proposal, and granting permission, as well as the commissive function of extending an offer. These directive and commissive functions are found to be associated only with keyi, but not with neng, in the conversational data.

Affirmative declaratives modalized by neng are found to be used as assertives with two informing functions. The first one is to provide incremental or, more commonly, retroactive elaboration. In the former, these assertives are used to provide information to further support prior claims or assessments, but in the latter, they are used to reformulate a prior utterance. The second informing function performed by the assertives in the form of affirmative declaratives modalized by neng is to provide an explanation, one that is solicited by the co-participant or the current speaker thinks is warranted. Such informing acts tend to occur in sequences where the co-participants’ actions display a stance of non-alignment.
The negative declarative utterances modalized by *keyi* and those by *neng* both can serve the directive function of issuing prohibition or admonition. But negative declaratives modalized by *neng* can also be used as assertives with an informing or counter-informing function. The information delivered in such acts tends to involve refuting/challenging assumptions or expectations of some sort, such as a background assumption, expectancy set up by preceding utterances, or the co-participant’s assumptions displayed in prior turns.

The interrogatives modalized by *keyi* and those by *neng* differ in terms of their discourse functions and conduciveness. Specifically, the *keyi*-modalized interrogatives are found to serve four discourse functions in the conversational data: soliciting information or confirmation, making a request, expressing surprise, and seeking permission. In contrast, the *neng*-modalized interrogatives can be used to perform two actions: soliciting confirmation or information and challenging a prior utterance. In particular, *neng*-questions with the latter function are designed as rhetorical questions or reversed-polarity questions. More importantly, *neng*-modalized questions are much more likely to conduce, namely, to convey the speaker’s preference for a given answer, than *keyi*-modalized ones.

With an enhanced understanding of how the two Chinese modals of possibility are used in situated contexts, this study further examined the cognitive underpinnings of the usage patterns and discourse functions of *keyi* and *neng* in conversation via the theoretical lenses of force-dynamics and mental-spaces. The former lens is applied to reveal the force schemata manifested in *keyi*– and *neng*-modalized assertives with the functions of informing and counter-informing in the discourse process of argumentation. Specifically, informing assertives modalized by *keyi*, commonly found in incremental elaboration sequences, involve the ABSENCE OF BARRIER schema in that the points made by these assertives can be construed as (reinforcing) forces arguing for the current speaker’s prior position or conclusion without encountering any barrier from the co-participant. In contrast, informing *neng*-modalized assertives tend to involve the REMOVAL OF BARRIER schema. When used in retroactive elaboration sequences, these assertives commonly serve to remove an interactional barrier such as other-initiation of
repair or the lack of recipient uptake. When used in explanatory-informing acts, these assertives serve to remove the barrier of certain non-affiliation stance displayed in the co-participant’s actions. As for counter-informing assertives, those modalized by keyi involve the REMOVAL OF BARRIER schema, used by the current speaker to lift the blocking force of the point made by the co-participant. In contrast, assertives modalized by neng with the similar function can involve the BLOCKAGE schema whereby the assertives block the force of prior assumptions, or the COUNTERFORCE schema, which is more evidently manifested in disagreement sequences.

As for the mental-space configurations at work in the utterances modalized by keyi and neng vis-à-vis the preceding and following discourse, the overall finding is that compared to keyi, neng is more frequently used in utterances that involve alternative spaces of possibility. Such utterances include affirmative declaratives that involve the scope adverb zhi ‘only’, negative declaratives, and conducive interrogatives. In short, while both modal verbs can serve as space builders, the meaning construction of neng is more prone to alternativity, that is, relating to both the positive and negative spaces of possibility.

7.2 Implications of this study

The findings of this interactionally-oriented Cognitive Linguistic study on keyi and neng carry theoretical as well as methodological implications. The rich meanings and versatile functions of the two modals grounded in lexico-grammatical and interactional details can illuminate the much less explored issue of how force dynamics and mental spaces function in discourse. Specifically, this study shows how these Cognitive Linguistic constructs can be fruitfully employed to account for some aspects of interactional language use, including informing and counter-informing acts as well as the design of conducive questions. It is hoped that the useful synergy of discourse-analytic methods and Cognitive Linguistic frameworks demonstrated by this study can add more empirical rigor and theoretical insight to the current literature on Chinese modality.
The results also have pedagogical implications, especially considering that textbooks and reference grammars for second language learners of Chinese rarely go beyond the referential meanings of the two modals and address their interactional uses. The various discourse functions served by utterances with the use of keyi and neng, respectively, can well be incorporated into the pedagogical explanations of the two near-synonymous modals of possibility. Spoken learner language can also be collected or elicited to examine how well second language Chinese learners can appropriately use the two modal verbs in discourse context based on the findings of this study.

7.3 Limitations of this study

The findings of this dissertation also have a number of limitations related to the nature and size of the corpus used (i.e., NCCU Corpus of Spoken Taiwan Mandarin). First, since the data consist of conversations among friends and family, that is, among participants who know one another really well, some uses of the two modals may be under-represented. Specifically, the discourse functions pertinent to the deontic meanings of keyi and neng such as granting permissions and issuing prohibitions, while infrequent in the corpus, may be more prominent in other spoken genres. Second, given the size of the corpus being relatively small compared to other written Chinese corpora, for certain usage patterns like modal serialization, their frequencies of occurrences may be too low to be conclusive. Finally, considering that the conversational data involve native speakers of Taiwan Mandarin only, the possibility that some of the patterns and uses of keyi and neng found may be more specific to this variety of Mandarin cannot be ruled out. There is no doubt that more research in this vein needs to be conducted in the future to paint a more comprehensive picture of the discursive patterns and uses of the two modal verbs of possibility in different genres and varieties of spoken Mandarin Chinese.
## Appendix A

### Abbreviations in the Gloss

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>first person singular pronoun</td>
</tr>
<tr>
<td>2SG</td>
<td>second person singular pronoun</td>
</tr>
<tr>
<td>3SG</td>
<td>third person singular pronoun</td>
</tr>
<tr>
<td>1PL</td>
<td>first person plural pronoun</td>
</tr>
<tr>
<td>2PL</td>
<td>second person plural pronoun</td>
</tr>
<tr>
<td>3PL</td>
<td>third person plural pronoun</td>
</tr>
<tr>
<td>ADV</td>
<td>adverbial marker</td>
</tr>
<tr>
<td>BA</td>
<td>pretransitive marker (把)</td>
</tr>
<tr>
<td>COMP</td>
<td>complementizer</td>
</tr>
<tr>
<td>DUR</td>
<td>durative aspect marker</td>
</tr>
<tr>
<td>LOC</td>
<td>locative</td>
</tr>
<tr>
<td>NOM</td>
<td>nominalizer</td>
</tr>
<tr>
<td>PRT</td>
<td>particle</td>
</tr>
<tr>
<td>REL</td>
<td>relativizer</td>
</tr>
<tr>
<td>ASSOC</td>
<td>associative</td>
</tr>
<tr>
<td>CL</td>
<td>classifier</td>
</tr>
<tr>
<td>COP</td>
<td>copular</td>
</tr>
<tr>
<td>GEN</td>
<td>genitive</td>
</tr>
<tr>
<td>NEG</td>
<td>negator</td>
</tr>
<tr>
<td>PFV</td>
<td>perfective aspect marker</td>
</tr>
<tr>
<td>Q</td>
<td>question particle</td>
</tr>
</tbody>
</table>
Appendix B

Transcription Conventions

[ ] speech overlap
.. short pause
... medium pause
...(N) long pause
(0) no pause across turns
@ laugh
= lengthening
<L2 L2> switching from Mandarin to English
<L3 L3> switching from Mandarin to Taiwan Southern Min
<L4 L4> switching from Mandarin to Japanese
<L5 L5> switching from Mandarin to Taiwan Hakka
References


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