

Modals in imperatives

A view from Chinese

Wei-wen Roger Liao

Academia Sinica

Two competing views regarding the syntax-semantics of imperatives can be distinguished. A minimal view assumes that imperatives are properties in semantics, and their syntax is rather bare, while the modal approach maintains that imperatives are propositions that contain a (covert) performative modal in syntax. This paper supports the modal approach from data patterns in two Chinese languages. It is observed that the performative modal particle can be overtly pronounced in imperatives in Chinese. I also examine the Imperative-and-Declarative (IaD) sentences, which have been employed to counter the modal approach. Confirming earlier generalizations, Chinese provides empirical evidence for the claim that there are two distinct types of IaDs. The possibility of an overt performative modal appearing in one but not the other allows for a clear distinction between genuine imperative antecedents and their imperative-like counterparts. Such distinction provides further empirical support for the modal analysis of imperatives.

Keywords: Imperatives, Modals, Performativity, Mandarin Chinese, Southern Min

1. Introduction

Controversy arises over the syntax-semantics of imperatives concerning whether an imperative sentence such as *Sit down!* contains a hidden modal (or attitudinal) element, as illustrated in (1) (see Schwager 2006; Kaufmann 2021 for an overview):

- (1) Close the door! = You must/should close the door.

This paper offers novel data from two Chinese languages, which may shed new light on the issue. Crucially, it is demonstrated that modal particles in Chinese imperatives can be detected in overt syntax under the right circumstances. Some

of the key examples from Mandarin Chinese are given below (as a priority necessity modal, *yao* can mean ‘must’ or ‘should’. For convenience, I simply gloss it as ‘must’ in most cases; see Section 3.1):

- (2) a. (*Yao*) *guan men (o)!*
must close door SFP
‘Close the door!’
b. *Bu-yao/bie guan men!*
NEG-must/NEG.IMP close door
‘Don’t close the door!’

In addition to Mandarin Chinese, data are also drawn from Taiwanese Southern Min (henceforth TSM), in which negative imperatives, or prohibitive sentences, not only require the overt presence of a modal element, but a particular negative form (*m*-prefix) is used when the modal element that hosts the negative form is used in a performative sense, as shown in the following contrast:

- (3) *M-thang/bo-thang kuainn-mng.*
NEG-can/NEG-can close-door
a. ‘Don’t close the door!’ (with *m*-)
b. ‘(Someone) has no way to close the door.’ (with *bo*-)

The facts from Chinese languages therefore support the analysis that imperatives are hidden modalized sentences (Schwager 2006; Kaufmann 2012; Medeiros 2013; Isac 2015), and this offers an opportunity for better understanding the syntax-semantics of the modal elements that occur in imperatives. Moreover, this paper will address the challenge from atypical imperative sentences, such as the Imperative-and-Declaratives (IaDs) (Han 1998; Russell 2007; von Fintel & Iatridou 2017; Keshet & Medeiros 2019):

- (4) a. Invest in this company, and you will be rich.
= You must/should invest in this company..
b. Eat the mushroom, and you will be poisoned.
≠ You must/should eat the mushroom..
Inference: ‘Do not eat the mushroom!’

What is particular about IaDs is that they sometimes admit a modal meaning like (4a), but sometimes they do not, as in (4b), which may even give rise to a negative inference so that the addressee is warned against the said action. In view of this problem, it is contended that there are two types of IaDs (as proposed in Kaufmann 2012 and Keshet & Medeiros 2019), and Chinese provides empirical support for making such distinction through the existence of an overt performative modal.

The paper is organized as follows: Section 2 reviews the controversy surrounding the syntax and semantics of imperatives. Section 3 examines data from Mandarin and TSM and illustrates how these data support the modal approach. In Section 4, we confront the problematic cases involving IaDs from the perspective of Chinese. Section 5 concludes the paper.

2. Modals in imperatives – the controversy

It has been observed that imperatives can be compared to priority modal sentences (including deontic, bouletic, and teleological modals) in terms of their modal flavors (Portner 1997), as illustrated in (5) to (7). An imperative sentence can be used to give an order, which corresponds to deontic modals (related to a rule or moral value), to start an invitation, which corresponds to bouletic modals (related to a preference or wish), or to make a suggestion, which corresponds to teleological modals (related to a goal or purpose):

- (5) a. Sit down right now! (order)
b. Noah should sit down right now, given that he's been ordered to do so. (deontic)
- (6) a. Have a piece of fruit! (invitation)
b. Noah should have a piece of fruit, given that it would make him happy. (bouletic)
- (7) a. Talk to your advisor more often! (suggestion)
b. Noah should talk to his advisor more often, given that he wants to finish his degree. (teleological)

Despite their functional similarities, there is no consensus as to whether imperatives may actually contain a modal in their syntactic or semantic structures. This section summarizes two competing approaches. Section 2.1 introduces the minimal view (Portner 2004, 2007), which assumes no modal in the syntax-semantics of imperatives. Section 2.2 presents the opposite modal approach (Kaufmann 2012; Isac 2015), and Section 2.3 lays out the new challenges to the modal approach from the Imperative-and-Declaratives (IaDs) (von Stechow & Iatridou 2017). Since there have been other introductory articles on this issue (Portner 2016; Kaufmann 2021, 2024), we will keep our discussion brief in this section. Readers interested in the theoretical background of the issue are encouraged to consult those articles and the references therein.

2.1 The minimal view

Despite their functional similarities, Portner (2004, 2007) points out that imperatives and modalized sentences are not the same type of semantic object. Semantically, imperative sentences are not propositions, but they denote properties of the addressee, as in (8) (Alternatively, these expressions have been treated as non-propositional ‘action terms’ in Mastop 2005 and Barker 2019, or as semi-propositional objects underspecified for tense and modality in Huntley 1984). Portner (2007) pursues a dynamic approach, in which the imperative meaning comes from a pragmatic function that updates the addressee’s To-Do List (TDL). The mechanism is parallel to assertion in declarative sentences, which has the pragmatic function in updating the Common Ground (CG) by adding new propositions to the CG (Stalnaker 1978, 2002).

- (8) $\llbracket \text{Sit down!} \rrbracket = [\lambda w. \lambda x: x = \text{the addressee in the context. } x \text{ sits down in } w.]$

The semantics of the imperative in (8) is rather bare, in the sense that it does not involve a modal semantics, and this is reflected in its syntax by the lack of any modal functional projection (see Zanuttini 2008 and Zanuttini, Pak & Portner 2012). In fact, Portner (2004, 2007) argues that imperatives are not underlying modal sentences because not every priority modal can be used in a performative sense. In English, for example, while *must* is used in a performative sense in the matrix clause (Ninan 2005) (9a), its performative use is lost when it is embedded (*since...must*) (9b):

- (9) a. #You must go to confession, but you’re not going to.
b. Since John must go to confession, he should find a church soon. [non-performative]

This minimal view, however, does not work for *wish*-imperatives (e.g., *Please be there!*) because it is not obvious whether there is a To-Do List to begin with. Furthermore, as pointed out in Starr (2020: 14), it is not the case that imperatives are totally insensitive to CG, as the following imperatives are infelicitous, and this presents another challenge to the minimal analysis (in which the TDL does not involve information in CG):¹

- (10) a. # Unicorns have never existed, and never will. Bring me a unicorn!
b. # The door is open. Open the door!

1. The problem raised by Starr (2020) can be circumvented by implementing additional assumptions on the agent’s commitment state (Portner 2007). However, see Kaufmann (2012: 50–54) for challenges that arise from these additional assumptions. I thank an anonymous reviewer for pointing this out to me.

2.2 The modal approach: Kaufmann (2012) and Isac (2015)

Kaufmann (2012) argues that an imperative can be identified with a hidden deontic/priority modal sentence, where the modal is used in a performative sense (I will set aside the complication that *must* in the main clause tends to be used performatively, whereas *should* is only optionally so; see Ninan 2005 and Kaufmann 2012):

- (11) Sit down! = [(You must/should) sit down!]

A modal is used performatively when it triggers certain presuppositions (or felicitous conditions), including (i) Epistemic Authority Condition (EAC), (ii) Epistemic Uncertainty Condition (EUC), and (iii) Ordering Source Restriction (OSR) (see Kaufmann 2012, 2021 for details). EAC assumes that the speaker is in a suitable position to issue the relevant speech act. EUC states that the speaker knows that the intended action is possible for the addressee to carry out but not necessary (not taken for granted) when the imperative is issued. Finally, OSR states that imperatives are felicitous under two conditions: (A) When there is a contextually salient decision problem, the ordering source is any prioritizing ordering source that provides relevant criteria for the addressee to solve the decision problem (e.g., what best serves the addressee's purpose/desire/duty). This is illustrated in (12):

- (12) A. How do I go to Harlem? [a decision problem]
 B. (You should) Take the A Train! [the speaker considers this as an optimal solution given the teleological ordering source]

(B) When there is no salient decision problem, then the ordering source is according to the speaker's preference. This can be observed in *wish*-type imperatives (or optatives) like (13) (examples owing to an anonymous reviewer):

- (13) a. Please be in that room! [talking to an imaginary addressee]
 b. Please don't have forgotten the keys!

Focusing on the syntax-semantics interface, Isac (2015) also argues that imperatives always contain a modal projection. Based on the theory of modality in Hacquard (2006), Isac (2015) argues that the imperative modal is identified as a speaker-addressee (SA)-oriented deontic modal.² Unlike the root (deontic and dynamic) modals, which are generated under TP, SA-oriented deontic modals are located higher than TP (see also Rivero & Terzi 1995 and Oikonomou 2016 for

2. The relevant modal is termed a 'true' deontic modal in Isac (2015), though the rationale for this label is not made explicit. To avoid potential confusion and in line with the spirit of Speas and Tenny (2003) and Wiltschko (2021), I will label it as an SA-oriented modal.

a similar proposal for the imperative modal in Greek), and because of their relatively high position, the conversational modal background is anchored to the speaker-addressee (in the sense that the modal base and the ordering source are related to the speaker and/or addressee). In this respect, SA-oriented deontic modals resemble epistemic modals in not being bound by the matrix tense. Isaac's theory can be illustrated in (14). (14a) is a hortative (imperative) sentence uttered by a mother to the baby's nanny, and (14b) is an epistemic modal sentence. Both the SA-oriented deontic/imperative modal in (14a) and the epistemic modal in (14b) are based on the obligation or evidence possessed by the speaker/addressee at the speech time. On the other hand, the root deontic (14c) is SA-oriented and is bound by the matrix subject at the relevant reference time:³

- (14) a. The baby (must) sleep at eight! (in view of your obligation at the speech time)
b. The baby must have slept. (in view of my evidence at the speech time)
c. Mary was able to/could take the train last night. (in view of Mary's circumstances and abilities last night)

The modal approach, however, bears the burden of proof, as empirical evidence is still lacking. Crosslinguistically, imperatives tend to be reduced clauses, and functional items that can be found in some of the languages can hardly be identified as modals (Portner 2016). Furthermore, it is not clear how we can distinguish modalized sentences in general (which are propositions with truth values) from imperatives (which do not seem to have truth values).

2.3 Challenges from Imperatives-and-Declaratives

A considerable challenge to the modal approach also comes from von Stechow & Iatridou (2017), who claim that non-canonical imperatives, such as Imperative-and-Declaratives (IaDs), undermine the modal approach (see also Starr 2020).

3. A potential counterexample to the claim that epistemic modals take scope above tense is indicated in (i), which describes an epistemic possibility in the past (from von Stechow & Gilles 2008):

- (i) A. Why did you look in the drawer?
B. My keys might have been in there. (=It was possible that my keys were in the drawer)

Hacquard (2006: 159) acknowledges this problem and argues that these examples involve a covert attitude predicate '*I thought that*'. The epistemic *might* is interpreted under the past tense of the attitude predicate, *I thought that [my keys might have...]*, thus creating an illusion that *might* is interpreted under the past tense of its own clause. See Hacquard (2006: Ch. 3, Section 4.4) for discussion.

Unlike regular imperatives, IaDs cannot be easily paraphrased as a modalized sentence, as shown in (15):

- (15) IaDs
- a. Eat this, and you'll be sick!
 - b. #You must eat this, and you'll be sick!

Having noticed this very problem, Kaufmann (2012) assumes that IaDs like (15b) might contain a minimal sufficiency modal, such as *only have to* (e.g., *You only have to eat this, and you'll be sick!*). The question remains, however, what distinguishes some IaDs from regular imperatives and how we can identify them. We will return to this problem in Section 4.

3. Imperatives in the Chinese languages

In this section, I examine imperatives in two Chinese languages, Mandarin and TSM. As it turns out, they offer morphosyntactic evidence in favor of three key proposals that lie at the core of the modal approach:

- (16) a. Modals in imperatives are priority necessity modals. (Section 3.1)
- b. Performative modals in imperatives can be morphosyntactically distinct from descriptive modals in declaratives. (Section 3.2)
- c. Modals in imperatives occupy a position higher than epistemic modals in the left periphery. (Section 3.3)

Before we delve into the issues mentioned above, we need to settle down on two fundamental questions. The first question concerns how a clause in Chinese can be identified as an imperative clause. The second question, closely related to the first one, is whether the modalized *yao*-clause can be regarded as an imperative clause, rather than a declarative clause that has an indirect performative meaning (e.g., *The bear is coming* carries a performative implicature: *Run away!*)

These questions are nontrivial since Chinese does not have a designated verbal mood marker for imperative clauses (or more broadly, jussive clauses). What is more, Chinese is a *pro*-drop language. As a result, unlike English, we cannot rely on the existence of an empty subject to identify imperative clauses in Chinese.

In this paper, I adopt a semantic definition in identifying imperatives (Schwager 2006; Mastop 2011; Condoravdi & Lauer 2012; Kaufmann 2012), which suggests that imperative clauses have a conventional function of expressing instructions or speaker's effective preference, rather than presenting or seeking information, which are the conventional functions of declarative clauses and interrogative clauses, respectively. Following Mastop (2011: 310), this approach

allows us to include certain modalized clauses (e.g., *You must go to church*) and infinitival clauses (e.g., *I am asking you to leave*) as generalized imperative clauses (see also Huntley 1984). Both types of clauses cannot be judged true or false and are therefore distinct from typical propositions in declarative clauses. The analysis in this paper, however, slightly differs from Mastop's (2011) analysis and defends a position closer to the modal analysis in Schwager (2006)/Kaufmann (2012), who proposes that imperatives are still propositions, yet it is the performative meaning associated with the (hidden) modal in imperatives that impedes the truth-value judgement.

Empirically, there are other grammatical indications that imperative clauses should be treated as an independent clause type in Chinese and not simply a declarative sentence with an empty subject *pro*. For example, as a general property of imperatives, the (empty) subject is addressee-oriented (Bolinger 1967; Potsdam 1998; Zanuttini 2008, among others). Therefore, unlike the empty subject *pro* in declarative sentences, which refers to a contextually salient individual or the overt topic (Huang & Yang 2024), the empty subject in imperatives always refers to the addressee, as shown in (17). (17a) introduces a salient individual as a topic. (17b)–(c) show that in this context, the imperative subject in (17b) still refers to the addressee, while the empty *pro* subject in (17c) refers to the topic *Lisi*:

- (17) a. *Lisi_i ne?*
 Lisi Q
 'How about Lisi?'
 b. *(Ni/#ta_{i/j}) gan-zou ta_i!* [imperative]
 2SG/3SG chase-away 3SG
 '(You) chase him away!'
 c. *pro_{i/??k} gan-zou(-le) ta_{??i/j}* [declarative]
 chase-away 3SG
 'Lisi chased him/her away.' (vs. *??*I/you chased Lisi away.*)

This property also extends to modalized imperative clauses, thereby providing empirical support for identifying them as imperatives (see below for the interpretative possibilities of the modal particle *yao* in Chinese):

- (18) a. *Lisi_i ne?*
 Lisi Q
 'How about Lisi?'
 b. *(Ni/#pro_{i/j}) yao gan-zou ta_i o!* [imperative]
 2SG/3SG must chase-away 3SG SFP
 '(You should) chase him away!'

- c. $pro_{i/??k}$ *yao gan-zou ta_{j/??i}* [declarative]
 want chase-away 3SG
 ‘Lisi wants to chase him away.’ (vs. $??^*$ ‘I/you want to chase Lisi away.’)

The rest of the section is devoted to the discussion of modal particles in imperative clauses in Chinese and their roles in shaping the directive force and performative meaning in imperatives.

3.1 Priority necessity modals

In general, a modal particle is optional in positive imperatives, but it is obligatory in prohibitives (see the next section). Modal particles that appear in positive imperatives have an emphatic function, reminiscent of the English *do* in *Do open the window!* They serve to make the request sound more urgent or insistent. Consequently, a sentence-final particle (SFP), such as *o* or *hah* is often required when *yao* is present to reflect the marked tone in issuing the command or request, as illustrated in (19). The SFP, in contrast, is optional in bare imperatives:⁴

- (19) a. (*Yao*) *zhuyi kan (o)* [M]
 must closely watch SFP
 ‘Watch closely (man)!’
 b. (*Ai*) *lin-tsin thak-tsheh (hah)*! [TSM]
 must seriously study SFP
 ‘Study hard (man)!’

Another context that requires the modal particle to be overt is when there is an imperative adverb, such as *qianwan* ‘by all means’ in Mandarin (Yue-Hashimoto 1999; Yip 2016), or *tshianban* ‘by all means’ in TSM (lit. ‘one.thousand-ten.thousand’), which is also used to strengthen the speaker’s tone, as in (20a) in Mandarin and (20b) in TSM. Note that these adverbs cannot occur in declarative sentences,

4. The sentence-final particles, *o* and *hah*, can also occur in declaratives with the same emphatic function. I assume they are analogous to the notifiational particle *yo* in Japanese (McCready & Davis 2020). Following McCready & Davis (2020), I gloss them using the English particle ‘man’:

- (i) *Wai-mian zai xiayu o.*
 outside PROG rain SFP
 ‘It is raining outside (man)!’

The fact that they can appear in declaratives also shows that it is not the SFP that shifts the modalized *yao*-clause into an imperative sentence (this contrasts with the case of *please*, which can shift a modal question or statement into a performative in English: *Can you pass the salt, please?* See Asher & Lascarides 2001). I thank a reviewer for urging me to clarify this point.

suggesting that these modalized expressions are not merely modalized declaratives with a directive inference, as shown in (21):

- (20) a. *(Ni) qianwan yao zhuyi kan!* [imperative]
 2SG by.all.means must closely watch
 ‘Do watch closely (by all means)!’
- b. *(Li) tshianban ai lin-tsin thak-tsheh!* [imperative]
 2SG by.all.means must seriously study
 ‘Do study hard (by all means)!’
- (21) **Zhangsan qianwan hui zhuyi kan.* [declarative]
 Zhansan by.all.means will closely watch
 Intended: ‘Zhangsan will watch closely (by all means).’

This section demonstrates that the modals occurring in regular imperatives are restricted to priority necessity modals, such as *yao* ‘must/should’ in Mandarin [M] and *ai* ‘must’ in TSM. To illustrate with Mandarin, the following examples show that *yao* can be used as a (descriptive) priority modal, drawing on a deontic, bouletic, and teleological source (Portner 2009):

- (22) a. *Deontic (in view of the moral/legal obligation)*
Mei-ge ren dou yao jiao shui.
 every-CLF person all must pay tax
 ‘Everyone must pay their taxes.’
- b. *Bouletic (in view of the preference/desire)⁵*
Zhangsan (xiang-)yao chi bingqilin.
 Zhangsan want/must eat ice.cream
 ‘Zhangsan wants to eat ice cream.’
- c. *Teleological (in view of the goal/purpose)*
Ta yao xie lunwen (cai neng biye).
 3SG must write thesis only can graduate
 ‘He must complete his thesis before he can graduate.’

In imperatives, the modal particle *yao*, which utilizes similar ordering sources, is employed by the speaker to impose an obligation on the addressee (as an effective preference; see Condoravdi & Lauer 2012) or provide an optimal solution in view of the addressee’s goal (Kaufmann 2012). Here, the modal is no longer used in a

5. Notice that the modal particle *yao* in Mandarin is ambiguous between a speaker-bouletic modal, describing the speaker’s preference (meaning ‘must/should’) or a subject-bouletic modal, describing subject/agent’s preference (meaning ‘want’). See our discussion below for distinctions between the two uses. For other uses of the modal particle *yao* in Mandarin, see Lin (2012) and the references therein.

descriptive sense, but it is used in a performative sense. Like canonical imperatives, the performative *yao* can serve various imperative functions:

- (23) a. (*Yao jiao-shui (o)*)! [command]
 must pay-tax SFP
 ‘Pay your tax!’ (in view of your moral/legal obligation)
- b. (*Yao duo chi-dian (o)*)! [advice]
 must more eat-some SFP
 ‘Eat some more!’ (in view of your preference/desire)
- c. (*Yao da lan-xian (o)*)! [suggestion]
 must take blue-line SFP
 ‘Take the Blue Line!’ (in view of your goal/purpose)
- d. *Baituo!* (*Yao zai nali (a)*)! [wish]
 please must in there SFP
 ‘Please be there!’ (in view of speaker’s preference/desire)

The following test confirms the performative status of the modal particle *yao* since it is not plausible for speakers who utter imperatives to cancel their own requests (we will return to this point in the next subsection):

- (24) a. *Yao renzhen dushu (o), (#danshi wo bu-yao ni zheyang zuo)*!
 must hard study SFP but 1SG NEG-want 2SG so do
 ‘Do study hard (#but I don’t want you to)!’
- b. *Qianwan yao zhuyi, (# danshi wo bu-yao ni zheyang by.all.means must pay.attention but 1SG NEG-want 2SG so zuo)*!
 do
 ‘Do pay attention (#but I don’t want you to)!’

A skeptical reader, however, might challenge the analysis by pointing out that *yao* can also have a future-oriented use in Mandarin Chinese, as in (25), so that when *yao* occurs in imperatives, it might simply signal the future-oriented ‘irrealis’ meaning of imperatives, and it has nothing to do with whether the modal *yao* is used descriptively or performatively:

- (25) a. *Yao xiayu le.*
 will rain SFP
 ‘It is going to rain.’
- b. *Lisi yao shangxue le.*
 Lisi will go.to.school SFP
 ‘Lisi is going to school.’

While it is true that *yao* has a future-oriented meaning like *be going to* in English, I argue that in imperatives, *yao* does not simply function as an irrealis marker (or

as an epistemic modal marker) based on the following three observations. First, the future-oriented *yao* can be directly modified by temporal modifiers, such as *kuai* ‘soon’ or *mashang* ‘immediately’:

- (26) a. *Kuai/mashang yao xiayu le.*
soon/immediately will rain SFP
‘It is going to rain (soon).’
b. *Lisi kuai/mashang yao shangxue le.*
Lisi soon/immediately will go.to.school SFP
‘Lisi is going to school (soon).’

On the other hand, when *yao* is used as an imperative priority modal, the temporal adverb *kuai(-dian)* ‘quickly’ or *mashang* ‘immediately’ can only be found after the imperative modal *yao*, as in (27). The contrast between (26) and (27) suggests that the imperative modal *yao* cannot be treated on a par with the future irrealis *yao*, and the former occupies a higher syntactic position than the latter (see also Section 3.3):

- (27) a. *Yao kuai(-dian)/mashang qu shang-xue!*
must quickly/immediately go attend-school
‘Go to school now/immediately!’
b. *Yao kuai(-dian)/mashang chi-wan!*
must quickly/immediately eat-finish
‘Finish your meal now/immediately!’

Second, the performative *yao* can be modified by the imperative adverb, such as *qianwan* ‘by all means’ or after the imperative particle, such as *qing (ni)* ‘please (you)’ (see Jheng 2023), but such elements are not compatible with the future irrealis *yao* ‘be going to’, as illustrated below (to express certainty in the future irrealis reading, another adverb such as *guoran* ‘certainly’ needs to be used instead):

- (28) Performative *yao* ‘must’
a. *Qianwan yao zhunshi daoda!*
by.all.means must on.time arrive
‘Do arrive on time (by all means)!’
b. *Qing (ni) yao zhunshi daoda!*
please 2SG must on.time arrive
‘Please arrive on time!’
- (29) Future irrealis *yao* ‘be going to’
a. **Qianwan/^{ok}Guoran kuai-yao xiayu le.*
by.all.means/certainly soon-will rain SFP
‘It certainly is going to rain soon!’

- b. **Qing kuai-yao xiayu le.*
 please soon-will rain SFP

Third, the modal particle *ai* ‘must/should’ in TSM, which corresponds to Mandarin *yao* ‘must/should’, does not have a future-oriented use, as indicated in (30) (at least not in the variety spoken in Taiwan) (See Li 2007 for discussion). Instead, TSM employs different modal particles, such as *eh* ‘will’ or *beh* ‘be going to’ for future-oriented uses, and these future-oriented modals cannot bring about an imperative meaning, as in (31):⁶

- (30) *Eh/beh/#ai loo-hoo (a).*
 will/will/must rain SFP
 ‘It will rain/It is going to rain.’ (with *ai*: ‘Please rain!’ [as a wish])
- (31) *Ai/#beh/#eh tsun-si lap-sue!*
 must/will/will on.time pay-tax
 ‘Pay your tax on time!’ (with *beh/eh*: ‘[Someone] will pay tax on time.’)

This shows that modals in imperatives (*yao* in Mandarin and *ai* in TSM) cannot be analyzed as pure future-oriented markers but are better analyzed as priority modals that occur in imperatives.⁷

3.2 Morphosyntax of performative modals

Schwager (2006) and Kaufmann (2012) assume that imperatives contain a modal that is used in a performative sense. Performative modals are not used to merely describe an obligation or permission of the subject (i.e., modals in a descriptive

6. It should be noted that the sentence-final particle *a* (or Mandarin SFP *le*) needs to occur with the future-oriented modal *beh* ‘be going to’ (or Mandarin *yao* ‘be going to’), but it does not always occur with the future epistemic *eh* ‘will’ (or Mandarin *hui* ‘will’). One possible account for this is that the sentence-final *a* marks current relevance, and the modal *beh* ‘be going to’ predicts the future based on current evidence (see Li & Thompson 1981 for discussion on Mandarin SFP *le*). Meanwhile, *a* can also occur optionally with imperatives, in which it has a meaning like ‘already’ or ‘now’ (as in *Sleep already/now!*). We will not concentrate on this particle since it is orthogonal to our main purpose here.

7. It has been pointed out that the future epistemic modal, such as *will* in English, can sometimes have a directive use (such as *You will close the door!*) (Recanatì 1987). Meanwhile, the future modal *hui* in Mandarin does not seem to have the same imperative use:

- (i) (Ni) *qianwan yao/*hui zhun-shi daoda.*
 2SG by.all.means must/will on.time arrive
 ‘Do arrive on time!’

The fact further confirms that the imperative *yao* is dissociated from its future-oriented twin.

sense), but they are used by the speaker to impose an obligation on or grant permission to the addressee. In this section, it is shown that Mandarin and TSM employ overt morphosyntactic means that reveal the descriptive-performative distinction of modals.

In Mandarin, the negative imperatives, or prohibitives, are usually signaled by a negative marker *bie* ‘NEG-IMP’, which is analyzed as a phonologically reduced form of *bu* ‘NEG’ plus the modal *yao* (Li & Thompson 1981; van der Auwera 2006; Yip 2016; Wimmer 2026):⁸

- (32) a. *Bu-yao shuohua!*
 NEG-must speak
 ‘Do not speak!’
 b. *Bie shuohua!*
 NEG-IMP speak
 ‘Don’t speak!’

What has often been overlooked is that this phonological reduction is only possible when the modal *yao* is used in a performative sense, whereas it is not acceptable with a descriptively-used modal *yao* (33) (the modal *yao* ‘want’ here is a subject-oriented bouletic modal representing the subject’s desire or preference). Therefore, (34) differs from (33) in that the only salient reading of (34) is a performative one, in which the speaker is imposing a prohibition to keep the addressee from eating her meal:⁹

8. The modal particle *bie* can also be found in embedded contexts under desiderative verbs, such as *jiao* ‘ask’ or *jueding* ‘decide’ (Yip 2016; Wimmer 2026) or evaluative predicates like *zuihao* ‘had better’:

- (i) a. *Wo jiao Lisi bie pao.*
 1SG tell Lisi NEG.IMP run
 ‘I told Lisi not to run.’ = ‘I told Lisi, “Don’t run!”’
 b. *Wo zuihao bie xiang tai-duo.*
 1SG had.better NEG.IMP think too-much
 ‘I had better not to think too much.’ = (I told myself, ‘Don’t think too much!’)

This looks like embedded imperatives in Japanese (Matsuda 2021), which involve control structure in syntax. For our purpose here, we will concentrate on matrix imperatives in this paper.

9. Chinese is not the only language that employs overt modals in imperatives and prohibitives. Similar patterns can be found in Tsou, Vietnamese, and Afrikaans (which are typologically distinct from Chinese). In Tsou, the deontic modal particle *te* can be found in imperatives (Chang & Pan 2018: 72):

- (i) *te=ko=nà cih-a si mapupuch!*
 MOD=2SG.GEN=still throw-PV NOM trash
 ‘Please throw away the trash!’

- (33) a. *Wo tingshuo [ni bu-yao/*bie chi-fan].* [descriptive]
 1SG hear 2SG NEG-want/NEG-IMP eat-meal
 ‘I heard that you do not want to eat your meal.’
- b. *Wo zhidao [ni keneng bu-yao/*bie lai].* [descriptive]
 1SG know 2SG probably NEG-want/NEG-IMP come
 ‘I know that you probably do not want to come here.’
- (34) *(Ni) bie chi-fan!* [performative]
 2SG NEG-IMP eat-meal
 ‘Don’t (you) eat your meal!’

In addition to the negative imperative marker in Mandarin, a more nuanced distinction can be found in TSM. It is observed in Lien (2013, 2015) and Liao & Wang (2022) that TSM has two types of negative prefixes *m-* and *b-*, each of which can combine with a priority modal:¹⁰

- (35) *m*-modals
- a. *M-ai kong-ue!*
 NEG-must speak
 ‘Do not speak!’

Meanwhile, in Vietnamese, the modal particle *được* ‘can’ can be used to express a deontic allowance (among its other modal meanings). The negation form *không được* ‘NEG can’ is equivalent to the prohibitive marker *đừng* ‘do.not’ when it is used in a performative sense (ii). At the same time, Afrikaans also employs the negative form of the necessity modal *moenie* ‘must.NEG’ to express prohibitives (iii) (Biberauer 2020; de Villiers 2025). Due to the limit of space, I will leave the crosslinguistic comparison to future research:

- (ii) *Không được/ Đừng tìm việc.*
 NEG can Don’t look.for job
 ‘Do not find a job!’ (Vietnamese: Trần N. Phan p.c.)
- (iii) *Moenie die deur oopmaak nie!*
 must.not the door open.make POL
 ‘Don’t open the door!’ (Afrikaans: from Biberauer 2020)

10. Notice that negated modals always receive a strong prohibitive interpretation, namely [□¬p] and [¬◇p]. The surface order can be misleading since the negation is a prefix (the same issue applies to English *cannot*). To express the reading of ‘be allowed not to’ [◇¬p], the negation will instead be prefixed to the verb, hence placing the negation within the scope of the possibility modal:

- (i) *Li esai long bo-kongue.*
 2SG can all NEG-speak
 ‘You are allowed not to speak at all.’

- b. *M-thang kong-ue!*
 NEG-can speak
 ‘Do not speak!’
- c. *M-ho kong-ue!*
 NEG-good speak
 ‘Do not speak!’
- (36) *b*-modals (with the allomorphs *bo* and *be*)
- a. *Ong-e be-sai/be-eng/be-tang kong-ue.*
 Ong-e NEG-can speak
 ‘Ong-e is not allowed to speak.’
- b. *Ong-e bo-ai/bo-thang/bo-ho kong-ue.*
 Ong-e NEG-want/NEG-can/NEG-good speak
 ‘Ong-e does not like to speak/Ong-e had no chance to speak/Ong-e is not easy to talk to.’

What distinguishes *m*-modals from *b*-modals in TSM, according to Liao & Wang (2022), is the performativity of the priority modal. Due to the limit of space, I will not reproduce a full paradigm here (see Lien 2013 and Liao & Wang 2022 for further discussion; see Li 1971 for a broader pattern of the two negative prefixes in TSM), but some of the most notable differences between *m*-modals and *b*-modals lie in how they encode the speaker’s preference and their compatibilities with epistemic modals. The first contrast is shown in (37). Example (37a) shows that *m*-modals are always used in a performative sense because the prohibition is imposed by the speaker, and the sentence can only have an imperative or prohibitive meaning, which cannot be canceled. On the other hand, *b*-modals are used to express the subject’s negative intention or indicate a prohibition issued by an external institution (but not necessarily by the speaker), as shown in (37b). Therefore, while the sentence with a *b*-modal may convey an indirect imperative meaning, the directive meaning is only a conversational implicature, which can be canceled by a follow-up sentence that reveals the opposite intention of the speaker, as in (37b):¹¹

11. The distinction between the two types of modals in (35) may also account for the contrast observed in Condoravdi & Lauer (2017):

- (i) If you want to have the workshop dinner at your place, you should buy a bigger dining table. So don’t even think about it!(it = having the dinner at your place)
- (ii) If you want to have the workshop dinner at your place, buy a bigger dining table! So don’t even think about it!

If the current analysis is on the right track, (i) has a descriptive modal while (ii) contains a (covert) performative modal, and this explains why the speaker’s endorsement cannot be cancelled in (ii).

- (37) a. (Li) *m-ai* *thak-tsheh* (#*tansi gua ai li thak*)!
 2SG NEG-must study but 1SG want 2SG study
 ‘Don’t study (#but I want you to)!’
- b. (Li) *be-sai/bo-ai* *thak-tsheh, tansi gua ai li thak.*
 2SG NEG-can/NEG-want study but 1SG want 2SG study
 ‘(It is said that) you cannot/do not want to study, but I want you to.’

The examples in (38) illustrate another major distinction between *b*-modals and *m*-modals. The descriptive *b*-modals can be modified by an epistemic modal adverb like *kho-ling* ‘probably’, which represents the speaker’s attitude toward the information state – specifically, the speaker is not entirely certain about the rule in (38a) (Anand & Hacquard 2013). On the contrary, epistemic modal adverbs cannot be found with the performative *m*-modals in (38b) since the speaker’s preference is not an information state that can be modified by the epistemic adverb:

- (38) a. (Li) *kho-ling be-sai/be-tang/bo-thang thak-tsheh.*
 2SG probably NEG-can study
 ‘You probably are not allowed to study.’ [descriptive]
- b. **Kho-ling m-ai/m-thang/m-ho thak-tsheh.*
 probably NEG-must/NEG-can/NEG-good study
 ‘*Probably don’t study!’ [performative]

The morphological distinctions in TSM therefore serve as strong evidence for the performative nature of priority modals in imperative/prohibitive sentences.

3.3 Syntax of imperative modals

The third issue concerns the syntax of the imperative modal projection. Based on the modal anchoring to the speaker/addressee, Isac (2015) argues that the imperative modal is projected at the same height as an epistemic modal (in the upper bound of TP or immediately above TP), both of which are SA-oriented modals [see (14)]. In this section, I offer evidence for the claim that the imperative modal is indeed projected in the CP periphery – higher than the focus and epistemic modal phrases in the left periphery.

In what follows, the discussion focuses on the negative imperative marker *bie* in Mandarin Chinese, though the same conclusion has also been proposed for the *m*-modals in TSM (Liao & Wang 2022). First, *bie* is always projected higher than a TP-adverb such as *changchang* ‘often’:

- (39) a. *Bie changchang chidao!*
 NEG.IMP often come.late
 ‘Don’t be late too often!’

- b. **Changchang bie chidao!*
 often NEG.IMP late

Second, although a negative imperative modal cannot directly co-occur with an epistemic modal (see Section 3.2 above), it may occur with the dislocated *lian*-focus phrase independently. Therefore, the dislocated *lian*-focus phrase in Mandarin can be used as an indicator to detect the relative positions of the imperative modal and the epistemic modal:¹²

- (40) a. *bie* » *lian*-focus (dislocated) » subject-NP
Bie [lian zhe-ben shu], ni dou bu-nian!
 NEG.IMP include this-CLF book 2SG all NEG-read
 ‘Don’t you refuse to read even this book!’
 (= ‘Don’t you refuse to read any book, even including this one, which is most likely to be read.’)
- b. **lian*-focus (dislocated) » *bie*
 *[*Lian zhe-ben shu*] *bie dou bu-nian!*
 include this-CLF book NEG-IMP all NEG-read
- c. *lian*-focus (dislocated) » epistemic modal
Lian zhe-ben shu, keneng Zhangsan dou mei-nian-guo.
 include this-CLF book might_{epistemic} Zhangsan all NEG-read-EXP
 ‘Even this book, Zhangsan might not have read it.’
 (= ‘Zhangsan might not have read any book, even including this one, which is most likely to be read.’)

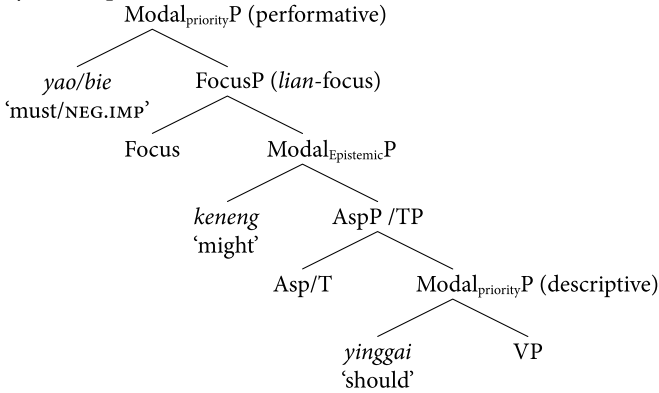
Combining the results, it can be concluded that imperative modals occupy a position higher than both the *lian*-focus phrase and the epistemic modal phrase. Since the dislocated *lian*-focus is located in the CP periphery (Shyu 1995; Badan & Del Gobbo 2011), the imperative modal must be projected higher than the *lian*-focus and is part of the CP periphery, as shown in (41). Note that it is generally assumed that descriptive deontic/priority modals are generated lower than AspP/TP (Hacquard 2006; Tsai 2015):

12. Note that the *lian*-phrase either appears in the pre-verbal position or is dislocated to the left periphery, such as (i). Its relative position with respect to the subject provides a clue as to whether it is dislocated (see Shyu 1995):

- (i) {*Lian zhe-ben shu*}, ta {*lian zhe-ben shu*} dou bu-nian.
 include this-CLF book 3SG include this-CLF book all NEG-read
 ‘He does not even read this book.’

In (38a), the *lian*-phrase precedes the subject, indicating that we are dealing with a dislocated *lian*-phrase in the left peripheral position. For the scope issue associated with *lian...dou* and its relationship with the ‘even’ meaning, see Shyu (2016, 2018) and Liao & Jheng (2025).

(41) Syntactic position of modals and focus



Based on these facts, I assume that the priority modal in imperatives occupies a higher modal projection in the left peripheral CP zone. One possible explanation is that the performative priority modal originates in a lower modal position and raises to this higher head position via head movement. Such an analysis could account for why epistemic modals fail to occur in imperatives – their presence would intervene the head movement of the priority modal. However, the status of head movement in narrow syntax has been questioned under the Strong Minimalist Thesis (Chomsky 2001). Moreover, not all deontic modals can occupy the performative modal position (e.g., *yingdang* ‘be obliged to,’ which merely describes an obligation imposed by external agents other than the speaker). In view of these controversies, I will remain agnostic about whether such head movement takes place and will leave the issue open here.

To conclude, data patterns from Chinese languages provide empirical support for the claim that there is a performative-descriptive contrast among modals. Such distinctions are not only confined to semantic or pragmatic interpretations but are also realized in morphosyntactic realms.

4. More on IaDs

In this section, I tackle the challenge from IaDs against the modal approach. Section 4.1 introduces Keshet & Medeiros’ (2019) bifurcation analysis of IaDs in English into SC (Speech-act Conjunction) IaDs and CC (Conditional Conjunction) IaDs (see also Schwager 2006/Kaufmann 2012, who refers to them as Type-I and Type-II IaDs, respectively). Section 4.2 discusses IaDs in Chinese and examines how new data from Chinese may help tackle the problem. To anticipate the conclusion, I will argue that (i) the bifurcation analysis proposed in Keshet &

Medeiros (2019) is generally on the right track, and (ii) the apparent imperative antecedent in CC IaDs does not pattern like a genuine imperative (Russell 2007). We discuss some open issues regarding CC IaDs in Section 4.3.

4.1 Keshet & Medeiros (2019)

In the literature, IaDs raise several questions: (i) Is the first clause truly an imperative clause (Schwager 2006; Russell 2007; Kaufmann 2012)? (ii) Some IaDs display speaker's endorsement (42a), while others do not (42b). Do they have the same syntax?

- (42) a. (Do) invest in this company, and you will be rich!
[speaker-endorsed: Invest in this company!]
b. Eat this mushroom, and you'll be sick!
[non-endorsed: Do not this mushroom!]

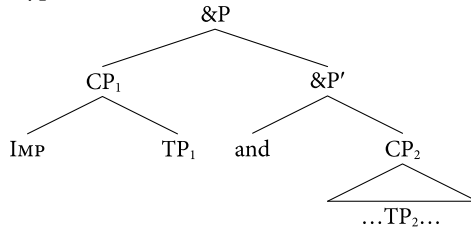
Earlier analyses of IaDs (Han 1998; von Stechow & Iatridou 2017) suggest that they unanimously involve conditional conjunctions (CC) (a syntactic conjunction marker that functions like conditional marker at LF) (Culicover & Jackendoff 1997; Keshet 2013):

- (43) a. Invest in this company, and you will get rich!
= If you invest in this company, you will get rich.
b. Say one more word, and I will shoot you!
= If you say one more word, I will shoot you.

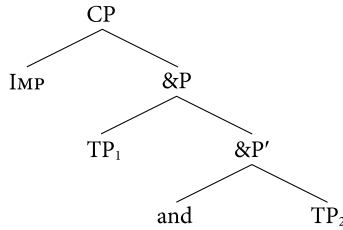
On the other hand, following Schwager (2006) and Kaufmann (2012), Keshet & Medeiros (2019) (henceforth K&M) propose a bifurcation analysis of IaDs; see also Scontras & Gibson (2011) for a quantitative study. They argue that the endorsing IaD in (42a) should be analyzed as a regular conjunction of two independent speech acts, and it is a conjunction of two full CPs, as in (44a). This type of IaD is called SC IaDs (SC for speech-act conjunction). As for the non-endorsing IaDs in (42b), K&M treat them as CCs (their CC IaDs) that involve TP conjunction, as in (44b). Note that while SC IaDs are always speaker-endorsed as they contain a regular imperative in the antecedent clause, CC IaDs bear no speaker endorsement. For CC IaDs, the speaker may have positive, neutral, or negative inferences toward the antecedent clause according to the desirability of the consequent clause (Scontras & Gibson 2011).

(44) Syntax of two types of IaDs (from Keshet & Medeiros 2019: 888):

a. SC IaD:



b. CC IaD:



For SC IaDs, the imperative modal is a regular deontic one and is embedded under the imperative operator in CP_1 since CP_1 represents a speaker-endorsed imperative sentence. As for the latter type of CC IaD, K&M propose that the relevant modal is from the conditional meaning of CC, which can be identified as a dynamic future modal (Keshet 2013). Unlike typical dynamic future modals, however, it must satisfy the same presuppositional conditions in Kaufmann (2012) due to its performative use. Therefore, the imperative antecedent in the CC IaD is licensed when there is a decision problem in the context, and the CC IaD represents a partial solution to the decision problem. Pragmatically, since the solution is partial, it leaves the optimal solution undecided, and therefore, the CC IaD may bring about a negative inference. For example, the CC IaD *Eat this mushroom, and you will be dead* infers the prohibitive *Don't eat this mushroom!*

While K&M's solution is straightforward, it leaves some important issues unresolved. Specifically, it remains unclear whether the antecedent in CC IaDs should be treated as a modalized clause, as other imperatives are; if so, whether its ordering source should also be analyzed as a future-oriented dynamic modal; and why such modal would license a reduced imperative-like clause.

Second, it is not entirely clear why in CC IaDs, the imperative may license a negative inference. K&M's tentative answer is that the imperative in CC IaD represents a partial answer to the decision problem, but this proposal might be too strong. If imperatives have a negative inference when they provide partial answer, then all weak imperatives should be able to do so (contrary to the fact). An invitation-type weak imperative (such as *Have a cookie or two*), in which each of the alternative action is only partial (you may have one cookie or you may have two cookies), does not readily license a negative inference.

4.2 IaDs in Chinese

IaDs in Chinese minimally differ from English IaDs in that there is no overt conjunction form like *and* between the two clauses. I will assume that the conjunction that gives rise to the conditional reading is a covert one.¹³ Furthermore, the particle *jiu* (Liu 2017; Liu & Wang 2022; Wimmer 2022; Yuan 2024) may optionally appear in conditionals (including IaDs) in Chinese, and it encodes a sufficient conditional reading of the conjoined sentences (P *jiu* Q = ‘if P, then Q’). It has been noted that the particle *jiu* itself is ambiguous between a conditional ‘if...then’ reading or an exclusive ‘only’ reading (Liu 2017; Liu & Wang 2022), and when there is no overt conditional marker (such as *ruguo* ‘if’), the conditional meaning can be inferred from the veridicality of the antecedent clause (Liu & Wang 2022). Therefore, (45) is ambiguous. If the antecedent is not already asserted or presupposed, we obtain a conditional meaning in (45a). On the other hand, if the antecedent is already asserted or presupposed, then the sentence can only be interpreted as a simple coordinated sentence (in this case, the particle *jiu* has an exclusive ‘only’ meaning) (from Liu & Wang 2022: 8):

- (45) *Ta shi yisheng, jiu hui zheyang xiang.*
 3SG be doctor JIU will this.way think
 a. ‘If he is a doctor, he will think so.’
 b. ‘He is a doctor. Thus, he only will think so.’

Since the antecedent of the IaD is non-veridical, it gives rise to a conditional interpretation of *jiu* in IaDs. Examples of SC IaDs and CC IaDs in Chinese are given below (their distinctions will be examined in the following subsection):

13. Notice that an overt clausal conjunction, such as *erqie* ‘and’ in Mandarin, can never yield a conditional (conjunction) meaning, as in (i), nor can it license SC IaDs, as shown in (ii). With *erqie* ‘and’, the construction can only be interpreted as conjunction of two full clauses (Aoun & Li 2003). This observation suggests that unifying CC and regular conjunction might not be on the right track (cf. Keshet 2013):

- (i) **Zai shuo ban-ge zi, erqie wo (jiu) zou-ren le.*
 more say half-CLF word and 1SG JIU leave SFP
 (intended) ‘Say any more word, and I will leave.’
- (ii) *Yao mai zhe-zhi gupiao, erqie ni hui zhuan da-qian.*
 must buy this-CLF stock and 2SG will earn big-money
 ‘You are required to buy this stock, and you will earn a lot of money.’
 (DaD: okay) = Declarative and Declarative ‘If you buy this stock, you will earn a lot of money.’ (SC IaD: bad)

- (46) a. *(Yao) mai zhe-zhi gupiao, ni jiu hui zhuan da-qian.*
 must buy this-CLF stock 2SG JIU will make big-money
 ‘Do buy this stock, and you will make a lot of money.’ [SC IaD]
- b. *Zai shuo ban-ge zi, wo jiu zou-ren le.*
 more say half-CLF word 1SG JIU leave SFP
 ‘Say any word, and I will leave.’ [CC IaD]

In the next section, I present empirical evidence demonstrating that the bifurcation analysis of IaDs is equally applicable to Chinese.

4.3 Bifurcation analysis

Regarding the question of whether the antecedent clause in IaDs is a modalized imperative clause, the contrasts in (47) and (48) indicate a clear distinction. The performative modal *yao* can be found in the antecedent clause in SC IaDs (47), but not in the antecedent clause of CC IaDs (48). This indicates that the antecedent clause in SC IaDs is a regular imperative clause, which always carries speaker endorsement. On the other hand, the antecedents of CC IaDs should not be analyzed as a genuine imperative clause, and it does not carry speaker’s endorsement. Examples in (48) do not have a reading in which the speaker issues a directive for the addressee to perform the specified action:¹⁴

- (47) Compatible with *yao* ‘must’/ *bie* ‘NEG.IMP’ ⇔: SC IaDs
- a. *(Yao) duo yundong, ni jiu hui geng jiankang.*
 must more exercise 2SG JIU will more healthy
 ‘Do more exercise, and you will become healthier!’
 ⇨ ‘Do more exercise!’
- b. *Bie shuo-cuo hua, ni jiu hui dedao gongzuo.*
 NEG.IMP say-wrong words 2SG JIU will obtain job
 ‘Don’t say anything wrong, and you will get the job!’
 ⇨ ‘Don’t say anything wrong!’

14. The performative modal *yao* ‘must’ should not be confused with the conditional marker *yao* ‘if’ (a reduced form of *yaoshi* ‘if’), despite their identical form in Mandarin. In TSM, the performative modal *ai* has no conditional use, suggesting that the two *yao*’s in Mandarin are simply homophones (Liao & Wang 2022). Another difference is that only the performative *yao*, not the conditional one, can be modified by the imperative adverb *qianwan* ‘by all means.’ While it is possible that the conditional use of *yao* is the result of grammaticalization of the modal *yao* (see Kuo 2024), synchronically they function as two distinct morphemes.

- (48) Incompatible with *yao/bie*: CC IaDs
- (**Yao*) *chi zhe ge mogu, ni jiu hui zhongdu.*
must eat this CLF mushroom 2SG JIU will poisoned
'Eat this mushroom, and you will be poisoned!'
* \rightsquigarrow 'Eat this mushroom!'
 - (**Yao*) *xiu renhe yi-men ke, ni jiu hui nadao xuwei.*
must take any one-CLF class 2SG JIU will obtain degree
'Take any class, and you will get your degree.'
?? \rightsquigarrow 'Take any class!'
 - (**Yao*) *fankai renhe yi-ye, ni jiu hui faxian henduo cuowu.*
must open any one-page you JIU will find many mistake
'Open any page, and you will find a lot of mistakes.'
?? \rightsquigarrow 'Open any page!'

In addition to the contrast of speaker endorsement, other differences in Chinese also support the view of distinguishing SC IaDs from CC IaDs, and not all IaDs can be subsumed under a unified CC or imperative analysis (see also Kaufmann 2012 for a crosslinguistic comparison on this issue).

First, only SC IaDs allow the CP-proform *zhe-yang* 'this way' to occur in the declarative part of the IaD:

- (49) SC IaDs:
- Mai zhe-zhi gupiao, (zhe-yang) ni jiu hui zhuan da-qian.*
buy this-CLF stock this-way 2SG JIU will make big-money
'Buy this stock, and (if so) you will make a lot of money.'
 - CC IaDs:
*Zai shuo ban-ge zi, (*zhe-yang) wo jiu zou-ren le.*
more say half-CLF word this-way 1SG JIU leave SFP
'Say any more word, and I will leave.'
 - Juan renhe qian gei xiehui, (*zhe-yang) women jiu song ni yifu.*
donate any money to association this-way 1PL JIU send 2SG clothes
'Donate any money to the association, and we will send you a T-shirt!'

The fact that the CP-proform *zhe-yang* 'this way' is possible in SC IaDs but impossible in CC IaDs suggests that SC IaDs involve a more complicated clausal structure than CC IaDs. Specifically, SC IaDs may generate an additional antecedent (if P=*this way*) in the conditional clause containing Q, as in (50):

- (50) SC IaDs
- P_{IMP} and (if P = *this way*) Q.
 - LF: [_{CP} Buy this stock], and [_{CP} (if so) [you will make a lot of money]].

This is consistent with K&M's proposal that SC IaDs are structurally more complex than CC IaDs. In fact, we can view *zhe-yang* 'this way' as evidence for modal subordination in SC IaDs (so that the imperative P serves as a modal base for the following conditional clause containing Q) (see Roberts 1989). In Chinese, *zhe-yang* can be found in other modal subordination sentences:

- (51) [*Zhangsan hui ba che ting-hao*], *zhe-yang*, *jingcha jiu bu-hui kai fadan*.
 Zhangsan will BA car park-well this-way police JIU NEG-will write ticket
 'Zhangsan will park his car in the right place, and the police will not give him a traffic ticket'.
 (*zhe-yang* 'this way' = if Zhangsan parks his car in the right place)

In contrast, CC IaDs are generated as part of the conditional clause from the beginning (presumably as a modal background of the dynamic modal *will*), as in (52), and therefore, *zhe-yang* 'this-way' has nowhere to be inserted into the conditional clause:

- (52) CC IaDs
 a. P, and Q.
 b. LF: [[Say any more words], AND_{CC} [I will leave]].

Second, only SC IaDs can contain an imperative adverb, such as *qianwan* 'by all means', or an imperative particle, such as *qing* 'please', in its antecedent clause (Jheng 2023, see also Kauffman 2012 and K&M 2019 for the *please*-test in English), while CC IaDs are incompatible with these elements. (53) and (54) below illustrate this contrast. The distinction is straightforwardly predicted under the bifurcation analysis since only SC IaDs carry an independent imperative force in the first clause:

- (53) a. SC IaD
Qianwan yao mai zhe-zhi gupiao, ni jiu hui zhuan da-qian.
 by.all.means must buy this-CLF stock 2SG JIU will make big-money
 'Do buy this stock, and you will make a lot of money!'
 b. *Qing duo yundong, ni jiu hui geng jiankang*.
 please more exercise 2SG JIU will more healthy
 'Please do more exercise, and you will become healthier!'
- (54) CC IaD
 Qianwan*/Qing zai shuo ban-ge zi, wo jiu zou-ren le*.
 by.all.means/please more say half-CLF word 1SG JIU leave SFP

Third, prohibitives with *bie* 'NEG.IMP' can be used in the antecedent clause in SC IaDs, but to negate the imperative antecedent in CC IaDs, *bie* 'NEG.IMP' cannot be used (instead, only the regular negative particle *bu* 'NEG' can be used). This is

again expected under the bifurcation analysis since only the antecedent clause in the SC IaD is a full-fledged imperative clause:

(55) SC IaD

Bie luan hua-qian, ni jiu hui you-qian.
 NEG.IMP randomly spend-money 2SG JIU will have-money
 ‘Don’t waste your money, and you will be rich.’

(56) CC IaD

A police interrogator says to the suspect:
*Bu/*Bie zhao, wo jiu ba ni guan-qilai.*
 NEG/NEG.IMP confess 1SG JIU BA 2SG lock-up
 ‘If you don’t confess, I will lock you up!’

Fourth, as shown in (57), SC IaDs do not license NPIs or backward binding (between the QP and the bound variable pronoun), but CC IaDs in (58) do (since CC IaDs is a subtype of CCs) (see Culicover & Jackendoff 1997; Kaufmann 2012; Keshet & Medeiros 2019). Notice that sentences in (58) can be interpreted as SC IaDs if there are no overt modals to distinguish them, and if they are interpreted as SC IaDs (that is, with the overt modal *yao* ‘must’ or imperative particle *qing* ‘please;’), NPI licensing or backward binding will not be allowed, as predicted:

(57) SC IaDs: no NPIs/backward binding

- a. **Yao zai mai ban-zhi gupiao, ni jiu hui zhuan da-qian.*
 must more buy half_{NPI}-CLF stock 2SG JIU will make big-money
 (intended) ‘*Do buy any stock, and you will make money.’
- b. *Qing du ta-de_{i/j} shu, mei-ge zuozhe_j jiu hui hen gaoxing.*
 please read 3SG-POSS book every author JIU will very happy
 ‘Please read his/her book, every author will be pleased.’
 (his/her ≠ every author)

(58) CC IaDs: NPIs/backward binding possible¹⁵

- a. *(*Qing) zai shuo ban-ge zi, wo jiu zou-ren le.*
 please more say half_{NPI}-CLF word 1SG JIU leave SFP
 ‘(*Please) say any word, and I will leave.’
- b. *(*Qing) peng ta-de_{i/j} diannao, mei-ge zuozhe_i dou hui hen shengqi.*
 please touch 3SG-POSS computer every-CLF author all will very angry
 ‘Touch his/her_i computer, and every author_i will be pissed.’
 (his/her = every author: okay)

15. The fact that backward binding and NPI licensing is possible in these constructions provides further evidence for treating them as CCs.

Such a contrast, in conjunction with the previous ones, indicates that the structural dependency between the apparent imperative antecedent and the subsequent declarative clause in CC IaDs is much tighter than that in SC IaDs. This is again consistent with K&M's proposal that in CC IaDs, the antecedent is part of the conditional clause (52), embedded under the conditional modal at LF, and this enables the backward binding and NPI licensing in the imperative antecedent. On the other hand, the imperative antecedent in SC IaDs constitutes its own clause and does not sit in the scope of the conditional clause [Recall that it only obtains the conditional meaning through modal subordination at LF; see (50)]. Therefore, backward binding and NPI licensing are not allowed in SC IaDs.

4.4 Open issues

4.4.1 More on CC IaDs

At this point, it seems reasonable to conclude that antecedent clauses in CC IaDs are not genuine imperatives. Russell (2007) suggests that antecedents in CC IaDs be treated as structurally reduced imperative-like clauses. The ability to hold a structurally reduced clause in the first conjunct is a general property of CCs, and even a DP can function as an antecedent in CCs (Culicover & Jackendoff 1997), as illustrated in the following examples in English and Chinese:

- (59) a. One more can of beer, and I'm leaving.
 b. *Zai yi-bei pijiu, wo jiu zouren le.*
 more one-CLF beer 1SG JIU leave SFP
 'One more beer, and I am leaving.' = 'If you drink one more beer...'
 c. *Yi-men ke, ni jiu neng nadao xuewei.*
 one-CLF class 2SG JIU can obtain degree
 'One class, and you can get your degree.' = 'If you take any class...'

If this is correct, then the so-called CC IaDs in Chinese should be treated simply as CCs, but not IaDs in the strict sense (since the first conjunct is not a genuine imperative clause). However, analyzing the antecedent in CC-IaDs uniformly as non-imperative reduced clauses faces an immediate challenge since there are languages that employ imperative morphology in the antecedent of CC IaDs. The following German examples from Kaufmann (2012) illustrate this point:

- (60) a. *Geh einen Schritt nach hinten und du fliegst die Treppe runter.*
 go.IMP one step to back and you fly the stairs down
 'Take a step backwards and you'll fall down the stairs.'
 b. *Schlag die Zeitung auf und du findest 5 Tippfehler pro Seite.*
 open.IMP the newspaper PRT and you find 5 typos per page
 'Open the newspaper and you'll find 5 typos on each page.'

It seems that we are running into a paradox. On the one hand, Chinese does not allow performative modals to occur in CC IaDs, suggesting that the antecedent is not a genuine imperative clause. On the other hand, German permits imperative morphology in CC IaDs. There seems to be a way out, however, if we correctly identify the source of the speaker endorsement in these constructions.

Recall that in Mandarin and TSM, the performative modals, such as *yao* and *ai*, are necessity modals that give rise to an unambiguously strong interpretation (they carry a command and request meaning), and they can only occur in SC IaDs, but not in CC IaDs (or CCs).¹⁶ This is not the case in German, however, since the modal strength associated with the imperative form may vary. The following examples, taken from Grosz (2011) and Carter (2022), show that the imperative antecedent in CC IaDs may contain the particle *ruhig*, which weakens the modal strength and hereby shows no speaker endorsement (*ruhig* has a meaning like *go ahead* in English; see Grosz 2011). Conversely, the particles *bloß* and *JA*, which carry strong speaker endorsements, cannot be found in CC IaDs, but only in SC IaDs:

- (61) Iss ruhig/#bloß/#JA diesen Pilz aber dann wirst du krank.
eat.IMP ruhig/bloß/JA this mushroom but then will.be you sick
'Eat this mushroom and you'll get sick.'

The patterns from Chinese and German support two generalizations: (i) If an unambiguously strong imperative form can appear in the antecedent, then the IaDs must be SC IaDs; (ii) if an imperative form can appear in CC IaDs, then it must be compatible with a weak imperative reading (see also Grosz 2011, Kaufmann 2012, and Oikonomou 2016). Notably, Chinese does not have a particle like *ruhig* in German that can weaken the imperative force of *yao*, which might explain why Chinese uses the reduced-clause strategy in CCs to express similar meanings. As more crosslinguistic data are needed to confirm these predictions, I leave this issue open for future study.

16. This seems to be an exception to the generalization proposed in von Stechow & Iatridou (2017: 309), which states that "no directive that can occur in the first conjunct of IaDs is unambiguously strong." However, imperatives (with or without *yao*) in Chinese are unambiguously strong since (A) they do not give rise to acquiescence or indifference readings, as in (ia), and (B) they cannot give rise to free choice reading (see Oikonomou 2023 for further discussion), as in (ib). Nevertheless, they can occur in SC-IaDs:

- (i) a. (Yao) kai chuangu! #Wo bu zaihu.
must open window 1SG NEG care
'Open the window (or not)! I don't care.'
b. *Yao du renhe shu!
must read any book
'(You may/*must) read any book!' (*: with or without *yao*)

4.4.2 *A mixed approach?*

An anonymous reviewer has questioned whether a mixed analysis is plausible. Namely, it is theoretically possible that the minimal approach is suitable for bare imperatives in Chinese that do not contain an overt modal (or for languages that cannot project an overt modal in imperatives), while the modal approach can account for imperatives that contain an overt modal in Chinese (or for languages that may project an overt modal in imperatives).

There are conceptual as well empirical arguments against such a mixed approach. Conceptually, bare imperatives and modalized imperatives in Chinese are not semantically distinct (although there might be pragmatic reasons why one pronounces the modal overtly; see our discussion above), and this already suggests that they should be analyzed under a unified approach, given Occam's razor. Consider a similar case in English. One would not be likely to pursue an analysis that treats *Eat* and *Do eat* as having two distinct underlying structures simply because the latter contains an auxiliary verb.

Empirically, it has been shown that negative imperatives require the presence of a modal in Chinese. If a bare VP per se could obtain an imperative meaning, given the fact that negation in Chinese can also be attached to the verb, there should be no reason why a modal is required in the first place. That is, we should predict, contrary to the fact, that *bu-chi* 'NEG-eat' could function as an imperative clause. I conclude, therefore, that a unified modalized analysis is preferable to a mixed approach.¹⁷

5. Conclusion

This paper has provided evidence from two Chinese languages that imperatives are inherently modalized sentences, and this lends empirical support to the modal approach. Our conclusion points to a potential underlying structure for the imperative sentence in (62). The imperative modal is a performative modal, projecting presuppositions that are SA-oriented, and in syntax, the performative modal is projected in the CP periphery:¹⁸

17. For further discussion on the advantages of positing a modal element in English imperatives, see Roberts (2023) and Condoravdi & Lauer (2017).

18. For languages with special mood morphology for imperatives, I tentatively assume that the performative modal undergoes morphological merger with the mood projection (Halle & Marantz 1993; Hsu 2021), which then carries the relevant modal feature and projects the presuppositions associated with imperatives (see Oikonomou 2016, 2023 for an approach in this vein).

(62) Syntax of imperatives
[_{ModP} Modal [_{TP} φ]]

Moreover, data from Chinese help elaborate the bifurcation analysis originally proposed in Kaufmann (2012) and Keshet & Medeiros (2019). Chinese provides overt morphosyntactic evidence for the claim that antecedents in SC IaDs are regular imperatives that contain a performative modal with the priority ordering source, which accounts for source of the speaker endorsement. In contrast, antecedents in CC IaDs do not contain a performative modal and are only imperative-like reduced clauses in Chinese. It is hoped that the findings of this paper will shed light on the crosslinguistic study of the syntax-semantics of imperatives and similar constructions in other languages in the future.

Funding





This research was supported by the National Science and Technology Council (NSTC), Taiwan, under Research Project 111-2410-H-001-020-. Open access funding was provided by Academia Sinica.

This article was made Open Access under a CC BY-NC 4.0 license through payment of an APC by or on behalf of the author.

Acknowledgement

I would like to thank the editors and the anonymous reviewers for their stimulating and constructive comments, which have significantly improved both the current and earlier versions of this article. I have also benefited greatly from discussions with participants at the 16th Brussels Conference on Generative Linguistics (BCGL-16) at KU Leuven, including Paul Portner, Theresa Biberauer, Engela de Villiers, Kafai Yip, Xuotong Yuan, and many others whose insights helped sharpen the ideas developed here. I am grateful to Tran Phan for providing the Vietnamese data, and to Grant Kao for assistance with proofreading. Any remaining errors are, of course, my own responsibility.

References

-  Anand, Pranav & Valentine Hacquard. 2013. Epistemics and attitudes. *Semantics and Pragmatics* 6.8, 1–59.
-  Aoun, Joseph & Yen-hui Audrey Li. 2003. *Essays on the representational and derivational nature of grammar: The diversity of wh-constructions*. Cambridge, MA: MIT Press.
-  Asher, Nicholas & Alex Lascarides. 2001. Indirect speech acts. *Synthese* 128.1, 183–228.
-  Badan, Linda & Francesca Del Gobbo. 2011. On the syntax of topic and focus in Chinese. In Paola Benincà & Nicola Munaro (eds.), *Mapping the left periphery*, 63–90. Oxford: Oxford University Press.

- Barker, Chris. 2019. Imperatives denote actions. *Proceedings of Sinn Und Bedeutung* 16.1, 57–70.
- Biberauer, Theresa. 2020. Learning from commands: insights from Afrikaans. Paper presented at CRISP, KU Leuven.
-  Bolinger, Dwight. 1967. The imperative in English. In *To honor Roman Jakobson: Essays on the occasion of his seventieth birthday*, 335–362. The Hague: De Gruyter Mouton.
-  Carter, Sam. 2022. Force and choice. *Linguistics and Philosophy* 45.4, 873–910.
- Chang, Henry Y. & Chia-jung Pan. 2018. Zouyu yufa gailun [*Introduction to Tsou Grammar*]. 2nd ed. Taipei: Council of Indigenous Peoples.
-  Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: A life in language*, 1–52. Cambridge, MA: MIT Press.
- Condoravdi, Cleo & Sven Lauer. 2012. Imperatives: Meaning and illocutionary force. *Empirical Issues in Syntax and Semantics* 9, 37–58.
- Condoravdi, Cleo & Sven Lauer. 2017. Conditional imperatives and endorsement. *NELS* 47, 185–204.
- Culicover, Peter & Ray Jackendoff. 1997. Semantic subordination despite syntactic coordination. *Linguistic Inquiry* 28.2, 195–217.
- de Villiers, Engela. 2025. The atoms of imperatives. Ph.D. dissertation, KU Leuven.
- Grosz, Patrick. 2011. German particles, modality, and the semantics of imperatives. *NELS* 39, 323–336.
- Hacquard, Valentine. 2006. Aspects of modality. Ph.D. dissertation, MIT.
- Halle, Morris & Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In Kenneth Hale & S. Jay Keyser (eds.), *The view from building 20*, 111–176. Cambridge, MA: MIT Press.
- Han, Chung-Hye. 1998. The structure and interpretation of imperatives: Mood and force in universal grammar. Ph.D. dissertation, University of Pennsylvania.
-  Hsu, Brian. 2021. Coalescence: A unification of bundling mechanisms in syntax. *Linguistic Inquiry* 52.1, 39–87.
-  Huang, C. -T. James & Barry Chung-Yu Yang. 2024. Topic drop and pro drop. *Language & Linguistics* 2.1, 1–27.
-  Huntley, Martin. 1984. The semantics of English imperatives. *Linguistics and Philosophy* 7.2, 103–133.
-  Isac, Daniela. 2015. *The morphosyntax of imperatives*. Oxford: Oxford University Press.
-  Jheng, Wei-cheng Sam. 2023. Two grammatical categories for *please* in Mandarin imperative clauses. *Acta Linguistica Academica* 70.1, 1–37.
-  Kaufmann, Magdalena. 2012. *Interpreting imperatives*. Dordrecht: Springer.
-  Kaufmann, Magdalena. 2021. Imperatives. In Daniel Gutzmann, Lisa Matthewson, Cecile Meier, Hotze Rullmann & Thomas Ede Zimmermann (eds.), *The Wiley Blackwell companion to semantics*. Hoboken: John Wiley & Sons.
- Kaufmann, Magdalena. 2024. Imperative clauses. In Simone Guessier, Ani Marchesan & Paulo Medeiros Junior (eds.), *Wh-exclamatives, imperatives and wh-questions*, 173–226. Berlin: De Gruyter.
-  Keshet, Ezra. 2013. Focus on conditional conjunction. *Journal of Semantics* 30.2, 211–256.
-  Keshet, Ezra & David J. Medeiros. 2019. Imperatives under coordination. *Natural Language & Linguistic Theory* 37.3, 869–914.


- [doi](#) Kuo, Yueh-Hsin. 2024. Bidirectional grammaticalization: Chinese modal and conditional. *Journal of Linguistics* 60.2, 363–398.
- [doi](#) Li, Charles N. & Sandra A. Thompson. 1981. *Mandarin Chinese: A functional reference grammar*. Berkeley: University of California Press.
- Li, Paul Jen-kuei. 1971. Two negative markers in Taiwanese. *Bulletin of the Institute of History & Philology (BIHP)* 43.2, 201–220.
- Li, Rulong. 2007. *Minnan fangyan yufa yanjiu [The grammar of Southern Min dialects]*. Fuzhou: Fujian Renmin Publishers.
- [doi](#) Liao, Wei-wen Roger & Yuyun Iris Wang. 2022. Negative modals and prohibitives in Taiwanese Southern Min. In Andrew Simpson (ed.), *New explorations in Chinese theoretical syntax: Studies in honor of Yen-Hui Audrey Li*, 193–215. Amsterdam: John Benjamins.
- [doi](#) Liao, Wei-wen Roger & Wei-cheng Sam Jheng. 2025. A tale of two EVENS. *Natural Language & Linguistic Theory* 43.3, 1949–1981.
- Lien, Chinfa. 2013. Taiwan minnanyu qingtaici de fouding leixing tansuo [*Negative patterns of modals in Taiwanese Southern Min*]. *Language and Linguistics* 14.2, 213–239.
- [doi](#) Lien, Chinfa. 2015. Imperative negatives in earlier Southern Min and their later development. *Faits de Langues* 46.2, 187–200.
- [doi](#) Lin, Tzong-hong Jonah. 2012. Multiple-modal constructions in Mandarin Chinese and their finiteness properties. *Journal of Linguistics* 48.1, 151–186.
- Liu, Mingming. 2017. Mandarin conditional conjunctions and *only*. *Studies in Logic* 2, 45–61.
- [doi](#) Liu, Mingya, & Yuting Wang. 2022. *Jiu*-conditionals in Mandarin Chinese: Thoughts on a uniform pragmatic analysis of Mandarin conditional constructions. *Linguistic Vanguard* 8.4, 435–446.
- Mastop, Rosja. 2005. What can you do? Imperative mood in semantic theory. Ph.D. dissertation, University of Amsterdam.
- [doi](#) Mastop, Rosja. 2011. Imperatives as semantic primitives. *Linguistics and Philosophy* 34.4, 305–340.
- [doi](#) Matsuda, Asako. 2021. Control from inside: Evidence from Japanese. In Anne Mucha, Jutta M. Hartmann & Beata Trawinski. (eds.), *Non-canonical control in a cross-linguistic perspective*, 137–166. Amsterdam: John Benjamins.
- [doi](#) McCready, Elin, & Christopher Davis. 2020. Sentence-final particles in Japanese. In M. Jacobsen Wesley & Takubo Yukinori. (eds.), *Handbook of Japanese semantics and pragmatics*, 655–684. Berlin: De Gruyter Mouton.
- Medeiros, David J. 2013. Formal approaches to the syntax and semantics of imperatives. Ph.D. dissertation, University of Michigan.
- Ninan, Dilip. 2005. Two puzzles about deontic necessity. In *MIT Working Paper in Linguistics* 51, 149–178.
- Oikonomou, Despina. 2016. Covert modals in root contexts. Ph.D. dissertation, MIT.
- [doi](#) Oikonomou, Despina. 2023. Detecting variable force in imperatives: A modalized minimal approach. *Natural Language & Linguistic Theory* 41.3, 1201–1256.
- [doi](#) Portner, Paul. 1997. The semantics of mood, complementation, and conversational force. *Natural Language Semantics* 5.2, 167–212.
- [doi](#) Portner, Paul. 2004. The semantics of imperatives within a theory of clause type. *Proceedings of SALT* 14, 235–252.


- doi Portner, Paul. 2007. Imperatives and modals. *Natural Language Semantics* 15.4, 351–383.
- doi Portner, Paul. 2009. *Modality*. Oxford: Oxford University Press.
- doi Portner, Paul. 2016. Imperatives. In Maria Aloni, & Paul Dekker (eds.), *The Cambridge handbook of formal semantics*, 593–626. Cambridge: Cambridge University Press.
- Potsdam, Eric. 1998. *Syntactic issues in the English imperative*. New York: Garland Pub.
- Recanati, François. 1987. *Meaning and force: The pragmatics of performative utterances*. Cambridge: Cambridge University Press.
- doi Rivero, Maria Luisa & Arhonto Terzi. 1995. Imperatives, v-movement and logical mood. *Journal of Linguistics* 31.2, 301–332.
- doi Roberts, Craige. 1989. Modal subordination and pronominal anaphora in discourse. *Linguistics and Philosophy* 12.5, 683–721.
- doi Roberts, Craige. 2023. Imperatives in dynamic pragmatics. *Semantics and Pragmatics* 16,
- doi Russell, Benjamin. 2007. Imperatives in conditional conjunction. *Natural Language Semantics* 15.2, 131–166.
- Schwager, Magdalena. 2006. Interpreting imperatives. Ph.D. dissertation, University of Frankfurt/Main.
- doi Scontras, Gregory, & Edward Gibson. 2011. A quantitative investigation of the imperative-and-declarative construction in English. *Language* 87.4, 817–829.
- Shyu, Shu-ing. 1995. The syntax of focus and topic in Mandarin Chinese. Ph.D. dissertation, University of Southern California.
- doi Shyu, Shu-ing. 2016. Minimizers and even. *Linguistics* 54.6, 1355–1395.
- Shyu, Shu-ing. 2018. The scope of *even*: Evidence from Mandarin Chinese. *Language and Linguistics* 19.1, 156–195.
- doi Speas, Peggy, & Carol Tenny. 2003. Configurational properties of point of view roles. In Anna Maria Di Sciullo (ed.), *Asymmetry in grammar*, 315–343. Amsterdam: John Benjamins.
- doi Stalnaker, Robert. 1978. Assertion. In Peter Cole (ed.), *Syntax and Semantics*, vol. 9, 315–332. New York: Academic Press.
- doi Stalnaker, Robert. 2002. Common ground. *Linguistics and Philosophy* 25.5–6, 701–721.
- Starr, Williams B. 2020. A preference semantics for imperatives. *Semantics & Pragmatics* 13, Article 6, 1–60.
- doi Tsai, Wei-Tien Dylan. 2015. On the Topography of Chinese Modals. In Ur Shlonsky (ed.), *Beyond functional sequence*, 275–294. New York: Oxford University Press.
- van der Auwera, Johan. 2006. Why languages prefer prohibitives? *Journal of Foreign Languages* 1, 2–25.
- doi von Stechow, Kai & Anthony S. Gillies. 2008. CIA leaks. *The Philosophical Review* 117.1, 77–98.
- von Stechow, Kai, & Sabine Iatridou. 2017. A modest proposal for the meaning of imperatives. In Ana Arregui, Maria Luisa Rivero & Andres Salanova (eds.), *Modality across syntactic categories*, 288–319. Oxford: Oxford University Press.
- doi Wiltschko, Martina. 2021. *The grammar of interactional language*. Cambridge: Cambridge University Press.
- doi Wimmer, Alexander. 2022. *Zhi*-{*yao*, *you*} ‘only-need, have’: On two conditional connectives in Mandarin. *Journal of East Asian Linguistics* 31.3, 401–438.
- doi Wimmer, Alexander. 2026. Bouletic concord. *Natural Language & Linguistic Theory* 44.1,

Yip, Chak-Lam Colum. 2016. Verbs of command and the status of their embedded complements in Chinese. *Studies in Chinese Linguistics* 37.2, 130–145.

Yuan, Xuetong. 2024. Conditions on conditionals: Evaluativity, discourse sensitivity, and conditionals without if. Ph.D. dissertation, University of Connecticut.

Yue-Hashimoto, Anne. 1999. The so-called pivotal constructions in pre-Qin Chinese. In Alain Peyraube & Chaofen Sun (eds.), *In honor of Mei Tsu-lin: Studies on Chinese historical syntax and morphology*, 327–360. Paris: EHESS-CRLAO.


 Zanutini, Raffaella. 2008. Encoding the addressee in the syntax: Evidence from English imperative subjects. *Natural Language & Linguistic Theory* 26.1, 185–218.

 Zanutini, Raffaella, Miok Pak & Paul Portner. 2012. A syntactic analysis of interpretive restrictions on imperative, promissive, and exhortative subjects. *Natural Language & Linguistic Theory* 30.4, 1231–1274.

Address for correspondence

Wei-wen Roger Liao
Institute of Linguistics
Academia Sinica
No. 128, Sec. 2, Academia Rd.
Nangang, Taipei 11529
Taiwan (ROC)

lwvroger@as.edu.tw

 <https://orcid.org/0000-0002-2338-5607>

Publication history

Date received: 12 October 2025

Date accepted: 2 March 2026

Published online: 31 March 2026