

Modal Verbs and Modal Adverbs in Chinese: An Investigation into the Semantic Source

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Abstract

This paper presents ‘source’ as the distinctive feature for a twofold semantic categorization for Chinese modal expressions. Previous studies have characterized Chinese modals as words used to express the speaker’s opinion or attitude. Yet given the absence of morphological and syntactic distinctions in Chinese, there has been little consensus among different accounts as to within what limit this definition is to apply. Instead of imposing such preconceived cross-linguistic perspective, this paper argues that the component of ‘source’ must be taken into consideration to outline a clearly specified semantic category in Chinese modal systems. A distinction is drawn between modals with ‘the source of opinion or attitude’ as part of their meaning components and those without. The former is non-subject-oriented by nature, including modals traditionally seen as auxiliaries (e.g., epistemic *keneng* ‘may’, and deontic *keyi* ‘can’) and adverbs (e.g., epistemic *yiding* ‘must’, deontic *wubi* ‘must’, and evaluative *xingkuai* ‘fortunately’). The latter type, being subject-oriented, functions as the main verb in a sentence (e.g., epistemic *caice* ‘guess’, deontic *yaoqiu* ‘demand’, and evaluative *qingxing* ‘be gratified’) and covers a group of words that have been widely identified as auxiliaries (e.g., dynamic *neng* ‘can’). ‘Neutral possibility’ as advanced by a number of scholars is also proven to belong to dynamic modality because it takes the enabling condition as its subject and is subject-oriented in the sense that the proposition it qualifies concerns the capacity of its subject. The source involvement property alongside the bipartite model provides a unified account for Chinese modal inventories. It entails formal dimensions such as argument selection and categorical manifestation and also reflects the speaker’s motivation in exploiting varied modal types to achieve different pragmatic purposes.

Keyword: *modality, source, epistemic, deontic, dynamic, evaluative*

1 Introduction

This paper aims to define the semantic category of Chinese modal verbs and modal adverbs on the basis of their source of meaning. This will be done not by following the patterns emerging from the English modal auxiliaries, as commonly done in previous research, but by referring to the modal meanings shared by human languages as well as their formal characterizations specific to the Chinese language. In particular, this paper will

introduce into the discussion of Chinese modality the notion of ‘source involvement’ with its counterpart ‘non-source involvement’. This two-fold distinction will be shown to be a crucial element in understanding the semantic, syntactic, and pragmatic features of Chinese modal expressions.

This section sketches out the purpose of research. The next section examines the semantic realm of Chinese modal verbs and modal adverbs from a cross-linguistic and an individual-linguistic angle, which brings out the necessity to formulate a new semantic categorization for Chinese modal expressions. In the third section, we put forward the concept of ‘source’ by relating it to the four semantic types observed in the Chinese modal expressions: epistemic, deontic, dynamic, and evaluative. The last section recapitulates the conclusions, followed by a depiction of further issues.

2 Controversial Issues

Previous studies have explored the category of modality from a wide variety of perspectives. Of these, three issues are relevant to the present discussion: the general nature of modality, the meanings and forms associated with that category in English, and the corresponding formal configurations in Chinese. This section will offer an overview of these issues along traditional lines and then indicate the problems involved in dealing with the case in Chinese.

2.1 Modality

A number of semantic criteria have been proposed for the definition of ‘modality’. The criterion now widely accepted is given by Lyons (1977:452), who refers to modality as the speaker’s ‘opinion or attitude towards the proposition that the sentence expresses or the situation that the proposition describes’. Palmer (1986; 2001), on the other hand, presents a more general survey of modality as a typological category. He draws attention to the subjective nature of modality, and thereby defines it as ‘the grammaticalization of speakers’ (subjective) attitudes and opinions’ (1986:16). Bybee and Fleischman (1995), too, attempt to characterize modal systems across languages. Their explication sets the notion of ‘modality’ and ‘proposition’ apart: When the proposition of an utterance in the most neutral semantic status, i.e. factual or declarative, is subject to further addition or overlay of meaning, this extension represents modality. Examples they give include jussive, desiderative, intentive, hypothetical, potential, obligative, dubitative, hortatory, and exclamative (1995:2).

As for the subcategories of modality, Lyons (1977) talks about the modal logic in two domains. Epistemic modality is concerned with the possibility or necessity of the truth of a proposition, thus related to the speaker’s knowledge and belief (1977:793). Deontic modality

has to do with the possibility or necessity of ‘acts performed by morally responsible agents’ (1977:823), which is involved with obligation or permission.¹ This dichotomy is commonly adopted among subsequent studies. However, it should be noted that Lyons’ description of modality as the speaker’s ‘opinion or attitude’ refers to the use of sentential adverbs such as *frankly*, *fortunately*, *possibly*, and *wisely* (1977:452). These include words denoting the speaker’s opinion or attitude towards what he/she already accepts as true, traditionally grouped under evaluative modality (e.g., Rescher 1968). This indicates that evaluatives are recognized by Lyons as one kind of modality.

Palmer (1986:18) also distinguishes epistemic and deontic modalities. He observes that evaluatives are sometimes subsumed into modal systems. Since they express the speaker’s attitude rather than his/her commitment to the truth of a proposition, they are classified as belonging to deontic modality (1986:119-121). Bybee and Fleischman (1995:6) further subdivide the traditional deontic modality into agent-oriented and speaker-oriented modalities.² Though evaluative modality is not explicitly identified in their analysis, their definition of modality together with the example of ‘exclamative’ (1995:2) shows that the speaker’s opinion or attitude towards known facts is treated as one type of modality.

The above cross-linguistic inspections reveal that modality is a semantic class encompassing meanings beyond the range of epistemic and deontic modalities. Evaluatives, though not linguists’ primary interest in the study of modal logic, are in effect within the scope of modality.

2.2 English Modal Auxiliaries

Of the types of modal expressions in English, modal auxiliaries are the one which has received most attention among researchers. Accounts of English modal auxiliaries can be divided into two groups, depending on whether the linguist opts for a tripartite or bipartite approach.

The tripartite approach can be represented by the analyses done by Palmer (1979; 1990) and Perkins (1983), both advocating a three-fold division of modality into epistemic, deontic, and dynamic modalities. Palmer (1990:24-25) points out the discrepancy between the semantically defined category (i.e. modality) and the category established by structural criteria (i.e. auxiliaries). For instance, *can* and *will* conform to the formal features of English auxiliaries. However, they do not seem to be strictly matters of modality when used to in the sense of ability and volition, which inherently relate more to the characteristics of the subject than to the opinion or attitude of the speaker. With the traditional dichotomous analysis of

¹ Another category identified by Lyons (1977:791) with regard to modal logic is ‘alethic’ modality. It is not discussed here, being not formally distinguished from epistemic modality in natural language.

² They do so to better capture the morphosyntactic tendency in expression patterns and the diachronic development of grammaticalization across languages. See Bybee (1985) for details.

epistemic and deontic modalities, the subject-oriented meanings of *can* and *will* are left no place. Accordingly, Palmer (1990:36) advances the supplement of dynamic modality to English modal auxiliaries to embrace those conveying the ability or volition of the subject. A similar approach is taken by Perkins (1983) to deal with English modal expressions. He relates modality to the concept of ‘possible worlds’ (1983:6) and distinguishes epistemic, deontic, and dynamic modalities. The truth of propositions in each subdomain is interpreted through different sets of principles (1983:10-12). Perkins (1983:12) goes further to make explicit that evaluative modality, presupposing the actuality of a proposition, is tied with the real world, so he does not subsume it within the scope of English modality.

The bipartite approach, on the other hand, treats dynamic modality as a subclass of epistemic or deontic modality. The central argument is that there are areas of overlap and indeterminacy between these meanings conveyed by English modal auxiliaries. For instance, Coates (1983) recognizes epistemic and non-epistemic modalities. The latter type, also named ‘root modality’ (1983:20), incorporates Palmer’s (1990) deontic and dynamic modalities. Another two-fold distinction is made by Quirk et al. (1985). They group notions of permission, obligation, and volition as ‘intrinsic’ in the sense that certain human control is imposed upon the qualified events, whereas ideas such as possibility, necessity, and prediction are ‘extrinsic’ since they chiefly concern human judgment on the likelihood of the situations taking place (1985:219).

As can be seen from the above studies, the tripartite and bipartite divisions are different ways to classify members of an identical semantic category, viz. meanings encoded by English modal auxiliaries. However, what is of significance here is not the question of how English modality can be divided, but the issue regarding what sort of meaning should be included within this family. One important observation is that, in contrast to the typological analyses which focus on epistemic, deontic, and evaluative modalities (see 2.1), studies on English modal auxiliaries generally ignore evaluative modality and incorporate another type: subject-oriented meanings expressed by such words as *can* and *will*. For ease of exposition, this paper will use Palmer’s (1990) terminology to label it ‘dynamic modality’ in the discussion to follow.

This difference between the global and the English-dependent treatments leads us to another question: Why does the domain of modal systems vary according to the scope of investigations—across languages or within a specific language, in this case English? For one thing, as observed by a number of scholars (e.g., Coates 1983:4; Perkins 1983:1; Palmer 1990:2; Bybee and Fleischman 1995:2), modality covers a broad range of semantic contents that is not easy to delimit. For another, modality can be manifested by different formal devices in different languages. Therefore, the semantic definition of modality may be susceptible to modification if a better match with the correspondingly named formal category is to be achieved. In English, for example, a definite stock of grammatical properties shared

by modal auxiliaries serves as a guideline for researchers to decide where to set the limit for their semantic import. Where the formally defined category disagrees with the semantically defined category, adaptation is made, as illustrated by the inclusion of dynamic modality and the exclusion of evaluative modality. This implies that even within a given language there may be inconsistencies in the semantic scopes of modal inventories across different formal representations.

Consequently, at the outset of our investigation the following two points need to be clarified. First, given the diverse ways modality comes to be expressed in different languages, the semantic range of Chinese modal expressions is not necessarily equivalent to that of English modal auxiliaries. This prompts us to question whether the generalizations made for English modality are plausible as applied to Chinese. Therefore, this paper attempts to define Chinese modality not by following the patterns found in English modal auxiliaries, but rather by making reference both to the modal logic shared by all human languages and to its formal realization exclusive to Chinese. In this way, we aim toward obtaining a category that is not only valid in the universal grammar but also practical in the Chinese-particular grammar. A second point is that, even within a language itself, the extent to which modality is mapped onto linguistic forms may differ from one formal category to another. In Chinese, the semantics of modal verbs and modal adverbs cover a similar group of meanings, which will become obvious in our later elaboration. Nevertheless, modal particles go beyond signaling the notion of the speaker's opinion or attitude because some of them can be used to mark aspect (e.g., *le*, *ne*, *laizhe*) and interrogation (e.g., *ma*, *ba*, *ne*). This shows that the semantic criteria set up for Chinese modal verbs and modal adverbs may not be equally adequate for Chinese modal particles.³ For this reason, this paper will be focusing on Chinese modal verbs and modal adverbs, referred to as 'Chinese modal expressions' or 'Chinese modals' throughout the following discussion.⁴

2.3 Chinese Modal Expressions

It has been agreed upon in the earlier literature that Chinese modal expressions are characterized by the semantic properties set forth by Lyons (1977:452), especially the idea of 'the speaker's opinion or attitude'. However, different positions have been taken in respect to how this semantic criterion is to be put in use to handle the situations in Chinese. Among them three standpoints are of significance here: one built upon a cross-language model, another following the English analysis, and the other introducing a modified framework

³ For research on Chinese modal particles, see Zhu (1982:207-214), Tsee (1986:228-236), Wang (1987:300-318), Li et al. (1990:260-266), Lu (1992:261-284), Tang and Tang (1997:178-186), and Chu (1998:120-187).

⁴ In this paper 'modal verbs' refer to modal expressions that function as predicates in a sentence; thus they are used as a portmanteau term to cover 'modal verbs' and 'predicative modal adjectives'.

specifically directed toward the peculiarities in Chinese. The appeal and deficiency of these approaches are inspected below.

2.3.1 Cross-language Models

The cross-linguistic approach accepts Chinese modal auxiliaries as a semantactic class, definable through notional meanings pertaining to all languages as well as grammatical properties exclusive to Chinese. One is done by Tsang (1981), who carries out the process of identifying Chinese modal auxiliaries by stipulating a series of semantic and syntactic criteria. Semantically, epistemic and deontic modalities share the ‘non-subject-oriented’ feature: Their agent can be the speaker or some other source, viz. an element that does not appear in the sentence (1981:17). Conversely, dynamic modality is ‘subject-oriented’ because it relates directly to the ability and volition of the subject (1981:18). Given this contrast, dynamic modality is excluded from the category of modality (1981:41). This newly established semantic category is further delimited through a list of formal features that ensure the status of Chinese auxiliaries. Words passing these semantactic tests include *gai* ‘should’, *hui* ‘will’, *neng* ‘can’, *nenggou* ‘can’, *yao* ‘must’, and *xu* ‘permit’ (1981:58).

Tsang distinguishes epistemic and deontic modalities from dynamic modality, thereby formulating a semantically natural class. However, such demarcation fails to capture the synchronic and diachronic connections among epistemic, deontic, and dynamic modalities. In terms of the synchronic dimension, it has been found that these three types of modality tend to be encoded within a language by words belonging to an identical formal category. In addition, modal expressions are commonly characterized by polysemy, a phenomenon in which a single lexical item bears more than one subkind of modal meaning. English and German modal auxiliaries are two cases in point (see Hammer 1983:223; Palmer 1990; Heine 1995). It will be argued in later discussions that the same holds true for Chinese modal expressions. Diachronically speaking, epistemic and deontic modal expressions have been shown across different languages to have been developed from dynamic modal expressions (e.g., Bybee et al. 1991; Heine et al. 1991). Such historical traces are also evident in Chinese modal systems (see, for example, Chang 1996; Hsieh 2001).

2.3.2 Individual-language Models based on English

The majority of linguists working on Chinese modality develop their theories from the English modal system (e.g., Chao 1968; Tsao 1990; Liu et al. 1996). For instance, following Palmer’s (1979) frame in addressing English modal auxiliaries, Tse (1985) classifies Chinese modality into three fundamental kinds: epistemic, deontic, and dynamic modalities. Likewise, Huang (1999) employs Hofmann’s (1993) semantic depiction of English modality to divide

Chinese modality into epistemic, deontic, and dynamic meanings.

By subsuming dynamic meaning under Chinese modality, the above analyses do not encounter the problems mentioned in 2.3.1. However, another difficulty arises because these linguists fail to characterize the Chinese modal system as a natural class. For example, Tie (1985:85) clarifies that modality is ‘a form of meaning which expresses the possibility and necessity of relation between the subject or speaker’s judgement and its action’; thereby dynamic meaning is seen as one kind of modality (1985:85). By the same line of reasoning, Chinese modal expressions should contain verbs that designate dynamic-like notions, such as *xiwang* ‘hope’ in (1a) and *jianchi* ‘insist’ in (1b), which semantically and syntactically resemble the use of modal auxiliaries *xiang* ‘would like’ and *yao* ‘want’ in (2a) and (2b). If those in (1) are not included, the category of Chinese modality does not seem to constitute a well-defined natural class.

- (1) a. *Ta xiwang cizhi.*
he hope resign
‘He hopes to resign.’
b. *Ta jianchi cizhi.*
he insist resign
‘He insists that he resign.’
- (2) a. *Ta xiang cizhi.*
he would like resign
‘He would like to resign.’
b. *Ta yao cizhi.*
he want resign
‘He wants to resign.’

Most linguists, including Tie (1985) and Huang (1999), avoid this difficulty by confining their attention to Chinese modal auxiliary verbs. One feature these auxiliary verbs have in common is that they select a verbal complement. Under this assumption, verbs such as *xiwang* ‘hope’ and *jianchi* ‘insist’ can be excluded, while auxiliaries such as *xiang* ‘would like’ and *yao* ‘want’ can be retained. However, problems cannot be thus fully solved, the main argument being that the validity of postulating the category of Chinese auxiliary verbs is still open to debate. As observed by Lu (1979:41), Chinese auxiliaries are a problematic category. Sun (1996:286) also brings out the fact that there has been a long controversy over the legitimacy of this category. In fact, scholars generally illustrate Chinese auxiliary verbs by providing a listing of properties and examples, but few attempt a precise definition.⁵ Moreover, the grammatical properties recognized by different researchers show a great range of variations. The only consensus has been that Chinese auxiliaries always precede the main

⁵ See Steele (1978), Li and Thompson (1983), Fu and Zhou (1991), McCawley (1992:212-216), Hu and Fan (1995:248-263) for an attempt to clarify the identifying features of Chinese auxiliaries.

verb in a sentence (e.g., Li and Thompson 1981:173; Tsang 1981:48; Tsee 1985:87). There, however, exist irregularities. One is that some auxiliaries may be followed by the subject of the sentence, as manifested by *keneng* ‘may’ in (3a) and *hui* ‘can’ in (3b). Another is that some may even exceptionally occur at sentence-final positions, which can be demonstrated by *yinggai* ‘should’ in (4a) and *keyi* ‘can’ in (4b).⁶

- (3) a. *Keneng men guan le.*
 may door close PART
 ‘The door may be closed.’
- b. *Hui bu hui wo chidao le?*
 can NEG can I late PART
 ‘Is it probable that I am late?’
- (4) a. *Ni zheyang zuo bu yinggai.*
 you so do NEG should
 ‘You should not have done so.’
- b. *Wo tizao cizhi keyi ma?*
 I earlier resign can PART
 ‘May I resign earlier?’

As shown in the examples above, the existence of Chinese auxiliaries requires further justification. Therefore, this paper does not touch upon the issue of Chinese auxiliaries and will henceforth include modals with verbal properties under the umbrella of what is labeled ‘modal verbs’.

2.3.3 Individual-language Models based on Chinese

In view of the disputes over Chinese auxiliaries, some researchers advance a model that better fits in with Chinese grammar. Two worth examination here are CKIP (1993) and Tang and Tang (1997).⁷ CKIP (1993) draws a line between epistemic and deontic modalities, and points out three lexical categories that have been widely acknowledged as means to denote modality in Chinese: modal auxiliaries (e.g., *yinggai* ‘should’), modal adverbs (e.g., *yexu* ‘perhaps’), and modal verbs (e.g., *xiang* ‘would like’). These three categories, as suggested by CKIP, should be grouped under a new and independent part of speech called ‘modal adverbs’ (see Zhang L.-L. 1994:3). Tang and Tang (1997:177, 193), on the other hand, argue for three forms of Chinese modality: modal particles (e.g., *de*, *ne*, and *a*), modal adverbs (e.g., *huoxu* ‘perhaps’, *haoxiang* ‘seem’, and *nandao* ‘possible?’), and modal verbs or adjectives (e.g., *keneng* ‘may’, *bixu* ‘must’, and *ken* ‘be willing to’).

The above accounts are more convincing in that the defining features of modal

⁶ Following are abbreviations used throughout this paper. PART: particle; CL: classifier; POSS: possessive.
⁷ For a detailed analysis of CKIP, see Zhang L.-L. (1994).

expressions have been modified to be better in conformity with the grammatical system in Chinese. However, their conclusions are not entirely satisfactory. CKIP rules out dynamic modality on the assumption that dynamic expressions can be considered modals only when they take the first person *wo* ‘I’ or *women* ‘we’ as the subject of the sentence (see Zhang L.-L. 1994:8). The difficulties of such approach have been presented in 2.3.1 from synchronic and diachronic points of view. Tang and Tang also face problems addressed in 2.3.2 because they recognize dynamic modality but yet leave verbs such as *xiwang* ‘hope’ and *jianchi* ‘insist’ unattended.

3 Semantic Classifications

As is made clear in the previous discussions, it is inappropriate to impose on Chinese modality either a cross-linguistic framework or one particularly designed for English modal auxiliaries. The crux of the problem lies in the fact that, due to the lack of overt morphological or syntactic markings attached to distinctive lexical categories, Chinese modality cannot be delineated as in the case of English by referring to the structural features of a given formal category. Therefore, with the universal principles as a starting point, this paper aims at looking within global tendencies for rules that are more specific and thus more adequate to Chinese modal systems.

It is generally accepted that modality refers to ‘the speaker’s opinion or attitude’ (Lyons 1977:452) and that it is associated with four types of meaning: epistemic, deontic, dynamic, and evaluative modalities. This section will examine how the speaker’s opinion or attitude is communicated through Chinese modal expressions and in what way the four types of modal meaning are represented in the formal systems. The property of ‘semantic source’ will be shown to be a critical element in interpreting Chinese modals.

3.1 Epistemic Modality

Typical examples of Chinese epistemic modal expressions include those traditionally perceived as modal auxiliary verbs such as *keneng* ‘may’ and *yinggai* ‘should’ and modal adverbs such as *dagai* ‘perhaps’ and *yiding* ‘must’. Regardless of their differences in lexical categorization, the above expressions all contain in their meaning the ‘source’ of epistemic modality. More specifically, when using these expressions, the speaker makes clear who gives the opinion or attitude, which in this case is the speaker of the utterance. For instance, *keneng* ‘may’ in (5a) and *yiding* ‘must’ in (6a) encode meanings respectively corresponding to *wo caice* ‘I guess’ in (5b) and *wo tuiduan* ‘I speculate’ in (6b), where *wo* ‘I’ refers to the speaker of the utterance.

- (5) a. *Ta keneng cizhi le.*
 he may resign PART
 ‘He may have resigned.’
- b. *Wo caice ta cizhi le.*
 I guess he resign PART
 ‘I guess that he has resigned.’
- (6) a. *Ta yiding cizhi le.*
 he must resign PART
 ‘He must have resigned.’
- b. *Wo tuiduan ta cizhi le.*
 I speculate he resign PART
 ‘I speculate that he has resigned.’

It can thus be inferred that in (5b) and (6b) the main verbs *caice* ‘guess’ and *tuiduan* ‘speculate’ express ‘the type of opinion or attitude’ or ‘the semantic type’ (i.e. epistemic type), while the pronoun *wo* ‘I’ functions as ‘the source of opinion or attitude’ or ‘the semantic source’. This suggests that *keneng* ‘may’ in (5a) and *yiding* ‘must’ in (6a) not only convey the type of opinion or attitude the speaker puts across, but also imply that such opinion or attitude is held by the speaker of the utterance.

The above sentences show that the traditional modal auxiliary verb *keneng* ‘may’ and the modal adverb *yiding* ‘must’ differ significantly from the main verbs *caice* ‘guess’ and *tuiduan* ‘speculate’ in regard to semantic properties. This distinction also affects their selection of arguments. An indication of this is given by the pairs in (5) and (6). *Keneng* ‘may’ and *yiding* ‘must’ incorporate ‘the source of opinion or attitude’ into their meaning components; thus they do not take the source *wo* ‘I’ as an obligatory argument, but take the proposition *ta cizhi le* ‘he has resigned’ as the only target being described.⁸ Conversely, *caice* ‘guess’ and *tuiduan* ‘speculate’ denote the epistemic type of opinion or attitude without indicating the source of meaning. Hence, in addition to selecting a proposition to specify the situation under consideration, *caice* ‘guess’ and *tuiduan* ‘speculate’ are required to co-occur with a noun phrase that serves to spell out their source of opinion or attitude. This is why in (5b) and (6b) the presence of *wo* ‘I’ and that of the proposition *ta cizhi le* ‘he has resigned’ are both necessary.

Apart from notions discussed above, which are related to the speaker’s judgment (henceforth belonging to a ‘Judgmental system’), Chinese epistemic modality can also be signified through an ‘Evidential system’. Words of this type reveal the speaker’s commitment toward the truth of a proposition by hinting at the evidence he/she has available (Hsieh 2004).

⁸ In the deep structure of (5a), the epistemic modal *keneng* ‘may’ appears at the beginning of the sentence, taking the clause *ta cizhi le* ‘he has resigned’ as its complement. After undergoing the operation of topic raising movement, the subject *ta* ‘he’ occurs before *keneng* ‘may’ in the surface structure. See Tsao (1996:178) and Hsieh (2001:266-271) for details.

The Evidential system can be further divided into two subclasses: ‘Quotative’ and ‘Sensory’. In the use of Quotative, the epistemic import hinges on the speaker’s specification of what has been said to him/her that implies reliability of information, as shown by *jushuo* ‘allegedly’ in (7a) and *tingshuo* ‘hear’ in (7b). In the use of Sensory, on the other hand, the speaker bases his/her epistemic judgment on what he/she has received through sense organs, illustrated by *haoxiang* ‘seem’ in (8a) and *juede* ‘feel’ in (8b). These two sets of examples mirror (5) and (6) in that they demonstrate expressions falling into two separate semantic categories: one carries in their meaning ‘the source of opinion or attitude’ (e.g., *jushuo* ‘allegedly’ and *haoxiang* ‘seem’) and the other does not (e.g., *tingshuo* ‘hear’ and *juede* ‘feel’).

- (7) a. *Ta jushuo cizhi le.*
 he allegedly resign PART
 ‘Allegedly he has resigned.’
 b. *Wo tingshuo ta cizhi le.*
 I hear he resign PART
 ‘I heard that he had resigned.’
- (8) a. *Ta haoxiang cizhi le.*
 he seem resign PART
 ‘He seems to have resigned.’
 b. *Wo juede ta cizhi le.*
 I feel he resign PART
 ‘I feel that he has resigned.’

What emerges from the discussion above is that Chinese epistemic modal expressions involve Judgmental and Evidential systems, both of which can be classified according to the elements of meaning into two groups: those characterized by source involvement and those by non-source involvement. The contrast between these two types of modals is also reflected in the kind of arguments they select. The importance of this semantic property will be attested further in the next section.

3.2 Deontic Modality

A similar semantic distinction can be found in Chinese deontic modal expressions. For instance, the meaning of *keyi* ‘can’ in (9a) can be decomposed as *wo yunxu* ‘I allow’ in (9b). This suggests that *keyi* ‘can’ bears two constituents in its meaning. One is the opinion or attitude related to permission, indicated by the verb *yunxu* ‘allow’; the other is the source of this opinion or attitude, viz. the speaking person *wo* ‘I’. Nevertheless, it should be stressed that the opinion or attitude expressed in (9a) is not necessarily one held by the speaker. By using *keyi* ‘can’, the speaker may also intend to state that the subject *ta* ‘he’ is allowed to do

something by other sources of authority. In this reading *keyi* ‘can’ is analogous to the meaning of *you quanli* ‘have the right’ in (9c). Therefore, as shown by (9d), (9a) can be paraphrased as *qingkuang yunxu* ‘the situation allows’, where the term ‘situation’ refers in general to any unspecified entity that grants permission, such as a boss, a teacher, a rule of law, a social norm, or even the subject of the sentence *ta* ‘he’.

- (9) a. *Ta keyi cizhi.*
 he can resign
 ‘He may resign.’
- b. *Wo yunxu ta cizhi.*
 I allow he resign
 ‘I allow him to resign.’
- c. *Ta you quanli cizhi.*
 he have right resign
 ‘He has the right to resign.’
- d. *Qingkuang yunxu ta cizhi.*
 situation allow he resign
 ‘The situation allows him to resign.’

By the same token, (10a) can be interpreted as (10b) or (10c) and (10d). These near-synonymous sentences exhibit the fact that *wubi* ‘must’ in (10a) is well qualified as a deontic modal in that the verb *yaoqiu* ‘demand’ in (10b) and (10d) denotes the deontic type of opinion or attitude, whereas the subject *wo* ‘I’ in (10b) and *qingkuang* ‘situation’ in (10d) serve as possible sources that lays the obligation.

- (10) a. *Ta wubi cizhi.*
 he must resign
 ‘He must resign.’
- b. *Wo yaoqiu ta cizhi.*
 I demand he resign
 ‘I demand that he resign.’
- c. *Ta you yiwu cizhi.*
 he have obligation resign
 ‘He is obligated to resign.’
- d. *Qingkuang yaoqiu ta cizhi.*
 situation demand he resign
 ‘The situation demands that he resign.’

Here two points require further elaboration. First, each sentence (a) in (5)-(10) has been paraphrased as the corresponding sentence (b), (c), or (d). However, this is not to say that (a), (b), (c), and (d) are absolutely synonymous. The chief purpose of such rephrasing is to bring out the fact that epistemic modals *keneng* ‘may’ and *yiding* ‘must’ and deontic modals *keyi*

‘can’ and *wubi* ‘must’ encompass ‘the type of opinion or attitude’ and ‘the source of opinion or attitude’ in their meaning, contrasting with those main verbs in the paraphrasing sentences listed. It should also be noted that Chinese verbs used to grant permission or lay obligations predominately take an animated subject. Hence (9d) and (10d) are syntactically well-formed but marginally acceptable meaningwise. In these two sentences *yunxu* ‘allow’ and *yaoqiu* ‘demand’ are used only for the sake of semantic decomposition.

Second, we have paraphrased (9a) and (10a) respectively as (9d) and (10d) to make explicit ‘the source of opinion or attitude’. This construal of the deontic source as a certain ‘situation’ sets deontic modals and epistemic modals apart since epistemic modals never imply a source other than the speaker. For example, (5a) and (6a) can both be taken to mean (11a) and (11b), which appear to be parallel in meaning with (9d) and (10d). However, the expression *qingshi* ‘circumstance’ is not ‘the *source* of opinion or attitude’, but ‘the *basis* of opinion or attitude’.

- (11) a. *Qingshi anshi ta cizhi le.*
 circumstance suggest he resign PART
 ‘The circumstance suggests that he has resigned.’
 b. *Qingshi xianshi ta cizhi le.*
 circumstance reveal he resign PART
 ‘The circumstance reveals that he has resigned.’

The difference between *qingshi* ‘circumstance’ and *qingkuang* ‘situation’ is a point that deserves additional explication. In (11a) and (11b), *qingshi* ‘circumstance’ can be understood as ‘his boss’s facial expressions’, ‘the conversation between his colleagues’, ‘the fact that his seat is empty’, and ‘the fact that he has been absent for a long time’, etc. These possible readings function as the foundation of the speaker’s judgment. By contrast, *qingkuang* ‘situation’ refers to the entity that is endowed with the power or authority to give permission or place obligations, as illustrated by (9d) and (10d).

A further piece of evidence for the differentiation between the ‘basis’ and the ‘source’ of opinion or attitude is that (5a) may receive an utterance comprehension similar to (12a), but may never be construed as (12b). The opposition between (12a) and (12b) is caused by the fact that ‘the source of opinion or attitude’ is the speaker in (12a), but is the boss in (12b). This leads us to conclude that the source of epistemic modality is always the speaker of the utterance. On the other hand, the source of deontic modality may be an entity other than the speaker, no matter on what circumstance the speaker bases his/her opinion or attitude. As exemplified by (13a) and (13b), both being possible interpretations of (9a), ‘the *basis* of opinion or attitude’ (i.e. *qingshi* ‘circumstance’) designated by the deontic modal *yunxu* ‘allow’ is independent of ‘the *source* of opinion or attitude’ (i.e. *wo* ‘I’ and *laoban* ‘the boss’). The same point holds true for the deontic modal *wubi* ‘must’ in (10a).

- (12) a. *Genju qingshi, wo caice ta cizhi le.*
 according to circumstance I guess he resign PART
 ‘According to the circumstance, I guess that he has resigned.’
- b. *Genju qingshi, laoban caice ta cizhi le.*
 according to circumstance boss guess he resign PART
 ‘According to the circumstance, the boss guesses that he has resigned.’
- (13) a. *Genju qingshi, wo yunxu ta cizhi.*
 according to circumstance I allow he resign
 ‘According to the circumstance, I allow him to resign.’
- b. *Genju qingshi, laoban yunxu ta cizhi.*
 according to circumstance boss allow he resign
 ‘According to the circumstance, the boss allows him to resign.’

Therefore, *qingshi* ‘circumstance’ in (11) is used in a sense of ‘the *basis* of opinion or attitude’ rather than ‘the *source* of opinion or attitude’. It follows that the use of epistemic modals in Chinese presupposes that it is the speaker who holds the opinion or attitude expressed, while the use of deontic ones does not.

To conclude, as shown by (5)-(10), Chinese epistemic and deontic modals fall into two subcategories. One consists of expressions such as epistemic *keneng* ‘may’ and deontic *keyi* ‘can’, which involve ‘the type of opinion or attitude’ and ‘the source of opinion or attitude’ in their meaning composition. Consequently, it is on the ground of ‘the type of opinion or attitude’ that previous studies subsume *keneng* ‘may’ and *keyi* ‘can’ respectively under epistemic and deontic modalities. The other subcategory is made up of main verbs such as *caice* ‘guess’ and *yunxu* ‘allow’. These expressions only carry ‘the type of opinion or attitude’ in their meaning and are thus required to take a subject as the semantic source to make up a complete sentence.

3.3 Dynamic Modality

Dynamic modality is concerned with the ‘ability’ or ‘volition’ of the subject in a sentence. Examples of this type are *hui* ‘can’ in (14a) and *xiang* ‘would like’ in (15a), traditionally analyzed as modal auxiliaries. They bear a similarity in meaning to verbs such as *you nengli* ‘have the ability’ in (14b) and *xiwang* ‘hope’ in (15b).

- (14) a. *Ta hui kaiche.*
 he can drive
 ‘He can drive.’
- b. *Ta you nengli kaiche.*
 he have ability drive
 ‘He has the ability to drive.’

(15) a. *Ta xiang kaiche.*
he would like drive
'He would like to drive.'

b. *Ta xiwang kaiche.*
he hope drive
'He hopes to drive.'

Dynamic modality can be discerned from epistemic and deontic modalities in two ways. First, with respect to 'the type of opinion or attitude', the notion of 'ability' in (14) concerns itself more with the characteristics of the subject *ta* 'he' than with the speaker's opinion or attitude. In addition, though the concept of 'volition' in (15) relates to a kind of opinion or attitude, it is one embraced by the subject of the sentence, not by the speaker. A second idiosyncrasy of dynamic modality concerns 'the source of opinion or attitude'. As shown in (14) and (15), dynamic modals *hui* 'can' and *xiang* 'would like' take the subject *ta* 'he' to signal the source of ability or volition, and only in this manner can a complete sentence be produced. It should also be observed that the source thus far dealt with in this paper has been the source of a type of opinion or attitude, which however is not true in the case of 'ability' since its meaning cannot be construed as a type of opinion or attitude.

In sum, dynamic modal expressions are used to describe a kind of state (i.e. ability) or opinion or attitude (i.e. volition) germane to the subject in a sentence. They are intrinsically distinct from epistemic and deontic modal expressions in that on the linguistic surface they need to mark 'the source of opinion or attitude' through the subject of the sentence, behaving identically with main verbs.

So far three types of modality—epistemic, deontic, and dynamic meanings—have been examined. What is also of interest here is the phenomena of polysemy. For example, *yao* 'want/must' in (16a) is a polysemous modal expression which can be used either to describe the volition of the subject in a sentence or to express the obligation placed upon that subject by the speaker or a situation in the context, viz. *qingkuang* 'situation' as noted in 3.2. Therefore, (16a) may receive a dynamic reading close in meaning with (16b), or deontic ones as rephrased in (16c) and (16d).

(16) a. *Ta yao kaiche.*
he want/must drive
'He wants to/must drive.'

b. *Ta you yiyuan kaiche.*
he have desire drive
'He has the desire to drive.'

c. *Wo yaoqiu ta kaiche.*
I demand he drive
'I demand that he drive.'

- d. *Qingkuang yaoqiu ta kaiche.*
 situation demand he drive
 ‘The situation demands that he drive.’

It should be noted that sentences with dynamic modal expressions are in effect ambiguous in meaning. For instance, *neng* ‘can’ in (17a), *keyi* ‘can’ in (18a), and *deyi* ‘can’ in (19a) commonly receive a dynamic interpretation comparable with the corresponding (17b), (18b), and (19b), where these modals are used to signify the potential, physical strength, or ability of the subject in the sentence. However, it is also possible for them to be understood respectively as (17c), (18c), and (19c), implying that a certain ‘condition’ allows the subject to acquire the potential, physical strength, or ability under discussion. Utterance comprehension of the sort in sentences (c) relates to the possibility of the described event taking place. To illustrate, possible conditions in (17c) include ‘everybody is packed in’, ‘the luggage has been moved to the trunk’, and ‘those in the car are all children’. In (18c) they may be ‘I have had a cup of coffee’, ‘there is a ball game on TV at midnight’, and ‘I took a two-hour nap in the afternoon’. In (19c) these conditions can be illustrated by ‘he has been an apprentice for ten years’, ‘he received a great deal of inheritance’, and ‘he got a license to practice as a doctor’.

- (17) a. *Zhe bu che neng zuo liu ge ren.*
 this CL car can seat six CL person
 ‘This car can seat six people.’
 b. *Zhe bu che you qianli zuo liu ge ren.*
 this CL car have potential seat six CL person
 ‘This car has the potential to seat six people.’
 c. *Tiaojian rongxu zhe bu che zuo liu ge ren.*
 condition allow this CL car seat six CL person
 ‘The condition allows this car to seat six people.’
- (18) a. *Wo keyi yizhengye bu shui.*
 I can all night NEG sleep
 ‘I can stay up all night.’
 b. *Wo you tili yizhengye bu shui.*
 I have strength all night NEG sleep
 ‘I have the physical strength to stay up all night.’
 c. *Tiaojian rongxu wo yizhengye bu shui.*
 condition allow I all night NEG sleep
 ‘The condition allows me to stay up all night.’
- (19) a. *Ta deyi ziji kai zhensuo.*
 he can oneself open clinic
 ‘He can open a clinic for business by himself.’

b. *Ta you nengli ziji kai zhensuo.*
 he have ability oneself open clinic
 ‘He has the ability to open a clinic for business by himself.’

c. *Tiaojian rongxu ta ziji kai zhensuo.*
 condition allow he oneself open clinic
 ‘The condition allows him to open a clinic for business by himself.’

Details differ among accounts on the ambiguity displayed above. Palmer (1990:37) argues for a new subclass of dynamic modality – ‘neutral’ (or ‘circumstantial’) – to indicate that an event is possible (e.g., *can*) or necessary (e.g., *must*) in the circumstances and describes the other subclass that refers to the ability of the subject as ‘subject-oriented’. A different classification is proposed by Tsang (1981). He contends that subject-oriented dynamic modality takes a subject that plays an agentive role. In contrast, the event qualified by neutral dynamic modality is not controlled by the subject, but is rather triggered by an unspecified factor in the context, be it the speaker or a circumstance outside of the sentence. In this sense, neutral dynamic modality is non-subject-oriented and should thus be treated on a par with deontic modality (1981:16-17).

We will give evidence to show that Palmer (1990) appears to provide a plausible categorization within dynamic modality that copes better with ‘the source of opinion or attitude’ at issue in this paper. For ease of exposition to follow, we will use the label ‘ability modality’ as a shorthand expression for Palmer’s subject-oriented dynamic modality, and ‘neutral modality’ for his neutral dynamic modality.

Take (20) for example. The modal expression *neng* ‘can’ in (20a) may take on different senses, including ‘ability modality’ as paraphrased in (20b), ‘deontic modality’ as in (20c) and (20d), and ‘neutral modality’ as in (20e). Our purpose here is to demonstrate that from the point of view of ‘source involvement’, ‘neutral modality’ expressed in (20e) should be grouped under the same heading with ‘ability modality’ in (20b), rather than with ‘deontic modality’ in (20c) and (20d).

- (20) a. *Ta neng kaiche.*
 he can drive
 ‘He can drive.’
- b. *Ta you nengli kaiche.* (Ability modality)
 he have ability drive
 ‘He has the ability to drive.’
- c. *Wo yunxu ta kaiche.* (Deontic modality)
 I allow he drive
 ‘I allow him to drive.’
- d. *Qingkuang yunxu ta kaiche.* (Deontic modality)
 situation allow he drive

‘The situation allows him to drive.’

- e. *Tiaojian rongxu ta kaiche.* (Neutral modality)
condition allow he drive

‘The condition allows him to drive.’

For one thing, a sharp distinction can be made between the source of ‘neutral modality’ and that of ‘deontic modality’. In the case of ‘neutral modality’, the speaker is not the one who allows the subject *ta* ‘he’ to drive, and this difference sets (20c) and (20e) apart. (20d) and (20e), on the other hand, are much alike in the sense that they both relate to a factor outside of the sentence, as designated by the subject *qingkuang* ‘situation’ in (20d) and *tiaojian* ‘condition’ in (20e). However, unlike (20d), where the subject *ta* ‘he’ is given permission to drive, (20e) means that the subject is equipped with the potential to drive on a certain condition retrievable from the context. In other words, in (20d) *qingkuang* ‘situation’ is a ‘deontic source’ that carries the authority to grant permission, whereas in (20e) *tiaojian* ‘condition’ counts as an ‘enabling condition’ that makes the event possible. In support of this, *qingkuang* ‘situation’ of (20d) is replaced in (21) with an authoritative entity *falü* ‘law’, as opposed to the imaginable enabling conditions that are added to the beginning of each sentence in (21). *Tiaojian* ‘condition’ in (20e), by contrast, can only be understood as a factor that enables the subject *ta* ‘he’ to drive. This is shown by the sentences in (22).

- (21) a. *Ta you jiazhao. Falü yunxu ta kaiche.*
he own driver’s license law allow he drive
‘He has a driver’s license. The law allows him to drive.’
- b. *Ta shiba sui. Falü yunxu ta kaiche.*
he eighteen age law allow he drive
‘He is eighteen years old. The law allows him to drive.’
- c. *Ta de shili jiaozheng hao le. Falü yunxu ta kaiche.*
he POSS eyesight correct well PART law allow he drive
‘His eyesight has been corrected. The law allows him to drive.’
- (22) a. *Ta shuibao le. Zhege tiaojian rongxu ta kaiche.*
he sleep PART this condition allow he drive
‘He has got a good sleep. This condition allows him to drive.’
- b. *Ta daishang yanjing. Zhege tiaojian rongxu ta kaiche.*
he put on glasses this condition allow he drive
‘He has put on glasses. This condition allows him to drive.’
- c. *Ta xianzai you shijian. Zhege tiaojian rongxu ta kaiche.*
he now have time this condition allow he drive
‘He has time now. This condition allows him to drive.’

Another argument for our analysis comes from resemblance between ‘neutral modality’ and ‘ability modality’. First, analogous to (20e), (20b) also implies that there exists an

‘enabling condition’ which allows the subject to possess the ability of driving, as exemplified by (23a) and (23b).

- (23) a. *Ta you suoxu de zhishi. Zhege tiaojian rongxu ta kaiche.*
he have required POSS knowledge this condition allow he drive
‘He has the required knowledge. This condition allows him to drive.’
- b. *Ta you suoxu de jineng. Zhege tiaojian rongxu ta kaiche.*
he have required POSS skill this condition allow he drive
‘He has the required skills. This condition allows him to drive.’

A second shared feature is that ‘neutral modality’ may take as their subject a noun phrase filling the agentive role, as ‘ability modality’ normally does. For instance, the use of *neng* ‘can’ in the sense of ‘neutral modality’ may co-occur with a subject that acts as Experiencer or Theme, as in (24a) and (24b), but it also allows Agent to occupy the subject position, (24c) and (24d) being examples.⁹

- (24) a. *Meiyi ge bingren dou neng kaihuaikuaile.*
every CL patient all can joyful
‘Every patient can be joyful.’
- b. *Xiao hua xiao cao ye neng dedao yulu de zhirun.*
small flowers small grass also can get dew POSS moisture
‘Small flowers and grass can also be moistened by dew.’
- c. *Shui neng zai zhou yi neng fu zhou.*
water can bear boat also can overturn boat
‘Water can bear a boat and can also swallow a boat.’
- d. *Zhe gu liliang neng bangzhu ni guo wu guan zhan liu jiang.*
this CL force can help you pass five outpost kill six general
‘This force can help you go through a difficult time.’

There is, however, a minor discrepancy between ‘ability modality’ and ‘neutral modality’. As shown in (23), ‘ability modality’ is concerned with the intellectual or physical strength of the subject, i.e. a condition that is internal to the entity referred to by the subject, such as its knowledge, skills, and other intellectual or physical factors. This contrasts with (22), which indicates that ‘neutral modality’ deals with possibility contributed to by certain intellectual or physical ability of the subject. To put it differently, ‘neutral modality’ pertains to enabling conditions that may be internal or external to the entity represented by the subject. Therefore, the enabling conditions relevant to ‘ability modality’ and ‘neutral modality’ are not mutually exclusive. To reflect this overlapping feature, we interpret ‘ability modality’ as a subtype of ‘neutral modality’. From this point on either reading will be referred to by a cover term ‘capacity’, which is incorporated with ‘volition’ into the superordinate category entitled ‘dynamic modality’.

⁹ The data in (24) are taken from ‘Sinica Corpus’ by Academia Sinica.

3.4 Evaluative Modality

Of the four types of modality mentioned in this paper, evaluative has not been the focus of much attention in the literature of English modal auxiliaries largely due to its categorical status. As can be seen from Lyons' (1977:452) examples – *frankly, fortunately, possibly, and wisely* – evaluative modality typically manifests itself through adverbs in English. In Chinese, evaluative modality also appears in works on adverbs, where evaluative adverbs and epistemic adverbs are commonly bracketed together under the same category with various appellations. They are called *yuqi fuci* 'modal adverbs' by Shi (1989:137-139), Zhang J. (1994:212-214), Li (1996:374-376), and Liu (1996:123-124); *taidu fuci* 'attitudinal adverbs' by Li and Thompson (1981:321-322); *pingjia fuci* 'evaluative adverbs' by Li et al. (1990:325-329); *zhuguan de xingtai fuci* 'subjective manner adverbs' by Li (1992:131-135), *pingzhuxing fuci* 'commentary adverbs' by Zhang (2000:61-62).

By merging evaluative modality with epistemic modality to form a single category, previous studies have a strong intuitive appeal in accounting for the fact that both notions are associated with certain opinion or attitude held by the speaker. However, these two types of meaning stand in opposition in that epistemic modality relates to the speaker's commitment to the factuality of the situation described by a proposition, whereas evaluative modality concerns the speaker's evaluation towards a known fact. Therefore, a line needs to be drawn between epistemic and evaluative modality to reflect their divergence. This can be done by using the categorization adopted so far in this paper. Their homogeneous property is captured by the dominating category 'modality', under which the subordinate categories 'epistemic' and 'evaluative' represent their heterogeneous qualities.

Evaluative modality covers a wide range of attitudinal concepts that fall into two families. One expresses the opinion or attitude toward a proposition with reference to the speaker's presuppositions, including those conforming to his/her presuppositions (e.g., *nanguai* 'no wonder', *guoran* 'just as expected', and *dangran* 'of course') and those that do not (e.g., *faner* 'instead', *jingran* 'unexpectedly', and *yuanlai* 'as it turns out'). The other concerns the opinion or attitude toward a proposition in regard to the speaker's wishes, including those converging with his/her wishes (e.g., *xingkui* 'fortunately', *nande* 'rarely', and *zongsuan* 'eventually') and those diverging from his/her wishes (e.g., *kexi* 'unfortunately', *wunai* 'cannot help', and *pianpian* 'unfortunately it happened that'). The distinction between 'Presupposition system' and 'Wish system' has its root in the inclination of the semantic source. 'Presupposition' is developed upon certain objective factors, such as the speaker's past experiences or common sense shared by the speaker and the other people. 'Wish', on the other hand, is shaped by subjective factors, including the speaker's personal likes and dislikes. Thus 'Wish' reveals either a positive or negative attitude of the semantic source towards the

proposition being qualified.

A point that merits mention here is that future time cannot block the use of evaluative modals even though their function is to modify a proposition believed to be true. In fact, the truth of a proposition is not governed by the time expression appearing in the sentence. For example, the propositions in (25a) and (25b) seem to describe a condition that has not yet come true because of the phrase *mingnian* ‘next year’, an expression referring to futurity. However, what the speaker presumes to be true is not the event of changing the job, but the decision of his/her doing so. Consequently, no matter whether the speaker changes his/her job next year, to him/her this decision is an accomplished event. This explains why the future time expression *mingnian* ‘next year’ can co-occur with the evaluative modal *nanguai* ‘no wonder’.

- (25) a. *Nanguai ta mingnian yao huan gongzuo.*
no wonder he next year going to change job
‘No wonder he is going to change his job next year.’
- b. *Xingkui ta mingnian yao huan gongzuo.*
fortunately he next year going to change job
‘Fortunately he is going to change his job next year.’

Now we turn to the central concern of this paper – the feature of source involvement. *Nanguai* ‘no wonder’ and *xingkui* ‘fortunately’ are provided in (26a) and (27a) to demonstrate the use of evaluative modal expressions in a sense of presupposition and wish. *Nanguai* ‘no wonder’ implies that the speaker considers the situation described in the proposition an anticipated fact; *xingkui* ‘fortunately’ denotes that it is to the speaker’s gratification that the situation takes place. In addition, (26a) and (27a) are similar in meaning to the corresponding sentence (b) in (26) and (27). This indicates that a source of opinion or attitude (i.e. the subject *wo* ‘I’) is involved in the semantic contents of *nanguai* ‘no wonder’ and *xingkui* ‘fortunately’.

- (26) a. *Nanguai ta cizhi le.*
no wonder he resign PART
‘No wonder he has resigned.’
- b. *Wo bu jingya ta cizhi le.*
I NEG surprised he resign PART
‘I am not surprised that he has resigned.’
- (27) a. *Xingkui ta cizhi le.*
fortunately he resign PART
‘Fortunately he has resigned.’
- b. *Wo qingxing ta cizhi le.*
I gratified he resign PART
‘I am gratified that he has resigned.’

A comparison between (26)-(27) and (5)-(6) uncovers two aspects of resemblance exhibited by evaluative modality and epistemic modality. For one thing, both the two sets of sentences contain expressions of two kinds. One bears in its semantic components ‘the source of opinion or attitude’, as shown by the subject *wo* ‘I’ in each paraphrased counterpart. The other has its source marked by the subject of the sentence. Another common feature is that the semantic source implied by the former type of modal expressions must be the speaker of the utterance. Hence (26a) and (27a) can receive such readings as (28a) and (29a), while those exemplified by (28b) and (29b) are inadmissible. This point can be further elucidated by a contrast between ‘the source of judgment’ and ‘the basis of judgment’, as what we have done in (12) and (13). In greater detail, ‘the basis of judgment’ in (26) may be ‘he is not trusted with an important position’, ‘customers often complain’, or ‘he won the lottery’. In (27) the basis may be ‘there is a financial crisis in the company’, ‘his laboratory was on fire’, or ‘the new chief is not easy to get along with’. By filling these circumstances into (28) and (29), we arrive at the conclusion that what *nanguai* ‘no wonder’ and *xingkui* ‘fortunately’ encodes must be the opinion or attitude of the speaker.

- (28) a. *Genju qingshi, wo bu jingya ta cizhi le.*
 according to circumstance I NEG surprised he resign PART
 ‘According to the circumstance, I am not surprised that he has resigned.’
- b. *Genju qingshi, laoban bu jingya ta cizhi le.*
 according to circumstance boss NEG surprised he resign PART
 ‘According to the circumstance, the boss is not surprised that he has resigned.’
- (29) a. *Genju qingshi, wo qingxing ta cizhi le.*
 according to circumstance I gratified he resign PART
 ‘According to the circumstance, I am gratified that he has resigned.’
- b. *Genju qingshi, laoban qingxing ta cizhi le.*
 according to circumstance boss gratified he resign PART
 ‘According to the circumstance, the boss is gratified that he has resigned.’

4 The Feature of Source Involvement

To recapitulate, the relationship between the four types of Chinese modalities and ‘the source of opinion or attitude’ can be summarized as in the following table.

Type of modality	Example	Orientation	Source
Epistemic	<i>keneng</i> ‘may’	speaker	+
	<i>caice</i> ‘guess’	subject	–
Deontic	<i>keyi</i> ‘can’	speaker/situation	+
	<i>yunxu</i> ‘allow’	subject	–

Dynamic	<i>xiang</i> ‘would like’	subject	—
	<i>xiwang</i> ‘hope’	subject	—
Evaluative	<i>xingkui</i> ‘fortunately’	speaker	+
	<i>qingxing</i> ‘gratified’	subject	—

A note of caution is in order here. The concept of ‘orientation’ has been applied in the literature along different dimensions. For instance, Palmer (1974:100-103; 1988:98) characterizes deontic modality as ‘discourse-oriented’ to reflect possible deontic sources it may be linked with, and dynamic modality as ‘subject-oriented’ to portray the entity it may predicate about. Alternatively, Bybee and Fleischman use ‘agent-oriented’ to mark deontic meanings which ‘predicate conditions on an agent with regard to the completion of an action referred to by the main predicate’. The term ‘speaker-oriented’ is left to deontic meanings that ‘represent speech acts through which a speaker attempts to move an addressee to action’ (1995:6). In contrast to these analyses, this paper draws on ‘orientation’ for the delineation of semantic sources involved in the use of modal expressions. A three-fold division into ‘speaker-oriented’, ‘situation-oriented’, and ‘subject-oriented’ has been provided in the table above to spell out entities that may hold the opinion or attitude put over by the speaker of the utterance.

In the column to the farthest right of this table, the symbol [+] means that ‘the source of opinion or attitude’ is involved in the meaning of the expression listed to its left. The reverse situation is marked [-]. It can be observed that the status of [+] or [-] bears a close relationship with the feature of ‘orientation’, as specified in the second rightmost column. For ‘subject-oriented’ modals, the source is articulated through the subject of the sentence. It follows that the source cannot possibly be part of the meaning inherent to this type of modals. They are thus categorized as [-] in reference to the value of source involvement. Along the same lines, a modal labeled [+] incorporates in its meaning a source that is ‘deictic’, viz. referring directly to an object in the context within which the utterance takes place. Such referent may be the person who utters the sentence or other potential contextual ‘situations’ as illustrated in previous sections.

4.1 Main Findings

A number of important facts can be deduced from the foregoing discussion. One concerns the semantic property ‘source involvement’ and the pragmatic effect attached to it. Aside from dynamic meanings, subclasses of Chinese modality can be communicated through two kinds of lexical items: one characterized by [+source] and the other by [-source]. The selection between them is regulated by two factors. First, given the fact that epistemic and evaluative modals marked [+source] bear in themselves a semantic source that must be

construed as the speaker of the utterance, they are used only when the speaker intends to convey his/her own opinion. In other words, the choice of modal expressions rests in part on the reference of the source. Second, when both [+source] and [-source] kinds are available, the speaker may choose either one depending upon whether it is necessary to specify 'the source of opinion or attitude'. In the case of [+source], the source is implied along with the use of modal expressions. It turns out that the source carries less information weight. The core function of such utterance is thus to pass on a certain type of opinion or attitude. In the case of [-source], where no source is involved, modals are required to take an obligatory argument, i.e. the subject, to specify the one responsible for the opinion or attitude. Expressed by an element occupying a position in the sentence, this source carries information of equivalent significance with the type of opinion or attitude presented, other things being equal. In short, Chinese modal expressions can be assigned either [+source] or [-source], from which the speaker may choose in accordance with the reference of the source and the prominence of the information it conveys.

Another generalization relates to the nature of 'orientation'. When stating the viewpoints of a third party, the speaker needs to rely on 'subject-oriented' modal expressions so that the source can be identified. However, for reasons of communicative efficiency, speakers do not need to do so when uttering opinion or attitude of their own. This may well be reached through the use of 'speaker-oriented' expressions, which implies 'the source of opinion or attitude' in a covert manner. As for 'situation-oriented' modality, we speculate that it might be an extended interpretation from 'speaker-oriented' modality. Occasionally what the speaker intends to do is to make a statement about the right or obligation of the subject. There is no need to have the source explicitly stated. Hence 'subject-oriented' expressions are not the one most suitable for use. This leads the speaker to turn to 'speaker-oriented' modals so that the information focus can fall solely on permission or demands. Then it is not the speaker who puts forth the opinion or attitude in question, but some other 'situation' the reference of which needs to be inferred from the context of the utterance.

A third point made in this paper is connected to the definition of modality. As noted earlier, the term 'modality' has been assumed in previous studies as synonymous to 'the speaker's opinion or attitude'. However, as shown in the above table, only two groups of items appear to meet this criterion: speaker-oriented modals and subject-oriented modals that co-occur with the first person subject such as *wo* 'I' and *women* 'we'. However, such conclusion results in dilemmas. One is that capacity modality will have to be excluded from the modal inventory since it describes a certain characteristic of the subject instead of the speaker's opinion or attitude. In addition, it is also problematic to claim that subject-oriented expressions can be seen as modals only when predicating on a first person subject. The issue is that the semantic categorization of lexical items is determined by their semantic properties, which should not be susceptible to the presence of the other elements in the sentence. This

same argument should be applied to the defining criteria of modality. Given these limitations, it is concluded that ‘the speaker’s opinion or attitude’ does not always reflect back the nature of modality and is therefore not properly qualified as the norm for modality.¹⁰

4.2 Further Issues

The semantic categorization on the basis of ‘source involvement’ brings to light important implications in the study of Chinese grammar. The focus of this paper is on ‘the source of opinion or attitude’ embedded in Chinese modal expressions. According to this feature modals are split into [+source] and [–source]. Such semantic division correlates with the syntactic categorization addressed in this paper.

On one hand, as observed in previous sections, modals featured by [–source] require the coexistence of ‘the source of opinion or attitude’ to guarantee a sentence wherein a semantically complete proposition is portrayed. Given the fact that predicates are elements qualified to select obligatory arguments, modals assigned [–source] may function as main verbs to ensure the presence of a subject that specifies the semantic source. As can be seen in the previous table, the lexical categorization of modals in [–source] is beyond controversy—all act as main verbs in the sentence.

On the other hand, modals carrying the feature [+source] are not dependent upon other elements to signal their source. They construct a grammatical sentence once co-occurring with the described proposition. In consequence, modalities grouped as [+source] are not necessarily main verbs. They can also be realized in the syntactic level by non-predicate elements. In Chinese, adverbs used to modify a proposition yield an alternative. This offers an explanation for the fact that, within the category of [+source], there have been disputes over the matter of how to distinguish modal verbs from modal adverbs. To illustrate, the deontic modal expression *bixu* ‘must’ has been recognized as either a verb (e.g., Tang and Tang 1997:193) or an adverb (e.g., Lu 1980:65; Zheng 1989:62; Fu and Zhou 1991:188; CKIP 1993:4; Zhang J. 1994:313). Correspondingly, the evaluative modal expressions *nanguai* ‘no wonder’ and *xingkuai* ‘fortunately’ are analyzed as verbs by Tsao (1996:178) after having long been accepted as adverbs. Therefore, the semantic property advocated in this paper is of significance to the lexical categorization of modal expressions in Chinese. This raises another issue worthy of investigation in the future.

References:

Bybee, Joan L. 1985. *Morphology: A Study of the Relation between Meaning and Form*. Amsterdam: John Benjamins.

¹⁰ Space limitations do not permit us to explore this issue here. For the interested reader, Hsieh (2004) puts forward another definition along the lines of ‘possible world’.

- Bybee, Joan L., William Pagliuca, and Revere D. Perkins. 1991. Back to the future. In Elizabeth Closs Traugott, and Bernd Heine (eds.), *Approaches to Grammaticalization Volume II*. pp.17-58. Amsterdam: John Benjamins.
- Bybee, Joan, and Suzanne Fleischman (eds.). 1995. *Modality in Grammar and Discourse*. Amsterdam: John Benjamins.
- Chang, Miao-hsia. 1996. The grammaticalization of *beh* in Taiwanese Hokkien. *Studies in Linguistic Sciences* 26.1/2: 39-59.
- Chao, Yuen-Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley; Los Angeles; London: University of California Press.
- Chu, Chauncey Cheng-Hsi. 1998. *A Discourse Grammar of Mandarin Chinese*. New York: Peter Lang Publishing.
- CKIP. 1993. *Zhongwen Cilei Fenxi* (Analysis of Chinese Lexical Categories). 3rd ed. Taipei: CKIP, Academic Sinica.
- Coates, Jennifer. 1983. *The Semantics of the Modal Auxiliaries*. London: Croom Helm.
- Fu, Yu-Xian, and Xiao-Bing Zhou. 1991. Kouyu zhong de zhudongci (Auxiliaries in spoken language). Chinese Language and Literature Publishing (ed.), *Yufa Yanjiu he Tansuo Vol.5* (Grammar Research and Exploration Vol.5). pp.184-196. Beijing: Language and Literature Publishing.
- Hammer, A. E. 1983. *German Grammar and Usage*. London: Edward Arnold.
- Heine, Bernd, Ulrike Claudi, and Friederike Hunnemeyer. 1991. *Grammaticalization: A Conceptual Framework*. Chicago: The University of Chicago Press.
- Heine, Bernd. 1995. Agent-oriented vs. epistemic modality: some observations on German modals. In Joan Bybee and Suzanne Fleischman (eds.), *Modality in Grammar and Discourse*. pp.17-53. Amsterdam: John Benjamins.
- Hofmann, Th. R. 1993. *Realms of Meaning: An Introduction to Semantics*. London; New York: Longman.
- Hsieh, Chia-Ling. 2001. Guoyu biao qiangdiao de 'shi' yu biao yuduan de 'hui' (Assertive 'shi' and predictive-assertive 'hui' in Mandarin Chinese). *Tsinghua Xuebao* (Tsing Hua Journal of Chinese Studies) 31.3: 249-300.
- Hsieh, Chia-Ling. 2004. A semantic analysis on Chinese modals. Paper presented at *The 12th Annual Conference of the International Association of Chinese Linguistics & the 2nd International Symposium of Chinese Linguistics*. June 18-20. Tianjin, China: Nankai University.
- Hu, Yu-Shu, and Xiao Fan (eds.). 1995. *Dongci Yanjiu* (On Verbs). Kai Fong: He Nan University Publishing.
- Huang, Yu-Chun. 1999. *Hanyu Nengyuan Dongci zhi Yuyi Yanjiu* (A Semantic Study on Chinese Modal Verbs). Unpublished M.A. thesis. Taipei: Institute of Chinese Language Teaching, National Taiwan Normal University.

- Li, Charles N., and Sandra A. Thompson. 1981. *Mandarin Chinese: A Functional Reference Grammar*. Berkeley; Los Angeles: University of California Press.
- Li, Charles N., and Sandra A. Thompson. 1983. The category 'auxiliary' in Mandarin. In Ting-Chi Tang, Robert L. Cheng, and Ying-Che Li (eds.), *Studies in Chinese Syntax and Semantics*. pp.113-126. Taipei: Student Book.
- Li, Jin-Xi. 1992. *Xinzhū Guowu Wenfa* (New Edition on Chinese Grammar). Beijing: Shang Wu Publishing.
- Li, Quan. 1996. *Fuci he fuci de zai fenlei* (Adverbs and the subcategorization of adverbs). In Ming-Yang Hu (ed.), *Cilei Wenti Kaocha* (Surveys on Problems of Lexical Categories). pp.364-390. Beijing: Beijing Linguistics Institute Publishing.
- Li, Ying-Zhe, Liang-Wei Zheng, Shang-Xian He, and Yan-Yao Hou. 1990. *Shiyong Hanwu Cankao Yufa* (Practical Chinese Reference Grammar). Beijing: Beijing Linguistics Institute Publishing.
- Liu, Yue-Hua, Wen-Yu Pan, and Wei Gu. 1996. *Shiyong Xiandai Hanyu Yufa* (Practical Modern Chinese Grammar). Taipei: Normal University Publishing Co. Ltd.
- Lu, Shu-Xiang. 1979. *Hanyu Yufa Fenxi Wenti* (Analytical Problems in Chinese Grammar). Beijing: Shang Wu Publishing.
- Lu, Shu-Xiang. 1980. *Xiandai Hanyu Babai Ci* (Eight Hundred Words in Modern Chinese). Hong Kong: Shang Wu Publishing.
- Lu, Shu-Xiang. 1992. *Zhongguo Wenfa Yaolue* (Outline of Chinese Grammar). Taipei: Wen Shi Zhe Publishing.
- Lyons, John. 1977. *Semantics*. Cambridge: Cambridge University Press.
- McCawley, James D. 1992. Justifying part-of-speech assignments in Mandarin Chinese. *Journal of Chinese Linguistics*. 20.2: 211-245.
- Palmer, F. R. 1974. *The English Verb*. London: Longman.
- Palmer, F. R. 1979. *Modality and the English Modals*. London; New York: Longman.
- Palmer, F. R. 1986. *Mood and Modality*. Cambridge: Cambridge University Press.
- Palmer, F. R. 1988. *The English Verb*. 2nd ed. London; New York: Longman.
- Palmer, F. R. 1990. *Modality and the English Modals*. 2nd ed. London; New York: Longman.
- Palmer, F. R. 2001. *Mood and Modality*. 2nd ed. Cambridge: Cambridge University Press.
- Perkins, Michael R. 1983. *Modal Expressions in English*. Norwood, New Jersey: ALEX Publishing Co.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1985. *A Comprehensive Grammar of the English Language*. London; New York: Longman Group Limited.
- Rescher, N. 1968. *Topics in Philosophical Logic*. Dordrecht: Reidel.
- Shi, Cun-Zhi. 1989. *Yufa Xinbian* (New Edition on Grammar). Shang Hai: Hua Dong Normal College.

- Steele, Susan. 1978. The category AUX as a language universal. In Joseph H. Greenberg, Charles A. Ferguson, and Edith A. Moravcsik (eds.), *Universals of Human Language Volume 3: Word Structure*. pp.7-45. Stanford, California: Stanford University Press.
- Sun, De-Jin. 1996. *Hanyu zhudongci de fanwei* (The scope of Chinese auxiliaries). In Ming-Yang Hu (ed.), *Cilei Wenti Kaocha* (Surveys on Problems of Lexical Categories). pp.286-307. Beijing: Beijing Linguistics Institute Publishing.
- Tang, Ting-Chi, and Zhi-Zen Tang. 1997. Huayu qingtaici xulun (Introduction to Chinese modal expressions). In World Chinese Education Association (ed.), *Diwujie Shijie Huayuwen Jiaoxue Yantaohui Lunwenji: Yuwen Fenxi* (Proceedings of the Fifth World Chinese Teaching Conference: Linguistic Analysis). pp.175-197. Taipei: World Chinese Publishing.
- Tiee, Henry Hung-Yeh. 1985. Modality in Chinese. In Nam-Kil Kim, and Henry Hung-Yeh Tiee (eds.), *Studies in East Asian Linguistics*. pp.84-96. Los Angeles: Department of East Asian Languages and Cultures, University of Southern California.
- Tiee, Henry Hung-Yeh. 1986. *A Reference Grammar of Chinese Sentences with Exercises*. The University of Arizona Press.
- Tsang, Chui-Lim. 1981. *A Semantic Study of Modal Auxiliary Verbs in Chinese*. Ph.D. dissertation. California: Stanford University.
- Tsao, Feng-Fu. 1990. *Sentence and Clause Structure in Chinese: A Functional Perspective*. Taipei: Student Book.
- Tsao, Feng-Fu. 1996. Hanyu de tisheng dongci (Chinese raising verbs). *Zhongguo Yuwen* (Chinese Language and Literature) 252: 172-182.
- Wang, Li. 1987. *Zhongguo Yufa Lilun: Shangce* (Chinese Grammatical Theories: Vol. 1). Taipei: Lan Deng Publishing.
- Zhang, Jing. 1994. *Hanyu Yufa Yinan Tanjie* (Solutions to Chinese Grammatical Problems). Taipei: Wen Shi Zhe Publishing.
- Zhang, Li-Li. 1994. *Xiandai Hanyu zong de Faxiangci* (Modals in Modern Chinese). Taipei: CKIP, Academic Sinica.
- Zhang, Yi-Sheng. 2000. Xiandai hanyu fuci de xingzhi, fanwei yu fenlei (The properties, scopes and categorization of modern Chinese adverbs). *Yuyan Yanjiu* (Language Research) 39: 51-63.
- Zheng, Liang-Wei. 1989. *Guoyu Changyong Xuci ji qi Taiyu Duiyingci Shili* (Illustrations of Common Functional Words in Mandarin Chinese and Their Taiwanese Corresponding Words). Taipei: Crane Publishing Co. Ltd.
- Zhu, De-Xi. 1982. *Yufa Jiangyi* (Grammar Handouts). Beijing: Shang Wu Publishing.