

On the Cleft Construction in Mandarin Chinese

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This paper intends to investigate the cleft construction in Mandarin Chinese (MC hereafter). First, we try to delve into the syntactic structure of the cleft construction. We propose that *shi*, a focus marker, occupies the Foc^0 head position. Elements preceding *shi*, if any, are base-generated in Spec, TopP. Second, we deal with the puzzle with regard to object uncleftability. We here argue that the phenomenon leads to violation of Relativized Minimality (Rizzi 1990), as the verb, base-generated in V^0 head, must move across *shi* in Foc^0 head so as to derive the surface order. Third, we also manage to provide a cartographic approach concerning the syntactic positions of clefts and modals. It is found that epistemic modals must precede *shi* in MC, which means that ModP must be higher than FocP. By contrast, *shi* cannot follow deontic modals, which further evidences that *shi* is situated in the CP level.

1. Introduction

This paper intends to investigate the cleft construction in Mandarin Chinese (MC hereafter) (see (1)). Three issues will be discussed in this paper. First, I try to delve into the syntactic structure of the cleft construction. Following Rizzi's (1997) left periphery analysis, which divides CP into several functional projections, I propose that *shi*, a focus marker, occupies the Foc^0 head position. Elements preceding *shi*, if any, are base-generated in Spec, TopP, a functional projection above FocP. Besides, I contend that there is no TopP below FocP in MC (see (2)).

- (1) a. Zhangsan shi zuotian qu Taipei de.
Zhangsan SHI yesterday go Taipei DE
'It is yesterday that Zhangsan went to Taipei.'
- b. Shi Zhangsan zuotian qu Taipei de.
SHI Zhangsan yesterday go Taipei DE
'It is Zhangsan that went to Taipei yesterday.'
- (2) a. Lisi a mingtian shi yao chuguo de.
Lisi TOP tomorrow SHI want go abroad DE
'Lisi, it is go abroad that he will do tomorrow.'

- b. *Shi Lisi mingtian a yao chuguo de.
 SHI Lisi tomorrow TOP want go abroad DE
 ‘It is Lisi tomorrow, that will go abroad’

Second, I will deal with the puzzle with regard to object uncleftability (see (3)), a less mentioned subject in the literature. I here argue that the reason lies in the fact that when an object is cleft, a situation in which *shi* intervenes between the verb and the object, it would lead to violation of Relativized Minimality (Rizzi 1990), as the verb, base-generated in V^0 head, must move across *shi* in Foc^0 head to an unknown functional head so as to derive the surface order.

- (3) a. Shi Akiu zuotian qu Taipei de.
 SHI Akiu yesterday go Taipei DE
 ‘It is Akiu that went to Taipei yesterday.’
 b. *Akiu zuotian qu shi Taipei de.
 Akiu yesterday go SHI Taipei DE
 ‘It is Taipei that Akiu went to yesterday.’

Third, based on Tsai’s (2010) modality spectrum, I will provide a cartographic approach concerning the relative syntactic positions between clefts and modals. It is found that epistemic modals, such as *dagai* ‘possibly’, must precede *shi* in MC (see (4)), which means that $ModP$ must be higher than $FocP$. By contrast, *shi* cannot follow deontic modals, e.g. *bixu* ‘must’ (see (5)), which further evidences that *shi* is situated in the CP level.

- (4) a. Xiaodi dagai shi qu Taipei de.
 Xiaodi probably SHI go Taipei DE
 ‘It is go to Taipei that Xiaodi probably will do.’
 b. *Xiaodi shi dagai qu Taipei de.
 Xiaodi SHI probably go Taipei DE
 ‘It is probably that Xiaodi will go to Taipei.’

- (5) a. *Xiaodi bixu shi qu Taipei de.
 Xiaodi must SHI go Taipei DE
 ‘It is go to Taipei that Xiaodi must do.’
 b. Xiaodi shi bixu qu Taipei de.
 Xiaodi SHI must go Taipei DE
 ‘It is must that Xiaodi go to Taipei.’

2. Literature Review

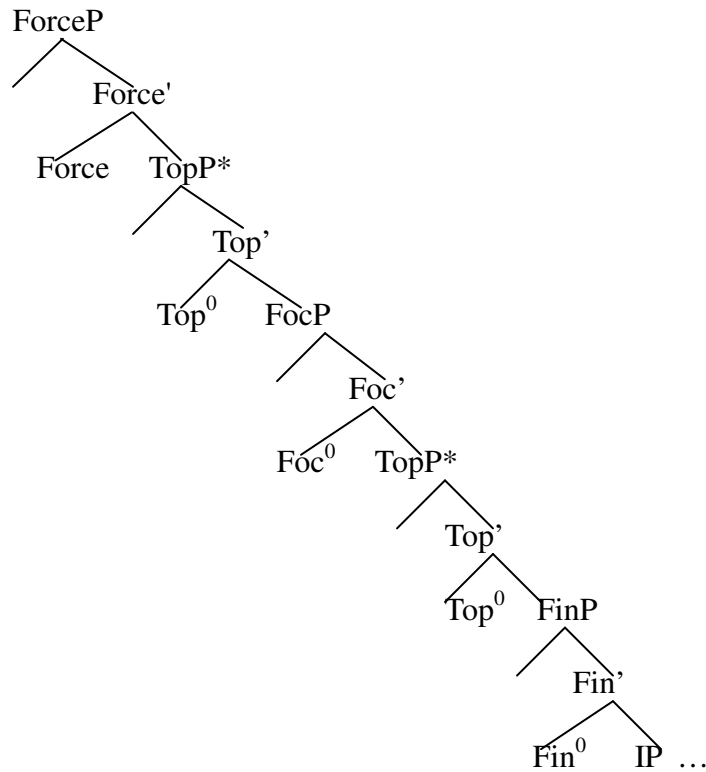
In this section I will discuss some related works on the cleft construction in MC

as well as the theoretical framework I will adopt in this paper.

2.1. Rizzi's (1997) Structure of the Left Periphery

In his "The Fine Structure of the Left Periphery," Rizzi (1997) examines the syntactic structures of Italian and some other European languages and points out that there should be layered functional projections within the complementizer domain of a tree structure, as schematized below.

(6)

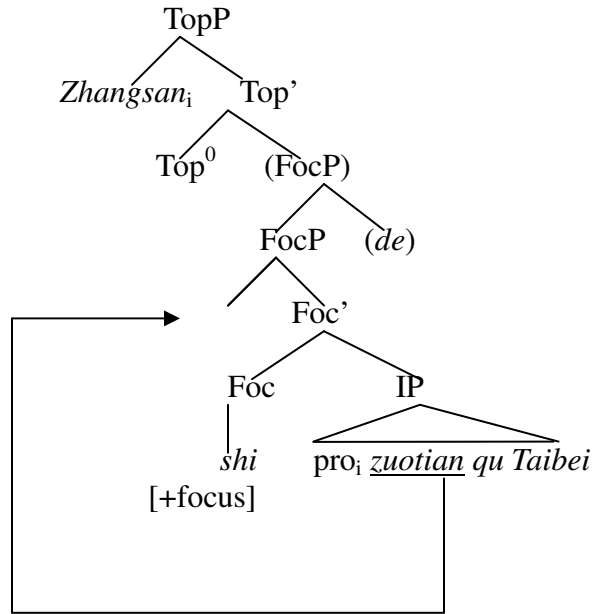


2.2. On Chinese Focus and Cleft Constructions (Lee 2005)

As seen above, Rizzi suggests that the structure of CP can be parsed into several functional projections. Based on this, Lee in her doctoral dissertation analyzes the syntactic structure of the cleft construction in MC and argues that *shi*, a focus marker, occupies the Foc⁰ head position and that the focalized element will undergo LF movement to Spec, FocP. Sentence (1a) is reproduced in (7a), and its tree structure is given in (7b) below.

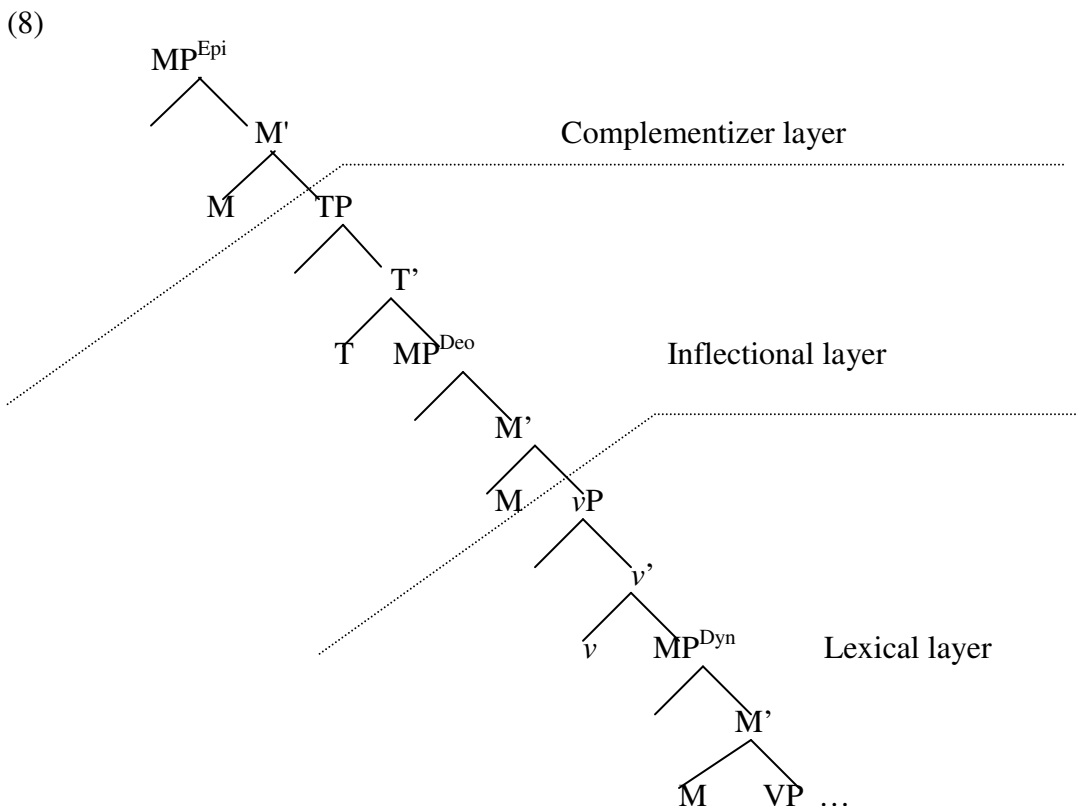
- (7) a. Zhangsan shi zuotian qu Taipei de.
 Zhangsan SHI yesterday go Taipei DE
 ‘It is yesterday that Zhangsan went to Taipei.’

b.



2.3. Tsai's (2010) Modality Spectrum

Following the spirit of the layered structure of the left periphery analysis in Rizzi (1997), Tsai (2010) postulates a “modality spectrum” which divides the various types of modals into three hierarchically distinct layers, i.e. epistemics, deontics, and dynamics, which correspond to the complementizer, inflectional, and lexical layer, respectively in Rizzi's (1997) sense. The modality spectrum in Tsai (2010) is schematized below in (8).



In this paper, I will assume Tsai's modality spectrum and discuss where *shi*, which heads FocP, should be located in the above structure.

3. Cleft Construction in MC

In this section I will discuss the syntactic structure and some of the relevant issues concerning the cleft construction in MC.

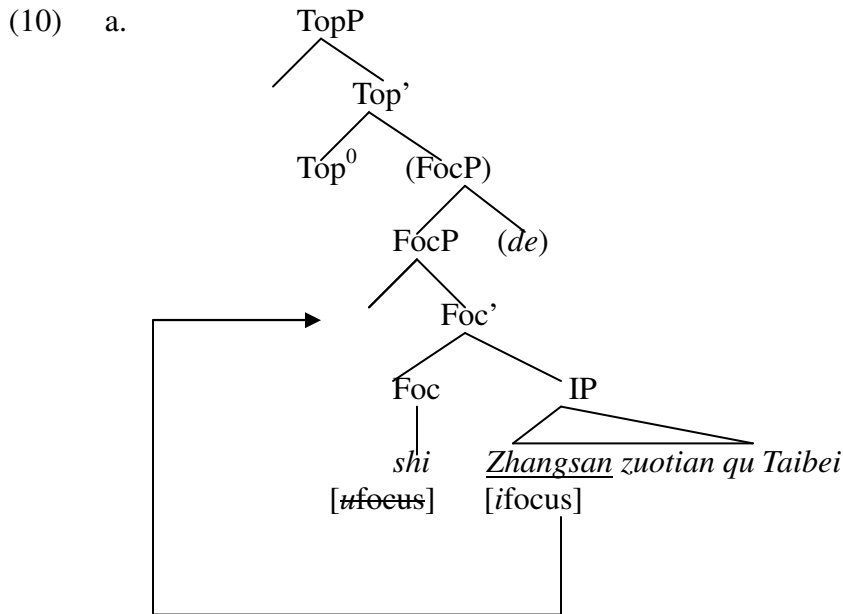
3.1. The Syntactic Structure of the Cleft Construction in MC

Let us begin by delving into the syntactic structure of the cleft construction in MC. Basically I follow Lee's (2005) analysis which treats *shi* as a focus marker occupying the Foc^0 head position. Moreover, I further assume that *shi*, containing an [*ufocus*] feature, will probe an [*ifocus*] phrasal element and such element will subsequently move to Spec, FocP in LF to check off the [*ufocus*] feature on Foc^0 .

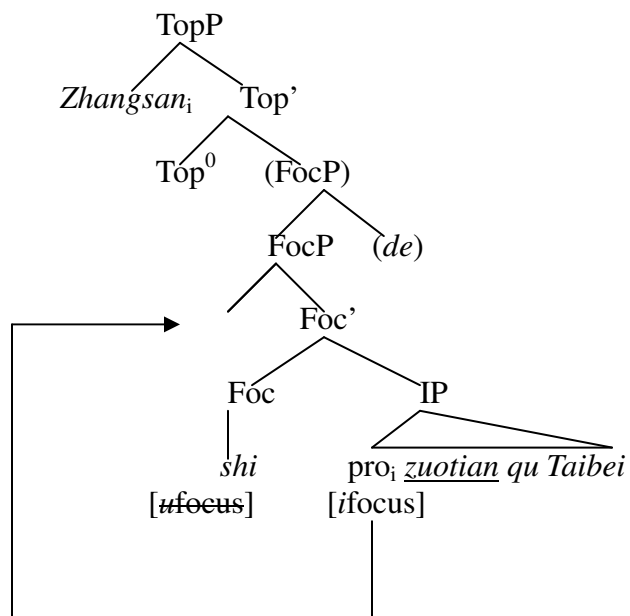
- (9) a. Zhangsan zuotian qu-le Taipei.
 Zhangsan yesterday go-ASP Taipei
 'Zhangsan went to Taipei yesterday.'

- b. Shi Zhangsan zuotian qu Taipei de.
SHI Zhangsan yesterday go Taipei DE
'It is Zhangsan that went to Taipei yesterday.'
- c. Zhangsan shi zuotian qu Taipei de.
Zhangsan SHI yesterday go Taipei DE
'It is yesterday that Zhangsan went to Taipei.'
- d. Zhangsan zuotian shi qu Taipei de.
Zhangsan yesterday SHI go Taipei DE
'It is went to Taipei that Zhangsan did yesterday.'

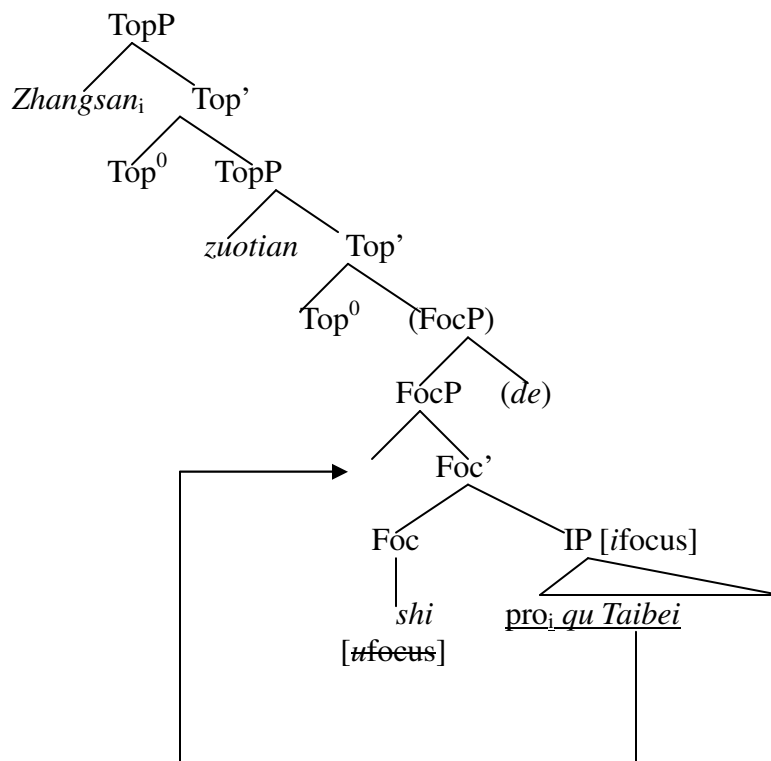
For instance, (9a) is the ordinary declarative counterpart sentence of the three cleft sentences (9b-d). Sentence (9b) exhibits a situation where the subject is focalized. (9c), on the other hand, is a situation where an adverbial/adjunct is focalized. And sentence (9d) is a situation in which the full verb phrase/predicate is being focalized. The syntactic structures of (9b), (9c), and (9d) are given in (10a), (10b), and (10c), respectively.



b.



c.



Sentence (9d) and its structure shown in (10c) especially back up Rizzi's structure of left periphery in (6) in that Chinese also allows multiple topics. However, in comparison with Italian, I contend that there is no TopP below FocP in MC, as evidenced by the deviance of (11b) below.

(11) a. Lisi a mingtian shi yao chuguo de.
Lisi TOP tomorrow SHI want go abroad DE
'Lisi, it is go abroad that he will do tomorrow.'

b. *Shi Lisi mingtian a yao chuguo de.
SHI Lisi tomorrow TOP want go abroad DE
'It is Lisi tomorrow, that will go abroad'

3.2. Object Uncleftability

This section deals with the puzzle with regard to object uncleftability in MC, a less mentioned issue in the literature. Compared with English, which allows the object of a sentence to be cleft, in MC, however, cleft objects are generally blocked, as illustrated below.

(12) English
a. It is John that went to Taipei yesterday. (cleft subject)
b. It is Taipei that John went to yesterday. (cleft object)

(13) Mandarin Chinese
a. Shi Akiu zuotian qu Taibei de. (cleft subject)
SHI Akiu yesterday go Taipei DE
'It is Akiu that went to Taipei yesterday.'
b. *Akiu zuotian qu shi Taibei de. (*cleft object)
Akiu yesterday go SHI Taipei DE
'It is Taipei that Akiu went to yesterday.'

Here I propose that this has to do with the Relativized Minimality (Rizzi 1990), which can be defined as follows.

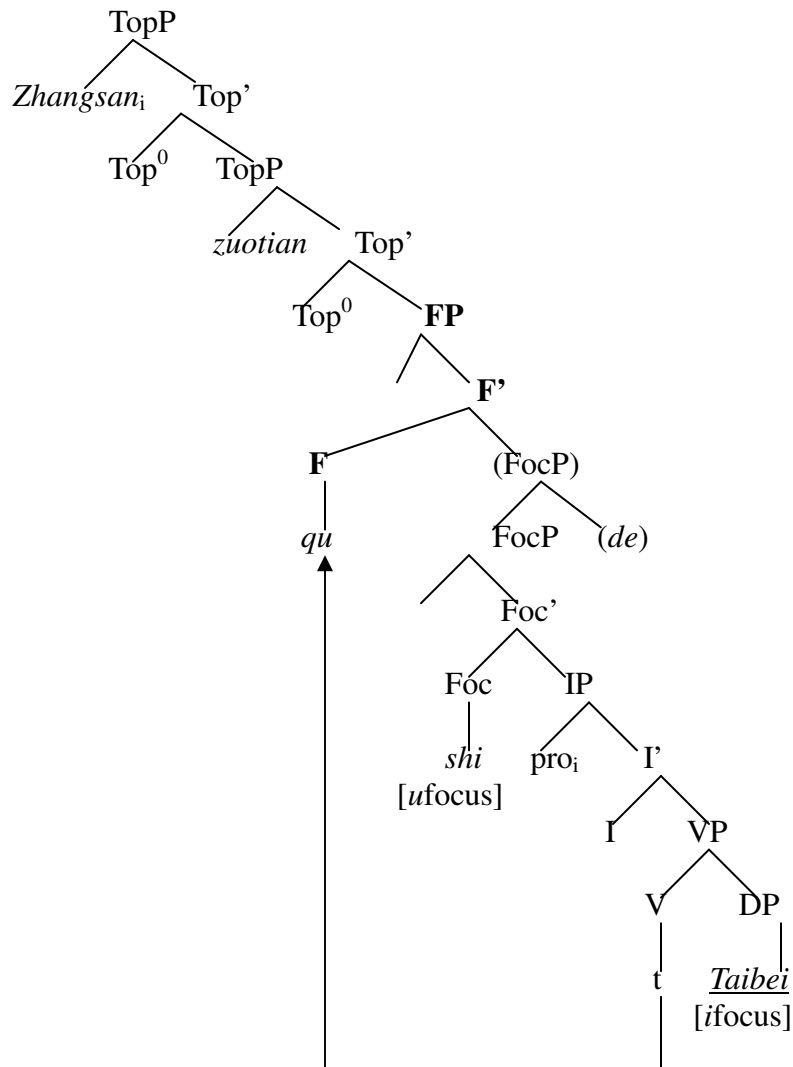
(14) Relativized Minimality (RM)

α antecedent-governs β only if there is no γ such that

- (i) γ is a typical potential antecedent-governor for β
- (ii) γ c-commands β and does not c-command α .

More specifically, the reason why objects cannot be cleft lies in the fact that when an object is cleft, a situation in which *shi* intervenes between the verb and the object, then the verb, base-generated in V^0 head, must move across *shi* in Foc^0 head to an unknown functional head (I will not intend to specify the functional projection here) so as to derive the surface order. Consequently, *shi*, which occupies the Foc^0 head position, will become a typical potential antecedent-governor for the trace left by the moved V^0 head, hence resulting in violation of RM. The derivation of (13b) is given in (15) below.

(15)



3.3. Clefts and Modals

This section provides a cartographic approach concerning the relative syntactic positions between clefts and modals. As mentioned above, Tsai (2010) proposes a three-layered analysis of Chinese modals, namely, epistemics, deontics, and dynamics, each mapping into the CP layer, IP layer, and vP layer, respectively. It is curious where *shi* should be located in Tsai's modality spectrum compared with epistemic modals within the complementizer layer.

To begin with, it is found that epistemic modals, such as *dagai* 'possibly', must precede *shi* in MC, as exemplified in (4). By contrast, *shi* cannot follow deontic modals, e.g. *bixu* 'must', as shown in (5). Sentences (4) and (5) are again repeated here in (16) and (17) below for the sake of convenience.

- (16) a. Xiaodi *dagai shi* qu Taipei de.
 Xiaodi probably SHI go Taipei DE
 'It is go to Taipei that Xiaodi probably will do.'
 b. *Xiaodi *shi dagai* qu Taipei de.
 Xiaodi SHI probably go Taipei DE
 'It is probably that Xiaodi will go to Taipei.'
- (17) a. *Xiaodi *bixu shi* qu Taipei de.
 Xiaodi must SHI go Taipei DE
 'It is go to Taipei that Xiaodi must do.'
 b. Xiaodi *shi bixu* qu Taipei de.
 Xiaodi SHI must go Taipei DE
 'It is must that Xiaodi go to Taipei.'

Although one might attribute the ungrammaticality of (17a) to the nature of *shi* that it can never appear after a verb (otherwise RM will play a role), there are two pieces of evidence to infer that both the epistemic modal *dagai* 'possibly' and the deontic modal *bixu* 'must' are adverbs rather than auxiliary verbs. One is VP-fronting. If we assume that VP-fronting can be implemented only under head-government (Huang 1993), it follows that only auxiliary verbs can license VP-fronting, as in (18b). On the other hand, modal adverbs, being XP adjuncts/adverbs, are not qualified to do so. This prediction is borne out, as evidenced by (18c).

- (18) a. Zhangsan *dagai hui* qu Taipei.
 Zhangsan probably will go Taipei
 'Zhangsan probably will go to Taipei.'
 b. Qu Taipei, Zhangsan *dagai hui*.
 go Taipei Zhangsan probably will
 'Go to Taipei, Zhangsan probably will.'

- c. *Hui qu Taipei, Zhangsan dagai.
 will go Taipei Zhangsan probably
 ‘Will go to Taipei, Zhangsan probably.’

The same pattern is obtained for deontic adverbs and deontic auxiliary verbs, as illustrated by the contrast between (19b) and (19c).

- (19) a. Zhangsan bixu yao qu Taipei.
 Zhangsan must have to go Taipei
 ‘Zhangsan must have to go to Taipei.’
 b. Qu Taipei, Zhangsan bixu yao.
 go Taipei Zhangsan must have to
 ‘Go to Taipei, Zhangsan must have to.’
 c. *Yao qu Taipei, Zhangsan bixu.
 have to go Taipei Zhangsan must
 ‘Have to go to Taipei, Zhangsan must.’

The other evidence comes from VP ellipsis. Again, if we assume that VP ellipses can be implemented only under head-government (cf. Wu 2002), it follows that only auxiliary verbs, but not adverbs, can license VP ellipses. Our prediction is again borne out, epistemics and deontics alike, as evidenced by the contrasts of (20a,b) and (21a,b).

- (20) a. Zhangsan dagai hui qu Taipei, Lisi ye dagai hui.
 Zhangsan probably will go Taipei Lisi also probably will
 ‘Zhangsan probably will go to Taipei, and Lisi probably will, too.’
 b. *Zhangsan dagai hui qu Taipei, Lisi ye dagai.
 Zhangsan probably will go Taipei Lisi also probably
 ‘Zhangsan probably will go to Taipei, and Lisi probably, too.’
- (21) a. Zhangsan bixu yao qu Taipei, Lisi ye bixu yao.
 Zhangsan must have to go Taipei Lisi also must have to
 ‘Zhangsan must have to go to Taipei, and Lisi must have to, too.’
 b. *Zhangsan bixu yao qu Taipei, Lisi ye bixu.
 Zhangsan must have to go Taipei Lisi also must
 ‘Zhangsan must have to go to Taipei, and Lisi must, too.’

As shown in the sentences from (18) to (21) above, we can conclude that both *dagai* ‘possibly’ and *bixu* ‘must’ are undoubtedly adverbs rather than auxiliary verbs. And since *bixu* is an adverb, the ungrammaticality of (17a) cannot be a result of violation of RM as no head movement is involved here.

Therefore, here I argue that the ungrammaticality of (17a) is supporting evidence of Tsai's modality spectrum. Since *shi* occupies the Foc^0 head position in CP level, it follows that it can never occur after *bixu*, which is a deontic adverb situated below TP in Tsai's modality spectrum. As for the contrast between (16a) and (16b), since *dagai* 'possibly' must precede *shi*, it suggests that MP^{Epi} must be higher than FocP .

4. Conclusion

This paper examines the cleft construction in Mandarin Chinese. Three issues have been discussed in this paper. First, I delved into the syntactic structure of the cleft construction. Following Rizzi's (1997) left periphery analysis, which divides CP into several functional projections, I propose that *shi*, a focus marker, occupies the Foc^0 head position and that *shi*, containing an [*ufocus*] feature, will probe an [*ifocus*] phrasal element and such element will subsequently moves to Spec, FocP in LF to check off the [*ufocus*] feature on Foc^0 . Besides, I contend that there is no TopP below FocP in Mandarin Chinese.

Second, I dealt with the puzzle with regard to object uncleftability, a less mentioned subject in the literature. I here argue that the reason lies in the fact that when an object is cleft, a situation in which *shi* intervenes between the verb and the object, this would lead to violation of Relativized Minimality (Rizzi 1990), as the verb, base-generated in V^0 head, must move across *shi* in Foc^0 head so as to derive the surface order.

Third, based on Tsai's modality spectrum, I also managed to provide a cartographic approach concerning the syntactic position of clefts and modals. It is found that epistemic modals, such as *dagai* 'possibly', must precede *shi* in Mandarin Chinese, which means that MP^{Epi} must be higher than FocP . By contrast, *shi* cannot follow deontic modals, e.g. *bixu* 'must', which further evidences that *shi* is situated in the CP level.

To conclude, the structure of the complementizer layer in Mandarin Chinese can be schematized as follows.

- (22) [TopP *Akiu* [Top' Top [MP^{Epi} *dagai* [M' M [FocP [Foc' Foc *shi* [TP *qu Taipei* ...
Akiu probably SHI go Taipei
 'It is go to Taipei that Akiu probably will do.'

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