

# **Clause-Internal Preposing in Late Archaic Chinese**

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**February 2016**

## Abstract

In this thesis I investigate the preverbal positioning of *wh* and non-*wh*-phrases in Late Archaic Chinese (LAC) and the Intervention Effect (Beck 1996a). I first explore non-*wh*-fronting and discover two landing sites for preposed DPs. Non-*wh*-objects fronted to the higher position in the left periphery are consistent with a topical interpretation, yet those moved to the lower position between the subject and negation are consistent with a focal interpretation. In the context of negation, pronouns normally move to negation and target a position exclusively for them.

I then discuss two types of *wh*-preposing in LAC. D-linked *which*-phrases in LAC are topical, therefore they appear in an internal topic position. With respect to non-D-linked *wh*-DPs, they target one of the two focused positions in the medial domain, either between the internal topic position and negation or between negation and *v*P. The higher focus position above negation is expected to exclusively permit *wh*-phrases base-generated above negation, and the lower focused position below negation accommodates *wh*-adverbials base-generated between negation and *v*P. I also propose that the inverted order of *wh*-P is generated via PP inversion followed by separate preposing of *wh* and P.

I finally explore the Intervention Effect. Negation, rather than focus or quantificational phrases, functions as a barrier for the Q-binding of *wh*-phrases in LAC. *Wh*-items that have the option to stay in-situ, along with *wh*-arguments and adverbials that usually move to the lower focus position below negation, are subject to the Intervention Effect caused by negation. As a consequence, these *wh*-phrases have to land in the higher focus position above negation which is expected to accommodate ‘high’ adverbials exclusively. I propose that the Intervention Effect in LAC is a consequence of Q-binding as feature movement of [wh], interacting with fronting into the hierarchy of clause-internal positions driven by [Topic] or [Focus] features.

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## **Acknowledgements**

I would like to express my sincere gratitude to my supervisor, Professor Peter Sells, for his inspiring and stimulating guidance and instruction. This thesis would not have been possible without the help, advice and patience of Professor Sells.

I am especially indebted to Dr Shin-Sook Kim for her invaluable and constructive comments and feedback on the original draft, especially on chapters discussing the Intervention Effect.

I also would like to sincerely thank Professor Edith Aldridge and Professor Dunstan Brown for their valuable comments. This thesis also received support from staff in the Department of Language and Linguistic Science at the University of York.

Finally, I would like to thank my parents for always being supportive and loving. Without their love, encouragement and financial support, I would not be able to do my PhD research.

## **Author's Declaration**

I, Aiqing Wang, declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

Aiqing Wang. 2013. Object Preposing in Late Archaic Chinese. *York Papers in Linguistics* 13: 70–98.

Aiqing Wang. 2015. The Intervention Effect of Negation on *Wh*-Adverbials in Late Archaic Chinese. *Proceedings of the Second Asian and European Linguistic Conference*: 160–172.

I wish to confirm that there are no known conflicts of interest associated with this thesis and there has been no significant financial support for this work that could have influenced its outcome.

I confirm that there are no other persons who satisfied the criteria for authorship but are not listed.

# Clause-Internal Preposing in Late Archaic Chinese

## 1. Introduction

### 1.1. Late Archaic Chinese Syntax

Archaic Chinese, later replaced by the term ‘Old Chinese’, refers to the language of the early and middle Zhou period (11<sup>th</sup>c BC-221 BC) (Karlgren 1923, Baxter 1992, Sagart 1999, Djamouri et al 2012). I follow Wang (1958a), Zhou (1963) and Peyraube (2003) in terming Archaic Chinese during the Warring States period (475-221 BC) as Late Archaic Chinese (LAC), which exhibits distinctive characteristics. I also agree that around the Han Dynasty (2<sup>nd</sup>c BC-2<sup>nd</sup>c AD) after the pre-Qin period, there was a crucial transitional period with multiple typological changes, such as a rise of resultative compounds<sup>1</sup> and

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<sup>1</sup> According to my observation, resultative constructions have occurred in LAC, and they exhibit properties that are typically associated with control, analogous to their counterparts in modern Mandarin. As suggested by Huang (1992), resultatives in modern Mandarin should adopt a control analysis, the display effects of Rosenbaum’s (1970) Minimal Distance Principle, Visser’s (1973) generalisation that only object-control predicates may undergo passivisation, as well as Bach’s (1979) generalisation that only subject-control verbs may omit their objects. Example (ia) contains a resultative construction, and (ib) is its adapted version in modern Mandarin.

- (i) a. 鞭 之 見 血。 (管子•大匡)  
Bian zhi [<sub>Pro</sub> xian xue].  
whip 3.Obj appear blood  
‘(The duke) whipped him (until he) bled.’
- b. bianda-de \*(ta) liuxue  
whip-DE 3.Obj bleed
- c. ta bei bianda-de liuxue  
3.Obj by whip-DE bleed



an increase in embedded *wh*-questions (Xu 2006, Aldridge 2015a). Texts in LAC display predominant SVO word order, with objects appearing in a postverbal position. Examples<sup>2</sup> in (1) involve nominal and pronominal non-*wh*-objects.

- (1) a. 齊 人 伐 燕 (孟子•梁惠王下)  
 Qi ren fa Yan  
 Qi person attack Yan  
 ‘people of the State of Qi attacked the State of Yan’
- b. 晉 人 用 之。<sup>3</sup> (國語•楚語上)  
 Jin ren yong zhi.  
 Jin person employ 3.Obj  
 ‘People of the State of Jin employed him.’

However, there are contexts in which nominal and pronominal objects appear

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In (ia), the object minimally c-commands the complement clause, so the Minimal Distance Principle (Rosenbaum 1970) predicts that it is an object control construction. Visser’s (1973) generalisation predicts that object-control predicates can undergo passivisation, which is verified, as in (ic). As for Bach’s (1979) generalisation, it is also justified by the fact that omitting the object would generate an infelicitous expression (see (ib)).

<sup>2</sup> The primary sources of this paper are Peking University corpus, Academia Sinica electronic database, and the Sheffield Corpus of Chinese. The selected texts of these corpora are all received, representing a wide range of writing found in various time periods. In LAC period, the corpora cover around twenty key books written by different authors and provide a considerable amount of discourses. The written language since the unification of China in Qin Dynasty (221 BC-207 BC) was modelled after that in the Warring States period (475-221 BC), hence cannot reflect authentic features of the spoken language (Wu 1980). Literary Chinese (*wenyan* 文言) became increasingly a dead language, from which the spoken language increasingly diverged (Pulleyblank 1995). Therefore, I do not discuss texts later than the Han Dynasty (2<sup>nd</sup>c BC-2<sup>nd</sup>c AD).

<sup>3</sup> This morpheme may act either as a fronting marker (see (2a) and (6b) below), or as a pronoun; its functions will be discussed in the next chapter.

preverbally in the low TP-internal domain, as in (2a-b).

- (2) a. 吾 百姓 之 不 圖 (國語•越語下)  
 wu baixing<sub>i</sub> zhi bu [<sub>VP</sub> tu t<sub>i</sub>]  
 I common.people ZHI not care.about  
 ‘I did not care about common people’
- b. 吾 斯 之 未 能 信。 (論語•公冶長)  
 Wu si<sub>i</sub> zhi wei neng [<sub>VP</sub> xin t<sub>i</sub>].  
 I this ZHI not.yet can be.confident.in  
 ‘I have not been able to be confident in this.’

In LAC, question words display various forms, and can be divided into seven semantic categories: 1) Object/activity ‘what/which’. In this category, eight *wh*-words are attested: 何 *he*, 胡 *hu*, 曷 *he*, 奚 *xi*, 孰 *shu*, 焉 *yan*, 安 *an*, and 惡 *wu*. Among these *wh*-words, 奚 *xi* might be a variant of 何 *he*, and they can both function as a subject, object or attribute. 孰 *shu* is different from its counterparts in the same group, in that it conveys the implication of choice, and the available options usually occur at the beginning of the sentence as antecedents (3a). 2) Person ‘who’. There are only two question words that fall into this group, namely, 誰 *shui* and 孰 *shu* (3b). 誰 *shui* has occurred since the period of Early Archaic Chinese (11<sup>th</sup>-6<sup>th</sup>c BC) and was still widely used as the main word for ‘who’. 孰 *shu*, however, appeared in LAC as a new question word, and might have replaced 疇 *chou*, which is etymologically related to 孰 *shu* (Pulleyblank 1995). 誰 *shui* and 孰 *shu* display syntactic mismatches: the former may function as a subject, predicate, object or attribute; the latter predominantly acts as a subject, appearing in an object position in scattered examples, but never functions as a predicate or attribute. 3) Quality and/or manner ‘how’. There are fifteen questions words in this group, out of which seven are monosyllabic (3c), and eight are disyllabic. 4) Cause and purpose ‘why/what for’. This category is constituted of seven mono- and disyllabic *wh*-words, viz. 何 *he*, 胡 *hu*, 曷 *he*, 奚 *xi*, 盍(闔) *he*, 何以 *heyi* and 何故 *hegu*. Among this group, 何 *he* and 胡 *hu* are the most common words for ‘why’, while 盍(闔) *he* is a newly emerged contracted form for 何 *he* and the negator 不 *bu*

(3d). 5) Time ‘when’. This group involves one and only question word 曷(害) *he* (3e). 6) Space ‘where’. There are five *wh*-words that fall into this group: 何 *he*, 安 *an*, 焉 *yan*, 奚 *xi* and 惡 *wu* (3f), and the last two did not emerge until the LAC period. 7) Quantity ‘how much/how many’. The usage of 幾何 *jihe* has been preserved from Early Archaic Chinese; additionally, 幾 *ji* emerged as a new expression (3g) (Peyraube and Wu 2000, 2005).

(3) a. 禮 與 食 孰 重? (孟子•告子下)

Li yu shi shu zhong?  
etiquette Conj food which important  
‘Which is more important: etiquette or food?’

b. 孰 能 一 之? (孟子•梁惠王下)

Shu neng yi zhi?  
who can unite 3.Obj  
‘Who can unite it?’

c. 爾 焉 能 洩 我 哉? (孟子•公孫丑上)

Er yan neng mei wo zai?  
you how can defile me Excl  
‘How can you defile me?’

d. 盍 各 言 爾 志? (論語•公冶長)

He ge yan er zhi?  
why-not each say your wish  
‘Why don’t (you) each tell your wishes?’

e. 吾 子 其 曷 歸? (左傳•昭公元年)

Wu zi qi he gui?  
my son part. when return  
‘When will my son return?’

f. 皮 之 不 存, 毛 將 安 附?<sup>4</sup>  
 Pi zhi bu cun, mao jiang an<sub>i</sub> [VP fu t<sub>i</sub>]?  
 skin ZHI not exist hair Fut where attach

‘(If) the skin does not exist, where will the hair be attached?’

(左傳•僖公十四年)

g. 子 來 幾 日 矣?  
 Zi lai ji ri yi?  
 you come how.many day Perf

(孟子•離婁上)

‘How many days have you been (here)?’

(Adopted from Peyraube and Wu 2005: 12-14)

Another strategy proposed by Wang (1958a) divides LAC *wh*-words into three classes, depending on their initial consonants:

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<sup>4</sup> (3f) is a ‘bare conditional’ that does not have an overt leading element ‘if’ in the antecedent clause or an overt quantifier in the consequent clause (Cheng and Huang 1996). In (3f), both ‘if’ and ‘then’ are omitted. Similarly, in modern Mandarin, both the leading element *ruguo* ‘if’ and the quantifier *jiu* ‘then’ can be null (iia). Alternatively, only *ruguo* is null (iib). However, I find that omitting the quantifier alone triggers ungrammaticality (iic).

(ii) a. *shei* xian lai, *shei* xian chi  
 who first come, who first eat  
 ‘If X comes first, X eats first.’

b. *shei* xian lai, *shei* jiu xian chi  
 who first come, who then first eat  
 ‘If X comes first, then X eats first.’

(From Cheng and Huang 1996: 127)

c. \* *ruguo* *shei* xian lai, *shei* xian chi  
 if who first come, who first eat

- (4) a. 誰 *shui* ‘who’, 孰 *shu* ‘which’  
 b. 何 *he* ‘what’, 奚 *xi* ‘what’, 曷 *he* ‘when’, 胡 *hu* ‘why’  
 c. 惡 *wu* ‘where’, 安 *an* ‘where’, 焉 *yan* ‘where’

Subject *wh*-phrases remain in situ in LAC. When a *wh*-phrase occupies the subject position, it is in [Spec, TP], because Archaic Chinese has an A-position for the subject above *v*P. Since Archaic Chinese always requires subject movement out of *v*P, T must hold an EPP feature for a raised subject to check. The asymmetry between (5a) involving a non-*wh*-subject and (5b) involving a *wh*-subject may be explained by the low *wh*-movement account. When a *wh*-phrase is the object, it normally fronts to a position below the subject and above *v*P. Assuming a Hamblin (1973) semantics for interrogatives, moved *wh*-items in LAC are interpreted at LF via covert movement. Supposing that the position of the interrogative operator at LF is  $C^0$ , covert *wh*-movement would target a related position above  $C^0$ .

- (5) a. 我 將 何 求? (左傳•僖公二十八年; Aldridge 2010a: 11)

[<sub>TP</sub> Wo [<sub>vP</sub> jiang [<sub>vP</sub> he [<sub>v'</sub> t<sub>wo</sub> [<sub>v'</sub> qiu t<sub>he</sub>]]]]]?

I will what ask.for

‘What will I ask for?’

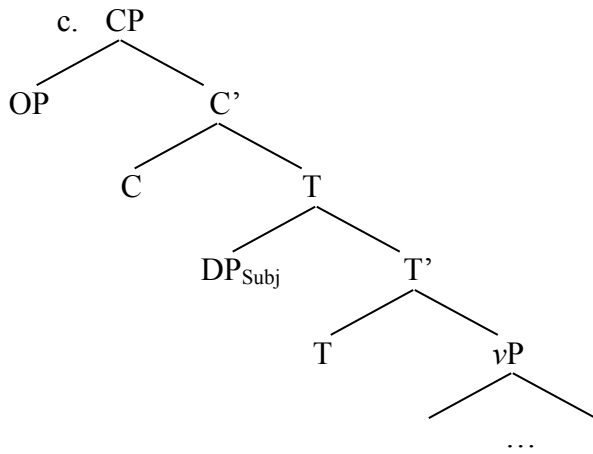
- b. 誰 將 治 之?

[<sub>TP</sub> Shui [<sub>vP</sub> jiang [<sub>vP</sub> t<sub>shui</sub> [<sub>v'</sub> zhi zhi]]]]]?

who will govern them

‘Who will govern them?’

(晏子春秋•內篇諫上; Aldridge 2010a: 11)



(Adapted from Aldridge 2010a: 4)

Such clause-internal movement is driven by obligatory preverbal positioning of non-subject *wh*-elements of LAC which is a *wh*-fronting language. Different from modern Mandarin that is a *wh*-in-situ language (Cheng 1991, Li 1992, Tsai 1994, Aoun and Li 1993a, 2003, among many others),<sup>5</sup> LAC requires VP-internal *wh*-phrases to raise

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<sup>5</sup> In modern Mandarin, *wh*-phrases do not have to be displaced in overt syntax, as in (iiia). As pointed out by Huang (1982a), although in-situ *wh*-items do not move at surface structure, they move covertly at the level of LF. Huang (1982b, 1982b) treats *wh*-in-situ in terms of LF *wh*-movement and proposes that the *wh*-phrase in (iiia) undergoes LF movement after mapping to PF to produce the LF representation in (iiib). Since modern Mandarin does not display the *wh*-island effect (iv) (Huang 1982a, 1982b), Watanabe (2001) suggests that *wh*-movement does not take place in modern Mandarin, and *wh*-in-situ gets interpretation via unselective binding.

- (iii) a. Zhangsan    xiang-zhidao    [Lisi    mai-le    shenme]  
          Zhangsan    wonder            Lisi    bought    what  
          ‘Zhangsan wonders what Lisi bought.’
- b. Zhangsan    xiang-zhidao    [<sub>CP</sub> shenme<sub>i</sub>    [<sub>IP</sub> Lisi    mai-le    t<sub>i</sub>]].  
          Zhangsan    wonder            what            Lisi    bought

(From Watanabe 2001: 203)

from their base position to a preverbal position in the ‘low IP area’ (dubbed by Paul (2005)) between TP and *vP*. Examples (6a) and (6b) illustrate that both simplex *wh*-words and internally complex *wh*-phrases move to a preverbal position in the medial domain when acting as direct objects. In (6b), the nouns ‘battle’ and ‘alliance’ are modified by a *wh*-word 何 *he* ‘what’, and they form a complex phrase preceding the *vP*. Example (6d), with (6a-c), illustrates that both indirect and direct *wh*-objects raise to a preverbal position. The aspecto-temporal adverb 將 *jiang* in (6d) modifies telic verbs referring to the final change of state point of a situation or accomplishment predicates (Meisterernst 2008a). As for example (6e), it involves a *wh*-DP that functions as a prepositional complement and moves into the sentence-internal domain.

- (6) a. 然则 我 何 爲 乎? 何 不 爲 乎?<sup>6</sup>  
 Ranze wo he<sub>i</sub> [<sub>VP</sub> wei t<sub>i</sub>] hu? He<sub>j</sub> bu [<sub>VP</sub> wei t<sub>j</sub>] hu?  
 then I what do Q what not do Q  
 ‘Then what do I do? What (do I) not do?’<sup>7</sup>

(莊子•秋水)

- 
- (iv) ni xiang-zhidao [wo weishenme mai shenme]?  
 you wonder I why buy what  
 ‘What do you wonder why I bought?’

(From Watanabe 2001: 214)

<sup>6</sup> 乎 *hu* is an interrogative clause-final particle that is most frequently used in LAC, and matrix questions employ this Q particle (Aldridge 2011a).

<sup>7</sup> In this paper, the omitted constituents are recovered based on contextual information. Huang et al (2009) suggest that modern Mandarin employs a phonetically empty constituent as the missing object, as long as it has been mentioned in the previous context as a discourse topic. I follow this generalisation and further extend it to any elliptical elements in LAC.

- b. 宋 何 役 之 不 會,  
 Song [he yi]<sub>i</sub> zhi bu [VP hui t<sub>i</sub>],  
 Song what battle ZHI not enter  
 而 何 盟 之 不 同? (左傳•昭公二十五年)  
 er [he meng]<sub>j</sub> zhi bu [VP tong t<sub>j</sub>]?  
 Conj what alliance ZHI not join  
 ‘What battle does the State of Song not enter, and what alliance does (it) not join?’
- c. 王 何 異 之 有? (國語•周語中)  
 Wang [he yi]<sub>i</sub> zhi [VP you t<sub>i</sub>]?  
 emperor what difference ZHI have  
 ‘What differences does the emperor have?’
- d. 寡人 將 誰 屬 國? (呂氏春秋•貴公)  
 Guaren jiang shui<sub>i</sub> [VP shu t<sub>i</sub> guo]?  
 I Fut who entrust state  
 ‘(To) whom will I entrust the state?’
- e. 吾 誰 與 歸?<sup>8</sup> (國語•晉語八)  
 Wu shui<sub>i</sub> yu<sub>j</sub> [VP<sub>[pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] gui]?  
 I whom with classify  
 ‘With whom am I classified?’</sub>

It is worth mentioning that in LAC, objects may undergo both long- and short-distance movement. The example in (7a) demonstrates the short-distance raising of a non-*wh* pronominal object (locally within the clause), while in examples (7b), the non-*wh* pronominal DP undergoes long-distance movement into a higher clause. As the object of the embedded verb, the pronoun 女 *ru* ‘you’ in (7b) moves across a nonfinite complement clause boundary to a higher node.

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<sup>8</sup> I argue that the surface order of DP-P is caused by inversion within PP and separate movement of DP and P. The underlying structure of *wh*- and non-*wh*-PPs is discussed in Chapter 6.



- (7) a. 若 子 不 我 信 (國語•楚語下)  
 ruo zi bu wo<sub>i</sub> [VP xin t<sub>i</sub>]  
 if you not me trust  
 ‘if you do not trust me’
- b. 余 不 女 忍 殺 (左傳•昭公元年)  
 yu bu ru<sub>i</sub> ren [VP sha t<sub>i</sub>]  
 I not you bear kill  
 ‘I cannot bear to kill you’

Examples (8a) and (8b) illustrate short- and long-distance movement of non-*wh* nominal objects. Both nominal DPs target a landing site below the aspecto-temporal adverb 將 *jiang*, so they both undergo internal movement. However, 君 *jun* in (8a) moves across an embedded verb (the only verb), undergone short-distance movement, yet 禍 *huo* in (8b) moves past a nonfinite complement clause boundary, undergone long-distance movement. (8b) involves a null subject, which is a robust property of Archaic Chinese. In Archaic Chinese, it is common to omit the subject in declarative sentences if it can be recovered from the context, or it is indefinite or impersonal (Pulleyblank 1995). Modern Mandarin does not require an overt subject either (Peyraube 1997).

- (8) a. 小 国 将 君 是 望 (左傳•襄公二十八年)  
 xiao guo jiang jun<sub>i</sub> shi [VP wang t<sub>i</sub>]  
 small state Fut His.Majesty SHI expect  
 ‘small states will expect His Majesty’
- b. 将 祸 是 务 去 (左傳•隱公三年)  
 jiang huo<sub>i</sub> shi wu [VP qu t<sub>i</sub>]  
 Fut misfortune SHI endeavor dispel  
 ‘(monarchs) will endeavor to dispel misfortune’

Similarly, *wh*-phrases can undergo both short-distance and long-distance fronting, although *wh*-fronting in LAC is always short movement (Aldridge 2006, 2007, 2010a). Both the *wh*-word 何 *he* ‘what’ in (9a) and 誰 *shui* ‘who’ in (9b) raise to a position in the ‘low IP area’, but the former fronts locally within the clause, yet the latter moves

across a nonfinite complement clause boundary. It is notable that example (9b) is similar to (6d), but with an empty direct object. (9c) is another example concerning long-distance fronting, and it shows that both *wh*-arguments and *wh*-adverbials can undergo long-distance movement. In the former question, the *wh*-word 奚 *xi* ‘what; where’ functions as the complement of the verb 為 *wei* ‘be’, while in the latter question which shares surface similarity with the former, *xi* functions as a locative adverbial ‘where’. In both questions, *xi* ‘what; where’ fronts from a postverbal position to a position preceding a disposal construction 以 *yi*, crossing a clause boundary.

(9) a. 余 何 有 焉? (國語•晉語四)

Yu he<sub>i</sub> [VP you t<sub>i</sub>] yan?

I what have Q

‘What do I have?’

b. 公 誰 欲 與? (莊子•徐無鬼)

Gong shui<sub>i</sub> yu [VP yu [PP t’<sub>i</sub> t<sub>i</sub>]]?

Your.Majesty who want give

‘(To) whom does Your Majesty want to give (the state)?’

c. 又 將 奚 以 汝 為?

You jiang xi<sub>i</sub> yi ru [VP wei t<sub>i</sub>]?  
then Fut what YI you be

將 奚 以 汝 適? (莊子•大宗師)

Jiang xi<sub>j</sub> yi ru [VP shi t<sub>j</sub>]?  
Fut where YI you go.towards

Then what will (our maker) make you be? To where will (our maker) take you?’

Although LAC is a *wh*-fronting language, there are a few exceptions to the obligatory preposing of non-subject *wh*-items. For instance, *wh*-in-situ is obligatory for the second complement of ditransitive verbs 謂 *wei* ‘call; speak of’ and 奈/若/如 *nai/ruo/ru* ‘treat’, as shown in (10a) and (10b-d).

- (10) a. 國 謂 君 何? (左傳•僖公十五年)  
 Guo wei jun he?  
 state call lord what  
 ‘How does the state speak of the lord?’ (Lit. ‘What does the state call the lord?’)
- b. 奈 吾 君 何? (國語•晉語二)  
 Nai [wu jun] he?  
 treat my lord what  
 ‘What does (this) do to my lord?’
- c. 子 若 國 何? (左傳•僖公二十三年)  
 Zi ruo guo he?  
 you treat state what  
 ‘What do you do about the state?’
- d. 將 如 君 何? (左傳•襄公二十三年)  
 Jiang ru jun he?  
 will treat lord what  
 ‘What will (we) do to the lord?’

Additionally, when the *wh*-word 何 *he* ‘what’ acts as the direct object of the verb ‘say’, it must stay in its postverbal position, as in (11).

- (11) 子夏 云 何? (論語•子張)  
 Zixia yun he?  
 Zixia say what  
 ‘What did Zixia say?’

Apart from a few exceptions, full *wh*-in situ did not emerge in Chinese until the Han Dynasty (2<sup>nd</sup>c BC-2<sup>nd</sup>c AD), which is termed as Early Middle Chinese (or Pre-Middle Chinese) (Wang 1958a, Zhou 1963, Aldridge 2013a). According to Aldridge (2010a, 2015a), obligatory fronting of internally complex *wh*-phrases disappears first, whereas simplex *wh*-phrases continue to move, under the circumstance that *wh*-preposing does not cross any nonfinite clause boundary. Example (12a) shows a complex *wh*-DP functioning as a direct object raises to a preverbal position in LAC, while its counterpart

in (12b) illustrates the canonical order in Han period Chinese. (12c) (=9b)) involves a simplex *wh*-DP 誰 *shui* ‘who’ that moves out of its base position as the indirect object of an embedded verb 與 *yu* ‘give’ across a nonfinite complement clause boundary, and lands in a position preceding the matrix verb 欲 *yu* ‘want’. Example (12d) proves that in a 1<sup>st</sup>c BC text in the Han period, the identical *wh*-word can stay in its base position as the prepositional complement of a head-initial PP.<sup>9</sup> (12e), which is extracted from the same text as (12d), illustrates that the preposing of simplex *wh*-phrases did not totally disappear in Early Middle Chinese, in that the same *wh*-word ‘who’ can raise to a preverbal position. However, there is an asymmetry between fronted simplex *wh*-nominals in LAC and Early Middle Chinese: the former may undergo long-distance movement across a clause boundary (12c), whereas the latter can only undergo short-distance movement within an embedded clause (12e) (Aldridge 2010a, 2015a).

- (12) a. 宋 何 罪 之 有? (墨子•公輸)  
 Song [he zui]<sub>i</sub> zhi [VP you t<sub>i</sub>]?  
 Song what sin ZHI have  
 ‘What sin does the State of Song have?’
- b. 有 何 怨 乎? (史記•廉頗藺相如列傳 1<sup>st</sup>c BC)  
 You [he yuan] hu?  
 have what resentment Q  
 ‘What resentment (do you) have?’
- c. 公 誰 欲 與? (莊子•徐無鬼)  
 Gong shui<sub>i</sub> yu [VP yu [PP t’<sub>i</sub> t<sub>i</sub>]]?  
 Your.Majesty who want give  
 ‘(To) whom does Your Majesty want to give (the state)?’
- d. 陛下 與 誰 取 天下 乎?  
 Bixia [VP [PP yu shui] qu tianxia] hu?  
 Your.Majesty with who conquer world Q  
 ‘With whom will Your Majesty conquer the world?’  
 (史記•留侯世家 1<sup>st</sup>c BC)

<sup>9</sup> The derivation of *wh*-P is discussed in Chapter 6.

e. 諸 君 欲 誰 立?  
 Zhu jun yu shui<sub>i</sub> [VP li [PP t'<sub>i</sub> t<sub>i</sub>]]?  
 all gentleman want who stand

‘Gentlemen, who do you want to place (on the throne)?’

(史記•趙世家 1<sup>st</sup>c BC; Aldridge 2015a)

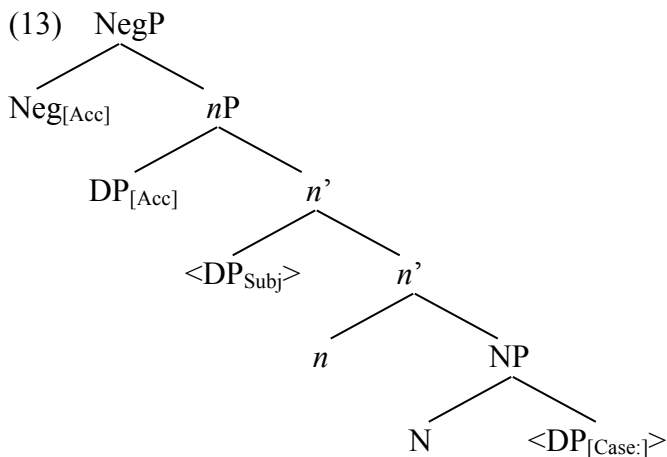
Notwithstanding examples (6-9) which exhibit preverbal objects, various observations support the view that LAC has always been an SVO language (Light 1979, Sun and Givón 1985, Peyraube 1994, 1996, 1997, Djamouri and Paul 2009, Paul 2009, Meisterernst 2010, Djamouri 2001, Aldridge 2012a, 2013a, Djamouri et al 2012), so object preposing is derived, and should not be assumed as the vestige of basic OV word order, as proposed by Wang (1958a), Li and Thompson (1974), Sun (1991), LaPolla (1993), Feng (1996), Xu (2006), among others. As suggested by Peyraube (1996), the process is that verbs were transformed into grammatical morphemes.

## 1.2. Literature Review

In this thesis, I discuss topics and foci. Following Reinhart (1981), Tomioka (2007a) and Neeleman et al (2009), I assume that topics should be defined in terms of aboutness, and a topic is the entity that the utterance is about. Therefore, ‘topic’ is mainly a discourse notion. In this thesis I only discuss linguistic topics which introduce new topics of discourse, but not expressions contained in utterances which only index the current topics of discourse. A focus in this thesis refers to an identificational focus (or contrastive focus; henceforth ‘IdentF’) in the sense of É. Kiss (1998) that expresses exhaustive identification and carries an evaluative presupposition. Focus is the information highlighted in a proposition. Both topic and focus are basic notions in information structure that can be contrastive, which means they belong to a contextually given set and they are selected to the exclusion of at least some other members of the set (Neeleman et al 2009).

According to Aldridge (2012a, 2015b, p.c.), non-*wh*-objects, including full NPs but

excluding pronouns, always undergo syntactic focus movement into the low TP area, and obtain an interpretation of identificational focus. Meanwhile, topicalisation of non-pronominal DPs to the left periphery is common in LAC. With respect to the fronting of VP-internal *wh*-phrases, it is also limited to focus fronting, in that neither the base generation theory nor the cliticisation theory can explain the *wh*-fronting in LAC. Moreover, focalised *wh*-words are always located lower than modals and above negation (Aldridge 2006, 2007, 2010a). In terms of pronoun fronting in the context of negation, although the landing site of preposed pronouns intervenes between negation and *v*P, pronoun fronting to negation is not focus driven. A case-based approach has been put forward (Aldridge 2015b) to account for the motivation for pronoun fronting to negation in LAC: only pronouns in need of structural accusative case undergo fronting. As hypothesised by Aldridge (2015b), it is Neg that values accusative case on the fronted DPs, but the head of NegP selects a nominal complement *n*P where structural case is unavailable. As a consequence, due to the unavailability of case in the domain of *n* (because *n* is a strong phase head, rendering NP impenetrable), DPs have to undergo object shift to [Spec, *n*P] so as to value accusative case from the head of NegP. In this theory, *n*P is adopted instead of the verbal structure.



(From Aldridge 2015b)

Paul (2002, 2005) suggests a parallelism between CP and the ‘low IP area’ in modern Mandarin, and she proposes a hierarchy ‘CP > TopicP > “even” FocusP > IP > inner TopicP > “even” FocusP > *v*P’. In Modern Chinese, both TopicP and ModP are situated above the projection of ‘even’ focus (whether it is clause-internal or -external). Paul

(2002, 2005) also argues that preposed objects occupy a specifier position of some functional category, instead of being adjoined to  $vP$  directly. According to an observation on modern Mandarin made by Fu (1994), an object extracted from a non-finite embedded clause can only adjoin to the left of the matrix verb, rather than intermediate VP positions, as in (14). These extraction facts are accounted for by the presence/absence of functional architecture postulated for finite/non-finite clauses. Consequently, a preposed object does not occur in an adjoined position, but occupy the specifier node of a functional projection above the ‘even’ FocusP within the ‘low IP area’ (Paul 2005).

- (14) a. Ta rang Zhang. pai Xiaop. diaocha -le nei-jian shi  
 3.SG make Zhang. send Xiaop. investigate -PERF that-CL matter
- b. Ta [nei-jian shi] rang Zhang. pai Xiaop. diaocha le  
 3.SG that-CL matter make Zhang. send Xiaop. investigate -PERF  
 ‘He asked Zhangsan to send Xiaoping to investigate that matter.’
- c. \*Ta rang Zhang. [nei-jian shi] pai Xiaop. diaocha le  
 3.SG make Zhang. that-CL matter send Xiaop. investigate -PERF
- d. \*Ta rang Zhang. pai Xiaop. [nei-jian shi] diaocha le  
 3.SG make Zhang. send Xiaop. that-CL matter investigate -PERF

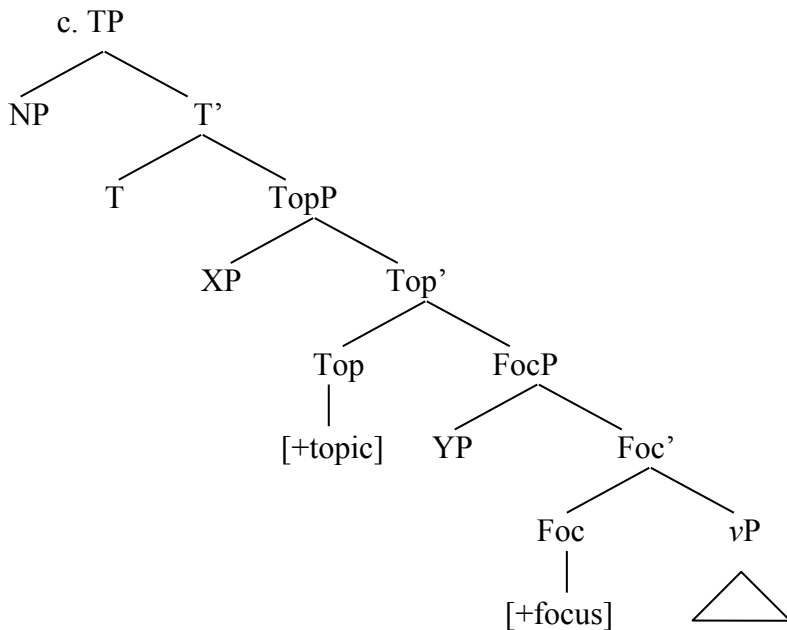
(From Fu 1994: 15)

Nevertheless, Hsu’s (2008) analysis on object preposing in modern Mandarin argues that the sentence-internal domain between TP and  $vP$  may not only license foci, but also topics. Given appropriate contexts, a preposed object can have either topic or focus status. However, instead of being topic or focus itself (Paul 2005), a preposed object requires two distinct projections for two interpretations. A topic and a focus occupy different functional projections, and they can co-occur in the sentence-internal domain, with the topic NP preceding the focus NP (15a-b). Following Rizzi’s (1997) ‘fine structure of the left periphery’, Hsu (2008) posits that the functional projection for internal topics is located higher than that for foci, and proposes the structure in (15c).

- (15) a. Ta shu<sub>-TOP</sub> xiaoshuo<sub>-FOC</sub> kan.de zui duo.  
 he book novel read.RESULT most many  
 ‘Speaking of books, it is novels that he reads most.’

(From Hsu 2008: 640)

- b. \*Ta xiaoshuo<sub>-FOC</sub> shu<sub>-TOP</sub> kan.de zui duo. (*ibid*)  
 he novel book read.RESULT most many



(*ibid*)

Developing these lines of reasoning, I propose an external topic position in the left periphery as well as an internal topic position and focus positions between TP and vP for the preposing of *wh*- and non-*wh*-objects in LAC, with the external and internal topic positions being structurally more prominent than the focus position. All positions are located above negation, and there is an extra position below negation accommodating fronted pronominal objects. A fronted element targets the specifier node of some functional projection, sometimes followed by a fronting marker ZHI/SHI occupying the head of the corresponding category.

In this thesis I analyse the preverbal positioning of *wh*- and non-*wh*-DP elements in LAC, propose different landing sites based on the relative order between subject, negation and preposed elements, and investigate the Intervention Effect in both LAC and modern Mandarin. The thesis is organised into seven main chapters. In Chapter 2 I introduce the preposing of non-*wh*-objects in LAC, including two landing sites, fronting



markers, as well as the medial domain. In Chapter 3 I investigate the nature of two positions of non-*wh*-fronting and propose that the higher position displays topic properties, while the lower position displays focus properties. Chapter 4 is concerned with pronoun fronting in the context of negation. In Chapter 5 I discuss *wh*-fronting, including the preposing of VP-internal *wh*-DPs and *wh*-complements of adverbials above *v*P. In Chapter 6 I explore the derivation of *wh*-P and propose a theory of PP inversion followed by separate movement of *wh* and P. Chapter 7 is concerned with obligatory and optional *wh*-in-situ. In Chapter 8 I discuss the Intervention Effect and suggest that two types of *wh*-items in LAC are subject to the Intervention Effect triggered by negation: *wh*-arguments and adverbials that are supposed to move to some focus position, and *wh*-phrases that have the option to stay in situ. I suggest that the Intervention Effect in LAC is a consequence of Q-binding as feature movement of [wh], interacting with fronting into the hierarchy of clause-internal positions driven by [Topic] or [Focus] features.

## 2. Preposing of Non-*Wh*-Objects

In this chapter I focus on the preverbal positioning of non-*wh*-DP objects and propose two landing sites for object preposing based on the relative ordering of fronted non-*wh*-items and the subject. Both positions allow nominal and pronominal objects, which occupy a specifier node of some functional projection (Paul 2002, 2005), and sometimes accompanied by a fronting marker as the head of relevant functional categories. In addition, I explore the medial domain by illustrating intervening elements and their relative order.

### 2.1. Two Positions for Non-*Wh*-Fronting

Previous research treats preverbal positioning of DP objects in LAC as focalisation, and states that the syntactic focus movement of *wh*-phrases targets a node above negation while below modals (Aldridge 2006, 2007, 2010a). Developing this line of reasoning, I argue that there are two landing sites for non-*wh*-fronting in the CP layer and between TP and *v*P, and evidence can be derived from the relative ordering of preposed constituents and the subject, as well as the concurrent occurrence of two fronted DPs.

The relative ordering between preposed non-*wh*-DP objects and TP serves as the evidence that the landing sites of object fronting cannot be accounted for by an approach involving one single projection. Following Aldridge (p.c.), I state that fronted nominal objects may precede or follow the specifier of TP, as illustrated by (16a-b) and (16c) (=2a) respectively. 不 *bu* ‘not’ in these examples is a neutral clausal negator simply denying the situation that the verb refers to without affecting the aspect or mode (Meisterernst 2008b). It is worth mentioning that DPs in these instances are accompanied by a fronting marker 之 *ZHI*,<sup>10</sup> the distribution and nature of which will be discussed in

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<sup>10</sup> I posit that *ZHI* in (6b-c), along with that in (12a), is a fronting marker, rather than a genitive marker (otherwise there would be no main predicate). When functioning as a linking element occupying the head of DP in headed relatives, *ZHI* assigns genitive Case on full DPs and optionally selects a DP possessor. *ZHI* as a linker and genitive Case marker intervenes between

the next subchapter.

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the head nominal and the relative clause, with a following ZHE binding a variable (va), or between the possessor and possessum to license a possessor (vb). When relative clauses are formed on a VP-internal position, ZHI is followed by an operator 所 *suo* that relativises on VP-internal elements (vc). Semantically, ZHI conveys definite or generic interpretation (Aldridge 2011b).

(v) a. 馬 之 死 者 十 二 三 矣。 (莊子•馬蹄; Aldridge 2009: 238)

[Ma zhi [si zhe]] shi er san yi.  
horse Gen die ZHE 10 2 3 Asp

‘Of the horses, 2 or 3 out of 10 have died.’

b. 守 先 王 之 道 以 待 後 之 學 者。

Shou xian wang zhi dao yi dai [hou zhi [xue zhe]].  
observe ancient king Gen principle C await later Gen study ZHE

‘(He) observes the principles of the ancient kings in order to await future scholars.’

(孟子•滕文公; Aldridge 2009: 237)

c. 不 知 亂 之 所 自 起, 則 不 能 治。

Bu zhi [luan zhi suo [VP [PP zi e] qi]], ze bu neng zhi.  
not know unrest Gen Rel from arise Conj not can govern

‘If (one) does not know [from whence unrest arises], then (one) cannot govern.’

(墨子•兼愛; Aldridge 2010a: 29)

As analysed by Ting (2008), the particle *suo* is licensed in a similar way in relatives and passives in Classical Chinese. *Suo* in relatives is an operator bearing a [+wh] feature, yet its counterpart in passives is a variable bearing a [-wh] feature and bound by a null operator (Ting 2008).

(16) a. 其 父 母 之 不 親 也, 又 能 親 君 乎?<sup>11</sup>  
 [Qi fumu]<sub>i</sub> zhi bu [vp qin ti] ye, you neng qin jun hu?  
 3.Gen parents ZHI not adore Decl then can adore lord Q  
 ‘(He) does not adore his parents, then how can (he) adore the lord?’

(韓非子•十過第十)

b. 王 祭 不 共  
 wang ji bu gong  
 king offering.of.sacrifice negation contribute

‘(You) will not contribute to the king’s offerings of sacrifice’

(左傳•僖公四年; Peyraube 1997: 6)

c. 吾 百 姓 之 不 圖 (國語•越語下)  
 wu baixing<sub>i</sub> zhi bu [vp tu ti]  
 I common.people ZHI not care.about

‘I did not care about common people’

The movement of the topic from clause-internal position to the left periphery sometimes<sup>12</sup> leaves a trace in the form of an overt resumptive pronoun. In (17a), the resumptive pronoun 之 *zhi* stays in its base position following the verb, yet the resumptive pronoun in (17b) undergoes preverbal positioning to negation (see detailed analysis of pronoun fronting to negation in Chapter 4).

(17) a. 子路, 人 告 之 以 有 過。  
 Zilu, ren gao zhi yi you guo.  
 Zilu person tell 3.Obj that have error

‘Zilu, someone told him he made a mistake.’

(孟子•公孫丑上; Aldridge 2011c)

<sup>11</sup> I assume that this example involves a null subject and the fronted object intervenes between the null subject and negation.

<sup>12</sup> According to Aldridge (2011c), an overt resumptive pronoun, however, is always required by topicalisation.

b. 諸侯 之 禮, 吾 未 之 學 也。  
 [Zhouhou zhi li]<sub>i</sub>, wu wei zhi<sub>i</sub> xue ye.  
 feudal.lords Gen rite I not.yet 3.Obj study Decl  
 ‘The rites of the feudal lords, I have not yet studied them.’

(孟子•滕文公上; *ibid*)

Similarly, this observation concerning two positions of non-*wh*-fronting also applies to pronouns: preposed pronominal objects, to be more specific, demonstrative pronouns, may appear above or below TP. In LAC, the demonstrative pronoun ‘this’ displays three morphological forms: 斯 *si*, 是 *shi* and 此 *ci*,<sup>13</sup> which seem to have the same syntactic and semantic properties. I postulate that in (18a), the demonstrative pronoun 是

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<sup>13</sup> These demonstrative pronouns function as determiners as well, as exemplified in (via/b/c). Another common determiner found in LAC is 比 *bi* (vid).

(vi) a. 予 將 以 斯 道 覺 斯 民 也  
 Yu jiang [VP [pp yi si dao] jue si min] ye  
 I will with this principle enlighten this people Decl  
 ‘I will enlighten these people with this principle.’

(孟子•萬章上)

b. 是 歲 也, 海 多 大 風  
 shi sui ye, hai duo da feng  
 this year Decl sea many great wind  
 ‘this year, there are many gales over the sea’

(國語•魯語上)

c. 必 獲 此 土。  
 Bi huo ci tu.  
 Definitely obtain this land  
 ‘(We) can definitely obtain this land.’

(國語•晉語四)

d. 比 三 君 死  
 Bi san jun si  
 this 3 lord die  
 ‘these three lords died’

(公羊傳•閔公二年)

*shi* ‘this’ fronts all the way to the left periphery; likewise, as the first complement of a ditransitive verb 謂 *wei* ‘call; speak of’, 此 *ci* also raises from its extraction site within the *vP* to a position preceding the subject (18b). However, the same demonstrative pronoun 是 *shi* merely raises to the clause-internal domain between TP and *vP* (18c-d), and its minimal pair counterpart 斯 *si* also moves from its VP-internal base position to the lower position under the subject, as in (18e).<sup>14</sup> Additionally, this lower position is above an aspectual negator 未 *wei* ‘not yet’ (18e), so the observation indicates that the lower position is located between the subject and negation.

- (18) a. 是 之 不 務 (左傳•昭公三十二年)  
 shi<sub>i</sub> zhi bu [VP wu t<sub>i</sub>]  
 this ZHI not conduct  
 ‘(if you) do not conduct this’
- b. 此 之 謂 大 惑。 (呂氏春秋•重己)  
 Ci<sub>i</sub> zhi [VP wei t<sub>i</sub> [da huo]].  
 this ZHI call great confusion  
 ‘(People) call this great confusion.’
- c. 吾 是 之 依 兮。 (國語•晉語三)  
 Wu shi<sub>i</sub> zhi [VP yi t<sub>i</sub>] xi.  
 I this ZHI rely.on Fin  
 ‘I rely on this.’
- d. 子 是 之 學 (孟子•滕文公上)  
 Zi shi<sub>i</sub> zhi [VP xue t<sub>i</sub>]  
 you this ZHI learn.from  
 ‘you learn from this’

<sup>14</sup> Examples (18a) and (18e) are extracted from texts of distinct authors in the same period (5<sup>th</sup>c BC), so this fact strongly suggests that such a positional discrepancy is not a diachronic feature from different stages in LAC.

e. 吾 斯 之 未 能 信。 (論語•公冶長)  
 Wu si<sub>i</sub> zhi wei neng [VP xin t<sub>i</sub>].  
 I this ZHI not.yet can be.confident.in  
 ‘I have not been able to be confident in this.’

The crucial evidence justifying the coexistence of two positions in the CP domain and the ‘low IP area’ is to show that they can appear concurrently. (19) involves a hanging topic 若狄公子 *ruo di gongzi* ‘this Master Di’ that is linked to a resumptive pronoun 是 *shi* as the complement of the verb. The topicalised DP moves to a position preceding the subject 吾 *wu* ‘I’, hence it is an external topic in the left periphery. The resumptive pronoun moves from its postverbal base position to a preverbal position in the medial domain, intervening between the subject and vP, accompanied by the fronting maker ZHI. The grammaticality of this example shows that object preposing in LAC requires two landing sites.

(19) 若 狄 公子, 吾 是 之 依 兮。 (國語•晉語三)  
 [Ruo di gongzi]<sub>i</sub>, wu shi<sub>i</sub> zhi [VP yi t<sub>i</sub>] xi.  
 this Di master, I this ZHI rely.on Decl  
 ‘This Master Di, on this I rely.’

Therefore, these observations suggest that LAC involves two landing sites for non-*wh*-fronting in the CP layer and in the medial domain between TP and vP, with the subject situated in between. The High position is above TP, whereas the Low position is above negation within the minimal TP,<sup>15</sup> as illustrated by a template in (20); evidence

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<sup>15</sup> Similarly, in modern Mandarin which is a *wh*-in-situ language and does not have overt *wh*-movement, if a raised nominal DP object fronts to the medial domain, it can only land in a position above negation, not below negation:

(vii) a. Wo tudou<sub>i</sub> bu [VP chi t<sub>i</sub>].  
 I potato not eat  
 ‘I do not eat potatoes.’

comes from the relative ordering between fronted non-*wh*-DPs and the subject. In terms of pronoun fronting in the context of negation, raised pronouns target some position between negation and *vP* which is exclusively for them. I call this extra position Pronoun

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b. \* Wo bu tudou<sub>i</sub> [<sub>VP</sub> chi t<sub>i</sub>].  
 I not potato eat

As for pronominal objects, only if they are licensed in a focus context with or without the help of emphatic *shi* (viiiia), or as suggested by Hou (1979), occur in the *lian ... ye/dou* ‘even’ construction (viiiib), can they be preposed to the position above negation. Otherwise, if a fronted pronoun were licensed as a topic, raising it to a preverbal position would generate infelicitous sentences (viiiic). Analogous to nominal DPs, pronouns do not front to a position under negation in any situation (viiiid). That is to say, pronoun fronting in the context of negation, which was prevalent in LAC, is no longer permitted in modern Mandarin.

(viii) a. Q: Ni shui<sub>Foc</sub> bu [<sub>VP</sub> renshi t<sub>Foc</sub>]?  
 you who not know

‘Who do you not know?’

A: Wo [(shi) ta<sub>Foc</sub>] bu [<sub>VP</sub> renshi t<sub>Foc</sub>].  
 I SHI 3.Obj not know

‘It is him who I do not know.’

b. Wo lian ta<sub>Foc</sub> ye/dou bu [<sub>VP</sub> renshi t<sub>Foc</sub>].  
 I even 3.Obj also/all not know

‘I do not even know him.’

c. Q: Ni \*ta<sub>Top</sub> [<sub>VP</sub> renshi t<sub>Top</sub>] ma?  
 you 3.Obj know Q

(Intended: ‘Do you know him?’)

A: Wo \*ta<sub>Top</sub> bu [<sub>VP</sub> renshi t<sub>Top</sub>].  
 I 3.Obj not know

(Intended: ‘I do not know him.’)

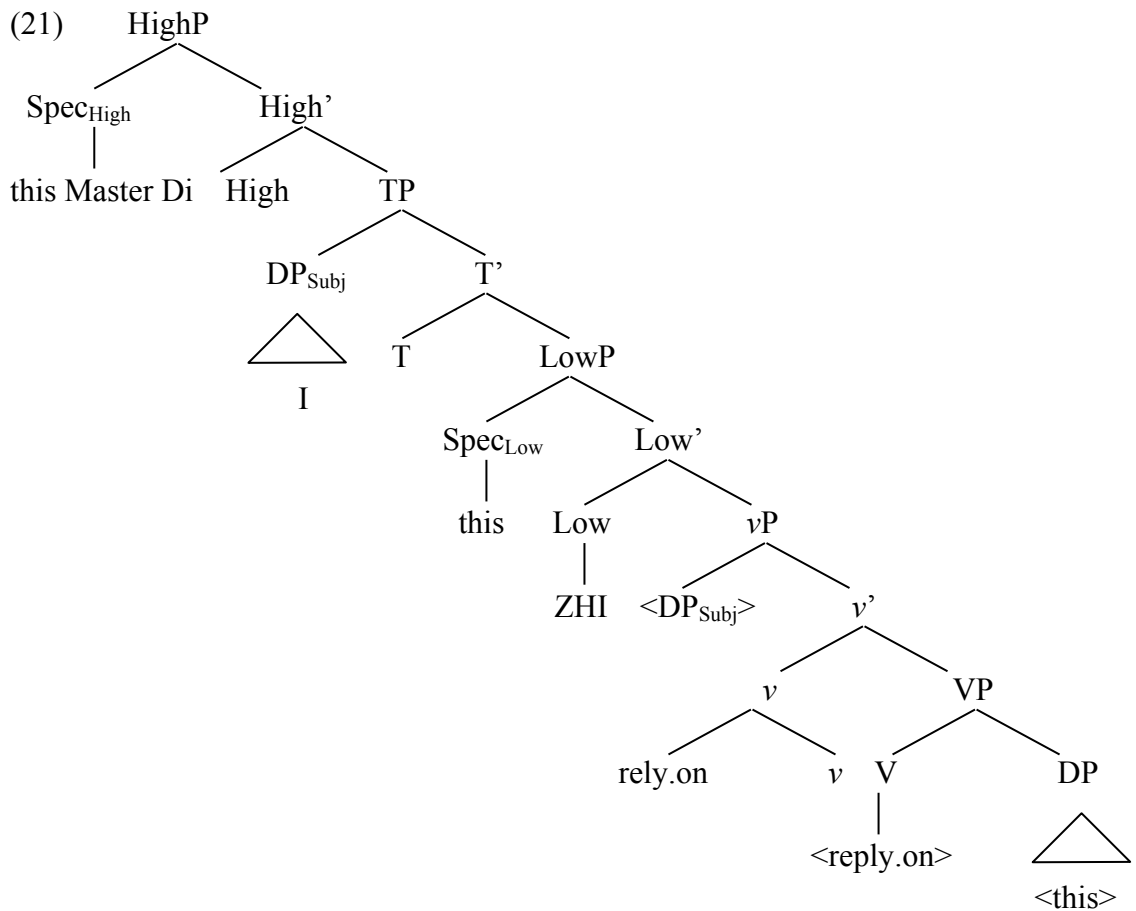
d. \* Wo bu ta<sub>i</sub> [<sub>VP</sub> renshi t<sub>i</sub>].  
 I not 3.Obj know



position, and discuss this phenomenon in detail in Chapter 4.

(20) High position > Subject > Low position > Negation > Pronoun position >  $vP$

The tree diagrams of (19) hence are in (21). For the time being, the functional projections are referred to as HighP and LowP, and the nature of elements fronted to the specifier of these projections is discussed in Chapter 3.



The observation on the High position and the Low position does not apply to non-*wh*-PPs. Unlike a nominal or pronominal DP which always raises out of the  $vP$  to a higher functional projection, a prepositional complement never fronts out of the PP. I postulate that the inverse DP-P order in (22) is generated via movement of the prepositional complement: the prepositional complement moves from its base position following the preposition to the [Spec, PP] preceding the preposition, and the preposition remains in  $P^0$ . The tree diagram of (22f) is in (22g).

(22) a. 室 於 怒, 市 於 色 (左傳•昭公十九年)

[<sub>pp</sub> shi<sub>i</sub> yu t<sub>i</sub>] nu, [<sub>pp</sub> shi<sub>j</sub> yu t<sub>j</sub>] se  
home at get.angry market at get.angry

‘get angry at home (but) flare up at the market’

b. 野 于 飲 食 ... 渝 食 于 野

[<sub>pp</sub> ye<sub>i</sub> yu t<sub>i</sub>] yin shi ... yu shi yu ye  
wild-field at drink eat ... abuse food at wild-field

‘Eating in the wild fields ... abusing the food in the wild fields.’

(墨子•非樂上; Xu 2006: 37)

c. 八 世 之 後, 莫 之 與 京。

Ba shi zhi hou, mo [<sub>pp</sub> zhi<sub>i</sub> yu t<sub>i</sub>] jing.  
8 generation Gen after none 3.Obj than great

‘After eight generations, there will be no one greater than him.’

(左傳•莊公二十二年)

d. 皆 知 己 之 所 願 欲 之 舉

Jie zhi ji zhi suo yuanyu zhi ju  
all know self Gen SUO desire Gen behaviour

在 是 于 也...

zai [<sub>pp</sub> shi<sub>i</sub> yu t<sub>i</sub>] ye  
be.in this in Decl

皆 知 己 之 所 畏 恐 之 舉

Jie zhi ji zhi suo weikong zhi ju  
all know self Gen SUO fear Gen behaviour

在 是 于 也 (荀子•富國)

zai [<sub>pp</sub> shi<sub>j</sub> yu t<sub>j</sub>] ye  
be.in this in Decl

‘(people) all know that the behaviours they desire themselves depend on this ...

(people) all know that the behaviours they fear themselves depend on this’

e. 禍 其 在 此 乎! (左傳•僖公二十一年)

Huo qi zai [<sub>pp</sub> ci<sub>j</sub> hu t<sub>j</sub>]!  
Misfortune Mod be.in this in

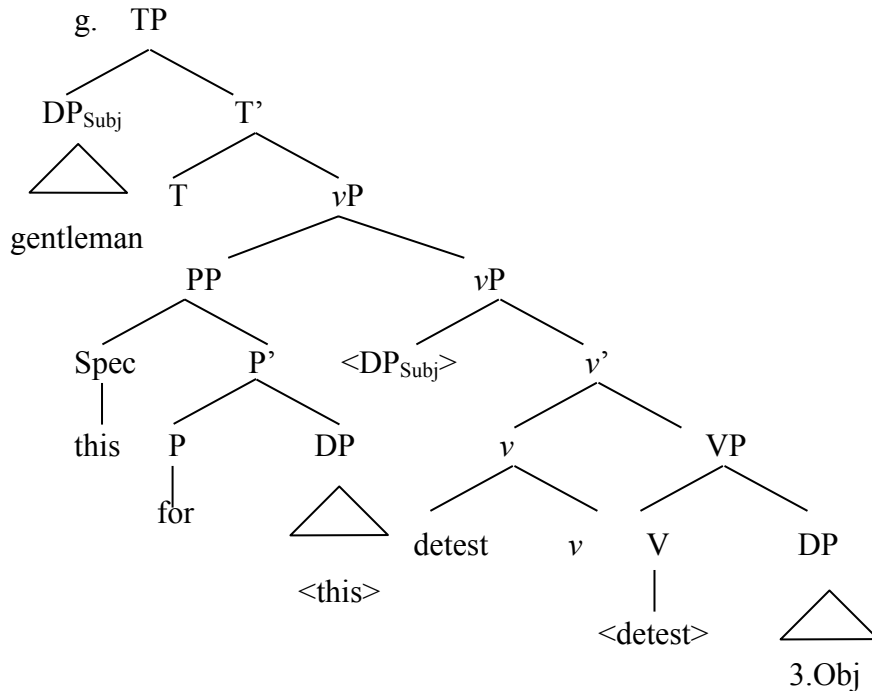
‘Misfortune lies in this!’

f. 君子 是 以 惡 之。 (左傳•昭公元年)

Junzi [pp shi<sub>i</sub> yi t<sub>i</sub>] [vp wu zhi].

gentleman this for detest 3.Obj

‘Gentlemen for this detest it.’



This analysis predicts that no fronting marker can accompany a non-*wh*-PP. If a fronting marker is present, it always immediately follows the fronted DP. In a non-*wh*-PP, the fronted DP complement occurs in [Spec, PP], so the position immediately following it can only be the head of PP. Since the P<sup>0</sup> is already occupied by the preposition, there is no space for the fronting marker. The assumption is borne out: a fronting marker never follows a non-*wh*-PP in LAC.

Note that a fronted constituent can be clausal. In (23), the reduced complement clause of the verb 懼 *ju* ‘fear’ fronts to a preverbal position, followed by a fronting marker SHI. In LAC, preposing of clausal complements is much rarer than that of phrasal complements, so I only discuss the latter.

(23) 吾 不 免 是 懼 (左傳•襄公二十二年)

Wu [bu mian]<sub>i</sub> shi [vp ju t<sub>i</sub>]

I not exempt SHI fear

‘I feared (that I would) not (be) exempted’

## 2.2. Fronting Markers

In this subchapter, I explore fronting markers that follow fronted non-*wh*-DPs in both positions. I show that fronting markers 之 ZHI and 是 SHI<sup>16</sup> exhibit discrepant properties and discriminating positional distribution.

As mentioned earlier, the nominal and pronominal DPs in examples (16a/c) and (18) are accompanied by a fronting marker 之 ZHI.<sup>17</sup> As can be seen from (16a) and (18a-b)

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<sup>16</sup> 之 ZHI and 是 SHI are referred to as contrastive markers in Peyraube (1996) and pretransitive/preverbal markers in Peyraube (1997).

<sup>17</sup> In addition to being a fronting marker, the same graph 之 *zhi* may also function as a third person accusative pronoun, either animate or inanimate (17a/b), a resumptive pronoun (ix), a genitive marker ZHI (x), or a marker for explicit subordination (xi) (Wang 2013). Although the accusative object pronoun *zhi* and the genitive marker ZHI are distinct in LAC, these two morphemes are etymologically related (Djamouri 1999, Aldridge 2011).

(ix) a. 子路， 人 告 之 以 有 過。(孟子•公孫丑上; Aldridge 2011c)

Zilu, ren gao zhi yi you guo.

Zilu person tell 3.Obj that have error

‘Zilu, someone told him he made a mistake.’

b. 諸侯 之 禮， 吾 未 之 學 也。

[Zhouhou zhi li]<sub>i</sub>, wu wei zhi<sub>i</sub> xue ye.

feudal.lords Gen rite I not.yet 3.Obj study Decl

‘The rites of the feudal lords, I have not yet studied them.’

(孟子•滕文公上; *ibid*)

(x) a. 守 先 王 之 道

Shou xian wang zhi dao

observe ancient king Gen principle

以 待 後 之 學 者。(孟子•滕文公下; Aldridge 2009a: 237)

yi dai [hou zhi [xue zhe]].

C await later Gen study ZHE

‘(He) observes the principles of the ancient kings in order to await future scholars.’

as well as (16c) and (18c-e) (repeated as (24a-c) and (24d-g)) respectively, the fronting marker ZHI can either follow preposed nominal and pronominal non-*wh*-DPs in the High position above TP, or follow preposed non-*wh*-DPs in the Low position between the subject and negation.

- (24) a. 其 父 母 之 不 親 也,  
 [Qi fumu]<sub>i</sub> zhi bu [VP qin ti] ye,  
 3.Gen parents ZHI not adore Decl  
 又 能 親 君 乎? (韓非子•十過第十)  
 you neng qin jun hu?  
 then can adore lord Q  
 ‘(He) does not adore his parents, then how can (he) adore the lord?’
- b. 是 之 不 務 (左傳•昭公三十二年)  
 shi<sub>i</sub> zhi bu [VP wu ti]  
 this ZHI not conduct  
 ‘(if you) do not conduct this’
- c. 此 之 謂 大 惑。 (呂氏春秋•重己)

- 
- b. 馬 之 死 者 十 二 三 矣。  
 [Ma zhi [si zhe]] shi er san yi.  
 horse Gen die ZHE 10 2 3 Asp  
 ‘Of the horses, 2 or 3 out of 10 have died.’  
 (莊子•馬蹄; Aldridge 2009a: 238)

- c. 不 知 亂 之 所 自 起, 則 不 能 治。  
 Bu zhi [luan zhi suo [VP [PP zi e] qi]], ze bu neng zhi.  
 not know unrest Gen Rel from arise Conj not can govern  
 ‘If (one) does not know [from whence unrest arises], then (one) cannot govern.’  
 (墨子•兼愛; Aldridge 2010a: 29)

- (xi) 谷 之 不 成, 孤 之 咎 也 (國語•晉語七)  
 Gu zhi bu cheng, gu zhi jiu ye  
 millet ZHI not mature I Gen fault Decl  
 ‘(the situation that) millets do not mature is my fault’

Ci<sub>i</sub> zhi [VP wei ti [da huo]].  
 this ZHI call great confusion  
 ‘(People) call this great confusion.’

d. 吾 百姓 之 不 圖 (國語•越語下)  
 wu baixing<sub>i</sub> zhi bu [VP tu ti]  
 I common.people ZHI not care.about  
 ‘I did not care about common people’

e. 吾 是 之 依 兮。 (國語•晉語三)  
 Wu shi<sub>i</sub> zhi [VP yi ti] xi.  
 I this ZHI rely.on Fin  
 ‘I rely on this.’

f. 子 是 之 學 (孟子•滕文公上)  
 Zi shi<sub>i</sub> zhi [VP xue ti]  
 you this ZHI learn.from  
 ‘you learn from this’

g. 吾 斯 之 未 能 信。 (論語•公冶長)  
 Wu si<sub>i</sub> zhi wei neng [VP xin ti].  
 I this ZHI not.yet can be.confident.in  
 ‘I have not been able to be confident in this.’

In addition to following preposed non-*wh*-constituents in the left periphery or in the medial domain above negation, the fronting marker ZHI can be accompanied by a copula 唯 WEI ‘be (the one who/that)’ to form a cleft structure WEI ... ZHI (25a). The matrix predicate 唯 WEI ‘be (the one who/that)’ indicates assertive modality, and it is frequently translated as ‘only’, reanalysed as an adverb (Djamouri 2001, Meisterernst 2010). Alternatively, ZHI may combine with a negative copula 非 FEI ‘not be’ to form another cleft FEI ... ZHI (25b-c). When ZHI appears in the higher or lower position above negation, it never co-occurs with the matrix predicate WEI (see (24)); but when ZHI occurs below a negator, the cleft structure WEI ... (ZHI) is obligatory, as exemplified in (25d), which is biclausal.

(25) a. 吾 唯 子 之 怨。 (左傳•文公六年)

Wu wei zi<sub>i</sub> zhi [VP yuan t<sub>i</sub>]

I WEI you ZHI blame

‘It is only you I blame.’

b. 非 珠玉 國寶 之 謂 也 (墨子•節葬)

fei [zhuyu guobao]<sub>i</sub> zhi [VP wei t<sub>i</sub>] ye

FEI pearl.jade national.treasure ZHI owing.to Decl

‘it is not owing to pearls, jade or national treasures’

c. 是 詩 也, 非 是 之 謂 也 (孟子•萬章上)

[shi shi]<sub>i</sub> ye, fei shi<sub>j</sub> zhi [VP wei t<sub>i</sub> t<sub>j</sub>] ye

this poem Decl FEI this ZHI interpret Decl

‘this poem, (we) do not interpret (it) as this’

d. 將 不 唯 衛國 之 敗 (左傳•成公十四年)

jiang bu wei Weiguo<sub>i</sub> zhi [VP bai t<sub>i</sub>]

Fut not WEI Wei.State ZHI ruin

‘it is not only the State of Wei (he) will ruin’

Unlike ZHI that is permitted above or below TP, its minimal pair counterpart, the fronting marker SHI, is confined in a position below the subject,<sup>18</sup> as in the former clause of (26a) and (26b). Furthermore, when SHI is employed as a fronting marker, it may combine with the matrix predicate 唯 WEI to constitute a cleft structure WEI ... SHI as in the second clause of (26a), or combine with the negative copula 非 FEI to form FEI ... SHI (26c). I hypothesise that WEI ... ZHI and WEI ... SHI are fundamentally the same cleft construction, only with different fronting markers; also for FEI ... ZHI/SHI.

<sup>18</sup> It is not possible to find positive evidence for this claim, but there are no counterexamples to the generalisation in the data.

- (26) a. 小 国 将 君 是 望,  
 Xiao guo jiang jun<sub>i</sub> shi [vp wang t<sub>i</sub>],  
 small state will His.Majesty SHI expect  
 敢 不 唯 命 是 聽? (左傳•襄公二十八年)  
 gan bu wei ming<sub>j</sub> shi [vp ting t<sub>j</sub>?]  
 dare not WEI order SHI listen  
 ‘Small states will expect His Majesty; it is only the orders (of His Majesty they) must follow.’ (Lit. ‘Dare (they) not only listen to the orders (of His Majesty)?’)
- b. 君人 者, 將 禍 是 務 去  
 Junren zhe, jiang huo<sub>i</sub> shi wu [vp qu t<sub>i</sub>]  
 monarch ZHE Fut misfortune SHI endeavor dispel  
 ‘monarchs, will endeavor to dispel misfortune’  
 (左傳•隱公三年)
- c. 今 王 非 越 是 圖 (國語•吳語)  
 jin wang fei yue<sub>i</sub> shi [vp tu t<sub>i</sub>]  
 now emperor FEI Yue SHI contrive  
 ‘now it is not the State of Yue the emperor contrives’

Both WEI and FEI in cleft constructions are considered as predicates, because they can be marked by modals (27a) and modified by adverbs (27b); in addition, WEI can be negated by the clausal negator 不 *bu* ‘not’ (see (26a)) (Wang 2013). I presume that the negative form of WEI ... ZHI/SHI occupies the identical position with FEI ... ZHI/SHI, which is indirectly supported by the same positional distribution (between the subject and the object) of *bu* WEI and FEI in canonical sentences (27c-d). Notwithstanding lack of positive evidence from the relative ordering between *bu* WEI/FEI and modals such as *jiang bu* WEI / \*FEI, no negative evidence is present either: patterns like *jiang bu* WEI vs \*FEI *jiang* are unattested. So my data in this thesis is consistent. However, the



semantic value of *bu* WEI ... ZHI/SHI is different from that of FEI ... ZHI/SHI: the former conveys the meaning ‘it is not only who/that’, whereas the latter means ‘it is not who/that’ (Wang 2013).

(27) a. 將 唯 命 是 從 (左傳•昭公十二年)

jiang wei ming<sub>i</sub> shi [<sub>VP</sub> cong t<sub>i</sub>]

Fut WEI order SHI follow

‘it is only the orders (they) will follow’

b. 君 今 非 王室 不 平安 是 憂<sup>19</sup>

jun jin fei [wangshi bu pingan]<sub>i</sub> shi [<sub>VP</sub> you t<sub>i</sub>]

Your.Majesty now FEI monarchy not peaceful SHI worry

‘now it is not the monarchy being not peaceful that Your Majesty worries about’

(國語•吳語)

c. 寡君 之 憂 不 唯 鄭。 (左傳•襄公二年)

Guajun zhi you bu wei zheng.

our.lord Gen worry not WEI Zheng

‘The worries of our lord are not only the State of Zheng.’

d. 夫 晉侯 非 嗣 也 (國語•周語上)

fu jinhou fei si ye

Det Jin.Duke FEI crown.prince Decl

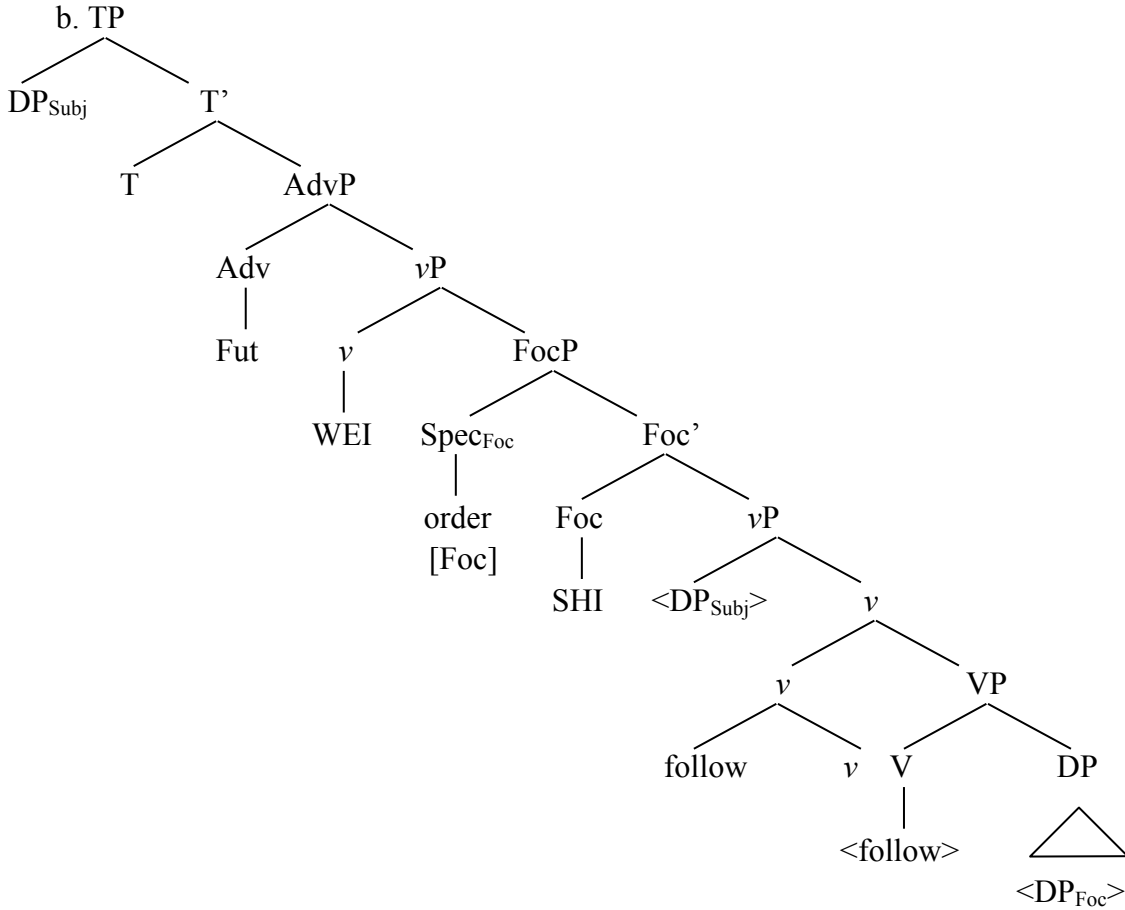
‘that Duke of Jin was not the crown prince’

I propose that the tree structure of (27a) (repeated as (28a)) involves a cleft WEI ... SHI, as is in (28b). The preposed DP-object lands in the specifier position of a functional projection, and the fronting marker SHI occupies the head of the functional projection. SHI forms a cleft structure with the matrix predicate 唯 WEI that is in the higher vP.

<sup>19</sup> Apart from the negative copula 非 FEI, (27b) contains an additional negative element 不 *bu*. However, the clefted constituent is a single constituent, and the negator *bu* is embedded in the lower nominalised clause, so *bu* cannot be treated in the same way as negatives that diagnose the two positions for preposed non-*wh*-DPs.

(28) a. 將 唯 命 是 從 (左傳•昭公十二年)  
 jiang wei ming<sub>i</sub> shi [v<sub>P</sub> cong ti]  
 Fut WEI order SHI follow

‘it is only the orders (they) will follow’



As can be seen from (17) and (29a-b), in addition to being fronting markers (see (25) and (26)), the same graphs 之 *zhi* and 是 *shi* can also act as pronouns: the former is a third person personal pronoun, yet the latter is a demonstrative pronoun<sup>20</sup> in a minimal

<sup>20</sup> The marker SHI may originate from the demonstrative *shi* by means of a process of grammaticalisation (Peyraube 1997). Additionally, 是 *shi* ‘this’ can also function as a determiner, as shown in the sentence-initial DP ‘this poem’ of (29a). I am not claiming that demonstrative *shi*, determiner *shi* and fronting marker SHI are headed by the same projection with different feature bundles; instead, the topic/focus informational, functional features of ‘IP’ must be derived from the deictic, referential ‘DP’ features. Based on the same reasoning, the fronting marker ZHI that is headed by a functional projection may be derived from the accusative pronoun *zhi*.

pair with 斯 *si* ‘this’ (see (18e)) or 此 *ci* ‘this’ (see (18b) and (29c) below). When functioning as a demonstrative, *shi* can be clefted by WEI ... ZHI or followed by the other fronting marker ZHI (29a/b) (but not \*WEI *shi* SHI, or \**shi* SHI), analogous to other demonstratives and personal pronouns that are not fronting markers, as shown in (29c-d). However, when acting as a third person personal pronoun, *zhi* cannot be clefted or followed by any fronting marker (neither ZHI nor SHI). Such an asymmetry might be correlated with the contrast that the third person pronoun *zhi* is an accusative object pronoun that is restricted to accusative case-marked positions (see, for instance, (1b) and (3b)), and never occupies the subject position in a canonical clause (Aldridge 2011b, 2015b); however, other clefted pronouns, including *shi*, may receive accusative case (29a) or nominative case (29e).

- (29) a. 是 詩 也, 非 是 之 謂 也  
 [shi shi]<sub>i</sub> ye, fei shi<sub>j</sub> zhi [vp wei t<sub>i</sub> t<sub>j</sub>] ye  
 this poem Decl FEI this ZHI interpret Decl  
 ‘this poem, (we) do not interpret (it) as this’  
 (孟子•萬章上)
- b. 是 之 不 憂  
 shi<sub>i</sub> zhi bu [vp you t<sub>i</sub>]  
 this ZHI not worry  
 ‘(you) do not worry about this’  
 (國語•晉語八)
- c. 古 之 聖 王 唯 此 之 慎。  
 Gu zhi sheng wang wei ci<sub>i</sub> zhi [vp shen t<sub>i</sub>].  
 ancient.times Gen sagacious monarch WEI this ZHI discreet.in  
 ‘It is only in this sagacious monarchs of ancient times were discreet.’  
 (國語•周語下)
- d. 吾 唯 子 之 怨  
 wu wei zi<sub>i</sub> zhi [vp yuan t<sub>i</sub>]  
 I WEI you ZHI blame  
 ‘it is only you I blame’
- e. 是 爲 賊!  
 Shi wei zei!  
 (論語•憲問)

this Cop vermin

‘This is vermin!’

It should be mentioned that examples with a fronting marker 之 ZHI or 是 SHI are different from those involving cleft constructions, although cleft constructions are correlated with focus constructions, as the former has the semantic property of dividing a sentence into focus and presupposition.

First, cleft constructions in LAC require an obligatory copula 唯 WEI ‘be (the one who/that)’ indicating assertive modality (Djamouri 2001, Meisterernst 2010) or a negative copula 非 FEI as a matrix predicate preceding the clefted element (see (29c-d) and (29a) respectively), whereas when 之 ZHI and 是 SHI function as fronting markers, they never co-occur with (and never, follow) any matrix predicate, as in (30a-b), (30c-e), as well as (30f) and the former clause of (26a), repeated as (30g).

(30) a. 吾 百姓 之 不 圖 (國語•越語下)

wu baixing<sub>i</sub> zhi bu [VP tu t<sub>i</sub>]  
I common.people ZHI not care.about

‘I did not care about common people’

b. 君子 將 險哀 之 不 暇 (國語•周語下)

junzi jiang xianai<sub>i</sub> zhi bu [VP xia t<sub>i</sub>]  
gentleman Fut danger.sorrow ZHI not attend.to

‘gentlemen will not (have time to) attend to danger or sorrow’

c. 今 吳 是 懼 (左傳•昭公二十三年; Peyraube 1997: 11)

Jin wu shi ju  
now Wu SHI afraid

‘Now (they) are afraid of (the state of) Wu.’

d. 固 敗 是 求 (左傳•僖公十五年; *ibid*)

Gu bai shi qiu  
naturally defeat SHI ask.for

‘Naturally, (one) asks for defeat.’

e. 將 禍 是 務 去 (左傳•隱公三年)

jiang huo<sub>i</sub> shi wu [VP qu t<sub>i</sub>]

Fut misfortune SHI endeavor dispel

‘(monarchs) will endeavor to dispel misfortune’

f. 余 必 臣 是 助 (左傳•昭公二十二年)

yu bi chen<sub>i</sub> shi [VP zhu ti]

I must subject SHI facilitate

‘I must facilitate my subjects’

g. 小 国 将 君 是 望 (左傳•襄公二十八年)

xiao guo jiang jun<sub>i</sub> shi [VP wang ti]

small state Fut His.Majesty SHI expect

‘small states will expect His Majesty’

Second, a cleft construction involves a focalised constituent adjacent to the matrix predicate 唯 WEI or 非 FEI that precedes the other functional element, but the fronting marker 之 ZHI may follow a topicalised DP without being accompanied by an open sentence involving a variable bound by a focused constituent. In this thesis, I follow the general understanding of topics being discourse-given elements.<sup>21</sup> In (31), the preposed DP 何位 *he wei* ‘which position’ in the latter clause is a familiar entry associated with old information mentioned previously in the context, so it is analysed as a topic (see

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<sup>21</sup> Paul (2005) points out that topics in modern Mandarin are not necessarily tantamount to familiar information: it is possible for a topic to convey new information. In (xii), *mingtian* ‘tomorrow’ is a contrastive topic followed by the topic marker *ne*, and it introduces new information.

(xii) a. Ni shenmeshihou lai wo jia? (From Paul 2005: 113)

2SG when come 1SG home

b. Wo jintian mei you kong;

1SG today NEG have time

mingtian ne, dai huir zai shuo ba

tomorrow PART wait while then say PART

‘When will you come to my place?’

I can’t today; as for tomorrow, well, let’s talk about it later.’

Chapter 3 below for more detailed discussion). In this example, the fronting marker 之 ZHI follows a topicalised DP, yet the same morpheme in a cleft construction can never accompany a topic.

- (31) 韓 宣 子 問 其 位 於 子產。  
 Han xuan zi wen qi wei yu zichan.  
 Han Xuan Hon consult Gen position from Zichan  
 子產 曰：‘... 何 位 之 敢 擇?’ (左傳•昭公七年)  
 Zichan yue: ‘... [he wei]<sub>i</sub> zhi gan [VP ze ti]?’  
 Zichan utter which position ZHI dare choose  
 ‘Mr Han Xuan consulted his position from Zichan. Zichan uttered: “... which position does (he) dare to choose?”’<sup>22</sup>

Third, a fronting marker in LAC can only be ZHI or SHI, yet apart from these two morphemes, the functional element following the matrix verb in a cleft pattern could be another copula 為 *wei*<sup>23</sup> (32a-b) or a morpheme 所 *suo* (32c). The particle 所 *suo* is an A'-bound pronominal clitic, hence a variable in nature. In relative constructions such as (32c) which involves subject control, *suo* undergoes over N<sup>0</sup> to C<sup>0</sup> movement at Logical Form (LF), thus bears a [+wh] feature. The occurrence of *suo* is licensed by an A'-configuration, which is provided by the relative structure (Ting 2008).

- (32) a. 唯 官 山海 為 可 耳。 (管子•海王)  
 Wei [guan shanhai] wei ke er.  
 WEI exploit mountain.sea Cop appropriate Decl

<sup>22</sup> According to contextual information, this instance describes a scenario that Han Shuo, an official of the State of Zheng, killed someone and fled to the State of Jin to take refuge. The emperor of the State of Jin consulted his prime minister Zichan about the proper government position Han Shuo should take. Zichan replied that as a murderer, Han Shuo would bear a debt of gratitude as long as he would not be sentenced to death, so he dared not to choose any position. In the second clause, the *which*-phrase is familiar rather than novel.

<sup>23</sup> As a copula, 為 *wei* can occur alone in a sentence, as in (29e).

‘It is only exploiting mountains and seas that is appropriate.’

- b. 唯 女子 與 小人 為 難 養 也  
wei nuzi yu xiaoren wei nan yang ye  
only woman and villain Cop difficult get.along Decl  
‘it is only women and villains who are difficult to get along with.’

(論語•陽貨)

- c. 唯 君 所 病 之 何 也?  
Wei jun suo bing zhi [pp he] ye  
WEI Your.Majesty SUO have.disease.of 3.Obj what Decl  
‘(For) what is it only Your Majesty who has this disease?’

(莊子•徐無鬼)

Fourth, the functional element in a cleft pattern can be omitted, leaving the matrix predicate alone to focalise the clefted constituent (33a-b).

- (33) a. 唯 君 左右 之。 (國語•越語上)

Wei jun zuoyou zhi.  
WEI Your.Majesty dominate 3.Obj  
‘It is only Your Majesty who dominates it.’

- b. 唯 聖人 知 四 時。 (管子•四時)

Wei shengren zhi si shi.  
WEI sage comprehend 4 season  
‘It is only sages who comprehend the four seasons.’

Fifth, graphs ZHI/SHI in WEI ... ZHI/SHI can follow either a subject (34) or an object (25a/27a), but when acting as fronting markers, they can only follow a preposed object, as in (30a-b) and (30c-g).<sup>24</sup> In other words, an instance with a cleft construction

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<sup>24</sup> The cleft construction is preserved in modern Mandarin, in the form of *shi ... de pattern proper* marked by the presence of the copula *shi* and the functional element *de*. The *shi ... de* cleft in modern Mandarin can focus either the subject or an adjunct (xiiia/b), but it does not

does not necessarily involve movement (cf. (25a/27a) and (32-34)), yet a fronting marker always accompanies a fronted element.

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involve A' movement (Paul and Whitman 2008). Alternatively, the cleft construction can only contain a focus marker (the copula *shi*), without the functional element *de*, as in (xiiic/d/e) that involve a focused subject, adjunct and VP respectively (Huang 2009a). Furthermore, even the focus marker can be optional in focus sentences, and preposed simplex and complex *wh*-objects as well as non-*wh* objects may occur independently in the sentence-internal domain, as in (xiiif).

(xiii) a. Shi Zhangsan xie de zhe-ben shu. (Subject focus)

be Zhangsan write DE this-CL book

‘It was Zhangsan who wrote this book.’

b. Zhangsan shi qunian xie de zhe-ben shu. (Adjunct focus)

Zhangsan be last.year write DE this-CL book

‘It was last year when Zhangsan wrote this book.’

c. Shi wo mingtian yao mai neiben shu

FM I tomorrow want buy that book

‘It is I that want to buy that book tomorrow.’

(From Huang 2009a: 14)

d. Wo shi mingtian yao mai neiben shu (*ibid*)

I FM tomorrow want buy that book

‘It is tomorrow that I want to buy that book.’

e. Wo mingtian shi yao mai neiben shu (*ibid*)

I tomorrow FM want buy that book

‘I do want to buy that book tomorrow.’

f. Q: Zhangsan (shi) [shenme (jiu)]<sub>i</sub> bu [VP he t<sub>i</sub>]?

Zhangsan be what alcohol not drink

‘What (alcohol) does Zhangsan not drink?’

A: Zhangsan (shi) pijiu<sub>i</sub> bu [VP he t<sub>i</sub>].

Zhangsan be beer not drink

‘It is beer that Zhangsan does not drink.’



- (34) 不 唯 下 土 之 不 康靖。 (國語•吳語)  
 Bu wei [xia tu] zhi bu kangjing.  
 not WEI under land ZHI not peaceful  
 ‘It is not only the world that is not peaceful.’

Instances with cleft constructions are biclausal, hence excluded from the discussion concerning object preposing in this thesis. Since clause boundaries should not be neglected when analysing object preposing, it is important to point out that examples in (35), along with other cited instances with clefts, are biclausal. The negator and the DP in (35a) (=34)) are not located in the same minimal clause, in that this example concerns a subject focus-type cleft reading, and ZHI is not a fronting marker. Although (35a) might not be relevant to object preposing, it acts as a cue for the possibility of biclausal construction of sentences involving DP movement. With respect to (35b) (=26a)), according to contextual information, small states rely on and count on the emperor of Chu, so they listen only to the orders of him. This interpretation indicates that the rhetorical question is constituted of two clauses, because the negator *bu* takes scope over the higher predicate 唯 WEI only, excluding the content verb ‘listen’. On the other hand, if a monoclausal approach was adopted, hence both the matrix verb and the content verb in this rhetorical question were negated, the literal translation of the second clause would be ‘... dare (they) not listen to the orders (of His Majesty) only’. Under this analysis, it would imply that those small states not only listen to orders of the emperor of Chu, but also listen to some other emperors, which is counterfactual. Similarly, in (35c), the negator precedes both the matrix predicate WEI and the embedded verb ‘listen’, but only the matrix verb is negated, so this instance is also comprised of two minimal clauses. Therefore, examples involving cleft constructions are biclausal, thus not being taken into account when I discuss object preposing in this thesis.

- (35) a. 不 唯 下 土 之 不 康靖。 (國語•吳語)  
 Bu wei [xia tu] zhi bu kangjing.  
 not WEI under land ZHI not peaceful

‘It is not only the world that is not peaceful.’

- b. 小 国 将 君 是 望,  
Xiao guo jiang jun<sub>i</sub> shi [VP wang t<sub>i</sub>],  
small state will His.Majesty SHI expect  
敢 不 唯 命 是 聽? (左傳•襄公二十八年)  
gan bu wei ming<sub>j</sub> shi [VP ting t<sub>j</sub>?]  
dare not WEI order SHI listen

‘Small states will expect His Majesty; it is only the orders (of His Majesty they) must follow.’ (Lit. ‘Dare (they) not only listen to the orders (of His Majesty)?’)

- c. 鄭國 而 不 唯 晉 命 是 聽  
zhengguo er bu wei [jin ming]<sub>i</sub> shi [VP ting t<sub>i</sub>]  
Zheng.state Conj not WEI Jin order SHI listen  
‘while regarding the state of Zheng, it is not only the orders of the state of Jin it listens to’

(左傳•襄公九年)

Returning to fronting markers, I suggest that they are optional, as illustrated by instances (36a-c) and (36d-e) respectively (Wang 2013).

- (36)a. 君子 將 險哀 之 不 暇 (國語•周語下)  
junzi jiang xianai<sub>i</sub> zhi bu [VP xia t<sub>i</sub>]  
gentleman Fut danger.sorrow ZHI not attend.to

‘gentlemen will not (have time to) attend to danger or sorrow’

- b. 小 国 将 君 是 望 (左傳•襄公二十八年)  
xiao guo jiang jun<sub>i</sub> shi [VP wang t<sub>i</sub>]  
small state will His.Majesty SHI expect

‘small states will expect His Majesty’

- c. 余 必 臣 是 助 (左傳•昭公二十二年)  
yu bi chen<sub>i</sub> shi [VP zhu t<sub>i</sub>]  
I must subject SHI facilitate

‘I must facilitate my subjects’

d. 祀                    不        可以        已        乎?                    (國語•楚語下)

Si<sub>i</sub>                    bu        keyi        [VP yi ti]        hu?

propitiation        not        can        cease        Q

‘Cannot (I) cease the propitiation?’

e. 若        子        不        我        信                    (*ibid*)

ruo        zi        bu        wo<sub>i</sub>        [VP xin ti]

if        you        not        me        trust

‘if you do not trust me’

I propose that the presence of fronting markers is not triggered by focalisation or contrastiveness, but rather the propositional assertion in the sense of Paul and Whitman (2008).<sup>25</sup> In sentences with propositional assertion, the speaker’s certainty that the proposition holds in a given situation is conveyed, but no constituent is focalised. The fact that examples (36d/e) do not contain a fronting marker is due to their lack of propositional assertion: the former is an ordinary question, and the latter is a conditional clause. As for (37a), the absence of a fronting marker is attributed to the fact that *zhi* cannot be clefted or followed by any fronting marker when acting as a third person accusative pronoun. Moreover, I argue that the presence of fronting markers is not correlated with focalisation. Focalisation is not necessarily present in sentences with fronting markers; in other words, fronting markers may accompany an external topic, as

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<sup>25</sup> According to Paul and Whitman (2008), the propositional assertion pattern in modern Mandarin requires both a copula *shi* and a functional element *de*, in a configuration ‘NP *shi* V O *de*’. This pattern is different from the *shi* ... *de* proper cleft, because there is no focused constituent in the propositional assertion pattern (xiv). This pattern is not a simple declarative assertion either, in that it implicates that the truth of the asserted proposition is relevant to the discourse.

(xiv) Wo        shi        yuanyi        bangzhu        tamen        de.        (From Paul and Whitman 2008: 421)

1SG        be        wish        help        3PL        DE

‘(It is the case that) I do want to help them.’

in (37b). Based on contextual information, example (37b) contains a D-linked *which*-phrase that returns a familiar entry in the filing system of discourse (Pesetsky 1987),<sup>26</sup> because the *which*-phrase refers to a choice among 位 *wei* ‘positions’ mentioned in the previous context. So this *which*-phrase in (37b) is a topic-like constituent, and it is accompanied by the fronting marker ZHI. Besides, focalisation does not necessarily involve fronting markers. (37c) is an example concerning a focus construction, to be more specific, an IdentF (or contrastive focus) in the sense of É. Kiss (1998) that expresses exhaustive identification. 唯 WEI ‘be (the one who/that)’ in Shang bone inscriptions (14<sup>th</sup>-11<sup>th</sup>c BC; the pre-Archaic Chinese period) is regarded as a marker of focalisation (Djamouri 2001), so I posit that it still functioned as a marker of focalisation in LAC period. WEI in (37c) implies an *only*-phrase which is analysed as an IdentF carrying an evaluative presupposition by É. Kiss (1998); but (35c) does not involve any fronting marker. Furthermore, fronting markers do not correlate with contrastiveness. First, sentences without contrastive interpretation may contain fronting markers (37d-e). Second, sentences conveying contrastive interpretation do not require obligatory fronting markers (37f). It is notable that rhetorical questions are compatible with propositional assertion, so questions with rhetorical dimensions are expected to contain fronting markers. This view is borne out, accounting for the asymmetry between (37f) and (37b/d/e): the former is an ordinary question without a rhetorical reading, so it lacks fronting markers; the latter have rhetorical effect, hence fronting markers. That is to say, fronting markers are correlated with propositional assertion.

(37) a. 未 之 能 行 (論語•公冶長)  
wei zhi<sub>i</sub> neng [<sub>VP</sub> xing t<sub>i</sub>]  
not.yet 3.Obj can execute  
‘before (he) can execute it’

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<sup>26</sup> I would like to thank an anonymous reviewer for pointing out the possibility of D-linking in LAC.

b. 韓 宣 子 問 其 位 於 子產。

Han xuan zi wen qi wei yu zichan.

Han Xuan Hon consult Gen position from Zichan

子產 曰: ‘... 何 位 之 敢 擇?’

Zichan yue: ‘... [he wei]<sub>i</sub> zhi gan [VP ze t<sub>i</sub>]?’

Zichan utter which position ZHI dare choose

‘Mr Han Xuan consulted his position from Zichan. Zichan uttered: “... which position does (he) dare to choose?”’

(左傳•昭公七年)

c. 唯 官 山海 為 可 耳。 (管子•海王)

Wei [guan shanhai] wei ke er.

WEI exploit mountain.sea Cop appropriate Decl

‘It is only exploiting mountains and seas that is appropriate.’

d. 宋 何 役 之 不 會,

Song [he yi]<sub>i</sub> zhi bu [VP hui t<sub>i</sub>],

Song what battle ZHI not enter

而 何 盟 之 不 同? (左傳•昭公二十五年)

er [he meng]<sub>j</sub> zhi bu [VP tong t<sub>j</sub>]?

Conj what alliance ZHI not join

‘What battle does the State of Song not enter, and what alliance does (it) not join?’

e. 王 何 異 之 有? (國語•周語中)

Wang [he yi]<sub>i</sub> zhi [VP you t<sub>i</sub>]?

emperor what difference ZHI have

‘What differences does the emperor have?’

f. 然則 我 何 為 乎? 何 不 為 乎?

Ranze wo he<sub>i</sub> [VP wei t<sub>i</sub>] hu? He<sub>j</sub> bu [VP wei t<sub>j</sub>] hu?

then I what do Q what not do Q

‘Then what do (I) do? What do (I) not do?’

(莊子•秋水)

For fronting markers accompanying interrogative *wh*-constituents, their optionality is also correlated with the simplex/complex asymmetry of the moved *wh*-DPs. To be more specific, a fronting marker only follows an internally complex *wh*-DP consisting of an NP and a *wh*-modifier (37b/d/e); moreover, the presence of a fronting marker is obligatory. In contrast to this, simplex interrogative *wh*-words are never followed by fronting markers. A focalised *wh*-word is not followed by a fronting marker, as in (37f). Similarly, a simplex *wh*-word fronted to the left periphery as an external topic is not followed by a fronting marker (38a). There is no denying the fact that (38b) seems to be a counterexample to the above generalisation, in that the fronting marker ZHI is preceded by a simplex *wh*-word 誰 *shui*. Nevertheless, 誰 *shui* in (38b) is a *wh*-indefinite, and this example is a conditional clause, the properties of which need further investigation. So (38b) should not be treated as a counterexample, and my argument here is consistent.

- (38) a. 何 哉 君 所 謂 逾 者?  
 He<sub>i</sub> zai jun suo wei [yu zhe] t<sub>i</sub>?  
 what Q Your.Majesty SUO call arrogate ZHE  
 ‘What is the arrogation that Your Majesty meant?’

(孟子•梁惠王下)

- b. 誰 之 不 如, 可以 求 之。  
 Shui<sub>i</sub> zhi bu [VP ru t<sub>i</sub>], keyi qiu zhi.  
 who ZHI not compare can follow 3.Obj  
 ‘If you don’t measure up to someone, you can follow him.’

(國語•晉語六; Aldridge 2010a: 26)

It is notable that only ZHI can function as the fronting marker following preposed *wh*-constituents, yet SHI never acts as a fronting marker for *wh*-elements. The ungrammaticality of \**wh*-SHI is because SHI always occurs below negation, yet *wh* never follows negation due to the Intervention Effect (see Chapter 8.2 for detailed discussion).

The distribution of fronting markers ZHI and SHI in the High and Low positions for

object fronting is hence shown in Table 1:

Table 1: Distribution of ZHI and SHI

	High position		Low position	
之 ZHI	(37b)	/ (38a)	(37d)	/ (37a)
是 SHI	*		(36a)	/ (37a)

### 2.3. Landing Site of Non-*Wh*-Fronting

Turning to the issue of the landing site of non-*wh*-fronting, I follow the ideas in Paul (2002, 2005) about different positions between TP and *v*P in modern Mandarin Chinese, and further extend them by proposing two distinct positions for the preposing of nominal and pronominal DPs, both of which are specifiers of functional projections. I suggest that a preposed non-*wh*-DP in LAC occupies a specifier position of some functional category above TP, or between TP and *v*P. If the preposed non-*wh*-DP is followed by a fronting marker, the fronting marker appears in the head position of that functional category.

First, supposing the presumption of object preposing targeting the edge of *v*P was adopted, it would imply a single position for fronted non-*wh*-DPs, contrary to the above-mentioned instances involving two preverbal positions. Moreover, examples with nominal and pronominal DPs fronted into the left periphery would be hard to account for (39a/b), as *v*P is lower than TP.

- (39) a. 其 父母 之 不 親 也,  
 [Qi fumu]<sub>i</sub> zhi bu [<sub>VP</sub> qin t<sub>i</sub>] ye,  
 3.Gen parents ZHI not adore Decl  
 又 能 親 君 乎? (韓非子•十過第十)  
 you neng qin jun hu?  
 then can adore lord Q  
 ‘(He) does not adore his parents, then how can (he) adore the lord?’

b. 是 之 不 務 (左傳•昭公三十二年)  
 shi<sub>i</sub> zhi bu [VP wu t<sub>i</sub>]  
 this ZHI not conduct  
 ‘(if you) do not conduct this’

Second, fronting markers ZHI and SHI also lend further support for the proposal involving functional categories. As can be observed from the attested data (40a/b), when ZHI/SHI is present, it is always immediately preceded by a preposed non-*wh*-DP. So even if we hypothesise that the node for preposed DPs can either be on the edge of CP or *v*P, this single node still fail to accommodate two elements, i.e. the fronted DP and the fronting marker immediately following it. Providing the assumption concerning functional projections is adopted, then fronted nominal and pronominal elements can occupy the specifier node, while fronting markers may target the head of corresponding functional projections (Wang 2013).

(40) a. 君子 將 險哀 之 不 暇 (國語•周語下)  
 junzi jiang xianai zhi bu [VP xia t<sub>i</sub>]  
 gentleman Fut danger.sorrow ZHI not attend.to  
 ‘gentlemen will not (have time to) attend to danger or sorrow’  
 b. 小 国 將 君 是 望 (左傳•襄公二十八年)  
 xiao guo jiang jun<sub>i</sub> shi [VP wang t<sub>i</sub>]  
 small state will His.Majesty SHI expect  
 ‘small states will expect His Majesty’

Third, both fronting markers and prepositions target the head of functional projections, so that is why there is a complementary distribution of fronting markers and prepositions. To be more specific, the reason why a fronting marker can only follow a fronted nominal or pronominal DP (41a-b) but never coexists with a fronted PP (41c)<sup>27</sup>

<sup>27</sup> Here I provide an example involving a *wh*-PP, because as discussed in Chapter 6, both *wh* and *P* need to raise out of PP and land in functional projections. In a non-*wh*-PP as in (22) in Chapter



is because when the head node of a topic or focus phrase is occupied by a fronted preposition, there is no position for the fronting marker, and vice versa.

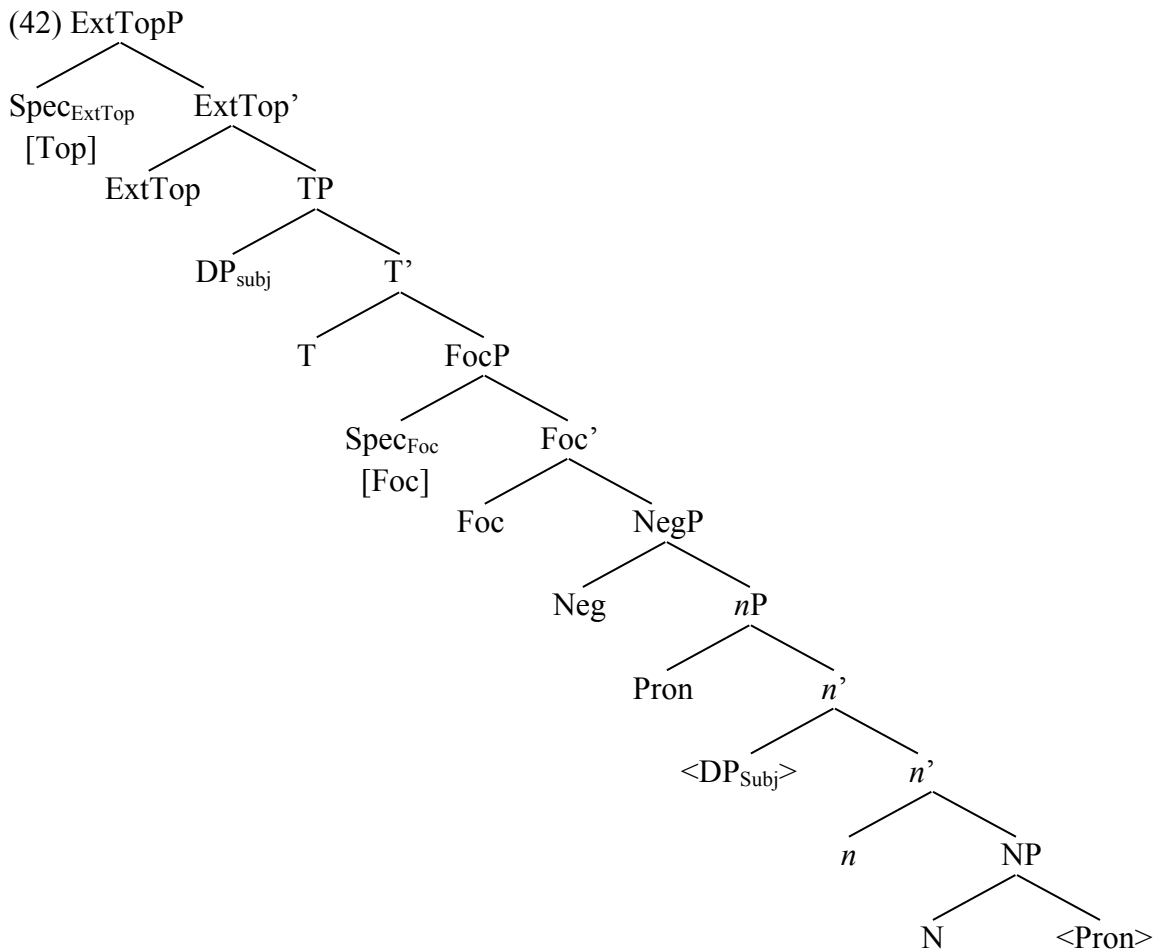
- (41) a. 吾 百姓 之 不 圖 (國語•越語下)  
 wu baixing<sub>i</sub> zhi bu [VP tu t<sub>i</sub>]  
 I common.people ZHI not care.about  
 ‘I did not care about common people’
- b. 小 国 将 君 是 望 (左傳•襄公二十八年)  
 xiao guo jiang jun<sub>i</sub> shi [VP wang t<sub>i</sub>]  
 small state Fut His.Majesty SHI expect  
 ‘small states will expect His Majesty’
- c. 女 将 惡 乎 比 予 哉?  
 Ru jiang wu<sub>i</sub> hu<sub>j</sub> [VP bi yu [PP t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] zai?  
 you Fut what to compare me Q  
 若 将 比 予 于 文 木 邪? (莊子•人間世)  
 Ruo jiang [VP bi yu [PP yu [wen mu]]] ye?  
 you Fut compare me to useful wood Q  
 ‘To what will you compare me? Will you compare me to useful wood?’

With respect to fronted pronouns in the context of negation, for the time being I follow Aldridge (2015b) and postulate that pronominal DPs undergo object shift in order to value structural accusative case from the head of NegP, and land in the node [Spec, *n*P]. Unlike the landing site above TP and the one located between TP and negation that accommodate both nominal and pronominal non-*wh*-DPs, this position below negation only permits raised pronouns.

Consequently, the basic structure of the preposing of non-*wh*-objects in LAC is as follows:

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2.1, however, DP complement only fronts to [Spec, PP], instead of any functional projection. Naturally, no fronting marker can follow the fronted non-*wh* DP complement anyway, because the P<sup>0</sup> position, which is supposed to accommodate fronting markers, is occupied by the preposition.



As can be seen in (43), I posit that the high landing site for the preposing of non-*wh*-objects is in the left periphery, and its lower counterpart is in the lower TP domain, both of which are above NegP. Additionally, there is an extra position below negation on [Spec, *nP*] that is exclusively for pronoun fronting in the context of negation, and I call this extra position Pronoun position. For the time being, the corresponding projections for the High and Low positions are referred to as ExtTopP and FocP respectively, with ExtTopP dominating FocP. Evidence of the nature of landing sites for non-pronominal objects will be discussed in Chapter 3. Following Aldridge (2015b), I use *nP* instead of the verbal structure.

## 2.4. Medial Domain

LAC allows medial elements between the subject and the verb in a canonical clause.

These elements include auxiliaries,<sup>28</sup> adverbs, negatives and modals (Wang 2013).

Among auxiliaries, passive markers can intervene between the subject and the verb, as exemplified by ‘見 *jian* + V’ and ‘為 *wei* + V’ in (43a/b), as well as the variant of the former ‘見 *jian* + V + 于 *yu* + Agent’ in (43c). In these examples, passive markers 見 *jian* and 為 *wei*<sup>29</sup> should be treated as auxiliary verbs, and the preposition 于 *yu*<sup>30</sup> in (43c) indicates passive voice and marks the agent of the action. The passive

<sup>28</sup> In Chinese, tense, aspect and voice are not reflected in the morphology of the verb, so they have to be expressed by auxiliaries, which only take verbal but not nominal complements and probably derive from full verbs through grammaticalisation (Peyraube 1999, Meisterernst 2008a, 2011).

<sup>29</sup> The construction ‘為 *wei*+V’ has a variant ‘為 *wei*+Agent+V’ where the passive marker 為 *wei* introduces the agent and functions as a preposition (xva). 為 *wei* in another newly emerged passive form ‘為 *wei*+Agent+所 *suo*+V’ is also a prepositions (xvb-c), because it introduces the agent. Therefore, Peyraube (1996) assumes that 為 *wei* may have undergone a reanalysis from a verb and grammaticalised into a preposition.

(xv) a. 戰 而 不 克, 為 諸侯 笑。

Zhan er bu ke, wei zhuhou xiao.

fight and negation win, WEI feudal.lords mock

‘(If one) fights and does not win, (one) will be mocked by the feudal lords.’

(左傳•襄公十年; Peyraube 1996: 175)

b. 不 為 人 所 容

(韓非子•外儲說下)

bu wei ren suo rong

not WEI people SUO accept

‘(they) are not accepted by people’

c. 為 魚 鱉 所 食。

(莊子•盜跖)

Wei yu bie suo shi.

WEI fish turtle SUO eat

‘(He) was eaten by fish and turtles.’

<sup>30</sup> In LAC, the preposition 于 *yu* can appear in another passive form ‘V + 于 *yu* + Agent’ (xvi).

Despite the presence of this structure since Early Archaic Chinese, new passive forms, i.e. ‘見

construction involving 被 *bei* also emerged in this period, but it remained rare, as in (43d). Some instances may contain two passive markers, the former of which is prepositional, introducing the agent, and the latter is verbal, marking the verb (43) (Peyraube 1989, 1996). Since passives and object preposing are in complementary distribution, passive markers never act as medial elements for object fronting.

(43) a. 盆 盛括 見 殺 (孟子•盡心下; Peyraube 1996: 174)

Peng Chengguo jian sha

Peng Chengguo JIAN kill

‘Peng Chengguo was killed.’

b. 臣 已 為 辱 矣。

Chen yi wei ru yi.

I already WEI humiliate final.particle

‘I was already humiliated.’

(呂氏春秋•忠廉; Peyraube 1996: 174)

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*jian* + V’ and ‘為 *wei* + V’, still emerged in the period of LAC. The reason lies in that the pattern ‘V + 于 *yu* + Agent’ was no longer satisfactory: 于 *yu* may introduce constituents other than agents, such as locative PPs, directional PPs, dative PPs, comparative PPs, etc., hence ambiguity of the structure; this construction requires an obligatory agent, thus limitation in terms of expressions (Peyraube 1996).

(xvi) 治 于 人 者 食 人,

Zhi yu ren zhe shi ren,

rule YU other the.one.who feed other

治 人 者 食 于 人

zhi ren zhe shi yu ren

rule other the.one.who feed YU other

‘Those who are ruled by others feed others, those who rule are fed by others.’

(孟子•滕文公上; Peyraube 1996: 174)

c. 吾 長 見 笑 於 大方 之 家。  
 Wu chang jian xiao yu dafang zhi jia.  
 I long JIAN laugh by enlightened Gen sage  
 ‘I am always teased by enlightened sages.’

(莊子•秋水)

d. 今 兄弟 被 侵  
 jin xiongdi bei qin  
 now brother BEI attack  
 ‘now brothers are attacked’

(韓非子•五蠹)

e. 烈士 為 天下 見 善 矣  
 Lieshi wei tianxia jian shan yi  
 martyr WEI world JIAN praise particle  
 ‘The martyrs are praised by the (whole) world.’

(莊子•至樂; Peyraube 1996: 175)

Another auxiliary verb in LAC is 當 *dang* ‘ought, should’. In (44a), 當 *dang* takes a verbal complement and expresses an obligation. However, in LAC, the predominant functions of 當 *dang* are to represent a full verb ‘to match, to correspond to’ (44b) and a preposition ‘at’ expressing both local and temporal relations (44c), whereas its employment as an auxiliary is rare (Meisterernst 2011), so no examples containing both *dang* and raised objects are ever attested. Therefore, in the context of object preposing, only adverbials, negatives and modals appear to be medial elements between the subject and vP.

(44) a. 雖 然 則 彼 疾 當 養 者,  
 Sui ran ze bi ji dang yang zhe,  
 however be.like then that ill, DANG nourish NMLZ,  
 孰 若 妻 與 宰 (禮記•檀弓下; Meisterernst 2011: 146)  
 shu ruo qi yu zai  
 which be.like wife and steward  
 ‘However, if he is going to be ill, of those who should nourish him, who would be better than his wife and his steward?’

b. 孤 子 當 室, 冠 衣 不 純 采  
 Gu zi dang shi, guan yi bu zhun cai  
 orphan son correspond house, cap dress Neg border colourful  
 ‘And if the orphaned son has taken care of the house, his cap and clothes are not decorated with colours.’

(禮記•曲禮上; Meisterernst 2011: 138)

c. 遇 大 車 當 道 而 覆 (國語•晉語五; *ibid*)  
 yu da che dang dao er fu  
 meet big chariot at road Con turn.over  
 ‘He came across a large chariot which had overturned on the road.’

I argue that modal adverbs such as 長 *chang* ‘forever’ (43c) and 必 *bi* ‘certainly’ (45a) act as medial elements coming after the subject. Moreover, as illustrated by (45b-c), which involve the Pronoun position, the modal adverb 必 *bi* precedes negatives, hence also fronted pronouns. As regards aspectual/temporal adverbs, they intervene between modal adverbs and preposed constituents landing in the Low position. In (45d), an aspectual adverb 將 *jiang* is preceded by the modal adverb 必 *bi*; the same aspectual adverb is followed by preposed objects in the Low position (45e-f). Example (45e) additionally involves a temporal adverb 今 *jin* which I postulate is situated in the identical location with aspectual adverbs.

(45) a. 國 必 亡。 (國語•周語中)  
 Guo bi wang.  
 state certainly perish  
 ‘The state will certainly perish.’

b. 彼 知 吾 將 用 之,  
 Bi zhi wu jiang yong zhi,  
 3.Subj know I Fut employ 3.Obj  
 必 不 吾 予 也。 (管子•小匡)  
 bi bu wu<sub>i</sub> [VP yu [PP t<sub>i</sub> ti]] ye.  
 certainly not I give Decl  
 ‘(If) he knows I will employ him, (he) certainly would not give (him to) me.’

- c. 必 不 吾 受 也 (左傳•僖公五年)  
 bi bu wu<sub>i</sub> [VP shou [PP t'<sub>i</sub> t<sub>i</sub>]] ye  
 certainly not I accept Decl  
 ‘(he) certainly would not accept (presents from) me’
- d. 晉 必 將 報。 (左傳•襄公二十五年)  
 Jin bi jiang bao.  
 Jin certainly Fut avenge  
 ‘The State of Jin will certainly avenge (it).’
- e. 今 將 惠 以<sup>31</sup> 小 賜 (國語•魯語上)  
 jin jiang hui<sub>i</sub> yi xiao [VP ci t<sub>i</sub>]  
 now Fut benefaction YI fractionally grant  
 ‘now (you) will fractionally grant benefactions’
- f. 君子 將 險哀 之 不 暇 (國語•周語下)  
 junzi jiang xianai<sub>i</sub> zhi bu [VP xia t<sub>i</sub>]  
 gentleman Fut danger.sorrow ZHI not attend.to  
 ‘gentlemen will not (have time to) attend to danger or sorrow’

In terms of head-like medial elements below negation, they are mainly represented by, but not limited to, root modal verbs. Example (46) (=37a) involves the Pronoun position which intervenes between the aspectual negator 未 *wei* and a modal of ability 能 *neng* ‘can’.

- (46) 未 之 能 行 (論語•公治長)  
 wei zhi<sub>i</sub> neng [VP xing t<sub>i</sub>]  
 not.yet 3.Obj can execute  
 ‘before (he) can execute it’

It is important to point out that although in many cases, sentences involving root modal verbs may be analysed as passive constructions, as suggested by Pulleyblank (1995), Meisterernst (2008a), Aldridge (2007, 2010a), and others, there are some

<sup>31</sup> The nature of 以 *yi* is investigated in Chapter 4.3.

examples which are true object preposing constructions. As argued by Wei (2003), 可 *ke* ‘can’ is related to object preposing, and it usually involves raising of an object to the subject position of the matrix clause, as in (47). The motivation for object preposing is that the incorporation of 可 *ke* ‘can’ with 食 *shi* ‘eat’ and 用 *yong* ‘use’ renders 可 +V intransitive, so the objects 桂 *gui* ‘cassia’ and 漆 *qi* ‘tree lacquer’ have to move to the subject position for case. Moreover, I follow Wei (2003) in treating 可以 *ke yi* as an incorporation of *ke* with a preposition 以 *yi*. In (47b), the object of the preposition *yi* moves to the subject position. Parallel to that in the NP+可 *ke* construction, the motivation for object preposing in (47b) involving *ke yi* is also due to incorporation. However, instead of incorporating *ke* with a transitive verb (as in (47a)), in the construction involving *ke yi*, *ke* incorporates with the preposition *yi*, so the object of *yi* has to undergo movement to the subject position in order to get case.

- (47) a. 桂 可 食, 故 伐 之;  
 Gui<sub>i</sub> ke [VP shi t<sub>i</sub>], gu fa zhi;  
 cassia can eat so fell 3.Obj  
 漆 可 用, 故 割 之。 (莊子•人間世)  
 qi<sub>j</sub> ke [VP yong t<sub>j</sub>], gu ge zhi.  
 tree.lacquer can use so cut 3.Obj  
 ‘(People) can eat cassia, so they fell them (cassia trees); (people) can use tree lacquer, so they cut them (lacquer trees).’
- b. 國 之 利 器 不 可 以 示 人。  
 [Guo zhi li qi]<sub>i</sub> bu ke [PP yi t’<sub>i</sub> t<sub>i</sub>] shi ren.  
 state Gen sharp weapon not can with show others  
 ‘(One) cannot show others with the sharp weapon of the state.’  
 (莊子•胠篋)

Regarding passives, I follow the general consensus that an NP in a passive construction has the same semantic role as its counterpart in an active sentence, and these two sentences share the identical propositional content (Siewierska 1984). According to the analysis in term of passivisation, the theme of the verb is predicted to raise out of the internal argument position to the subject position. Nevertheless, as can be observed from



(48a) which involves the modal of ability 能 *neng*, a DP ‘I’ occupies the subject position; accordingly, *si* ‘this’ can only be regarded as moving to the object position following the sentential subject. To reinforce this point, I refer to example (48b) (= (46)), in which the third person accusative pronoun *zhi* is clearly an internal argument fronted to the preverbal object position, because it is lower than the negator *wei*. So (48b) also helps to show that root modal verbs in LAC are not always passive markers (Wang 2013).

- (48) a. 吾 斯 之 未 能 信。 (論語•公冶長)  
 Wu si<sub>i</sub> zhi wei neng [VP xin t<sub>i</sub>].  
 I this ZHI not.yet can be.confident.in  
 ‘I have not been able to be confident in this.’
- b. 未 之 能 行 (論語•公冶長)  
 wei zhi<sub>i</sub> neng [VP xing t<sub>i</sub>]  
 not.yet 3.Obj can execute  
 ‘before (he) can execute it’

Along with this point, canonical sentences involving root modals can be transitive, which lends indirect support to the proposal that these sentences are not passive constructions (Wang 2013). Examples (49a-b) illustrate transitive clauses with 可以 *keyi* and 能 *neng* respectively, both of which can be translated by ‘can’ in English. I agree with Meisterernst’s analyses (2008a) of 可以 *keyi* in Han period Chinese; my observation reveals that in LAC, it also predominantly expresses root possibility values, parallel to 能 *neng*.<sup>32</sup> In LAC, when modal verbs 可以 *keyi* and 能 *neng* occur in a negative environment, they may express root possibility values (as exemplified in (47)), or deontic values (49a) (Wang 2013).

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<sup>32</sup> Both *neng* and *keyi* in modern Mandarin are root modals: the former is ‘be able to’, and the latter is ‘be permitted to’ (Lin and Tang 1995, Lin 2011).

(49) a. 吾 不 可以 僭 之。 (左傳•哀公五年)  
 Wu bu keyi jian zhi.  
 I not can arrogate 3.Obj  
 Mod V O

‘I must not arrogate it.’ (Lit. ‘I cannot arrogate it.’)

b. 吾 能 止 之。 (國語•晉語九)  
 Wu neng zhi zhi.  
 I can stop 3.Obj  
 Mod V O

‘I can stop it.’

Therefore, I take the view that clauses involving root modal verbs may involve object preposing, analogous to other examples in this thesis.

To summarise, adverbials, negatives and modals are the key head-like elements intervening in the medial domain between the subject and *vP*. These medial elements do not necessarily appear together, but if they do, they are always in a fixed relative order: aspectual/temporal adverbs must precede negatives which precede root modal verbs, yet follow other modal adverbs. As for fronted non-*wh*-DPs, providing their landing sites fall into the medial domain, they always appear immediately next to the negator. Consequently, preposed non-*wh*-objects in the Low position intervene between modal adverbs and aspectual/temporal adverbs and negation, while fronted pronouns in the Pronoun position follow negation and precede root modal verbs. A linear format of the clausal positions for non-*wh*-fronting and the medial elements is in (50):

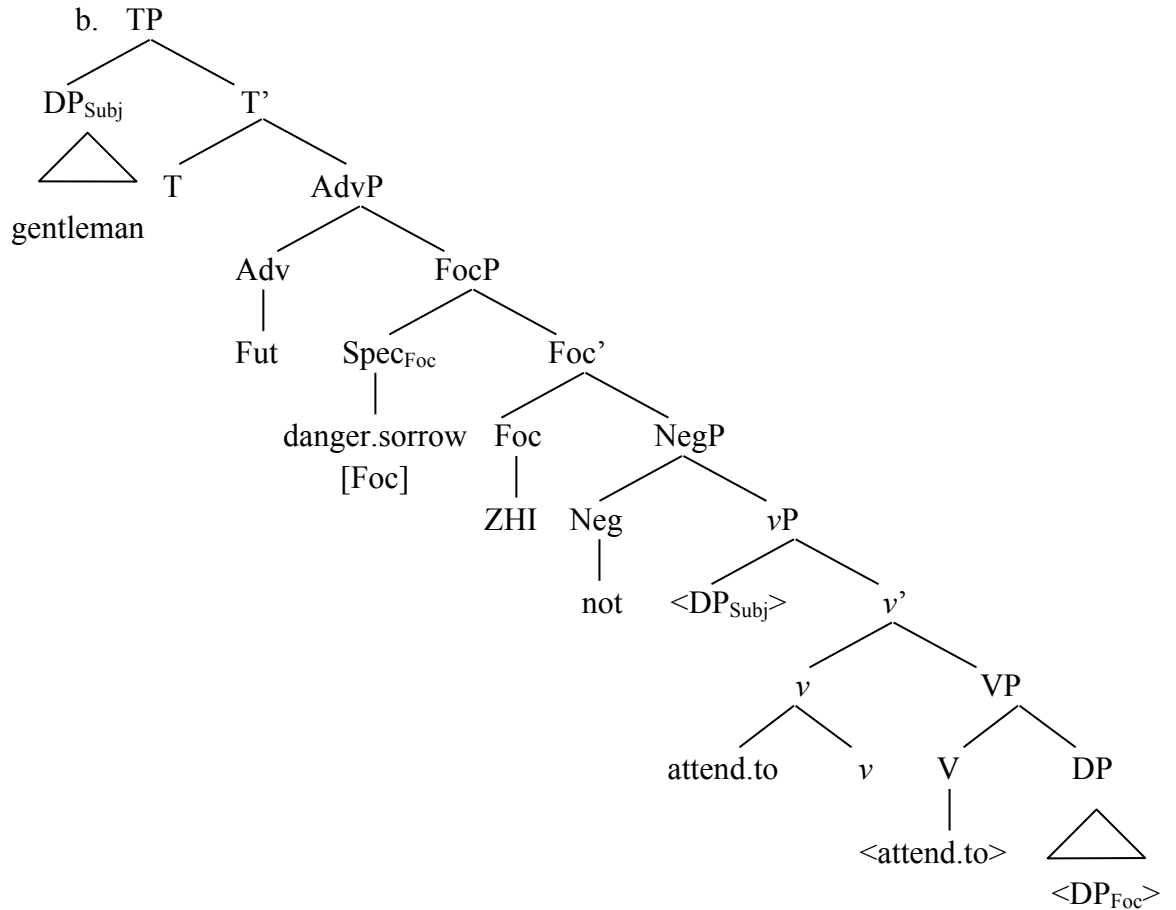
(50) Clausal positions for non-*wh*-fronting (interim):

High position > Subject > Modal adverbs > Aspectual/temporal adverbs > Low position > Negation > Pronoun position > Root modal verbs > *vP*

Since I posit that a preposed object occurs in the specifier position of some functional category, the fronted DP in (51a) (=45f) occupies the [Spec, FocP] node (51b). The fronting marker ZHI does not form a constituent with the preposed DP, and it targets the

position  $\text{Foc}^0$ .

- (51) a. 君子            將        險哀        之    不        暇    (國語•周語下)  
 junzi            jiang        xianai<sub>i</sub>        zhi    bu    [<sub>VP</sub> xia t<sub>i</sub>]  
 gentleman      Fut      danger.sorrow    ZHI    not    attend.to  
 ‘gentlemen will not (have time to) attend to danger or sorrow’



The strict relative ordering between modals and negation indicated by the template in (50) is not surprising, in that it also applies to canonical sentences, the order of which is schematised as follows:

- (52) Full order of medial elements without preposing:

Subject > Modal adverbs > Aspectual/temporal adverbs > Negation > Root modal verbs >  $vP$

Modal adverbs always precede aspectual/temporal adverbs: in (53a), the modal

adverb 必 *bi* is followed by the aspectual adverb 將 *jiang* (see also (45d)). Aspectual/temporal adverbs, however, are followed by negation (53b). With respect to root modal verbs, they have to follow a negator, and often precede another negator to form a double negative construction. (53c/e) and (53d/f) involve a modal auxiliary verb 可 *ke* and its variant 可以 *keyi* respectively; 可 *ke* ‘can’ in a negative environment in (53c) expresses root possibility values, whereas its counterpart in (53e) ‘can = must, may’ and 可以 *keyi* in (53d/f) express deontic modality (obligation and permission). I follow Meisterernst (2008a) in treating 可以 *keyi* as a disyllabic verb, rather than analysing 以 *yi* as a stranded preposition, a conjunction or a transitive verb. Moreover, I agree with Meisterernst’s analyses (2008a) of 可 *ke* and 可以 *keyi* in Han period Chinese; my observation reveals that in LAC, they also predominantly express root possibility values. As for (53g), it contains the modal of ability 能 *neng* ‘can’ which conveys dynamic modality and is preceded by the negator 不 *bu*. (53h) involves another modal auxiliary verb 當 *dang* expressing root necessity and obligation and following negation.

- (53) a. 必 將 殺 之。 (管子•大匡)  
 Bi jiang sha zhi.  
 certainly Fut kill 3.Obj  
 ‘(They) will certainly kill him.’
- b. 將 不 入 矣。 (國語•魯語下)  
 Jiang bu ru yi.  
 Fut not be.official Perf  
 ‘(He) will not be an official anymore.’
- c. 不 可 方 物。 (國語•楚語下)  
 Bu ke fang wu.  
 not can distinguish object  
 ‘(People) cannot distinguish objects.’
- d. 吾 不 可以 僭 之。 (左傳•哀公五年)  
 Wu bu keyi jian zhi.  
 I not can arrogate 3.Obj  
 ‘I must not arrogate it.’ (Lit. ‘I cannot arrogate it.’)

e. 然則 我 不 可 不 為 義。 (墨子•尚賢)  
 Ranze wo bu ke bu wei yi.  
 Then I not can not conduct righteousness  
 ‘Then I cannot not conduct righteousness.’

f. 從 政 者<sup>33</sup> 不 可以 不 戒  
 [[e cong zheng] zhe] bu keyi bu jie  
 be.engaged.in politics ZHE not can not take.precautions  
 ‘those who are engaged in politics cannot not take precautions’

(國語•晉語一)

g. 我 不 能 兼 愛。  
 Wo bu meng jian ai.  
 I not can concurrently love  
 ‘I cannot love (them) concurrently.’

(墨子•耕柱)

h. 不 當 應 而 應 鼓  
 bu dang ying er ying gu  
 not should reply Conj reply drum  
 ‘(those who) should not reply to but reply to the drums’<sup>34</sup>

<sup>33</sup> ZHE is a determiner taking a relative clause as its complement in a VP-external position, and it binds a variable as an operator (Aldridge 2009). This relativising ZHE occurs in an existential structure in (48f) to mark a nominal specific.

<sup>34</sup> As a conjunction, 而 *er* can link two VPs, as in (53h). The two verbs linked by *er* can be negated by the same negator (xviiia), or share the same object (xviiib). *Er* sometimes links two nouns (xviiic), because *er* can mark verbal elements by converting nouns into verbs (Wei 2003).

(xvii) a. 吾 不 得 而 見 之 矣 (論語•述而)  
 wu bu de er jian zhi yi  
 I not be.able.to Conj see 3.Obj Perf  
 ‘I am not able to see them anymore’

Even if negatives are absent, when modal adverbs, aspectual/temporal adverbs as well as root modal verbs are present at the same time, they always comply with the ordering in template (52). This observation is applicable to both interrogatives (54a) and declaratives (54b-c).

(54) a. 民 將 能 登 天 乎? (國語•楚語下)

Min jiang neng deng tian hu  
people Fut can ascend Heaven Q

‘Will people be able to ascend into Heaven?’

b. 將 可 得 而 眾 也。 (墨子•尚賢)

Jiang ke de er zhong ye.  
Fut can obtain Conj increase Decl

‘(We) will be able to obtain and increase (them).’

c. 必 能 害 我。 (國語•晉語一)

Bi neng hai wo.  
must can harm me

‘(They) must can harm me.’

It should be mentioned that the seemingly reversed order, namely ‘root modal verbs > negation > aspectual/temporal adverbs > modal adverbs’ is actually permitted: in (55a), the aspectual adverb ‘will’ follows negation, and in (55b-c), the root modal verb ‘can’ precedes the negator. However, this inverted order is only found in a very specific circumstance: in rhetorical questions without fronted objects. I hypothesise that such

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b. 欲 而 得 之 (國語•晉語九)

yu er de zhi  
want Conj obtain 3.Obj

‘(you) want and obtain it’

c. 社 而 稷 之 乎? (莊子•庚桑楚)

She er ji zhi hu?  
God.of.Land Conj God.of.Cereals 3.Obj Q

‘(Why do not you) (treat) it as the God of Land and the God of Cereals?’

rhetorical questions are structurally biclausal, which means that the negative and adverbs/modal verbs in (55a-c) need not be located in the same minimal clause, thus allowing a superficially reverse relative order among modals and negation. The hypothesis predicts that both canonical and marked orders among medial elements should be allowed in rhetorical questions. This prediction is borne out: in (55c) which involves a rhetorical reading, the modal of possibility follows the negator, in accord with the template proposed in (52). In contrast to this, interrogative true questions are all monoclausal, hence only the unmarked ordering is allowed, as in (54a). So rhetorical questions as in (55a-c) are not counterexamples to the proposal, and consequently, the relative ordering among medial elements always complies with the template in (52), within each clause.

(55) a. 子 不 將 救 之 乎?<sup>35</sup> (國語•晉語五)

Zi bu [jiang jiu zhi] hu?

you not will save 3.Obj Q

‘Weren’t you going to save him?’

b. 子 可以 不 免 我 死 乎? (公羊傳•定公八年)

Zi keyi [bu mian wo si] hu?

you can not exempt I death Q

‘You should exempt me from death.’ (Lit. ‘Can you not exempt me from death?’)

c. 独 不 可以 舍 我 乎? (吕氏春秋•贵生)

Du bu keyi she wo hu?

surely not can spare I Q

‘Surely cannot (the throne) spare me?’

In terms of (56a-b), it also serves as a potential counterexample to the template in (52), because the graph 必 *bi* follows the neutral clausal negator 不 *bu* and the

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<sup>35</sup> This clause-final interrogative particle *hu* does not exclusively mark rhetorical questions, in that interrogative questions are also compatible with *hu* (see (54a)). Moreover, the rhetorical force does not obtain only from *hu*, because rhetorical questions do not necessarily require a *hu*, as in (37b/d/e).

aspectual negator 未 *wei* respectively, yet it is expected to precede the negation, as in (56c). Nevertheless, under this circumstance, I posit 必 *bi* functions as a verb, rather than an adverb. This presumption coincides with Meisterernst's (2011, 2013) analysis of 必 *bi* in Han period as either an auxiliary verb 'must, need to' which conveys both epistemic and deontic meanings (with the former being predominant), or a modal adverb 'certainly'.

(56) a. 不 必 亡 一 大夫。 (左傳•哀公六年)

Bu bi wang yi dafu.  
not need.to lose 1 senior.official

'(We) do not need to lose any senior official.'

b. 未 必 亡 也。 (呂氏春秋•長攻)

Wei bi wang ye.  
not.yet need.to perish Decl

'(He) did not need to have perished.'

c. 必 不 予 我 矣。 (國語•齊語)

Bi bu yu wo yi.  
must not give I Decl

'(They) must not give (him) to me.'

Similarly, when 必 *bi* functions as an auxiliary verb 'must, need to' which conveys epistemic and deontic meanings, it follows the aspectual adverb 將 *jiang*, as in (57). Again, these examples do not challenge the template (52) which concerns the modal adverbial use of 必 *bi* 'certainly'.

(57) a. 秦 師 又 至, 將 必 闢 之 (左傳•文公二年)

Qin shi you zhi, jiang bi bi zhi  
Qin army again arrive Fut must avoid 3.Obj

'(If) Qin's army arrive again, (we) will must avoid it'



b. 將 必 求 之。  
Jiang bi qiu zhi.  
will must seek 3.Obj  
'(I) will must seek it.'

(國語•周語中)

### 3. Nature of Preposed Elements in Two Positions above Negation

In the previous chapter, I have demonstrated that there are in total three landing sites for the preverbal positioning of non-*wh*-DPs in the left periphery and in the lower TP domain. In this chapter I do not explore the Pronoun position exclusively accommodating pronouns fronted to negation, but only investigate the nature of the two positions above negation, namely the High position and the Low position. I argue that the structurally more prominent position displays topic-like properties, while the lower position is focal. This statement is backed up by a comparison of the properties of the constituents in these two positions.

Since there are two landing sites for object preposing above negation, they are supposed to have different functions, otherwise there should be one single position. Moreover, from a cross-linguistic perspective, we would expect topics are situated above foci. Both predictions are borne out in LAC: the High and Low landing sites display two discriminating features, with the former being topic-like, while the latter is focus-like.

Before discussing the different features of the higher and lower positions, a similarity is addressed here: sentences involving both positions are compatible with constructions of a contrastive interpretation (Wang 2013). Example (58a) involves the High position. According to contextual information, this instance shows a scenario that an official Zichang did not even try to relieve the domestic crisis, being busy with accumulating fortune insatiably. Obviously, what the official was supposed to do and his actual behaviour are contrasted with each other. (58b) which also describes a contrastive scenario involves the Low position: in the former clause, the fronted DP is lower than the subject, and the latter clause contains the fronting of a *wh*-phrase that occurs exclusively in the medial domain (Aldridge 2006, 2007, 2010a). The fronted pronoun is demonstrative, and it has internally contrastive semantics.

(58) a. 是 之 不 卹, 而 蓄聚 不 厭  
 shi<sub>i</sub> zhi bu [VP xu t<sub>i</sub>], er xuju<sub>j</sub> bu [VP yan t<sub>j</sub>]  
 this ZHI not relieve Conj accumulation not be.insatiable.for  
 ‘(he) does not relieve this, while is insatiable for accumulation (of fortune)’

(國語•楚語)

b. 君子 將 險哀 之 不 暇,  
 Junzi jiang xianai<sub>i</sub> zhi bu [VP xia t<sub>i</sub>],  
 gentleman Fut danger.sorrow ZHI not attend.to  
 而 何 易樂 之 有 焉? (國語•周語下)  
 er [he yile]<sub>j</sub> zhi [VP you t<sub>j</sub>] yan?  
 Conj what ease.felicity ZHI have Q

‘Gentlemen will not (have time to) attend to danger or sorrow, while what ease or felicity (do they) have?’

Notwithstanding this commonality, the High and Low positions exhibit two discriminating properties, which coincide with those of topics and foci respectively.

First, the higher fronting position in LAC requires generic or definite objects, whereas the lower landing site permits indefinite DPs. This asymmetry implies that the High position for object preposing is topical, and the Low position is somehow consistent with focal features. For examples involving the High position, (59a-b) and (59c-d) exhibit generic and definite DPs respectively.

(59) a. 祀 不 可以 已 乎? (國語•楚語下)  
 Si<sub>i</sub> bu keyi [VP yi t<sub>i</sub>] hu?  
 propitiation not can cease Q

‘Cannot (I) cease the propitiation?’

b. 王 祭 不 共  
 wang ji bu gong  
 king offering.of.sacrifice negation contribute

‘(You) will not contribute to the king’s offerings of sacrifice’

(左傳•僖公四年; Peyraube 1997: 6)

c. 其 父母 之 不 親 也,  
 [Qi fumu]<sub>i</sub> zhi bu [VP qin t<sub>i</sub>] ye,  
 3.Gen parents ZHI not adore Decl

又 能 親 君 乎? (韓非子•十過第十)  
 you neng qin jun hu?  
 then can adore lord Q

‘(He) does not adore his parents, then how can (he) adore the lord?’

d. 此 言 何 謂 也? (孟子•滕文公上)  
 [Ci yan]<sub>i</sub> he<sub>j</sub> [VP wei t<sub>i</sub> t<sub>j</sub>] ye?  
 this sentence what call Decl

‘How (do we) understand this sentence?’ (Lit. ‘What (do we) call this sentence?’)

Parallel to the High position for object preposing, the low landing site also allows generic DPs (60a-c). Unlike its higher counterpart, the Low position bans definite DPs yet permits indefinite DPs that are excluded from the High position (60d). From a discourse perspective, given the general understanding of topics being discourse-given elements, while foci carrying new information, the definiteness/indefiniteness asymmetry between constituents in the High position (59b-c) and those in the Low position (60d) could be accounted for by their respective topical and focal properties.

(60)a. 君子 將 險哀 之 不 暇 (國語•周語下)  
 junzi jiang xianai<sub>i</sub> zhi bu [VP xia t<sub>i</sub>]  
 gentleman Fut danger.sorrow ZHI not attend.to

‘gentlemen will not (have time to) attend to danger or sorrow’

b. 吾 百姓 之 不 圖 (國語•越語下)  
 wu baixing<sub>i</sub> zhi bu [VP tu t<sub>i</sub>]  
 I common.people ZHI not care.about

‘I did not care about common people’

c. 君 亡 之 不 卹 (左傳•僖公十五年)  
 jun wang<sub>i</sub> zhi bu [VP xu t<sub>i</sub>]  
 monarch exile ZHI not worry.about

‘the monarch does not worry about the exile’

d. 君子 一 言 以 為 知 (論語•子張)  
 junzi [PP [yi yan]<sub>i</sub> yi ti] [VP wei zhi]  
 gentleman 1 sentence for call wise  
 ‘gentlemen are called being wise because of one sentence’

Second, there is no bipartition with fronted non-*wh*-DPs in the High position into the DP and a presupposition, but there is such a bipartition with non-*wh*-DPs in the Low position. This asymmetry is illustrated by the fact that the whole VP in sentences involving the higher position can be negated and questioned; besides, the lack of bipartition into the preposed element and the presupposition is further demonstrated by the possibility of raised DPs in the higher position to occur in a list context. One piece of evidence is that the former clause of (61a) (=59c)) involving the High position shows that the entire VP, including the fronted object and the presupposition, is in the scope of negation. Based on the following rhetorical question and contextual information, the former clause in (61a) may be assumed to imply an ‘even’ interpretation that the person does not even adore his own parents, not to mention others. So that means in example (61a), it is not only the fronted DP that is negated; the verb is negated as well. Similarly, (61b) also involves an ‘even’ interpretation that Shu Diao does not even love his own body, not to mention his lord. Again, the whole VP 愛其身 *ai qi shen* ‘love his body’ is negated.

(61)a. 其 父母 之 不 親 也,  
 [Qi fumu]<sub>i</sub> zhi bu [VP qin ti] ye,  
 3.Gen parents ZHI not adore Decl  
 又 能 親 君 乎? (韓非子•十過第十)  
 you neng qin jun hu?  
 then can adore lord Q  
 ‘(He) does not adore his parents, then how can (he) adore the lord?’

b. 今 夫 豎 刁, 其 身 之 不 愛,  
 Jin fu Shu Diao, [qi shen]<sub>i</sub> zhi bu [VP ai ti]  
 now Decl Shu Diao, Gen body ZHI not love,  
 焉 能 愛 君? (管子•戒)  
 yan neng ai jun?  
 how can love Your.Majesty?

‘Now Shu Diao does not love his body; how can (he) love Your Majesty?’

Another piece of evidence is the lack of bipartition for sentences involving the High position, supported by the fact that the VP as a whole can be questioned. In example (62) (=59a), both the preposed DP *si* and the presupposed part are questioned.

(62) 祀 不 可以 已 乎? (國語•楚語下)  
 Si<sub>i</sub> bu keyi [VP yi ti] hu?  
 propitiation not can cease Q

‘Cannot (I) cease the propitiation?’

Finally, the fact that preposed objects and prepositional complements in the High position can appear in list contexts indicates the absence of bipartition with fronted non-*wh*-DPs in the High position into the DP and the presupposition. This fact also implies that the High position is not focal, because listing is the opposite of focalisation.<sup>36</sup> In (63a-b/c), nominal and pronominal DP-objects fronted into the High position appear in a list context (Wang 2013). (63d-e) shows that as prepositional complements, preposed DPs may also appear in a list.

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<sup>36</sup> In this statement I actually only take IdentF into consideration; there are, of course, information foci that do not express exhaustive identification but only convey new information. Since information foci in modern Mandarin do not involve syntactic reordering (Hsu 2008), I presume that they did not move in LAC either, and hence exclude them from discussion. In future research, further details of focus (and maybe topic) in LAC should be investigated.

- (63) a. 宴語 之 不 懷,  
 yanyu<sub>i</sub> zhi bu [VP huai t<sub>i</sub>],  
 chat ZHI not cherish  
 寵光 之 不 宣,  
 chongguang<sub>j</sub> zhi bu [VP xuan t<sub>j</sub>],  
 favour.glory ZHI not appreciate  
 令德 之 不 知,  
 lingde<sub>k</sub> zhi bu [VP zhi t<sub>k</sub>],  
 virtue ZHI not understand  
 同福 之 不 受 (左傳•昭公十二年)  
 tongfu<sub>m</sub> zhi bu [VP shou t<sub>m</sub>]  
 common.blessing ZHI not accept  
 ‘(they) did not cherish the chat; (they) did not appreciate the glory of favour;  
 (they) did not understand the virtue; (they) did not accept the common blessing’

- b. 此 之 謂 至 公,  
 Ci<sub>i</sub> zhi [VP wei t<sub>i</sub> [zhi gong]],  
 this ZHI call ultimate justice  
 此 之 謂 至 安,  
 ci<sub>j</sub> zhi [VP wei t<sub>j</sub> [zhi an]],  
 this ZHI call ultimate peace  
 此 之 謂 至 信。 (呂氏春秋•慎大覽)  
 ci<sub>k</sub> zhi [VP wei t<sub>k</sub> [zhi xin]].  
 this ZHI call ultimate faith  
 ‘This is called ultimate justice; this is called ultimate peace; this is called ultimate  
 faith.’

- c. 我 且 賢 之 用, 能 之 使,  
 Wo qie xian<sub>i</sub> zhi [VP yong t<sub>i</sub>], neng<sub>j</sub> zhi [VP shi t<sub>j</sub>],  
 I will the.virtuous ZHI employ the.capable ZHI dispatch  
 勞 之 論。 (韓非子•外儲說左下)  
 lao<sub>k</sub> zhi [VP lun t<sub>k</sub>].  
 the.meritorious ZHI award  
 ‘I will employ the virtuous, dispatch the capable and award the meritorious.’

d. 故 心 以 製 之,  
 Gu [pp xin<sub>i</sub> yi t<sub>i</sub>] [v<sub>p</sub> zhi zhi],  
 so sincerity with control 3.Obj

玉帛 以 奉 之,  
 [pp yumo<sub>j</sub> yi t<sub>j</sub>] [v<sub>p</sub> feng zhi],  
 jade.silk with enshrine 3.Obj

言 以 結 之,  
 [pp yan<sub>k</sub> yi t<sub>k</sub>] jie zhi],  
 utterance with accomplish 3.Obj

明神 以 要 之。 (左傳•哀公十二年)

[pp mingshen<sub>l</sub> yi t<sub>l</sub>] yao zhi].  
 deities with pledge 3.Obj

‘So (people) should control it with sincerity, enshrine it with jade and silk, accomplish it with utterances and pledge it with deities.’

e. 禮 以 行 之,  
 [pp Li<sub>i</sub> yi t<sub>i</sub>] [v<sub>p</sub> xing zhi],  
 etiquette with conduct 3.Obj

孫 以 出 之,  
 [pp xun<sub>j</sub> yi t<sub>j</sub>] [v<sub>p</sub> chu zhi],  
 modesty with express 3.Obj

信 以 成 之。 (論語•衛靈公)

[pp xin<sub>k</sub> yi t<sub>k</sub>] [v<sub>p</sub> cheng zhi].  
 integrity with accomplish 3.Obj

‘(Gentlemen) conduct it with etiquette, express it with modesty and accomplish it with integrity.’

By contrast, sentences involving the Low position display a bipartition into the fronted object and the presupposition. First, such bipartition excludes the presupposition from the scope of negation, which is a property of an association with focus pattern. In the first clause of (64a), only the proposed DP *baixing* is negated, yet the presupposition is not affected. The second clause shows that though the action of caring about is not denied, the object of caring about is vessels and carriages, not the preposed DP in the former



clause. Second, as there are no preposed objects in the Low position appearing in list contexts, this supports the argument that there is a bipartition into DP objects fronted in the Low position and their corresponding presuppositions. This restriction in fact only holds of the Low position, because both DPs raised into the High position and those remaining in situ can occur in list contexts, as exemplified by (63) and (64b) respectively. So the fact that preposed objects in the Low position never appear with a list interpretation must be attributed to an independent reason other than locality constraints. Since focalisation is the opposite of listing, the lack of listed constituents in the Low position implies that the Low position could be focal (Wang 2013).

(64) a. 吾 百姓 之 不 圖,  
 wu baixing; zhi bu [VP tu ti],  
 I common.people ZHI not care.about  
 唯 舟 與 車。 (國語•越語下)  
 wei zhou yu che.  
 WEI vessel Conj carriage

‘I did not care about common people, but only vessels and carriages.’

b. 故 制 之 以 義, 旌 之 以 服,  
 Gu zhi zhi yi yi, jing zhi yi fu,  
 so formulate 3.Obj with justice indicate 3.Obj with uniform  
 行 之 以 禮, 辯 之 以 名,  
 xing zhi yi li, bian zhi yi ming,  
 conduct 3.Obj with etiquette distinguish 3.Obj with terminology  
 書 之 以 文, 道 之 以 言。  
 shu zhi yi wen, dao zhi yi yan.  
 write 3.Obj with script narrate 3.Obj with utterance

‘So (the emperor) formulated it with the justice, indicated it with uniforms, conducted it with the etiquette, distinguished it with terminologies, wrote it with scripts, (and) narrated it with utterances.’

(國語•楚語上)

I further argue that nominal and pronominal objects function as IdentF. I state that

preposed non-*wh*-DP constituents are IdentF, because they: 1) carry exhaustive interpretation, 2) permit *only*-phrases, and 3) are compatible with cleft constructions.

First, fronted nominal and pronominal objects in the Low position involve exhaustivity, which specifies an exhaustive set for which a given proposition holds true, excluding all the other possibilities (É. Kiss 1998, Cheung 2013). In (65a), exclusiveness is expressed: the property of being chosen denoted by the presupposition is not held by the DP ‘mansion’ that is negated by a negative copula 非 FEI ‘not be’. Additionally, the affirmative predicate 唯 WEI ‘be (the one who/that)’ in the second clause also excludes the DP ‘mansion’, rendering the clefted DP ‘neighbour’ the only available option. In (65b) that contains a preposed pronominal object, the matrix predicate WEI determines that the clefted pronoun ‘you’ preceding the fronting marker SHI is the only possibility among all contextually relevant entities. 敢不 *gan bu* ‘dare not (but)’ in (65b) implies a modality of obligation (‘have to, must’) (Wang 2013). The morpheme 是 SHI<sup>37</sup> in both examples

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<sup>37</sup> When functioning as a fronting marker, both 之 ZHI and 是 SHI are optional. ZHI may follow preposed DPs in a position above or below negation (see (64a) and (xviii a) respectively), which means it can act as a topic or focus marker. In contrast to this, SHI is confined to the Focus position under negation; that is to say, SHI is merely a focus marker. In addition to being a focus marker, the same graph 是 may function as a determiner (see the sentence-initial phrase in (xviii a)), a subject or object demonstrative (as in (xviii b) and the second clause of (xviii a) respectively) (Wang 2013), a non-copular verb (as in (xviii c)) or an anaphoric verb (as in (xviii d)) (Chang 2006). In (xviii b), the demonstrative 是 *shi* functions as a subject, referring to a clausal topic in front of it. *Bu ren ye* is the predicate headed by a silent copula (Chang 2006).

(xviii) a. 是 詩 也, 非 是 之 謂 也 (孟子•萬章上)  
 [shi shi]<sub>i</sub> ye, fei shi<sub>j</sub> zhi [VP wei t<sub>i</sub> t<sub>j</sub>] ye  
 this poem Decl FEI this ZHI interpret Decl  
 ‘this poem, (we) do not interpret (it) as this’

functions as a focus marker exclusively accompanying preposed DPs and pronouns in the Focus position.

- (65) a. 非 宅 是 荀, 唯 鄰 是 荀。  
 Fei zhai<sub>i</sub> shi [VP bu t<sub>i</sub>], wei lin<sub>j</sub> shi [VP bu t<sub>j</sub>].  
 FEI mansion SHI choose WEI neighbour SHI choose  
 ‘It is not a mansion (people) choose; it is only neighbours (people) choose.’  
 (左傳•昭公三年)

- 
- b. 知 而 使 之, 是 不 仁 也。  
 Zhi er shi zhi, shi bu ren ye.  
 know then use him this not kind PRT  
 ‘To use him knowing (that he would rebel), that was unkind.’  
 (孟子•公孫丑下; Chang 2006: 135)

- c. 百姓 皆 是 吾 君 而 非 鄰 國,  
 Baixing jie shi wu jun er fei lin guo,  
 citizen all agree our king but not neighbour country  
 則 戰 已 勝 矣。  
 ze zhan yi sheng yi. (吳子; Chang 2006: 133)  
 then war already win PRT  
 ‘If all the citizens agree with our king but not with our neighbouring country, then we have already won the war.’

- d. 古 之 人 有 行 之 者,  
 Gu zhi ren you xing zhi zhe,  
 ancient Gen person there.be conduct 3.Obj ZHE  
 武 王 是 也。  
 Wu wang shi ye. (孟子•梁惠王下)  
 Wu emperor ana.verb Decl  
 ‘There was an ancient person conducted this, who was Emperor Wu.’

b. 敢 不 唯 子 是 從?<sup>38</sup> (左傳•哀公六年)  
 Gan bu wei zi shi [VP cong ti]?  
 dare not WEI you SHI follow

‘It is only you (I) must follow.’ (Lit. ‘Dare (I) not follow you only?’)

Second, preposed non-*wh*-phrases in the Low position are usually preceded by an *only*-phrase realised by 唯 WEI. As mentioned earlier, the affirmative copula 唯 WEI ‘be (the one who/that)’ is frequently translated as ‘only’ (Djamouri 2001, Meisterernst 2010), so when WEI precedes fronted DPs and pronouns in the Low position as a focusing operator, the raised constituents can be regarded as IdentF conveying an evaluative presupposition, as in (65).

Third, fronted non-*wh*-constituents in the Low position are compatible with WEI ... ZHI/SHI and FEI ... ZHI/SHI<sup>39</sup> cleft structures; assuming cleft constructions correlate

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<sup>38</sup> It is important to point out that all the cited examples in this thesis are monoclausal, because clause boundaries may affect the analyses of object preposing. Based on contextual information, (65b) is an utterance of the emperor of Qi, claiming that he counts on his minister Bao Mu who abides by morality and justice, so he follows, and only follows, the recommendations from Bao. This interpretation implicates that the negator *bu* takes scope over both the matrix predicate 唯 WEI and the embedded verb ‘follow’, so this rhetorical question is constituted of a single minimal clause. Providing a biclausal approach was adopted, thus only the matrix verb in this rhetorical question is negated, the literal translation would be ‘Dare (I) not only follow you’. Under this circumstance, it implies that the emperor not only follows Bao, but also follows some other ministers, which is contradictory to his previous remarks. Therefore, the rhetorical question in (65b) concerning object preposing is monoclausal. There are, of course, other instances involving 唯 WEI that are comprised of two minimal clauses, but they are irrelevant to object preposing, thus excluded from this paper.

<sup>39</sup> ZHI and SHI seem to be in complementary distribution and function as distinct spell-outs of the same functional head. Accordingly, WEI ... ZHI and WEI ... SHI should be the same cleft, only with different focus markers; also for FEI ... ZHI/SHI. However, there must be certain distinctions in order for the lexical insertion algorithm to be able to distinguish between ZHI and SHI. According to Peyraube (1997), SHI used to be the most common marker during the

with IdentF (É. Kiss 1998), it may be claimed that nominal and pronominal DPs in the Low position are IdentF. WEI can constitute cleft structures with a fronting marker ZHI/SHI and appear in the Low position. Since WEI ... ZHI/SHI cleft constructions are the realisation of exhaustive and exclusive interpretations in LAC, clefted DPs and pronouns (see (61a) and (60b) respectively) are hence IdentF conveying exhaustive identification. The negative copula 非 FEI ‘not be’ can also form clefts with ZHI/SHI (see (61b) and (60a) respectively); nominal and pronominal objects clefted by FEI ... ZHI/SHI, as in (60a) and (61b), are thereby IdentF. I have shown that FEI ... ZHI/SHI occupies the identical position with the negative form of WEI ... ZHI/SHI, but their semantic values are different: FEI ... ZHI/SHI means ‘it is not who/that’, yet *bu* WEI ... ZHI/SHI conveys the rendering of ‘it is not only who/that’ (Wang 2013).

- (66) a. 敢 不 唯 命 是 聽? (左傳·襄公二十八年)  
 Gan bu wei ming<sub>i</sub> shi [<sub>VP</sub> ting t<sub>i</sub>]?  
 dare not WEI order SHI listen  
 ‘It is only the orders (of His Majesty they) must follow.’ (Lit. ‘Dare (they) not listen to the orders (of His Majesty) only?’)
- b. 是 詩 也, 非 是 之 謂 也<sup>40</sup>  
 [shi shi]<sub>i</sub> ye, fei shi<sub>j</sub> zhi [<sub>VP</sub> wei t<sub>i</sub> t<sub>j</sub>] ye  
 this poem Decl FEI this ZHI interpret Decl  
 ‘this poem, (we) do not interpret (it) as this’  
 (孟子·萬章上)

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Spring-Autumn period (770-476 BC) through a process of lexical unification, but since the beginning of the Warring States period (475-221 BC), SHI was replaced by ZHI as the most common marker via a single process of lexical replacement.

<sup>40</sup> The DP *shi shi* ‘this poem’ is a left-dislocated topic in the clause-external left periphery that is syntactically linked to a gap, and its trace is the first complement in a double object construction. The demonstrative pronoun 是 *shi* ‘this’ in the following clause is the second argument of this double object construction, and it fronts to a preverbal position below negation.

The aforementioned differences between the High and Low positions for the preposing of non-*wh*-objects coincide with those between the topics and foci. To be more specific, non-*wh*-objects in the structurally more prominent position are consistent with a topical interpretation: generic or definite nature of preposed constituents, incompatibility with exclusive or exhaustive interpretation and the lack of bipartition into fronted objects and presuppositions. In terms of constituents in the lower position, they are consistent with a focal interpretation, because preposed non-*wh*-DPs in the Low position carry exclusive and exhaustive interpretations and involve a bipartition into fronted elements and presuppositions; moreover, the Low position permits indefinite DPs that are excluded from its higher counterpart. I further argue that preposed non-*wh*-DP phrases are IdentF, as they carry exhaustive interpretation, permit *only*-phrases, and are compatible with cleft constructions.

This finding concerning the two positions above negation in LAC coincides with Hsu's (2008) proposal about modern Mandarin: the sentence-internal domain between TP and *v*P licenses topics and (internal) foci under different functional projections, with IntTopP located in a structurally more prominent position than FocP (of course, there is a discrepancy that the topical position in LAC is in the left periphery). Now the underlying structure of the crucial evidence indicating the coexistence of two positions (67a-c) is clear: the external topics *ruo di gongzi* 'this Master Di', *ci yan* 'this sentence' and *gong* 'duke' conveying given information are above the focalised resumptive pronoun 是 *shi* and the simplex *wh*-word 何 *he* in the 'low IP area'. This account is consistent with Hsu's (2008) observation that a topic and a focus can co-occur in modern Mandarin, and the topic phrase must precede the focus phrase (67d-f).

(67) a. 若 狄 公子, 吾 是 之 依 兮。(國語•晉語三)

[Ruo di gongzi]<sub>i</sub>, wu shi<sub>i</sub> zhi [v<sub>p</sub> yi t<sub>i</sub>] xi.

this Di master, I this ZHI rely.on Decl

'This Master Di, on this I rely.'

b. 此 言 何 謂 也? (孟子•滕文公上)

[Ci yan]<sub>i</sub> he<sub>j</sub> [v<sub>p</sub> wei t<sub>i</sub> t<sub>j</sub>] ye?

this sentence what call Decl

'How (do we) understand this sentence?' (Lit. 'What (do we) call this sentence?')

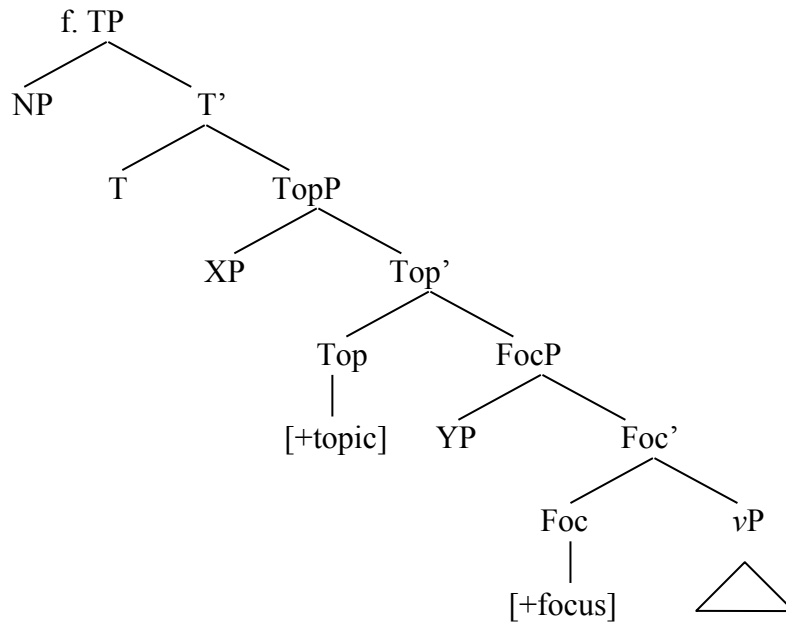
c. 公 何 以 不 言 即 位?  
 Gong<sub>k</sub> he<sub>i</sub> yi<sub>j</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] bu yan [<sub>TP</sub> t<sub>k</sub> ji wei]]?  
 duke what for not say accede throne  
 'For what not say that the duke acceded to the throne?'

(公羊傳•隱公元年)

d. Ta shu<sub>Top</sub> xiaoshuo<sub>Foc</sub> kan.de zui duo.  
 He book novel read.Result most many  
 'Speaking of books, it is novels that he reads most.'

(From Hsu 2008: 640)

e. \* Ta xiaoshuo<sub>-FOC</sub> shu<sub>TOP</sub> kan.de zui duo. (*ibid*)  
 he novel book read.RESULT most many



(*ibid*)

To summarise, by illustrating the relative ordering between fronted non-*wh*-DPs and the subject as well as different positions of fronting markers, in Chapter 2.1 I have validated two landing sites for the preposing of non-*wh*-objects between TP and *vP*. Through comparing constructions involving two preverbal positions, I have further demonstrated in this chapter that elements fronted to the High position display topic features, while those preposed to the Low position are focal. An updated version of the clausal positions for non-*wh*-fronting and the medial elements is in (68):

(68) Clausal positions for non-*wh*-fronting (updated):

External topic position > Subject > Modal adverbs > Aspectual/temporal adverbs >  
Focus position > Negation > Pronoun position > Root modal verbs > *v*P

As illustrated previously in Chapter 2.2, the fronting marker ZHI can follow preposed non-*wh*-DPs either in the High or Low position, while its counterpart SHI is exclusively permitted in the Low position. Since in this chapter I have demonstrated that non-*wh*-DPs in the High position are consistent with a topical interpretation, whereas those in the Low position are consistent with a focal interpretation, the asymmetry between fronting markers ZHI and SHI may be explained by their respective nature: ZHI can act as either a topic or focus marker, while SHI acts exclusively as a focus marker.



#### 4. Pronoun Fronting to Negation

It is notable that negatives usually ‘trigger’ raising of pronouns, so pronoun fronting in the context of negation is prevalent in LAC.

As exemplified by instances in (69), demonstrative pronouns in LAC may land in some preverbal position above negators in the sentence-internal domain, either above (69a-c) or below TP (69d-f). A pronoun appearing above negation lands in the External Topic position (69a-c), and that appearing below negation (and above *vP*) lands in the Focus position (69d-f), as suggested in the template in (68). When the demonstrative pronoun 是 *shi* appears in the sentence-internal domain, it is not necessarily followed by a fronting marker (69f). The tree diagrams of (69a) and (69d) are in (69g) and (69h) respectively.

(69) a. 是 之 不 務 (左傳•昭公三十二年)

shi<sub>i</sub> zhi bu [<sub>VP</sub> wu t<sub>i</sub>]

this ZHI not conduct

‘(if you) do not conduct this’

b. 此 之 謂 至 公,

Ci<sub>i</sub> zhi [<sub>VP</sub> wei t<sub>i</sub> [zhi gong]],

this ZHI call ultimate justice

此 之 謂 至 安,

ci<sub>j</sub> zhi [<sub>VP</sub> wei t<sub>j</sub> [zhi an]],

this ZHI call ultimate peace

此 之 謂 至 信。

(呂氏春秋•慎大覽)

ci<sub>k</sub> zhi [<sub>VP</sub> wei t<sub>k</sub> [zhi xin]].

this ZHI call ultimate faith

‘This is called ultimate justice; this is called ultimate peace; this is called ultimate faith.’<sup>41</sup>

<sup>41</sup> In (69b), preposed pronouns appear in a list context, but there is a lack of attested examples concerning preposed pronouns below negation that appear in a list. This disparity must be attributed to a reason other than locality restriction, because pronouns remaining in situ can occur

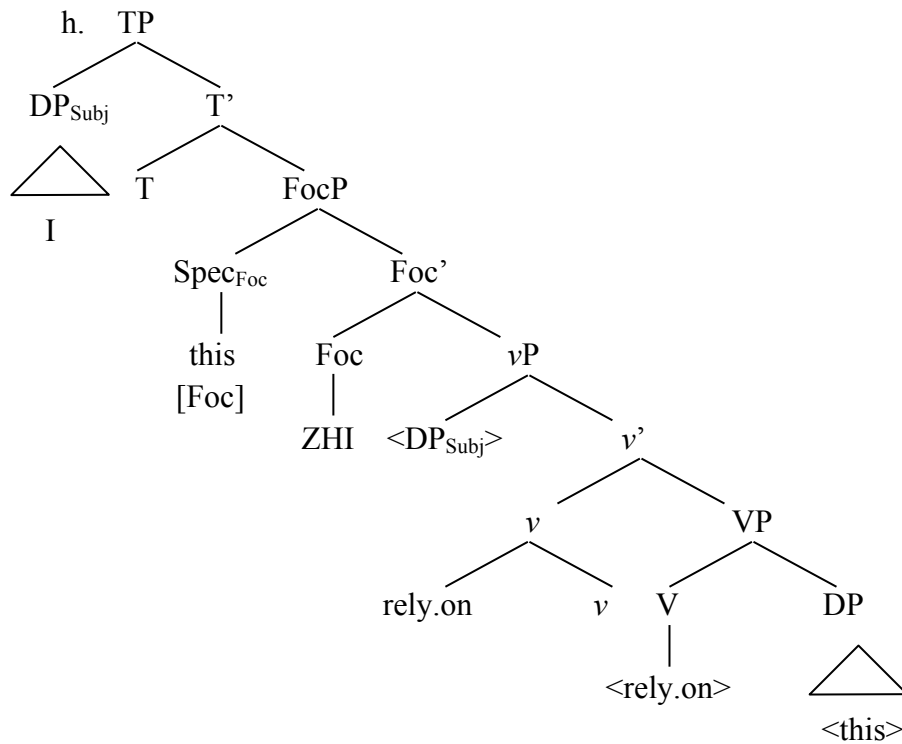
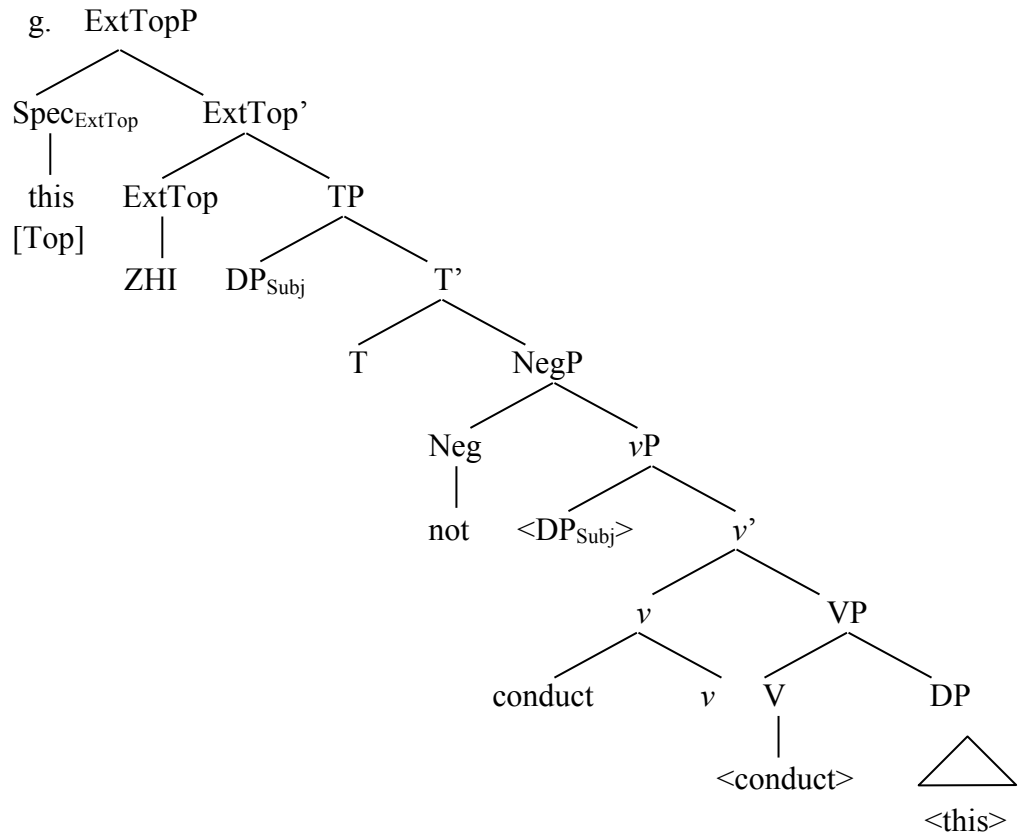
- c. 此 之 謂 大 惑。 (呂氏春秋•重己)  
 Ci<sub>i</sub> zhi [VP wei ti [da huo]].  
 this ZHI call great confusion  
 ‘(People) call this great confusion.’
- d. 吾 是 之 依 兮。 (國語•晉語三)  
 Wu shi<sub>i</sub> zhi [VP yi ti] xi.  
 I this ZHI rely.on Fin  
 ‘I rely on this.’
- e. 吾 斯 之 未 能 信。 (論語•公冶長)  
 Wu si<sub>i</sub> zhi wei neng [VP xin ti].  
 I this ZHI not.yet can be.confident.in  
 ‘I have not been able to be confident in this.’
- f. 寡人 是 問。 (左傳•僖公四年)  
 Guaren shi<sub>i</sub> [VP wen ti]  
 I this interrogate  
 ‘I interrogate this.’

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in list contexts, as shown in (xix). This observation lends indirect support to the suggested topical nature of the landing site above TP (see Chapter 3), in that focalisation is the opposite of listing.

- (xix) 故 制 之 以 義, 旌 之 以 服,  
 Gu zhi zhi yi yi, jing zhi yi fu,  
 so formulate 3.Obj with justice indicate 3.Obj with uniform  
 行 之 以 禮, 辯 之 以 名,  
 xing zhi yi li, bian zhi yi ming,  
 conduct 3.Obj with etiquette distinguish 3.Obj with terminology  
 書 之 以 文, 道 之 以 言。 (國語•楚語上)  
 shu zhi yi wen, dao zhi yi yan.  
 write 3.Obj with script narrate 3.Obj with utterance

‘So (the emperor) formulated it with justice, indicated it with uniforms, conducted it with etiquette, distinguished it with terminology, wrote it with scripts, (and) narrated it with utterances.’



Additionally, pronouns may target a position following negatives, which is termed as Pronoun position, as this position allows fronted pronouns exclusively (as in template (68)). In examples in (70), pronominal objects raise from their extraction site within the vP into a position between the negative and the verb in the medial domain. Following

Aldridge's (2015b) categorisation, I illustrate three types of negation<sup>42</sup> preceding the VP: (70a) shows clausal negator 不 *bu* 'not' negating VPs, (70b) the aspectual negator 未

<sup>42</sup> Alternatively, negators can be classified into two categories depending on the word classes they negate: 1) 不 *bu*, 未 *wei*, 莫 *mo* and 勿 *wu* that negate verbs; and 2) 非 *fei* and 無 *wu* that negate nouns (Fuller 1999). Examples involving the negative imperative 勿 *wu* negating a VP, and 非 *fei* and 無 *wu* negating NPs are in (xxa/b/c) respectively. Nonetheless, according to my observation, 非 *fei* and 無 *wu* actually can negate VPs (xxd-e), but the former always appears in canonical sentences, rather than those with preposed pronouns. Therefore, only 不 *bu*, 未 *wei*, 莫 *mo* and 無 *wu* are relevant in terms of pronoun fronting to negation; instances involving 勿 *wu* always adopt the default order, parallel to 非 *fei*.

(xx) a. 己 所 不 欲, 勿 施 於 人。 (論語•衛靈公)

Ji suo bu yu, wu shi yu ren.  
self SUO not want Neg.Imp apply to others

'Do not apply something (you) do not want yourself to others.'

b. 子 非 魚, 安 知 魚 之 樂? (莊子•秋水)

Zi fei yu, an zhi yu zhi le?  
you FEI fish how know fish GEN pleasure

'You are not fish, (so) how do you know fish's pleasure?'

c. 余 無 子 (左傳•哀公二年)

Yu wu zi  
I not.have son

'I do not have a son'

d. 余 非 愛 貨 (國語•魯語下)

Yu fei ai huo  
I FEI cherish property

'I do not cherish properties'

e. 我 無 爾 詐, 爾 無 我 虞。 (左傳•宣公十五年)

Wo wu er<sub>i</sub> [VP zha t<sub>i</sub>], er wu wo<sub>j</sub> [VP yu t<sub>j</sub>].  
I not you deceive you not I deceive

'I do not deceive you; you do not deceive me.'

*wei* ‘not yet’ negating the occurrence of actions, and (70c) the quantificational negator 莫 *mo* ‘none’. The tree diagram of (70b) is in (70d).

(70) a. 若 子 不 我 信 (國語•楚語下)

ruo zi bu wo<sub>i</sub> [VP xin t<sub>i</sub>]  
if you not me trust

‘if you do not trust me’

b. 先 王 未 之 有 也。 (左傳•哀公七年)

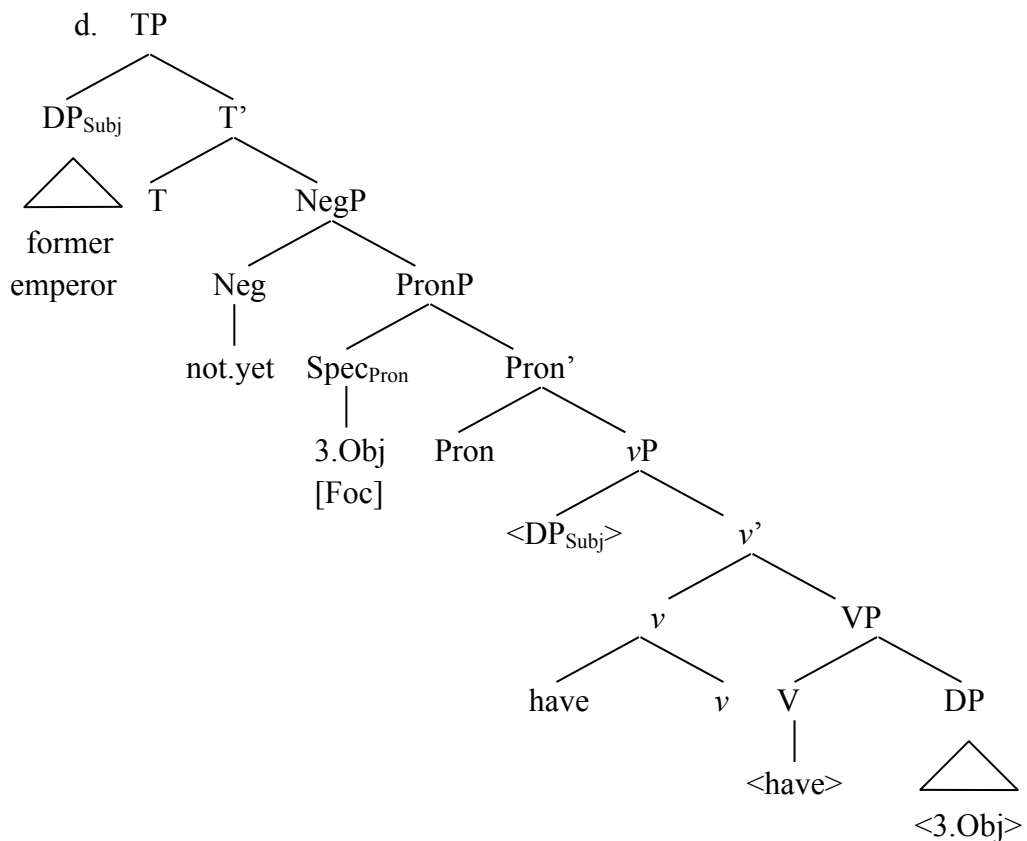
Xian wang wei zhi<sub>i</sub> [VP you t<sub>i</sub>] ye.  
former emperor not.yet 3.Obj have Decl

‘The former emperor has not had it.’

c. 虎 負 嵎, 莫 之 敢 攬 (孟子•盡心下)

hu fu yu, mo zhi<sub>i</sub> gan [VP ying t<sub>i</sub>]  
tiger back cliff none 3.Obj dare approach

‘the tiger backed on a cliff, and no one dared approach it’



The crucial evidence justifying the coexistence of multiple positions for fronted pronouns is that more than one preposed pronouns can appear concurrently. In (71) both

the demonstrative pronoun 是 *shi* ‘this’ in a reason adjunct PP and the personal pronoun 我 *wo* ‘me’ functioning as an argument move to higher positions: the former raises out the PP to a position preceding the head preposition (I assume that the target position is still within the ‘low IP area’), and the latter raises from its postverbal extraction site to a preverbal position below negation. The grammaticality of this example indicates that pronoun fronting in LAC requires at least two landing sites.

- (71) 是 以 不 我 知。 (道德經)
- Shi<sub>i</sub> yi<sub>j</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [<sub>vp</sub> bu wo<sub>k</sub> [<sub>vp</sub> zhi t<sub>k</sub>].
- this for not me understand
- ‘(People) for this do not understand me.’

#### 4.1. Distribution of Preposed Pronouns

A fronted demonstrative pronoun in LAC may land in one of the two positions above negators, either in the External topic position (69a-c) or the Focus position (69d-f). Alternatively, a raised demonstrative pronoun may target a position below negation which is termed as Pronoun position and permits preposed pronouns exclusively (72). Examples (72a-b) and (72c) illustrate 是 *shi* and 此 *ci* respectively. The demonstrative pronoun 是 *shi* in (72a) raises out of its VP-internal base position to a preverbal position following the aspectual negator 未 *wei* ‘not yet’. Example (72b) involves the ditransitive verb 謂 *wei* ‘call; speak of’ and a left-dislocated topic ‘this poem’ in the left periphery that is syntactically linked to a gap, with its trace being the first complement of *wei*. The demonstrative pronoun 是 *shi* ‘this’ in the latter clause is the second argument of this double object construction, and it fronts to a preverbal position below negation, accompanied by a cleft structure FEI ... ZHI consisting of a negative copula 非 FEI ‘not be’ negating the identity of a topic and the fronting marker 之 ZHI. Similarly, the demonstrative 此 *ci* in (72c) is clefted by FEI ... ZHI and preceded by a left-dislocated topic selected by a determiner 者 ZHE.

- (72) a. 晉國 之 命, 未 是 有 也。 (左傳•襄公十四年)  
 Jinguo zhi ming, wei shi<sub>i</sub> [VP you t<sub>i</sub>] ye.  
 Jin.State Gen order not.yet this have Decl  
 ‘Speaking of the orders of the State of Jin, there have not been any (as) this.’
- b. 是 詩 也, 非 是 之 謂 也 (孟子•萬章上)  
 [shi shi]<sub>i</sub> ye, fei shi<sub>j</sub> zhi [VP wei t<sub>i</sub> t<sub>j</sub>] ye  
 this poem Decl FEI this ZHI call Decl  
 ‘this poem, (we) do not interpret (it) as this’
- c. 夫 謂 之 辱 者,  
 Fu [wei zhi ru zhe]<sub>i</sub>,  
 Decl call 3.Obj humiliation ZHE  
 非 此 之 謂 也。 (呂氏春秋•正名)  
 fei ci<sub>j</sub> zhi [VP wei t<sub>i</sub> t<sub>j</sub>] ye.  
 FEI this ZHI call Decl  
 ‘That (we) call it humiliation, (we) do not call (it) as this.’

With respect to personal pronouns, though they are excluded from any preverbal position above negation, they can and normally do move to the Pronoun position below negation.<sup>43</sup> Analogous to the demonstrative pronoun ‘this’ that can be specified by graphs 斯 *si*, 是 *shi* and 此 *ci*, personal pronouns in LAC also exhibit a variety of morphological forms. The first person pronoun can take the form of 我 *wo* (73a), 吾 *wu* (73b) or 予 *yu* (73c); as for 寡人 *guaren* (69f), along with others such as 孤 *gu* and 朕 *zhen* (also a possessor), can only be used by a sovereign in proclamations to replace ‘I’. Similarly, the second person pronoun in LAC may take the forms of 子 *zi* (a honorific form of ‘you’, (73a)), 女 *ru* (interchangeable with 汝 *ru*, (3e)), 尔 *er* (73f), 若 *ruo*,<sup>44</sup> etc. As for the third person pronoun, it is exclusively represented by the graph

<sup>43</sup> It is not possible to find positive evidence in favour of this claim, but there are no counterexamples to the generalisation in the data.

<sup>44</sup> The example of 若 *ruo* functioning as a second person subject pronoun is in (xxi).

之 *zhi*, which may refer to an animate or inanimate entity, as in (73g-h) and (73i) respectively.

- (73) a. 若 子 不 我 信 (國語•楚語下)  
ruo zi bu wo<sub>i</sub> [VP xin ti]  
if you not me trust  
'if you do not trust me'
- b. 何 不 吾 諫? (左傳•哀公十一年)  
He<sub>j</sub> bu wu<sub>i</sub> [VP jian ti] [PP t'<sub>j</sub> ti]?  
what not me admonish  
'(For) what (did you) not admonish me?'
- c. 儂句 不 餘 欺 也。 (左傳•昭公二十五年)  
Lvju bu yu<sub>i</sub> [VP qi ti] ye.  
divine.tortoise not I deceive Decl  
'The divine tortoise did not deceive me.'
- d. 敢 不 唯 子 是 從? (左傳•哀公六年)  
Gan bu wei zi<sub>i</sub> shi [VP cong ti]?  
dare not WEI you SHI follow  
'It is only you (people) must follow.' (Lit. 'Dare (people) not follow you only?')
- e. 余 不 女 忍 殺 (左傳•昭公元年)  
yu bu ru<sub>i</sub> ren [VP sha ti]  
I not you bear kill  
'I cannot bear to kill you'

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(xxi) 若 不 共 命。 (墨子•明鬼下)  
Ruo bu gong ming.  
you not obey order  
'You do not obey orders.'



f. 我 無 爾 詐, 爾 無 我 虞。  
 Wo wu er<sub>i</sub> [VP zha t<sub>i</sub>], er wu wo<sub>j</sub> [VP yu t<sub>j</sub>].  
 I not you deceive you not I deceive  
 ‘I do not deceive you; you do not deceive me.’

(左傳•宣公十五年)

g. 我 未 之 見 也。  
 Wo wei zhi<sub>i</sub> [VP jian t<sub>i</sub>] ye.  
 I not.yet 3.Obj seen Decl  
 ‘I have not seen anyone.’

(論語•里仁)

h. 虎 負 嵎, 莫 之 敢 攬  
 hu fu yu, mo zhi<sub>i</sub> gan [VP ying t<sub>i</sub>]  
 tiger back cliff none 3.Obj dare approach  
 ‘the tiger backed on a cliff, and no one dared approach it’

(孟子•盡心下)

i. 吾 未 之 聞 也。  
 Wu wei zhi<sub>i</sub> [VP wen t<sub>i</sub>] ye.  
 I not.yet 3.Obj hear Decl  
 ‘I have not heard it.’

(左傳•宣公十一年)

To summarise, a fronted demonstrative pronoun in LAC may land in the External topic position, the Focus position or the Pronoun position, yet a fronted personal pronoun is restricted to the Pronoun position. The landing sites of preposed pronouns and representative examples are shown in the table below.

Table 2: Distribution of pronoun fronting

Type of pronoun	External topic position	Focus position	Pronoun position
Demonstrative	√ (69a)	√ (69e)	√ (72a)
Personal	/	/	√ (73a)

I show that demonstrative pronouns, parallel to personal pronouns, can appear

additionally in the subject position, as exemplified by (74a-c) and (74d-f) (see also 子 *zi* in (73a), 女 *ru* in (74g) and 爾 *er* in the second clause of (73f)) respectively. The only exception is the third person pronoun 之 *zhi* which is an accusative object pronoun,<sup>45</sup> and is restricted to accusative case-marked positions (Aldridge 2011b, 2015b) (74g-h).

(74) a. 斯 害 也 己。 (論語•為政)

Si hai ye yi.

this pernicious Decl Decl

‘This is pernicious.’

b. 是 爲 賊! (論語•憲問)

Shi wei zei!

this Cop vermin

‘This is vermin!’

c. 此 乃 兩 主 之 事 也 (韓非子•內儲說下)

ci nai liang zhu zhi shi ye

this be two lord GEN issue Decl

‘this is an issue between two lords’

d. 然則 我 不 可 不 爲 義。 (墨子•尚賢)

Ranze wo bu ke bu wei yi.

Then I not can not conduct righteousness

‘Then I cannot not conduct righteousness.’

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<sup>45</sup> There are rare instances in texts in *Zhuangzi* where *zhi* functions as an accusative demonstrative ‘this’ (Pulleyblank 1995).

(xxii) 之 二 蟲 又 何 知? (莊子•逍遙遊)

Zhi er chong you he<sub>i</sub> [VP zhi t<sub>i</sub>]?

this 2 insect then what know

‘Then what do these two insects know?’

- e. 吾 能 止 之。 (國語•晉語九)  
 Wu neng zhi zhi.  
 I can stop 3.Obj  
 ‘I can stop it.’
- f. 余 不 食 三 日 矣。 (國語•吳語)  
 Yu bu shi san ri yi.  
 I not eat 3 day Perf  
 ‘I have not eaten for three days.’
- g. 女 實 遣 之。 (國語•楚語上)  
 Ru shi qian zhi.  
 you actually release 3.Obj  
 ‘You actually released him.’
- h. 晉 人 用 之。 (*ibid*)  
 Jin ren yong zhi.  
 Jin person employ 3.Obj  
 ‘People of the State of Jin employed him.’

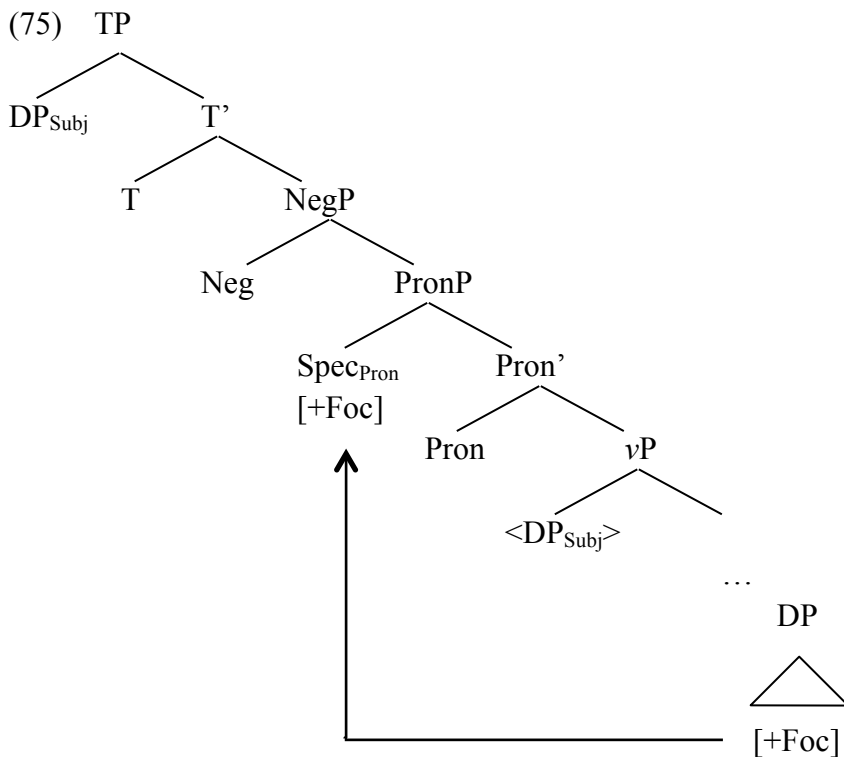
Since demonstrative pronouns may occur in the External topic position, Focus position or Pronoun position, while personal pronouns are restricted to the Pronoun position, the distribution asymmetry between pronouns is not determined by their individual nature. Therefore, I hypothesise that pronoun fronting to negation in LAC is correlated with information structure. To be more specific, demonstrative pronouns move to either the External topic or Focus position driven by topic or focus features, while personal pronouns move exclusively to the Pronoun position triggered by focus properties.<sup>46</sup> Such correlation is clearly attested in LAC examples, though evidence is not complete due to semantic constraints.

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<sup>46</sup> The nature of two landing sites is discussed in Chapter 3.

## 4.2. Nature of Preposed Pronouns

In terms of the nature of the preverbal positioning of pronouns in the context of negation in LAC, I propose that pronoun fronting to negation is overt phrasal movement and is driven by focus feature. The Pronoun position exclusively for fronted pronouns seems to overlap with a focus position for preposed *wh*-phrases, as they both follow negation and precede root modal verbs (see Chapter 5.2.2 and 5.3 for detailed discussion). Therefore, it is not impossible that the Pronoun position is exactly the focus position below negation accommodating preposed *wh*-phrases, and the Pronoun position accommodates fronted items with focal properties. In other words, pronoun fronting in the context of negation is focus movement driven by [+Foc] feature, as in (75).



### 4.2.1. Cliticisation Approach

According to one leading idea in previous research, pronoun fronting to negation in LAC is cliticisation (Feng 1996). However, there is no reason to posit an extra mechanism of cliticisation for pronoun movement; besides, this cliticisation account is

unworkable for a range of examples. So I claim that pronoun fronting in LAC is normal phrasal movement, and this statement applies to pronouns in both preverbal positions.

Feng (1996) proposes that pronoun fronting in the context of negation is prosodically motivated, and a pronoun undergoes cliticisation to the c-commanding negative. There are at least four types of syntactic environment for pronoun fronting to negation: 1) [Neg Pro V], 2) [Neg Pro Adv V], 3) [Fu V] and 4) [Neg Adv Pro V], as in (76a/b/c/d) respectively.

(76) a. 若 不 吾 勝。 (莊子•齊物論; Feng 1996: 329)

Ruo bu wu sheng.

you not me win

‘You cannot beat me.’

b. 莫 之 能 禦 也。 (孟子•梁惠王; Feng 1996: 330)

Mo zhi neng yu ye.

not it can resist prt

‘(You) cannot resist it.’

c. 雖 有 佳 餚,

Sui you jia yao,

though have good food

弗 食 不 知 其 味 也。 (禮記•學記; Feng 1996: 330)

fu shi bu zhi qi wei ye.

not.it eat not know its taste prt

‘Even though you may have good food, if you don’t eat it, you won’t know its taste.’

d. 自 古 至 今, 未 嘗 之 有 也。

Zi gu zhi jin, wei chang zhi you ye.

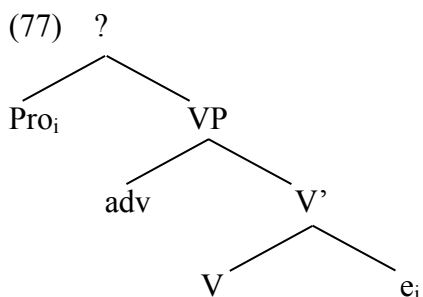
from ancient till now not ever it have prt

‘From the ancient time until now, (we) did not ever have it.’

(孟子•節葬下; Feng 1996: 331)

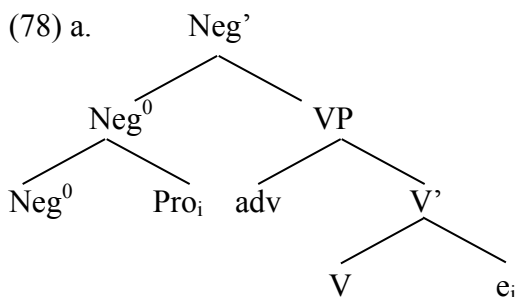
The second type [Neg Pro Adv V] is derived at S-structure, as in (77) in which the sister of the verb is empty as the Pro object has raised to a position higher than the core

VP (Feng 1996).

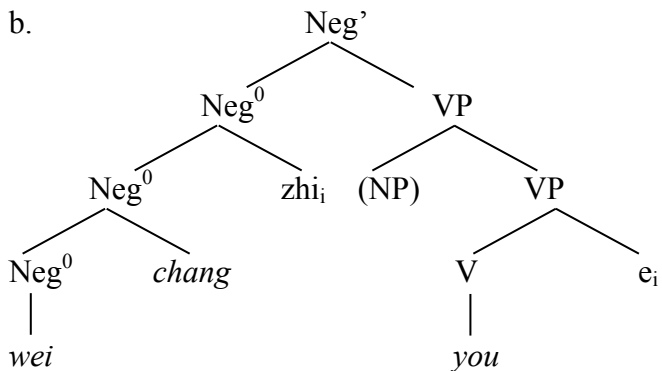


(From Feng 1996: 332)

The preverbal pronominal object must be outside of the governing domain of the verb, and at the same time, be located within the government domain of the negator. (78a) in which the pronominal object adjoined to the  $Neg^0$  node, covers the first three types of pronoun fronting to negation. As for the fourth type [Neg Adv Pro V], the adverb forms a complex head with negation, and the pronoun cliticises onto the complex head, as in (78b) which is the tree diagram of (76d).



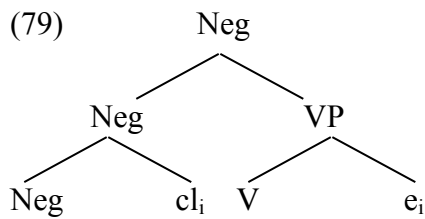
(From Feng 1996: 333)



(From Feng 1996: 334)

The pronoun raises out of the VP and attaches to the dominating negator by means of

clitic movement, as shown in (79) where ‘cl’ stands for a clitic position.



(From Feng 1996: 343)

There is no denying the fact that this account addresses the question of why only pronominal DPs undergo this type of movement: (some) pronouns are monosyllabic and prosodically weak. Nevertheless, I take the position that Feng's (1996) prosodic approach fails to account for pronoun fronting to negation in LAC, and evidence comes from preposed pronouns in both the Focus and Pronoun positions.

A piece of evidence against the prosodic approach comes from the contrast between raised pronouns and their counterparts remaining in situ. These marked and unmarked situations could involve an identical pronoun (or a minimal pair of pronouns) in the same environment, which is difficult for Feng's (1996) cliticisation theory to account for. Example (80a) involves a demonstrative pronoun 斯 *si* 'this' licensed with accusative case, and it is preposed to the Focus position between the subject and a negator; while in (80b/c), its minimal pair counterparts 此 *ci* and 是 *shi* 'this' which are also licensed with accusative case remain in their base positions following the negator and the verb. This kind of positional contrast also applies to pronouns in the Pronoun position. (80d) illustrates the fronting of third person personal pronoun 之 *zhi* to the Pronoun position below negation, while the identical pronoun remains in situ in (80e) notwithstanding the similar environment. Instances (80a-c) and (80d-e) both exhibit positional mismatch in the identical environment. Nevertheless, the positional asymmetry of pronouns concerning the Focus and Pronoun positions cannot be explained based on the available analyses provided by the prosodic approach.

(80) a. 吾 斯 之 未 能 信。 (論語•公冶長)

Wu si<sub>i</sub> zhi wei neng [vp xin t<sub>i</sub>].  
I this ZHI not.yet can be.confident.in

‘I have not been able to be confident in this.’

b. 未 有 此 也。 (國語•晉語一)

Wei you ci ye.  
not.yet have this Nmlz

‘There has not been this.’

c. 非 如 是 不 能 聽 聖 知

Fei ru shi bu neng ting sheng zhi  
FEI like this not can heed sage wisdom

則 誅 亂 臣。 (韓非子•外儲說右上)

ze zhu luan chen.  
then suppress rebellious subject

‘(If it is) not like this, (a ruler) cannot heed sages’ wisdom and then suppress rebellious subjects.’

d. 驕 而 不 亡 者，

Jiao er bu wang zhe,  
arrogant Conj not perish Det

未 之 有 也。 (左傳•定公十三年)

wei zhi<sub>i</sub> [vp you t<sub>i</sub>] ye.  
not.yet 3.Obj have Nmlz

‘There has not been anyone who is arrogant but does not perish.’

e. 歸 之， 未 絕 之 也。 (左傳•僖公三年)

Gui zhi, wei jue zhi ye.  
send.home 3.Obj not.yet break.up.with 3.Obj Nmlz

‘(The emperor) sent her home, (but) has not broken up with her.’

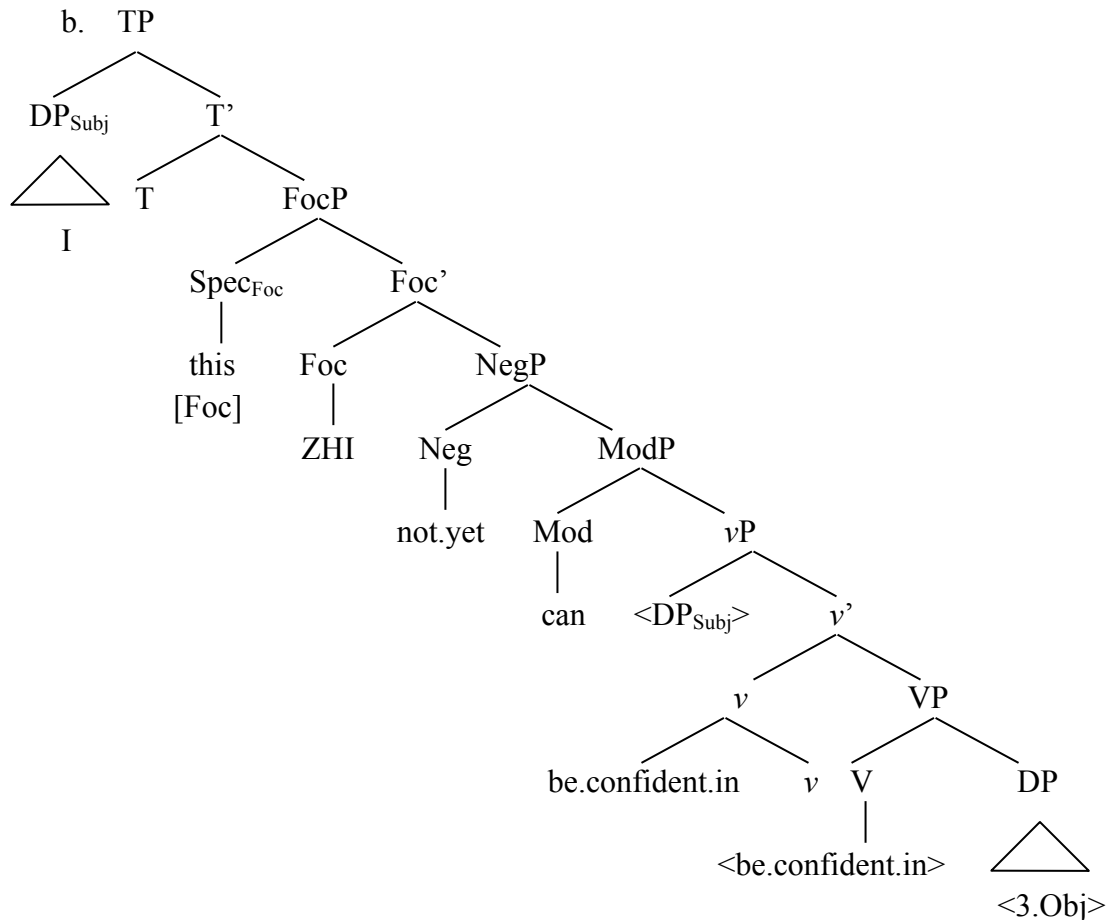
Another fact concerning pronoun fronting to the Focus position Feng’s (1996) account would not explain is that pronouns raised into the Focus position are above negation, so they should not be presumed to right-adjoin to the negator c-commanding the VP. In (80a), repeated as (81a), the demonstrative *si* moves to a position even higher



than the negative, it therefore does not attach to the negative element via clitic movement, as shown in the structure (79). The tree diagram of (81a) is in (81b).

(81) a. 吾 斯 之 未 能 信。 (論語•公冶長)

Wu si<sub>i</sub> zhi wei neng [<sub>VP</sub> xin ti].  
 I this ZHI not.yet can be.confident.in  
 ‘I have not been able to be confident in this.’



With respect to pronouns preposed in the Pronoun position, they do not support Feng’s (1996) cliticisation approach either, parallel to those in the Focus position.

First, fronted pronouns in the Pronoun position are not clitics, in that the matrix predicate 唯 WEI may intervene between the negator and the preposed pronoun, rendering the structure in (79) problematic. Example (82) involves the Pronoun position and a cleft structure WEI...SHI. In this sentence, the matrix predicate WEI intervenes between the negative and the preposed personal pronoun *zi* ‘you’, so that means the

pronoun does not cliticise to the negative,<sup>47</sup> as predicted in (79).

(82) 敢 不 唯 子 是 從? (左傳·哀公六年)

Gan bu wei zi shi [vp cong ti]?

dare not WEI you SHI follow

‘It is only you (people) must follow.’ (Lit. ‘Dare (people) not follow you only?’)

Second, Feng’s (1996) cliticisation analysis fails to provide a justifiable explanation for long-distance pronoun movement into the Pronoun position. Example (83a) involves the Pronoun position and a preposed pronoun.<sup>48</sup> As suggested by Feng (1996), such an

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<sup>47</sup> There could be a potential possibility that the pronoun cliticises to 唯 WEI. However, pronouns never follow matrix predicates other than WEI (see example (73e) where the preposed pronoun precedes the matrix verb *ren* ‘to bear’); besides, it is unreasonable to presume an extra mechanism exclusively for constructions involving WEI. Therefore, this possibility is not adopted.

<sup>48</sup> Aldridge (2010b) attributes (83a) to the result of pied-piping the pronoun as the subject raises, which supports the movement analysis of control of Hornstein (1999, 2001). According to this theory, the matrix subject 莫 *mo* ‘none’ is base merged in an embedded clause, and cliticisation takes place locally within the embedded clause; subsequently, the matrix subject raises to its surface position in the matrix clause, pied-piping the pronoun with it. I challenge such theory in that provided 莫 *mo* is analysed as a matrix subject, it is predicted to be able to appear in any argument position, including a VP-internal one. However, this prediction is not borne out, and Aldridge (2006, 2010b) attributes the fact that *mo* never occurs VP-internally to a ban on quantificational material in the VP. Nevertheless, there are attested examples where quantificational elements can appear overtly within VP. In (xxiiiia), as the second argument in a double object construction, the quantificational operator *he* ‘what’ remains in its base position within VP. In addition, the corresponding prediction that quantified NPs are also banned in VP is not borne out, because examples (xxiiiib-d) reveal the possibility of quantified NPs appearing within VP. Consequently, owing to the imperfection of the theory, the appearance of constructions involving *mo* and a matrix verb such as that in (83a) should not be treated as the result of pied-piping the pronoun as the subject *mo* raises.

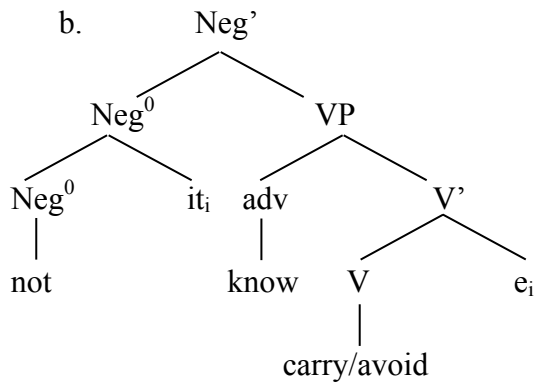
instance belongs to the second type [Neg Pro Adv V], which means 知 *zhi* ‘know’ is treated as an adverb inserted between the preverbal complement and the head of VP. The tree diagram of (83a), according to Feng’s analysis, is in (83b).

- (83) a. 福 輕 乎 羽, 莫 之 知 載;  
 Fu qing hu yu, mo zhi<sub>i</sub> zhi [VP zai ti];  
 luck light than feather not it know carry  
 禍 重 乎 地, 莫 之 知 避。  
 Huo zhong hu di, mo zhi<sub>j</sub> zhi [VP bi ti].  
 misfortune heavy than earth none it know avoid
- ‘Even though good fortune is lighter than a feather, they don’t know how to take it; even though disaster is heavier than the earth; they don’t know how to avoid it.’

(莊子•人間世; Feng 1996: 330)

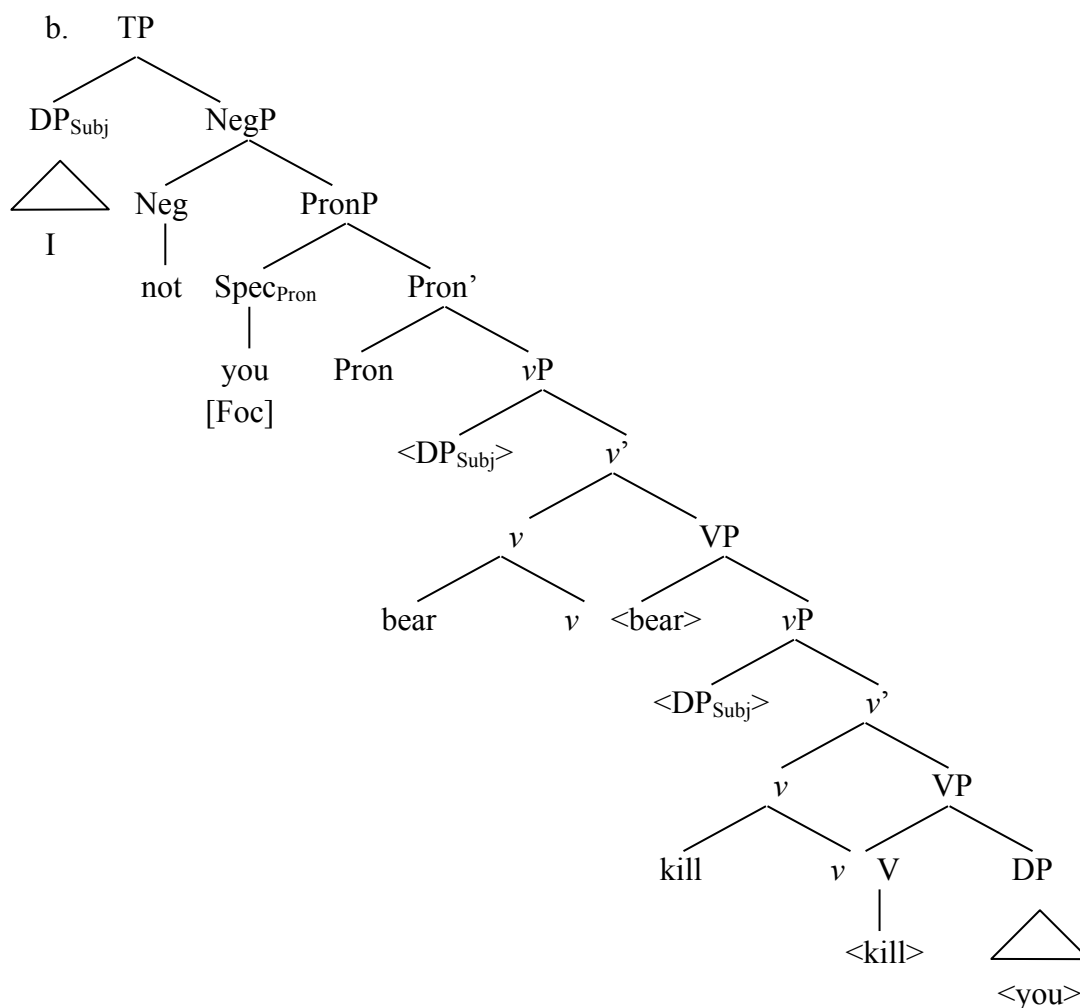
- (xxiii) a. 國 謂 君 何? (左傳•僖公十五年)  
 Guo wei jun he?  
 state call lord what  
 ‘What does the state call the lord?’
- b. 下佐食 取 牢 一切 肺 于 俎 (儀禮)  
 xiazuoshi qu lao yiqie fei yu zu  
 xiazuoshi take sacrifice all lung from vessel  
 ‘xiazuoshi (the worshipper) took all the lungs of the sacrifices from the vessel’
- c. 唯 厚 德 者 能 受 多 福 (國語•晉語六)  
 wei hou de zhe neng shou duo fu  
 WEI profound morality ZHE can enjoy many blessing  
 ‘only (those) who of profound morality can enjoy many blessings’
- d. 猶 以 一 杯 水 救 一 車 薪 之 火 也。  
 You yi yi bei shui jiu yi che xin zhi huo ye.  
 be.like with one glass water rescue one cart firewood of fire part.  
 ‘It is like fighting a fire of a cart-full of firewood with a glass of water.’

(孟子•滕文公下; Peyraube 2003: 143)



However, I propose that 知 *zhi* ‘know’ in (84a) should be analysed as a matrix verb taking a nonfinite complement. The fronted pronoun is associated with the matrix verb, instead of the embedded verb 避 *bi* ‘avoid’. Similarly, sentence (84a) involving another matrix predicate 忍 *ren* ‘bear’ cannot be explained by the [Neg Pro Adv V] pattern either. The tree diagram of (84a), according to my analysis, is in (84b).

- (84) a. 余 不 女 忍 殺 (左傳•昭公元年)
- yu bu ru<sub>i</sub> ren [vp sha t<sub>i</sub>]
- I not you bear kill
- ‘I cannot bear to kill you’



Third, there is more problematic evidence related to the Pronoun position for the cliticisation approach: the movement of pronouns from PPs. Cliticisation is predicted to be blocked when the pronoun is contained in a PP (Feng 1996), but in (85a), an inanimate personal pronoun 之 *zhi* denoting ‘a vessel’ moves out of the PP headed by 以 *yi*<sup>49</sup> and lands in a position between the negator and a modal of ability ‘can’. Similarly, in (85b), although negation is absent, the demonstrative pronoun 是 *shi* raises out of the PP and lands in a position preceding ‘can’.<sup>50</sup> The tree diagram of (85a) is presented in (85c), the surface order of which is derived from the raising of a pronominal DP to the specifier of the functional projection PronP, with the preposition stranded in its base position and the modal element intervening in the medial domain. It is noteworthy

<sup>49</sup> I treat the morpheme 以 *yi* as a preposition ‘with’ heading an adjunct prepositional phrase, following the traditional analysis (Wang 1958a, 1962, Zhou 1959, Guo 1998, Djamouri 2009, among many others). The nature of 以 *yi* is analysed in Chapter 6.1.

<sup>50</sup> Note that demonstratives cannot cliticise anyway, as they are not prosodically weak.

that the canonical word order of PP in LAC is P-DP (see (85d)), while this kind of movement stranding a preposition (see (85a)) is a robust aspect of LAC syntax (Wang 2013).

(85) a. 未 之 能 以 服 ...  
 wei zhi<sub>i</sub> neng [<sub>pp</sub> t'<sub>i</sub> yi t<sub>i</sub>] [<sub>VP</sub> fu] ...  
 not.yet 3.Obj can with dress.up

未 之 能 以 出 (春秋公羊傳)

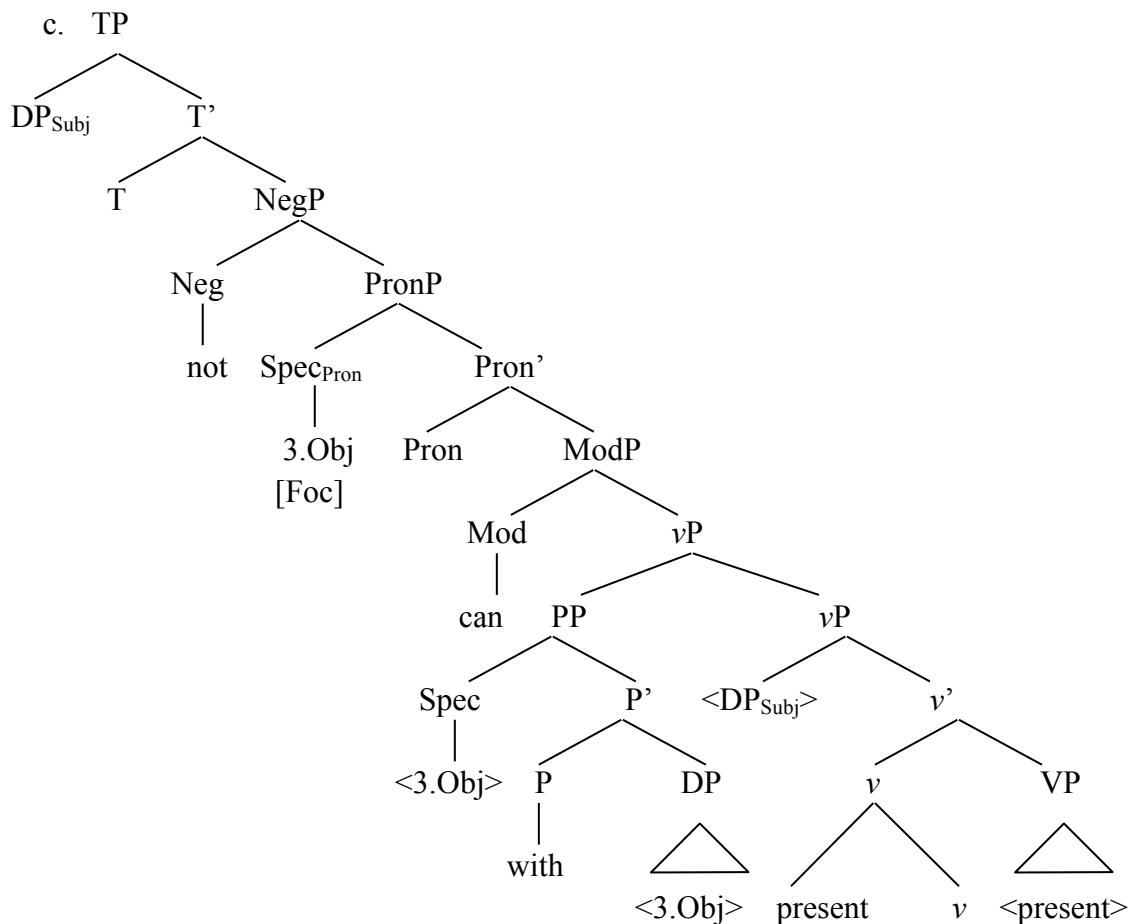
wei zhi<sub>j</sub> neng [<sub>pp</sub> t'<sub>j</sub> yi t<sub>j</sub>] [<sub>VP</sub> chu]  
 not.yet 3.Obj can with present

‘(I) have not been able to dress up with it...(I) have not been able to present (sacrifices) with it’

b. 是 可 以 少 固。 (國語•鄭語)

Shi<sub>i</sub> ke [<sub>pp</sub> t'<sub>i</sub> yi t<sub>i</sub>] [<sub>VP</sub> shao gu].  
 this can with slightly secure

‘(You) can slightly secure (it) with this.’

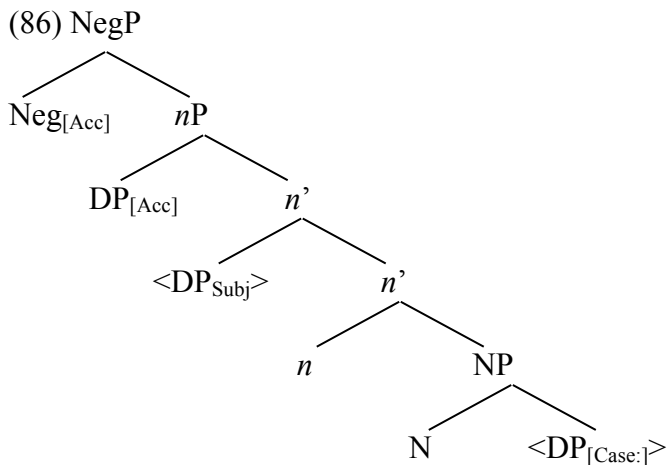


d.	中	主	以	之	止	善	(呂氏春秋)
	zhong	zhu	yi	zhi	zhi	shan	
	mediocre	lord	with	3.Obj	cease	benevolence	
	‘mediocre lords ceased benevolence with it’						

Moreover, Aldridge (2015b) provides additional evidence against the cliticisation analysis by mentioning three phenomena the prosodic approach fails to account for: 1) there is no pronoun raising in the context of perfective aspect or certain verb complements, 2) reflexive pronouns sometimes undergo fronting whereas sometimes do not, and 3) pronouns are attracted specifically to negation.

#### 4.2.2. Case-Based Approach

According to Aldridge (2015b), although the landing site of preposed pronouns is located between negation and *v*P, pronoun fronting in the context of negation is not focus driven. A case-based approach has been put forward to account for the motivation for pronoun fronting to negation in LAC: only pronouns in need of structural accusative case undergo fronting. As hypothesised by Aldridge (2015b), it is Neg that values accusative case on the fronted DPs, but the head of NegP selects a nominal complement *n*P where structural case is unavailable. As a consequence, due to the unavailability of case in the domain of *n* (because *n* is a strong phase head, rendering NP impenetrable), DPs have to undergo object shift to [Spec, *n*P] so as to value accusative case from the head of NegP, as shown in (86).



(From Aldridge 2015b: 356)

However, I find this theory not watertight. I argue against this theory from three aspects: negation, *nP* and cases.

First, the presumption that Neg assigns accusative case to fronted pronouns is challenged by two facts: movement of pronouns to a position higher than negation and movement of pronouns without negation. First, pronominal DPs may raise into a position higher than the negator. In (81), repeated here as (87a), the demonstrative pronoun 斯 *si* moves out of VP and lands in the Focus position above negation, so it cannot receive case from the head of NegP below it. Second, pronoun fronting does not require the presence of negation. In (87b), preverbal positioning of the demonstrative pronoun *shi* to the External topic position does not need negation; consequently, the accusative case of fronted pronouns cannot be assigned by negation. (87c) involves a hanging topic that is linked to a resumptive pronoun 是 *shi* as the complement of the verb. Again, this pronoun *shi* is followed by a fronting marker ZHI, but *shi* is not preceded by any negator.

(87) a. 吾 斯 之 未 能 信。 (論語•公冶長)

Wu si<sub>i</sub> zhi wei neng [vp xin t<sub>i</sub>].

I this ZHI not.yet can be.confident.in

‘I have not been able to be confident in this.’

b. 是 可 忍 也 (論語•八佾)

shi<sub>i</sub> ke [vp ren t<sub>i</sub>] ye

this can endure Nmlz

‘(he) can endure this’



- c. 若 狄 公子, 吾 是 之 依 兮。  
 [Ruo di gongzi]<sub>i</sub>, wu shi<sub>i</sub> zhi [<sub>VP</sub>yi ti] xi.  
 this Di master, I this ZHI rely.on Decl  
 ‘This Master Di, on this I rely.’

(國語•晉語三)

Second, the hypothesis that the complement of Neg head is a nominal projection requiring pronoun fronting for structural case does not hold. According to Aldridge (2015b), in the presence of the clause-final particle 也 *ye* that acts as a copula or nominaliser, thus the assumed *nP*, pronoun fronting is expected due to the unavailability of structural case in *nP*. However, as can be observed from (88a), despite the presence of nominaliser *ye*, the demonstrative pronoun *ci* stays in its base position, instead of shifting to a higher position for accusative case, as predicted. Similarly, the presence of *ye* in (88b-d) does not trigger the movement of the third person accusative pronoun *zhi*. Example (88e) involves the quantificational negator 莫 *mo* ‘none’. Again, despite the presence of negation and the clause-final particle *ye*, the second person accusative pronoun 子 *zi* stays in the postverbal position.

- (88) a. 未 有 此 也。 (國語•晉語一)  
 Wei you ci ye.  
 not.yet have this Nmlz  
 ‘There has not been this.’

- b. 猶 未 知 之 也 (國語•晉語四)  
 you wei zhi zhi ye  
 still not.yet know 3.Obj Nmlz  
 ‘(you) still have not known it’

- c. 歸 之, 未 絕 之 也。  
 Gui zhi, wei jue zhi ye.  
 send.home 3.Obj not.yet break.up.with 3.Obj Nmlz  
 ‘(The emperor) sent her home, (but) has not broken up with her.’

(左傳•僖公三年)

d. 是 無 世 而 不 常 有 之。 (荀子•天論)

Shi wu shi er bu chang you zhi.

this no dynasty Conj not ever have 3.Obj

‘There is no dynasty in which this has never had.’

e. 何 為 其 莫 知 子 也?

He<sub>i</sub> wei<sub>j</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] qi mo zhi zi ye?

what for Mod none understand you Nmlz

‘For what (did you say that) no one understood you?’

(論語•憲問)

Furthermore, providing *nP* was adopted, the fronted pronoun in (89a) and (89b) would target <Spec, *nP*> (see (89c/d) respectively).

(89) a. 未 之 能 行 (論語•公冶長)

wei zhi<sub>i</sub> neng [<sub>VP</sub> xing t<sub>i</sub>]

not.yet 3.Obj can execute

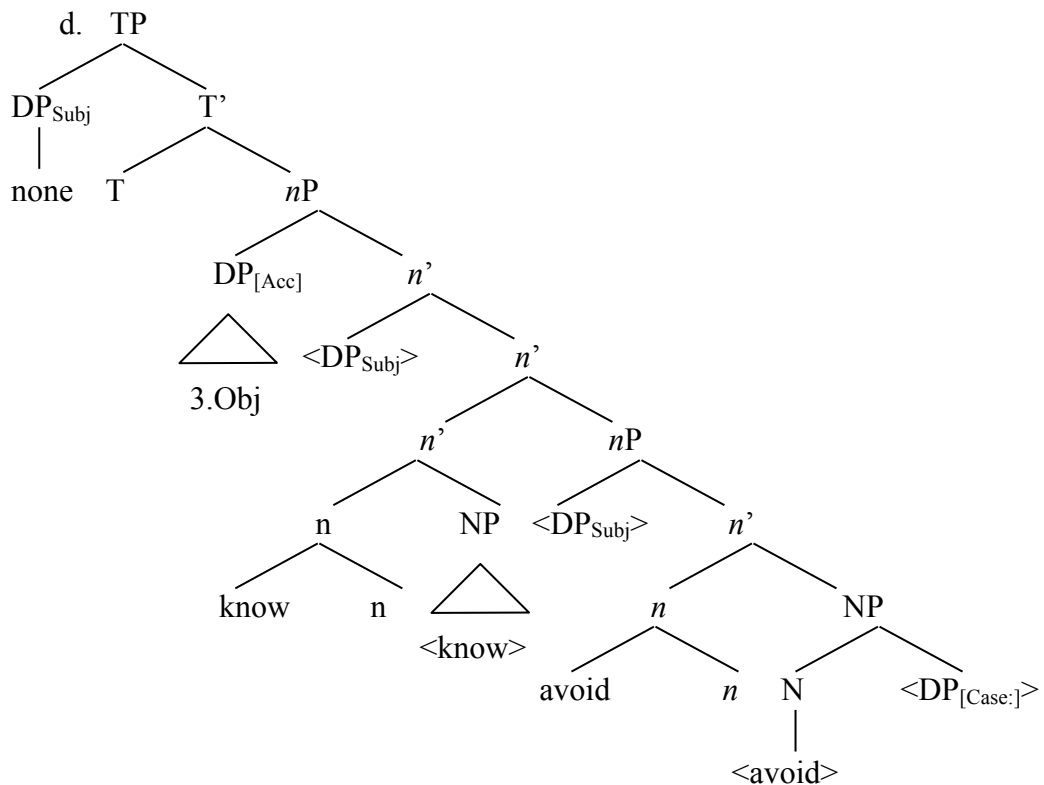
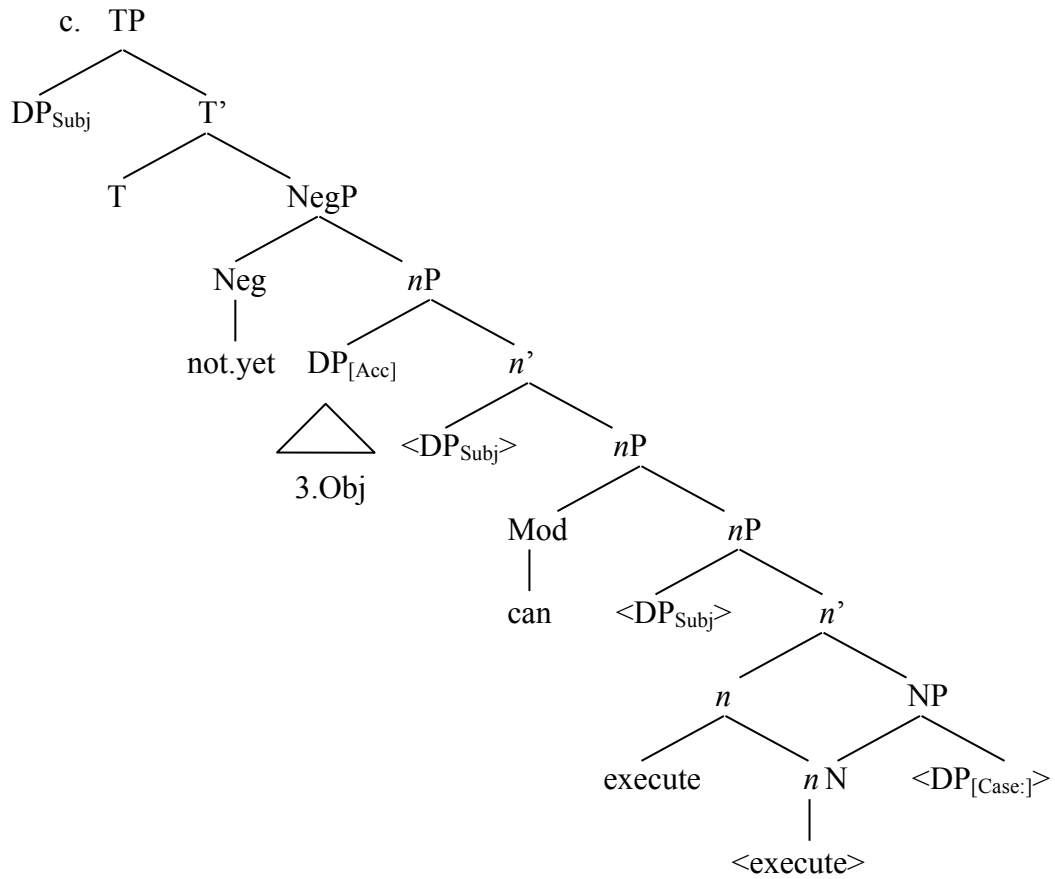
‘before (he) can execute it’

b. 莫 之 知 避。 (莊子•人間世)

Mo zhi<sub>i</sub> zhi [<sub>VP</sub> bi t<sub>i</sub>].

none 3.Obj know avoid

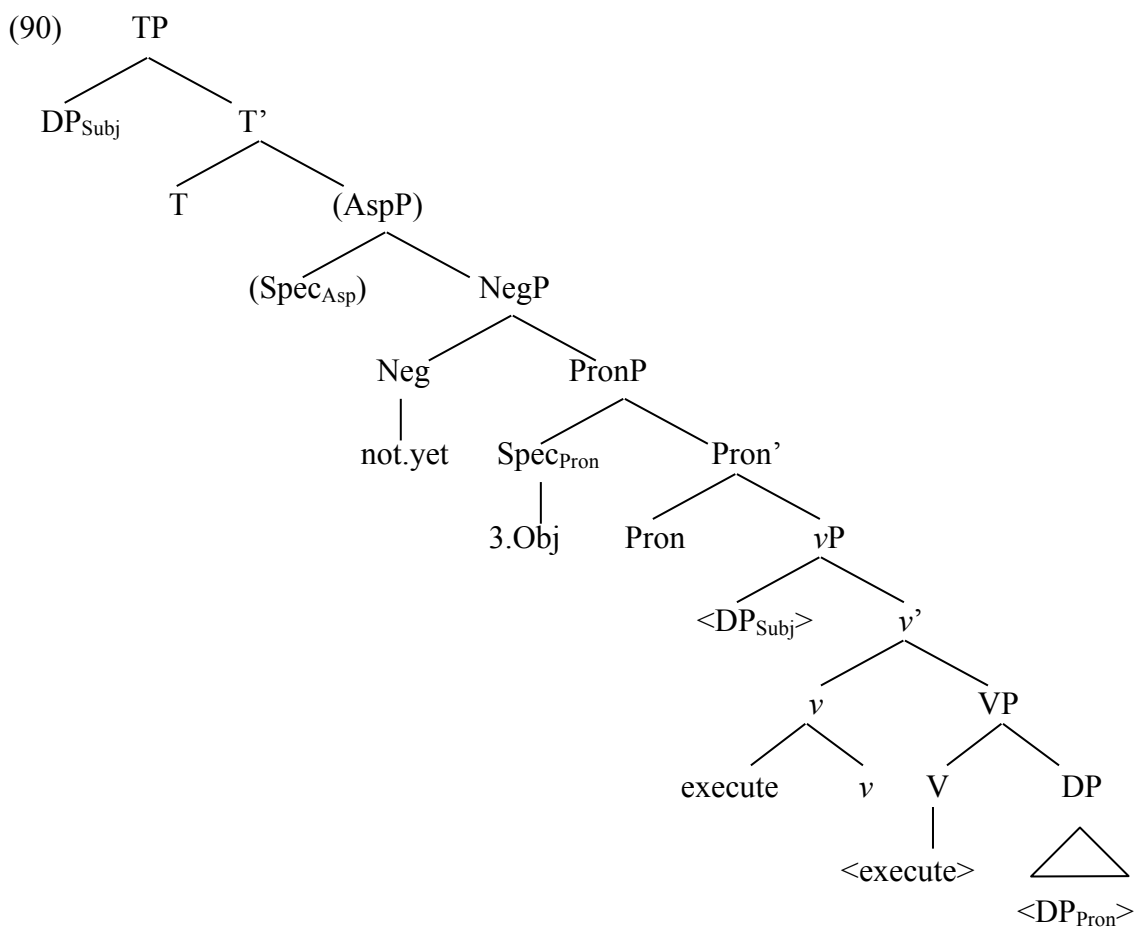
‘No one knows how to avoid it.’



However, as can be seen from (89c-d), the modal of ability 能 *neng* ‘can’ and the matrix verb 知 *zhi* ‘know’ have to be generated within *nP*. According to Aldridge (2015b), pronoun fronting is found when there is not enough verbal structure to license accusative case in situ. Based on simple examples she suggests for *nP* structure, for (89) it must be

the case that the relevant verbal structure is also absent. So following Aldridge (2015b), I suggest that both *neng* and *zhi* head *nPs*.

Alternatively, some functional projection above *vP/VP* which normally licenses accusative case is absent, so pronouns have to undergo preverbal positioning to get case. Under this assumption, the tree diagram for (89a) is in (90). The functional structure above *vP* is hypothetical Aspect that normally licenses accusative case to pronominal objects. Since Aspect in (90) is absent, the pronominal object has to raise to a higher landing site, i.e. the Pronoun position, in order to be licensed accusative case.



Third, from the aspect of cases, the case-based proposal is not supported either. I discuss the relation between pronoun fronting and two types of cases, namely, inherent case and structural case.

In terms of the correlation between pronoun fronting and inherent cases, it undermines the case-based analysis because pronominal DP objects of prepositions and pronouns licensed with dative case actually do undergo movement, contrary to the consideration made by the case-based theory. For pronominal DP objects of prepositions,

as suggested by Aldridge (2015b), assuming an object is licensed internal to the PP, it is not affected by the lack of case from *nP*, so this prepositional complement is not expected to move. However, in (85a), repeated here as (91), the pronominal object 之 *zhi* moves out of a PP to negation. I propose that 以 *yi* ‘with/for’ in LAC should be treated as a preposition (see discussion in Chapter 6.1.1 below), following the traditional theory. Even if the debating nature of *yi* cannot be determined, example (91b) involves raising of a pronominal DP complement of another well-accepted preposition 與 *yu* ‘than’, which also helps to contradict the case-based approach by showing that prepositional complements may undergo movement. (91c) is another piece of evidence involving a well-accepted preposition 于 *yu* ‘in; at’, and this instance does not contain any negative. In this example, the prepositional complement 是 *shi* ‘this’ raises to a position intervening between the verb 在 *zai* ‘be.in’ and the preposition, without the presence of negation.

- (91) a. 未 之 能 以 服 ...  
 wei zhi<sub>i</sub> neng [pp t'<sub>i</sub> yi t<sub>i</sub>] [VP fu] ...  
 not.yet 3.Obj can with dress.up  
 未 之 能 以 出 (公羊傳•昭公二十五年)  
 wei zhi<sub>j</sub> neng [pp t'<sub>j</sub> yi t<sub>j</sub>] [VP chu] ...  
 not.yet 3.Obj can with present  
 ‘(I) have not been able to dress up with it ... (I) have not been able to present (sacrifices) with it’

- b. 八 世 之 後, 莫 之 與 京。  
 Ba shi zhi hou, mo [pp zhi<sub>i</sub> yu t<sub>i</sub>] jing.  
 8 generation Gen after none 3.Obj than great  
 ‘After eight generations, there will be no one greater than him.’

(左傳•莊公二十二年)

c. 皆 知 己 之 所 願欲 之 舉  
 Jie zhi ji zhi suo yuanyu zhi ju  
 all know self Gen SUO desire Gen behaviour

在 是 于 也...

zai [pp shi<sub>i</sub> yu t<sub>i</sub>] ye

be.in this in Decl

皆 知 己 之 所 畏恐 之 舉

Jie zhi ji zhi suo weikong zhi ju

all know self Gen SUO fear Gen behaviour

在 是 于 也

(荀子•富國)

zai [pp shi<sub>j</sub> yu t<sub>j</sub>] ye

be.in this in Decl

‘(people) all know that the behaviours they desire themselves depend on this ...

(people) all know that the behaviours they fear themselves depend on this’

As for pronouns licensed with dative case, they may also front to negation, despite the prediction that they are supposed to remain in situ, as inherent case is expected to license the internal object in the absence of an accusative feature (Aldridge 2015b). In (92a), the first person pronoun 吾 *wu* acts as the goal argument of a ditransitive verb 假 *jia* ‘lend’ receiving dative case, so it is expected to remain in its base position. However, the pronoun actually fronts in the dative environment, serving as a counterexample against the case-based theory. The third clause in (92a) shows the canonical order: the indirect dative object intervenes between the ditransitive verb 假 *jia* ‘lend’ and a non-pronominal theme direct object 道 *dao* ‘way’. As for the second clause in (92a), it also involves raising of an indirect object which receives a source *theta*-role, and the direct object in this clause is null.

- (92) a. 彼 若 不 吾 假 道,  
 bi ruo bu wu<sub>i</sub> [VP jia t<sub>i</sub> dao],  
 3.Subj if not us lend way  
 必 不 吾 受 也;  
 bi bu wu<sub>j</sub> [VP shou t<sub>j</sub>] ye;  
 must not us accept Decl  
 若 受 我 而 假 我 道 ... (呂氏春秋•權勳)  
 ruo shou wo er [VP jia wo dao] ...  
 if accept us Conj lend us way  
 ‘If he does not give way (for) us, he must not accept (the gifts from) us; if (he) accepts (the gifts from) us and gives way (for) us ...’
- b. 彼 知 吾 將 用 之,  
 Bi zhi wu jiang yong zhi,  
 3.Subj know I will employ 3.Obj  
 必 不 吾 予 也。<sup>51</sup> (管子•小匡)  
 bi bu wu<sub>i</sub> [VP yu [PP t'<sub>i</sub> t<sub>i</sub>]] ye.  
 must not me give Decl  
 ‘(If) he knows I will employ him, (he) must not give (him to) me.’

Similar to the first clause of (92a), (92b) also contains raising of the pronoun *wu* licensed with dative case, counter to the prediction that a pronoun licensed with dative case is expected to stay in its base position. At first sight, the first person pronoun 吾 *wu* ‘I’ in (92b) could receive accusative case from the verb. However, if we take a look at the four possible ways of packaging arguments in ditransitive constructions in LAC, the dative case of *wu* ‘I’ becomes more self-evident. The first approach is a double object construction V-DP<sub>1</sub>-DP<sub>2</sub> (as in (92a)). In this case, the structure is ‘give me him’ with

<sup>51</sup> Example (92b) describes the scenario that the minister of Lu knew the minister of Qi would employ the assassin Guan Zhong who was a potential threat to the State of Lu, so the minister of Lu refused to release Guan Zhong and ‘give’ Guan Zhong to the minister of Qi. This sentence is an utterance of the minister of Qi where the subject is the minister of Lu, while the direct object (null in the second clause) is the assassin Guan Zhong.

‘him’ omitted, but having two pronouns in a double object construction is never attested in LAC. Although it is common for nominal DPs to act as the second argument of a ditransitive verb, and for the pronominal DPs to act as the first argument (see (93a-b)), pronouns can never be the second argument in a ditransitive structure.<sup>52</sup> The second potential pattern for a ditransitive construction is a construction *yi*-DP<sub>1</sub>-V-DP<sub>2</sub> in which DP<sub>1</sub> is the direct object and DP<sub>2</sub> the indirect object. For (92b), it would be ‘*yi* him give me’, with the third person personal pronoun and *yi* omitted; but such a pattern with a pronoun preceding a ditransitive verb is not attested either. The third potential method is to have a V-DP<sub>1</sub>-*yi*-DP<sub>2</sub> pattern, with DP<sub>1</sub> being the goal argument and DP<sub>2</sub> the theme. For (92b), it would be ‘give me *yi* him’. Although this pattern is feasible for some ditransitive verbs like ‘entrust’ (93c), there is no attested data showing that the verb ‘give’ can take a goal DP followed by a theme PP. Moreover, if (92b) adopted this pattern, the theme PP would be null. However, data shows that in LAC omitting a theme DP is acceptable (as in (92b)), but if the theme is a PP, it cannot be omitted. To further invalidate this pattern, I find that the construction of *yi* taking a pronominal complement never appears postverbally following a ditransitive verb and a goal DP. It is noteworthy that in all three mentioned approaches, the elliptical constituent should be a pronoun rather than a DP, because its sentence-internal antecedent is a pronoun. Consequently, the only feasible option for (92b) is to have a prepositional dative construction by placing both arguments in postverbal positions, with the latter (the first person pronoun) being packaged as a PP: V-DP<sub>1</sub>-P-DP<sub>2</sub>, namely ‘give him to me’. This sentence involves an ellipsis of the third person personal pronoun and the preposition. In LAC, there are unmarked ditransitive constructions with this V-DP<sub>1</sub>-P-DP<sub>2</sub> prepositional dative pattern

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<sup>52</sup> This statement is supported by lack of data. This generalisation also applies to modern Mandarin:

- (xxiv) a. Wo    gei-le    Zhangsan    yi-ge    pingguo.  
           I    give-Asp    Zhangsan    1-Cl    apple  
           ‘I gave Zhangsan an apple.’
- b. \* Wo    gei-le    Zhangsan    ta.  
           I    give-Asp    Zhangsan    3.Obj



and the complement of the goal PP could be nominal or pronominal (93d/e), lending indirect support to the proposed underlying structure of (92b).

- (93) a. 郤犇 欲 予 之 邑 (國語•魯語上)
- Xichou yu yu zhi yi
- V DP<sub>1</sub> DP<sub>2</sub>
- Xi Chou want give 3.Obj fief
- ‘Xi Chou wants to give him fiefs’
- b. 王 予 之 爵。 (左傳•莊公二十一年)
- Wang yu zhi jue.
- V DP<sub>1</sub> DP<sub>2</sub>
- emperor give 3.Obj knighthood
- ‘The emperor gives him a knighthood.’
- c. 授 之 以 政 (論語•子路)
- shou zhi yi zheng
- DP<sub>1</sub> P DP<sub>2</sub>
- entrust 3.Obj with government.affair
- ‘entrust him with government affairs’
- d. 則 人 莫 不 獻 之 于 其 君 (莊子•天運)
- ze ren mo bu xian zhi yu [qi jun]
- V DP<sub>1</sub> P DP<sub>2</sub>
- then people none not present 3.Obj to Gen lord
- ‘then none of people do not present it to their lord’
- e. 授 手 于 我。 (左傳•襄公二十五年)
- Shou shou yu wo.
- V DP<sub>1</sub> P DP<sub>2</sub>
- give hand to me
- ‘(They) give hands to me.’

Therefore, it is reasonable to assume that the first person pronoun *wu* ‘I’ in (92a-b) receives dative case, so its unexpected movement is a counterexample against the case-based analysis.

With respect to the relation between pronoun fronting and structural case, it undermines the case-based analysis in that the availability of structural case does not obviate pronoun raising. This claim is supported by two points: fronting of pronouns licensed with accusative case is not obligatory in the context of negation; pronoun fronting is not blocked with the presence of *vP* which is required for independent reasons.

In the context of negation, there are instances where pronouns licensed with accusative case<sup>53</sup> remain in situ despite the prediction that they have to undergo object shift for structural case, and this applies to both demonstrative and personal pronouns. In (94a-b), a demonstrative pronoun *ci*, which is a direct object, stays in its base position, instead of moving to the High or Focus position of object preposing. In terms of (94c-d) and (94e-g), they involve animate and inanimate personal pronouns respectively; all pronouns have accusative case whereas they remain in situ, instead of moving to the Pronoun position, as expected.

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<sup>53</sup> Among the pronouns in (94), only 之 *zhi* is an accusative pronoun that is restricted to an accusative position. The demonstrative pronoun *ci* however, is only licensed with accusative case, instead of being an accusative pronoun, in that it can also appear in the subject position (xxva). It is the same for its minimal pair counterpart 是 *shi* (xxvb). As for the second person personal pronoun 女 *ru*, it may also occupy a subject position (xxvc).

(xxv) a. 此 乃 兩 主 之 事 也 (韓非子•內儲說下)

ci nai liang zhu zhi shi ye  
this be two lord Gen issue Nmlz

‘this is an issue of two lords’

b. 是 爲 賊! (論語•憲問)

Shi wei zei!  
this be vermin

‘This is vermin!’

c. 女 亦 聞 之 乎? (國語•魯語上)

Ru yi wen zhi hu?  
you also hear.of 3.Obj Q

‘Did you also hear of it?’

- (94) a. 未 有 此 也。 (國語•晉語一)  
 Wei you ci ye.  
 not.yet have this Nmlz  
 ‘There has not been this.’
- b. 臧孫 之 罪 皆 不 及 此。 (左傳•襄公二十三年)  
 Zangsun zhi zui jie bu ji ci.  
 Zangsun Gen sin all not reach this  
 ‘Zangsun’s sin was not even this.’ (Lit. ‘Zangsun’s sin was not all this.’)
- c. 吾 不 可 以 再 亡 之。 (左傳•昭公二十一年)  
 Wu bu keyi zai wang zhi.  
 I not can also make.flee 3.Obj  
 ‘I cannot make him flee as well.’
- d. 夫 不 惡 女 乎? (左傳•襄公二十六年)  
 Fu bu wu ru hu?  
 3.Obj not detest you Q  
 ‘Doesn’t he detest you?’
- e. 吾 不 可 以 僭 之。 (左傳•哀公五年)  
 Wu bu keyi jian zhi.  
 I not can arrogate 3.Obj  
 ‘I must not arrogate it.’
- f. 寡人 嘗 聞 道  
 Guaren chang wen dao  
 I ever hear means  
 而 未 得 目 見 之 也 (韓非子•十過)  
 er wei de mu jian zhi ye  
 Conj not.yet get eye see 3.Obj NMLZ  
 ‘I have ever heard of the means, but I have not seen it with my own eyes’

g. 求 簪, 三 日 不 得 之。<sup>54</sup> (韓非子•內儲說上)  
 Qiu zan, san ri bu de zhi.  
 seek hairpin 3 day not obtain 3.Obj

‘(Officials) sought a hairpin; (they) had not obtained it after three days.’

Furthermore, according to Aldridge (2015b), pronoun fronting is obviated if a vP is present for independent reasons, and she offers 1) complex VPs, 2) *wh*-questions and 3) perfective constructions as evidence.

First, the case-based approach proposes a lack of pronoun fronting in *wh*-questions, and attributes such a complementary distribution of pronoun fronting and *wh*-elements to

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<sup>54</sup> Edith Aldridge (p.c.) has pointed out that (94g) is a conditional clause which might be nonfinite, hence the presence of T. She proposes that T is an exceptional case assigner, which explains the lack of pronoun fronting in the context of embedded nonfinite clauses. Djamouri (2000) and Aldridge (2006) also argue that pronouns stay inside VP in embedded contexts such as conditional clauses (xxvi).

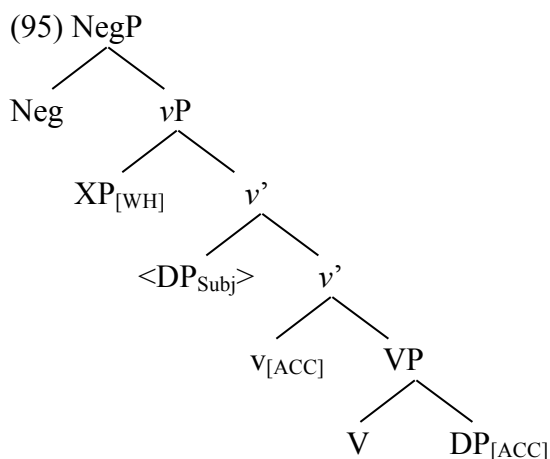
(xxvi) [其 未 得 之 也], 患 得 之。  
 [Qi wei de zhi ye], huan de zhi.  
 3.Subj not.yet obtain 3.Obj Decl worry obtain 3.Obj

‘(Before) he has obtained it (=the position), he worried about how to obtain it.’

(論語•陽貨; Aldridge 2006: 4)

However, examples in (92) are also conditional clauses, but they do involve pronoun fronting. Moreover, based on contextual information, I do not think the clause in (94g) involves a conditional relation. In previous texts, a story has been told that officials had been looking for a hairpin for three days, and they did not find it; the speaker of this utterance just narrated the truth that had happened without expressing any factual implication or hypothetical situation. Even if the correlation between conditional clauses and presence/absence of pronoun fronting needs to be further discussed, examples (94a-f) indicate that negative sentences without a conditional interpretation do not necessarily involve fronting of pronouns licensed with accusative case.

the presence of *v*P: since a *wh*-word occupies the specifier position of *v*P, the presence of *v* thus licenses a direct object, so the object should remain in situ. Consequently, pronoun fronting is impossible in a *wh*-question. On the basis of these considerations, Aldridge (2015b) proposes the structure in (95).



(From Aldridge 2015b: 358)

However, I argue that the tree diagram in (95) cannot account for examples such as (96), because the *wh*-element *he* lands in a position higher than NegP. So that means a *wh*-phrase does not necessarily imply the presence of a *v*P layer.

- (96) a. 君 何 不 舉 之? (韓非子•外儲說上)  
 Jun he<sub>i</sub> bu ju zhi [PP t'<sub>i</sub> t<sub>i</sub>]?  
 you what not promote 3.Obj  
 '(For) what do you not promote him?'
- b. 將 何 不 忘 哉! (韓非子•喻老)  
 Jiang he<sub>i</sub> bu [VP wang t<sub>i</sub>] zai!  
 Fut what not forget Excl  
 'What will (he) not forget!'

Besides, even if there are examples involving *wh*-elements appearing below the NegP, the landing site of *wh*-phrases would be the specifier of a functional projection (see Chapter 2.3 for detailed analyses), rather than the edge of *v*P, as in (95). So this fact also indicates that *wh*-phrases do not involve a *v* licensing accusative case.

Additionally, *wh*-phrases actually can coexist with pronoun fronting. Example (97) involves a *wh*-word fronted to a position above negation. Meanwhile, a pronoun is triggered by negation and raises to a preverbal position. Therefore, it can be seen that there is no obligatory complementary distribution of *wh*-questions and pronoun fronting, so the case-based theory is not well-supported.

- (97) 何 不 吾 諫? (左傳•哀公十一年)  
 He<sub>i</sub> bu wu<sub>i</sub> [VP jian t<sub>i</sub>] [PP t'<sub>j</sub> t<sub>i</sub>]?  
 what not me admonish  
 '(For) what (did you) not admonish me?'

Second, under the case-based analysis, pronoun fronting does not take place from a VP containing constituents other than the verb, which is mirrored in applicative constructions. Aldridge (2012b) presumes that the functional morpheme 以 *yi* heads a high applicative phrase above VP within *v*P. Since the applicative construction requires a full *v*P to support movement of the applicative, the applied pronominal object can be licensed by a *v* dominating ApplP, so it remains in situ. However, the high applicative theory is not well supported (Wang 2013) (see Chapter 6.1.3 for detailed discussion). Therefore, owing to the imperfections of the high applicative approach, the corresponding analysis of complex VP should not be used as evidence for the case-based account of pronoun fronting.

Third, based on the assumption that there is a connection between aspect and the availability of structural case, the case-based approach claims that pronouns do not undergo fronting in perfective clauses, because LAC makes accusative case available in perfect aspect contexts (Aldridge 2015b). However, there are attested instances where pronouns are fronted in the context of perfective aspect marked by the clause-final particle 矣 *yi* (98).<sup>55</sup>

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<sup>55</sup> In modern Mandarin, the perfect aspect is marked by the particle *le* which is the head of the projection AspP (Shen 2004).

(98) 寡人 不 之 疑 矣。

(商君書•更法)

Guaren bu zhi<sub>i</sub> [<sub>VP</sub> yi t<sub>i</sub>] yi.

I not 3.Obj suspect Perf

‘I have not suspected it.’

Furthermore, the possibility of pronoun remaining in situ does not necessarily require the presence of perfective aspect, as demonstrated earlier in (93). Therefore, attested counterexamples as well as the weak correlation between aspect and the failure of pronoun fronting indicate that the case-based theory does not hold.

To summarise, arguing from the angles of negation, *nP* as well as inherent and structural cases, I challenge the case-based approach and show that pronoun fronting to negation in LAC is not triggered by the need to value structural case.

## 5. *Wh*-Fronting

In this Chapter I explore the preposing of *wh*-DPs and *wh*-adverbials in LAC, and propose that a *wh*-phrase either front to an external topic position in the CP domain, or one of the three positions in the ‘low IP area’. Only *wh*-predicates can undergo topicalisation to the left periphery, and such movement is quantitatively unusual in LAC. In the lower TP domain, *which*-phrases that are consistent with a topical interpretation front to an internal topic position, whereas other *wh*-phrases display focus features and front to one of the two focalised positions the sentence-internal domain. In terms of the landing site of a preposed *wh*-DP, it also occupies the specifier of a functional projection, parallel to that of a non-*wh*-DP.

### 5.1. Two Types of *Wh*-Constituents

There are two types of *wh*-constituents in LAC: VP-internal *wh*-phrases and *wh*-complements of adverbials above *v*P. Both types of *wh*-phrases have to front to a higher position, because LAC requires obligatory *wh*-preposing.

#### 5.1.1. VP-Internal *Wh*-Constituents

First, examples (99a) and (99b) illustrate that both bare *wh*-words and complex *wh*-phrases move to a preverbal position when acting as direct objects. In (99b), the nouns ‘battle’ and ‘alliance’ are modified by a *wh*-operator *he* ‘what’, and they form a phrase preceding the *v*P. The morpheme 之 ZHI in this instance functions as a fronting marker accompanying a preposed *wh*-DP object in a preverbal position. As can be seen from contextual information, the complex *wh*-phrase in (99b) is a non-D-linked *what* DP, rather than a D-linked *which*-phrase (see Chapter 5.2.1 for detailed discussion).



(99) a. 然则 我 何 爲 乎? 何 不 爲 乎?  
 Ranze wo he<sub>i</sub> [VP wei t<sub>i</sub>] hu? He<sub>j</sub> bu [VP wei t<sub>j</sub>] hu?  
 then I what do Q what not do Q  
 ‘Then what do I do? What (do I) not do?’

(莊子•秋水)

b. 宋 何 役 之 不 會,  
 Song [he yi]<sub>i</sub> zhi bu [VP hui t<sub>i</sub>],  
 Song what battle ZHI not enter  
 而 何 盟 之 不 同? (左傳•昭公二十五年)  
 er [he meng]<sub>j</sub> zhi bu [VP tong t<sub>j</sub>]?  
 Conj what alliance ZHI not join  
 ‘What battle does the State of Song not enter, and what alliance (does it) not join?’

Second, indirect *wh*-objects of ditransitive verbs raise to a preverbal position between TP and vP. Both (100a) and the former sentence in (100b) involve a ditransitive verb 屬 *shu* ‘entrust’. LAC employs four strategies for packaging arguments in ditransitive constructions, and (100a) and (100b) adopt different approaches. The first approach for packaging arguments of ditransitives such as 屬 *shu* ‘entrust’ is a construction *yi*-DP<sub>1</sub>-V-DP<sub>2</sub> where DP<sub>1</sub> represents the direct object, and DP<sub>2</sub> the indirect dative object.<sup>56</sup> For example (100a) involving a *wh*-DP as the indirect object, the structure should be *yi*-DP-V-*wh* ‘*yi* state entrust who’. Since this approach will give rise to a reverse DP-V order with that in (100a-b), it is ruled out. The second method disposes *yi*-DP postverbally: V-DP<sub>1</sub>-*yi*-DP<sub>2</sub>. Note that this structure is not a prepositional dative construction, as DP<sub>1</sub> is the indirect object, and DP<sub>2</sub> the direct object. Parallel to the first approach, this method is also ruled out due to the wrong order it generates. Besides, this construction is only attested in examples with non-*wh*-objects (see, for instance, (xxxviiib))

<sup>56</sup> The subject of *yi* is associated with a causer reading. In this sense, *yi* functions similarly with the Case marker *ba* in modern Mandarin. According to Huang et al’s (2009) analysis, although *ba* has no theta role for subject or object, the subject of a *ba* construction is associated with a causer reading, and the NP following *ba* tends to be associated with a disposal reading.

in Footnote 54). The third option is a double object construction: V-DP<sub>1</sub>-DP<sub>2</sub>, in which DP<sub>1</sub> is the indirect dative object, yet DP<sub>2</sub> is the direct object. So when the indirect object is a *wh*-element, the structure should be V-*wh*-DP ‘entrust who state’. This pattern satisfies the V-DP word order of both (100a) and (100b), but it does not contain a preposition, so it cannot be the structure for (100b), but the one for (100a). In (100a), the *wh*-word *shui* moves from its default base position to a preverbal position triggered by the obligatory *wh*-preposing during the period of LAC, generating the surface structure. The fourth method is to place both arguments in postverbal positions, with the latter being packaged as a PP, generating a prepositional dative construction: V-DP<sub>1</sub>-P-DP<sub>2</sub>. If the preposition were 以 *yi* ‘with’, this configuration would appear identical with the second strategy in the surface structure. However, in this V-DP<sub>1</sub>-P-DP<sub>2</sub> pattern, DP<sub>1</sub> stands for the direct object, and DP<sub>2</sub> the indirect dative object, opposite to the order in the second approach; besides, the preposition 以 *yi* ‘with’ is never attested in the V-DP<sub>1</sub>-P-DP<sub>2</sub> structure of the fourth strategy. When DP<sub>2</sub> is a *wh*-DP, the pattern is V-DP-P-*wh* ‘entrust state to who’. This structure also satisfies the V-DP word order of both examples in (100), but it involves an overt preposition, so it cannot be the pattern for (100a). (100b), however, has adopted the V-DP-P-*wh* configuration; moreover, unlike non-*wh*-DPs, a *wh*-phrase cannot act as a prepositional complement in the form of P-*wh* due to the obligatory *wh*-fronting in LAC, so the *wh*-complement 誰 *wu* ‘who’ moves to a preverbal position along with the preposition 乎 *hu* ‘to’ (the underlying mechanism of which is discussed in Chapter 6).<sup>57</sup> It is notable that the two questions in (100b) are

<sup>57</sup> All four strategies are applicable to non-*wh*-arguments, as in (xxviiia-d). Both (xxviiia) and (xxviiib) involve another ditransitive verbs 授 *shou*, but the renderings are different: *shou* in the former means ‘give’, whereas in the latter means ‘entrust’.

(xxvii) a.	殺	而	以	其	屍	授	之。	(國語•齊語)
	Sha	er	yi	[qi	shi]	shou	zhi.	
			P	DP <sub>1</sub>		V	DP <sub>2</sub>	
	kill	Conj	with	3.Gen	corpse	give	3.Obj	
	‘Kill (him) and give his corpse to it.’							

analogous to each other both syntactically and semantically, but the latter involves a null preposition and an empty direct object which I hypothesise is 國 *guo* based on contextual information.

(100) a. 寡人 將 誰 屬 國? (呂氏春秋•貴公)

Guaren jiang shui<sub>i</sub> [<sub>VP</sub> shu t<sub>i</sub> guo ]?

DP<sub>1</sub> V DP<sub>2</sub>

I Fut who entrust state

‘(To) whom will I entrust the state?’

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b. 授 之 以 政 (論語•子路)

shou zhi yi zheng

DP<sub>1</sub> P DP<sub>2</sub>

entrust 3.Obj with government.affair

‘entrust him with government affairs’

c. 屬 之 家 事 焉。 (韓非子•外儲說上)

Shu zhi [jia shi] yan.

V DP<sub>1</sub> DP<sub>2</sub>

entrust 3.Obj family affair Q

‘(She) entrusted her with family affairs.’

d. 屬 其 子 於 鮑 氏 (左傳•哀公十一年)

shu [qi zi] yu [bao shi]

V DP<sub>1</sub> P DP<sub>2</sub>

entrust 3.Gen son to Bao clay

‘(he) entrusted his son to the Bao clay’

b. ‘... 則 寡人 惡 乎 屬 國 而 可?’

‘[CP [TP Ze guaren wu<sub>i</sub> hu<sub>j</sub> [VP shu guo [PP t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]]] er ke?’

DP<sub>2</sub> P V DP<sub>1</sub>

then I whom to entrust state Conj appropriate

管 仲 曰: ‘公 誰 欲 與?’

Guan zhong yue: ‘Gong shui<sub>k</sub> yu [VP yu [PP t’<sub>k</sub> t<sub>k</sub>]]?’

DP<sub>2</sub> V

Guan Zhong utter Your.Majesty who want give

‘“... Then to whom do I entrust the state would be appropriate?” Guan Zhong uttered: “(To) whom does Your Majesty want to give (the state)?”’

(莊子•徐無鬼)

So (100a) adopts the pattern V-DP<sub>1</sub>-DP<sub>2</sub> in which DP<sub>1</sub> is the indirect dative object, and DP<sub>2</sub> is the direct object. (100b) however, adopts the prepositional dative construction V-DP<sub>1</sub>-P-DP<sub>2</sub> in which DP<sub>1</sub> is the direct object and DP<sub>2</sub> is the indirect dative object.

Furthermore, another verb 比 *bi* ‘compare’ can take a theme DP argument followed by a goal argument packed in a PP, and the pattern is V-DP<sub>1</sub>-P-DP<sub>2</sub>. In example (101), the latter, rhetorical question involving a non-*wh*-DP and PP indicates the canonical order, i.e. *bi*-DP<sub>1</sub>-P-DP<sub>2</sub>. In the former, interrogative question, the goal argument is a *wh*-PP, which is influenced by obligatory *wh*-fronting. So the *wh*-complement raises out of its base position following the DP to a position preceding the verb, and the preposition 乎 *hu* ‘to’ also fronts to a preverbal position.

(101)	女	將	惡	乎	比	予	哉?	
	Ru	jiang	wu <sub>i</sub>	hu <sub>j</sub>	[ <sub>VP</sub> bi	yu	[ <sub>PP</sub> t' <sub>i</sub> t <sub>j</sub> t <sub>i</sub> ]] zai?	
			DP <sub>2</sub>	P	V	DP <sub>1</sub>		
	you	Fut	what	to	compare	me	Q	
	若	將	比	予	于	文	木	邪?
	Ruo	jiang	[ <sub>VP</sub> bi	yu	[ <sub>PP</sub> yu	[wen	mu]]] ye?	
			V	DP <sub>1</sub>	P	DP <sub>2</sub>		
	you	Fut	compare	me	to	useful	wood	Q

‘To what will you compare me? Will you compare me to useful wood?’

(莊子•內篇•人間世)

A *wh*-DP can also function as the complement of a theme PP argument and front to a higher position. There is a construction involving 教 *jiao* ‘teach’ which serves as a ditransitive verb taking two complements, with the former, theme argument selected by the preposition 以 *yi* ‘with’, followed by the DP goal argument (102a). The pattern is P-DP<sub>1</sub>-V-DP<sub>2</sub>. When *jiao* takes two complements with the former being a *wh*-PP, the *wh*-complement of *yi* undergoes movement out of the theme PP, generating the inverted *wh*-P order (102b). Note that the monoclausal use of *jiao* in (102a-b) is different from the biclausal use of *jiao* in object control construction which contains a nominal argument intervening between two verbs (the former is *jiao*), hence both of them are referred to as ‘pivotal’ (兼語 *jianyu*) constructions. The traditional view claims that the nominal argument in both cases functions as the object of the first verb and subject of the second simultaneously (Wang 1958a, Chao 1968, Pulleyblank 1995, Yue 1999). However, the structure involving *jiao* is an object control construction in which the DP is base-generated as the object of the matrix verb *jiao*. *Jiao* selects the following DP as its object and assigns *theta*-role to it; *jiao* also selects the embedded nonfinite clause. The subject of the nonfinite clause is a null PRO which is coindexed with the DP and receives its *theta*-role from the embedded predicate (Aldridge 2011c). (102c-d) illustrate an example of this object control construction and its tree diagram.

(102) a. 先 君 必 以 此 教 之 也。  
 Xian jun bi [VP [PP yi ci] jiao zhi] ye.  
 P DP<sub>1</sub> V DP<sub>2</sub>  
 former lord certainly with this teach 3.Obj Decl  
 ‘The former lord certainly taught him this.’

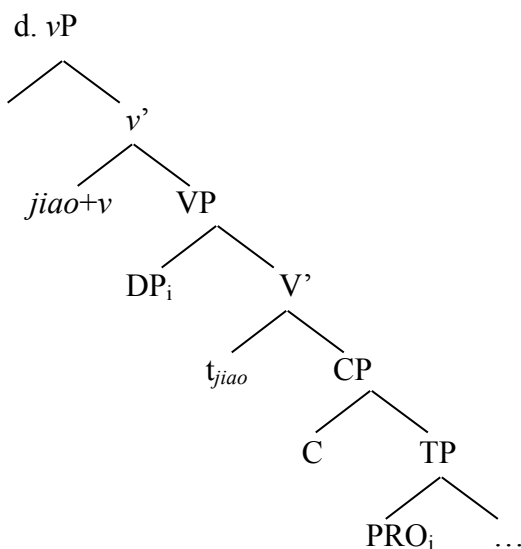
(呂氏春秋•孝行)

b. 客 將 何 以 教 寡人?  
 Ke jiang he<sub>i</sub> yi<sub>j</sub> [VP [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] jiao guaren]?  
 DP<sub>1</sub> P V DP<sub>2</sub>  
 guest Fut what with teach me  
 ‘What will the guest (you) teach me?’

(呂氏春秋子•慎大覽)

c. 今 子 教 寡人 法 天 合 德。  
 Jin zi jiao guaren [fa tian he de].  
 now you teach me imitate Heaven spread virtue  
 ‘Now you teach me to imitate Heaven spreading virtue.’

(管子•版法; Aldridge 2011c)



(From Aldridge 2011c)

Similarly, another ditransitive verb 告 *gao* ‘tell’ also selects two complements with the theme argument preceding the verb and the goal argument in canonical order (103a), and the pattern is P-DP<sub>1</sub>-V-DP<sub>2</sub>. If the theme argument is a *wh*-PP, the *wh*-complement moves to a higher position preceding the preposition, generating the reverted *wh*-P order

(103b).

(103) a. 已 以 此 告 王 矣。 (呂氏春秋•慎大覽)

Yi [VP [PP yi ci]] gao wang yi.  
P DP<sub>1</sub> V DP<sub>2</sub>  
already with this tell emperor Perf

‘(I) have ready told the emperor this.’

b. 將 奚 以 告 寡人? (韓非子•難一)

Fut xi<sub>i</sub> yi<sub>j</sub> [VP [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] gao guaren]?  
DP<sub>1</sub> P V DP<sub>2</sub>  
will what with tell me

‘What will (you) tell me?’

Apart from goal argument and theme argument, a *wh*-object can also function as a beneficiary argument and undergo movement. A ditransitive verb 為 *wei* ‘serve as’ takes two DPs, and the canonical structure is shown in (104a). When the beneficiary NP is interrogated by 誰 *shui* ‘who’, it fronts to a preverbal position, indicating ‘for whom’ (104b).

(104) a. 箕 子 為 之 奴 (論語•微子; Herforth 2008: 461)

Ji zi [VP wei zhi nu]  
PN master serve.as 3.O slave  
‘Master Ji served him as slave.’

b. 民 死 寡人 將 誰 為 君 乎?

Min si guaren jiang shui<sub>i</sub> [VP wei t<sub>i</sub> jun] hu?  
folk die 1p PA who serve.as lord QE

‘If the folk die, who will I be for the lord?’

(呂氏春秋•季夏紀; Herforth 2008: 462)

Third, a *wh*-phrase may function as a prepositional complement of a PP complement base-generated within *v*P, and the *wh*-object of the preposition raises out of *v*P to the

medial domain below TP. (105a-c) which is base-generated preverbally. (105c) involves an intransitive verb 處 *chu* ‘stay’ and another form of ‘who’ 孰 *shu*.

(105) a. 吾 又 誰 與 爭?

Wu you shei<sub>i</sub> yu<sub>j</sub> [<sub>VP</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] zheng]?

I then whom with compete

‘Then who could we compete with?’

(左傳•昭公四年; Aldridge 2015a)

b. 王 誰 與 為 善? (孟子•滕文公上)

Wang shei<sub>i</sub> yu<sub>j</sub> [<sub>VP</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] wei shan]?

emperor whom with conduct benevolence

‘With whom does the emperor conduct benevolence?’

c. 吾 孰 與 處 于 此? (公羊傳•宣公十五年)

Wu shu<sub>i</sub> yu<sub>j</sub> [<sub>VP</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] chu [<sub>PP</sub> yu ci]]?

I whom with stay in here

‘With whom do I stay in here?’

The preverbal base position of PPs can be justified by instances involving non-*wh* prepositional complements, in that examples without any movement can reflect the canonical order. (106a-b) are canonical examples indicting the basic order PP-VP. Of course, when a PP complement is base-generated within *vP*, it can appear in a postverbal position too. (106c) shows a non-*wh*-PP complement base-generated postverbally following a verb 對 *dui* ‘reply’. There should be examples involving *wh*-PP complements following the same verb, because *wh*-PPs can follow ditransitive verbs in general (see, for instance, (100b) and (101)). Although there is data involving *wh*-P-*dui* (see (106d) with PP being base-generated postverbally), there is no data involving *dui*-*wh*-P, which might be attributed to semantic constraints.

(106) a. 子木 與 之 語 (國語•楚語上)

Zimu [<sub>VP</sub> [<sub>PP</sub> yu zhi] yu]

Zimu with 3.Obj converse

‘Zimu conversed with him’



- b. 吾 乃 與 之 盟 (左傳•襄公十一年)  
 Wu nai [VP [PP yu zhi] meng]  
 I then with 3.Obj ally  
 ‘I then ally with it’
- c. 我 對 以 忠貞。 (國語•晉語二)  
 Wo [VP dui [PP yi zhongzhen]].  
 I reply with loyalty  
 ‘I replied with loyalty.’
- d. 其 將 何 辭 以 對? (左傳•隱公三年)  
 Qi jiang [he ci]<sub>i</sub> yi<sub>j</sub> [VP dui [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?  
 Mod Fut what utterance with reply  
 ‘With what utterances will (I) reply?’

Fourth, the subject of an embedded clausal complement in an exceptional case marking (ECM) construction can undergo long-distance movement to a preverbal position. In (107a-b), a causative verb 使 *shi*<sup>58</sup> conveys an abstract causative notion ‘to

<sup>58</sup> The causative verb 使 *shi* in LAC can deliver the concrete semantic concepts of ‘to send’, ‘to employ’, and more abstract causative notions ‘to make’, ‘to cause’ (Pulleyblank 1991, 1995). The concrete semantic meanings are mainly represented by the configuration [<sub>S</sub> NP<sub>1</sub> [<sub>VP</sub> V NP<sub>2</sub> NP<sub>3</sub>/PP]] (see (xxviii a)), whereas the abstract causative interpretations are always represented by the structure [<sub>S</sub> NP<sub>1</sub> [<sub>VP</sub> V<sub>1</sub> NP<sub>2</sub> V<sub>2</sub>P]], as shown in (xxviii b) and (107) (Meisterernst 2006).

- (xxviii) a. 且 今 君 若 使 之 于 周  
 Qie jin jun ruo [VP shi [TP zhi<sub>i</sub> [PP yu zhou]]]  
 NP<sub>1</sub> V NP<sub>2</sub>  
 then now Your.Majesty if send 3.Obj to Zhou  
 ‘then now if Your Majesty send him to Zhou’

(國語•晉語六)

make’, ‘to cause’, and the structure can be represented by the configuration [S NP<sub>1</sub> [VP V<sub>1</sub> NP<sub>2</sub> V<sub>2</sub>P]] where the causer, NP<sub>1</sub> is omitted, because it is realised in preceding clauses and/or is contextually recoverable (Meisterernst 2006). The causative verb 使 *shi* causes the embedded proposition, and the causee, i.e. NP<sub>2</sub> 誰 *shui* ‘who’, is an agent (107a-b). Since the structure involving *shi* contains a nominal argument intervening between two verbs, similar to the object control construction involving *jiao* (see previous discussion), both structure are referred to as ‘pivotal’ (兼語 *jianyu*) constructions by the traditional view (Wang 1958a, Chao 1968, Pulleyblank 1995, Yue 1999). As argued by Aldridge (2011c), *shi* is an ECM verb embedding a TP complement whose subject is exceptionally case-marked by accusative case from matrix *v*. The DP following 使 *shi* is an embedded subject, rather than a matrix object or an imperative-complement. The embedded subject receives accusative case from matrix *v*, because the embedded clause is nonfinite and does not have available nominative case (see (107c) for tree structure). Moreover, the ECM construction involving *shi* is discrepant from a control structure, in that the ECM

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b. 公 使 太子 伐 東山。 (國語•晉語一)

Gong [VP shi [TP taizi<sub>i</sub> fa dongshan]].

NP<sub>1</sub> V<sub>1</sub> NP<sub>2</sub> V<sub>2</sub>

duke make prince suppress Dongshan

‘The duke let the prince to suppress Dongshan.’

Moreover, according to my observation, when the causative verb 使 *shi* adopts the abstract causative notions, NP<sub>2</sub> in the configuration [S NP<sub>1</sub> [VP V<sub>1</sub> NP<sub>2</sub> V<sub>2</sub>P]] can be omitted, as long as it has been mentioned in one of the preceding clauses, similar to NP<sub>1</sub> (xxix). Since both the controller and controllee are silent, in the surface structure, the embedded V<sub>2</sub> immediately follows the matrix control verb.

(xxix) 使 言 于 公 曰 (國語•晉語一)

[VP shi [TP pro<sub>i</sub> [VP yan [PP yu gong]]]] yue

(NP<sub>1</sub>) V<sub>1</sub> (NP<sub>2</sub>) V<sub>2</sub>

make speak to duke say

‘(she) let (them) speak to the duke, saying’

construction does not contain selectional relation between the matrix verb *shi* and the following DP. So in (107a), the *wh*-word 誰 *shui* ‘who’ should be analysed as an embedded subject undergone long-distance movement from an embedded clause across a TP boundary to a position preceding the causative verb *shi*.

(107) a. 吾 誰 使 正 之? (莊子•齊物論)

Wu shui<sub>i</sub> [VP shi [TP t<sub>i</sub> zheng zhi]]?

NP<sub>1</sub> NP<sub>2</sub> V<sub>1</sub> V<sub>2</sub>

I who make rectify 3.Obj

‘Who will I have rectify it?’

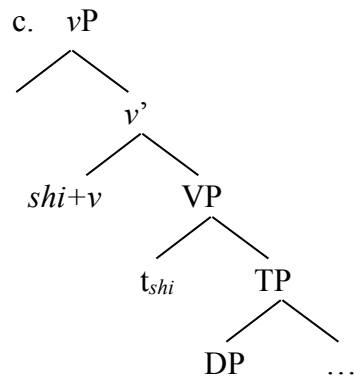
b. 將 誰 使 代 子? (韓非子•說林)

Jiang shui<sub>i</sub> [VP shi [TP t<sub>i</sub> dai zi]]?

(NP<sub>1</sub>) NP<sub>2</sub> V<sub>1</sub> V<sub>2</sub>

Fut who make replace you

‘Who will (I) have replace you?’



(From Aldridge 2011c)

Fifth, in terms of (108), it illustrates the movement of a locative or dative element. (108a) is constituted of a question and answer pair that are of structural parallelism. From the latter, declarative sentence, we can conjecture the canonical order of the former, interrogative sentence: the directional locative PP complement expressing the goal must be base-generated postverbally. Similarly, the *wh*-complement of the verb ‘go’ in (108b) moves out of the postverbal direction PP to a preverbal position. In (108c), the *wh*-constituent 奚 *xi* ‘where’<sup>59</sup> undergoes long-distance movement: it moves from an

<sup>59</sup> Apart from functioning as an locative element ‘where’, 奚 *xi* can express the meaning ‘what’

embedded clause to a higher node, crossing a nonfinite complement clause boundary. The unmarked instances with non-*wh*-elements can help to justify the postverbal base position of directional adverbials and the hypothesis concerning null prepositions. As can be seen from (108d), (108e) and the second VP of (108f) 遷于喬木 *qian yu qiao mu*, the default order should be VP-PP, and there is a preposition 于 *yu* heading the direction PP.

- (108) a. 曰： ‘奚 之?’ 曰： ‘將 之 衛。’  
 Yue: ‘Xi<sub>i</sub> [VP zhi [PP t’<sub>i</sub> t<sub>i</sub>]]?’ Yue: ‘Jiang zhi Wei.’  
 say where go say Fut go Wei  
 ‘(Confucius) said: “Where (are you) going?” (Yan Hui) said: “(I) will go to the State of Wei.”’

(莊子•人間世)

- b. 其 子 焉 往? (孟子•離婁上; Aldridge 2013b: 246)  
 Qi zi yan<sub>i</sub> [VP wang [PP t’<sub>i</sub> t<sub>i</sub>]]?  
 3.Gen son where go  
 ‘Where will their sons go?’

---

or ‘which’, as exemplified by (xxx/a/b) respectively.

- (xxx) a. 子 奚 以 意 之? (管子•小問)  
 Zi xi<sub>i</sub> yi<sub>j</sub> [PP t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP yi zhi]?  
 you what with speculate 3.Obj

‘With what do you speculate it?’

- b. 其 一 能 鳴, 其 一 不 能 鳴,  
 Qi yi neng ming, qi yi bu neng ming,  
 between 1 can honk, between 1 not can honk,  
 請 奚 殺? (莊子•山木)  
 qing xi<sub>i</sub> [sha t<sub>i</sub>]?  
 please which kill  
 ‘One (of the two geese) can honk, and the other cannot honk; which (goose should I) kill please?’

- c. 將 奚 以 汝 適?<sup>60</sup> (莊子•大宗師)  
 Jiang xi yi ru [VP shi [PP t' i ti]]?  
 Fut where YI you go.towards  
 'To where will (our maker) take you?'
- d. 則 移 其 民 於 河 東 (孟子•梁惠王上)  
 Ze [VP yi [qi min]] [PP yu [he dong]]?  
 then migrate Gen people to river east  
 'then (I) migrated my people to the east of the river'
- e. 陳侯 之 弟 黃  
 Chenhou zhi di huang  
 Duke.Chen Gen younger.brother Huang  
 自 楚 歸 于 陳。 (左傳•襄公二十三年)  
 [PP zi chu] [VP gui [PP yu chen]].  
 from Chu return to Chen  
 'The younger brother of Duke Chen, Huang, returned to Chen from Chu.'

---

<sup>60</sup> Note that 以 *yi* in (108c) is a disposal construction in broad sense, similar to (xxxia-b) (Wu 2003), rather than the instrumental construction as in (xxxic).

- (xxxia) a. 今 吾子 以 鄰 國 為 壑。 (孟子•告子下)  
 Jin wuzi yi lin guo wei he.  
 now you YI neighbour state be gully  
 'Now you (treat) the neighbouring state as a gully.'
- b. 以 日中 為 期 (左傳•哀公十四年)  
 Yi rizhong wei qi  
 YI midday be deadline  
 '(set) midday as the deadline'
- c. 以 戈 逐 子犯。 (左傳•僖公二十三年)  
 Yi ge zhu Zifan.  
 with spear expel Zifan  
 '(He) expel Zifan with a spear.'

f. 吾 聞 出 於 幽 谷 遷 于 喬 木 者。  
 Wu wen chu [yu you gu] qian [yu qiao mu] zhe.  
 I hear exit Loc dark valley move P tall tree Det  
 ‘I have heard of leaving a dark valley and heading to a tall tree.’

(孟子•滕文公上; Aldridge 2012b: 140)

With respect to (109a), it involves a non-directional locative adverbial 惡 *wu* ‘where. I argue that location adverbials also involve an empty preposition that could be 于/於 *yu*<sup>61</sup> or 乎 *hu*, as shown in canonical examples (109b-c) and (109d) respectively.

(109) a. 路 惡 在? (孟子•盡心)

Lu wu<sub>i</sub> [VP zai [PP t'<sub>i</sub> ti]]?  
 road where exist  
 ‘Where does the road exist?’

b. 凡 居 於 天 地 之 間 (呂氏春秋•恃君覽)

fan [VP ju [PP yu [tian di zhi jian]]]  
 any reside in Heaven earth Gen middle  
 ‘any(one) residing in the middle of Heaven and earth’

c. 吾 在 于 天 地 之 間 (莊子•秋水)

Wu [VP zai [PP yu [tian di zhi jian]]]  
 I exist in Heaven earth Gen middle  
 ‘I exist in the middle of Heaven and earth’

d. 身 在 乎 秦 (呂氏春秋•季秋紀)

Shen [VP zai [PP hu Qin]]  
 body exist in Qin  
 ‘(one’s) body exists in Qin’

Sixth, *wh*-predicates can move from a position following VP to an external topic position preceding the subject. Although when *wh*-phrases function as nominal

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<sup>61</sup> According to Wang (1962), 于 and 於 are almost interchangeable, except that the former is often used to head locative PPs, yet the latter is used in passive constructions.

predicates, they generally stay in the base position, *wh*-predicates may front to the left periphery, preceding the subject (110a-b).<sup>62</sup> The unmarked example is shown in (110c). More discussion is in Chapter 5.2.1.

- (110) a. 何 哉 君 所 謂 逾 者?  
 He<sub>i</sub> zai jun suo wei [yu zhe] t<sub>i</sub>?  
 what Q Your.Majesty SUO call arrogate ZHE  
 ‘What is the arrogation that Your Majesty meant?’  
 (孟子•梁惠王下)
- b. 何 哉, 爾 所 謂 達 者?  
 He<sub>i</sub> zai, er suo wei [da zhe] t<sub>i</sub>?  
 what Q you SUO call eminent ZHE  
 ‘What is the eminency that you meant?’  
 (論語•顏淵)
- c. 七 律 者 何?  
 [[Qi lv] zhe] he?  
 seven rhythm ZHE what  
 ‘What are seven rhythms?’  
 (國語•周語下)

### 5.1.2. *Wh*-Complements of Adverbials above *vP*

In addition to the above-mentioned VP-internal *wh*-phrases, the *wh*-complement of adverbials above *vP* also undergoes obligatory fronting. In (111), a simplex *wh*-complement 何 *he* fronts out of a head-initial PP 以何 *yi he* ‘for what’ which functions as an adverbial of reason, generating the derived *wh*-P order.

<sup>62</sup> I would like to thank an anonymous reviewer for pointing out the predicative nature of 何 *he* ‘what’ and its movement.

- (111) 何 以 卑 我? (國語•晉語四)  
 He<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP bei wo]?  
 what for despise me  
 'For what (do you) despise me?'

Furthermore, a *wh*-complement of an adjunct PP above *v*P also fronts to a preverbal position, triggered by obligatory *wh*-preposing. In (112a-b), the same *wh*-complement 何 *he* as that in (111) raises out of a head-initial adjunct PP 以何 *yi he* 'with what' to the medial domain between TP and *v*P. As can be seen from (112c-d) that apart from indicating instrument 'what with' (112a-b), the prepositional phrase 何以 *he yi* can express manner 'how'. Other *wh*-complements in prepositional phrases other than 何(NP) 以 *he yi* 'what (NP) with' also undergo obligatory preposing, as exemplified by (112e) which involves a locative PP headed by a preposition 乎 *hu* 'from'.

- (112) a. 將 何 以 守 國? (國語•周語上)  
 Jiang he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP shou guo]?  
 Fut what with guard state  
 'With what will (he) guard the state?'
- b. 將 何 以 戰? (左傳•僖公二十八年)  
 Jiang he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP zhan]?  
 Fut what with fight  
 'With what will (we) fight?'
- c. 吾 何 以 堪 之? (左傳•僖公三十年)  
 Wu he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP gan zhi]?  
 I what with deserve 3.Obj  
 'How do I deserve it?'
- d. 子 何 以 知 之? (左傳•襄公三十一年)  
 Zi he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP zhi zhi]?  
 you what with know 3.Obj  
 'How do you know it?'



- e. 君子            去            仁,  
 Junzi            qu            ren,  
 gentleman    abandon    benevolence  
 惡            乎                            成            名                            (論語•里仁)  
 wu<sub>i</sub>        hu<sub>j</sub>    [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]    [VP cheng        ming]?  
 where        in                            form        reputation  
 '(If) gentlemen abandon benevolence, where (can they) form reputation?'

## 5.2. Four Positions for *Wh*-Fronting

There are altogether four landing sites for *wh*-fronting: the External topic position, the Internal topic position, the High focus position and the Low focus position.

The key evidence for the existence of four positions for *wh*-fronting is to show examples with a *wh*-element in each position, or at least one in a topic position and one in a focus position. Due to semantic constraints, I can only find examples with a non-*wh*-DP in the External topic position and a *wh*-XP fronted to some focus position in the medial domain. These examples at least indicate that a topic position and a focus position can coexist in the same sentence. In (113a) where a *wh*-word 何 *he* 'what' is focalised, both *wh*- and non-*wh*-objects of the ditransitive verb 謂 *wei* 'call; speak of' raise to a preverbal position: the non-*wh*-object targets the External topic position in the left periphery, and the *wh*-object occupies a focalised position within the minimal TP. (113b) involves two preverbal positionings: the subject 公 *gong* 'duke' of an embedded TP raises all the way to the beginning of the sentence, and the reason adverbial 以何 *yi he* 'for what' fronts to a higher position above *vP*, generating the reverse *wh*-P order. I presume that the former moves to the CP domain as a topic, and the latter lands in the sentence-internal area as a focus. The tree diagrams of (113a-b) are in (113c-d) in which the focus position(s) is termed as FocP for the time being.

(113) a. 此 言 何 謂 也? (孟子•滕文公上)

[Ci yan]<sub>i</sub> he<sub>j</sub> [VP wei t<sub>i</sub> t<sub>j</sub>] ye?

this sentence what call Decl

‘How (do we) understand this sentence?’ (Lit. ‘What (do we) call this sentence?’)

b. 公 何 以 不 言 即 位?

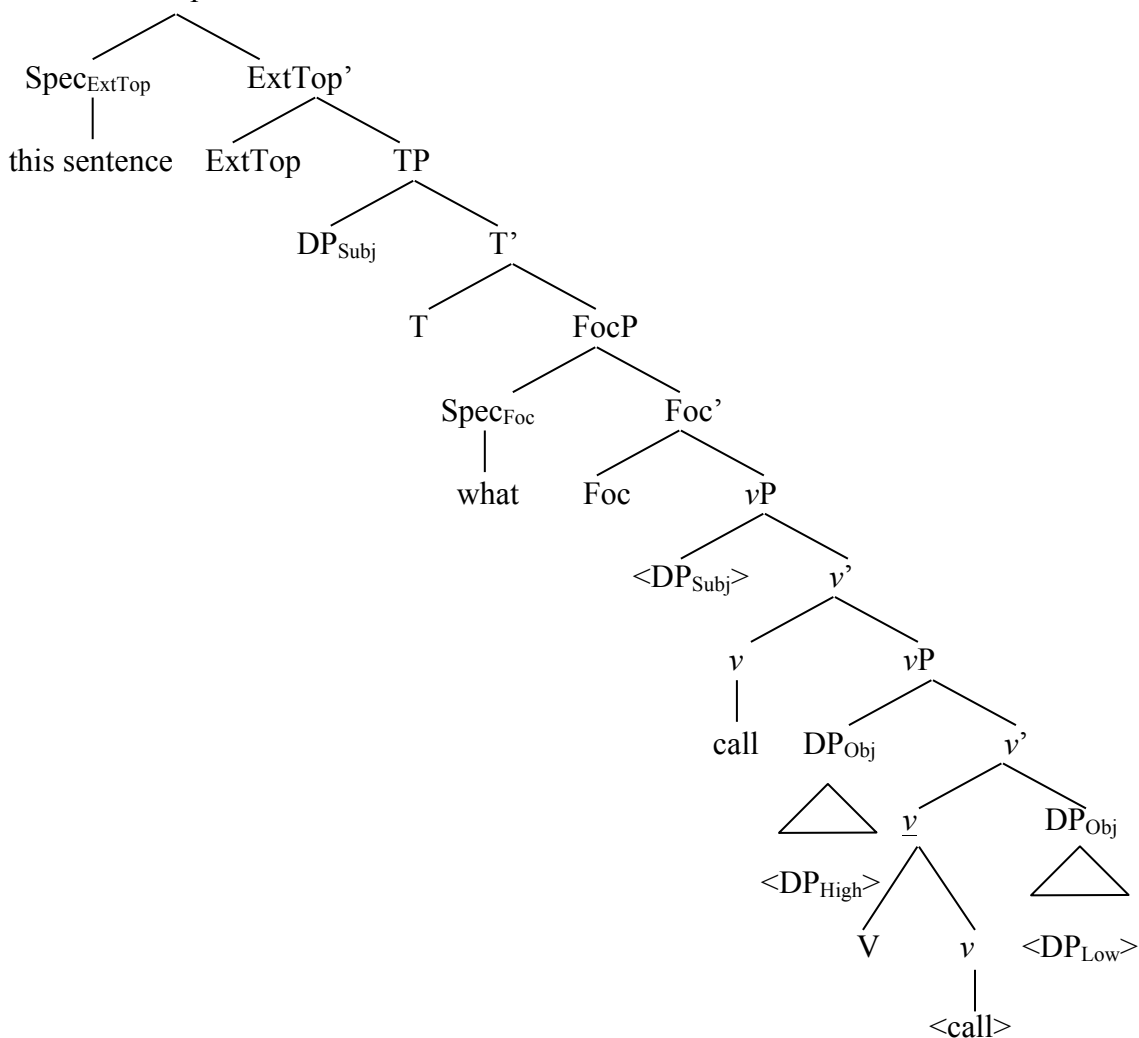
Gong<sub>k</sub> he<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] bu yan [TP tk ji wei]]?

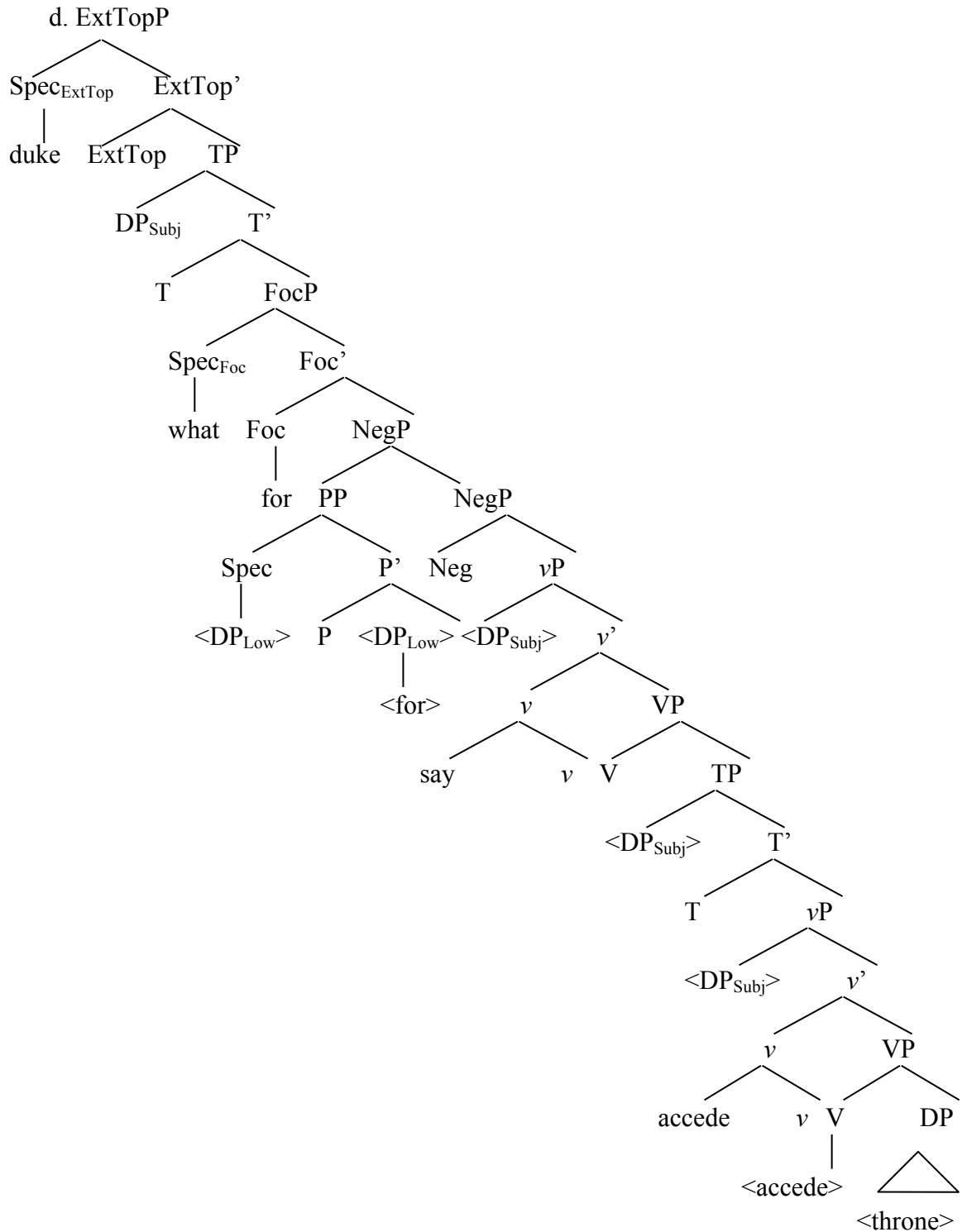
duke what for not say accede throne

‘For what not say that the duke acceded to the throne?’

(公羊傳•隱公元年)

c. ExtTopP





Apart from *wh*-predicates which can target a position in the CP area, *wh*-constituents in LAC can be divided into two categories: 1) *which*-phrases, and 2) simplex *wh*-words and internally complex *wh*-phrases other than *which*-phrases. The distribution and nature of these two types of *wh*-elements are correlated with their information structure properties. To be more specific, *which*-phrases are consistent with a topical interpretation and they move to a topicalised position in the sentence-internal area, whereas simplex *wh*-words and complex *wh*-items other than *which*-phrases display focalised features and

they front to one of the two focus positions the ‘low IP area’.

### 5.2.1. Two Topic positions

There are two topic positions for *wh*-items. The External topic position above TP is for *wh*-predicates only, and the Internal topic position below TP is exclusively for *which*-phrases.

#### 5.2.1.1. External Topic Position

As discussed in Chapter 5.1.1, a *wh*-predicate can move from its base position following VP to an external topic position preceding TP, as in (114a-b) (=110a-b)). The unmarked example is in (114c) (=110c)). Different from the preposing of direct and indirect *wh*-objects, prepositional complements, subject of embedded clauses as well as locative or dative elements which is obligatory in LAC, the preverbal positioning of predicative *wh*-phrases is optional, and in fact, unusual in this period. The tree diagram for (114a-b) is in (114d).

- (114) a. 何 哉 君 所 謂 逾 者?  
He<sub>i</sub> zai jun suo wei [yu zhe] ti?  
what Q Your.Majesty SUO call arrogate ZHE  
‘What is the arrogation that Your Majesty meant?’

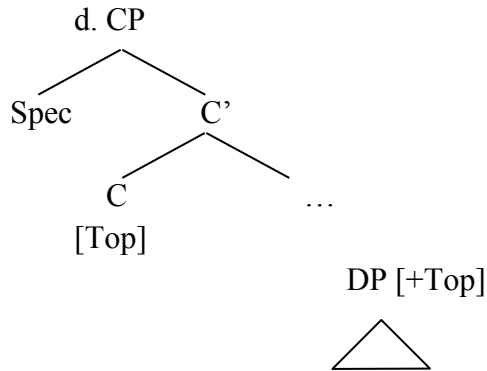
(孟子•梁惠王下)

- b. 何 哉, 爾 所 謂 達 者?  
He<sub>i</sub> zai, er suo wei [da zhe] ti?  
what Q you SUO call eminent ZHE  
‘What is the eminency that you meant?’

(論語•顏淵)

- c. 七 律 者 何?  
 [[Qi lv] zhe] he?  
 seven rhythm ZHE what  
 ‘What are seven rhythms?’

(國語•周語下)



For *wh*-phrases which are topicalised, the feature which drives the *wh* would not be [*wh*], but rather [Top]. In other words, (114a-b) involve topicalisation, but not *wh*-movement. So examples (114a-b) show that *wh*-phrases in LAC can undergo topicalisation, but they do not show that there is *wh*-movement in LAC.

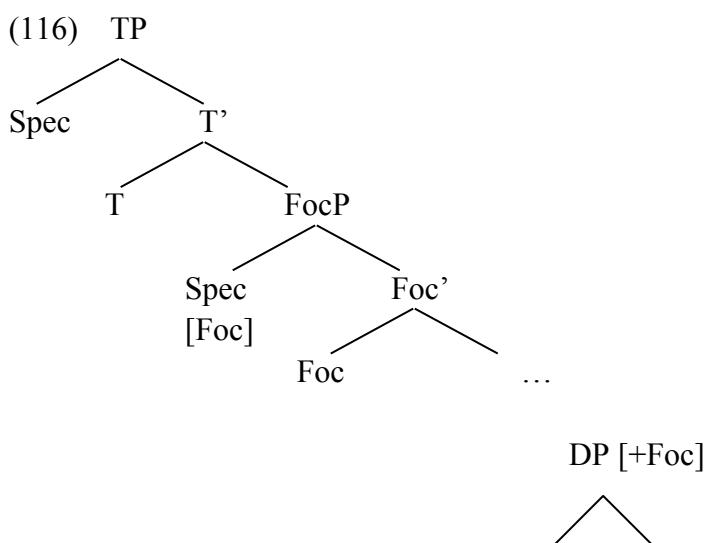
Since both topicalised *wh*- and non-*wh*-DPs could land in some topic position in the left periphery, I assume that they target the same position which I call External topic position. In other words, both fronted *wh*-phrases in (114a-b) and non-*wh* nominal and pronominal phrases in (115a-b) have undergone topicalisation and they have landed in the same position, i.e. the External topic position above TP.

- (115) a. 若 狄 公子, 吾 是 之 依 兮。(國語•晉語三)  
 [Ruo di gongzi]<sub>i</sub>, wu shi<sub>i</sub> zhi [vp yi ti] xi.  
 this Di master, I this ZHI rely.on Decl  
 ‘This Master Di, on this I rely.’

- b. 是 可 忍 也 (論語•八佾)  
 shi<sub>i</sub> ke [vp ren ti] ye  
 this can endure Nmlz  
 ‘(he) can endure this’

Of course, in LAC there is another scenario in which *wh*-phrases are focalised, so the

feature driving the *wh* would be [Foc], as in (116).



Therefore, it is not the case that Chinese language used to allow *wh*-movement during the Warring States period but somehow forbids *wh*-movement in modern times. Instead, the possibility of *wh*-fronting but not *wh*-movement in LAC shows that Chinese language has always been syntactically consistent. Both LAC and modern Mandarin permit *wh*-fronting only and not *wh*-movement. Additionally, both LAC and modern Mandarin are non-*wh*-in-situ languages, because *wh*-phrases can undergo fronting into the internal domain in both languages.

### 5.2.1.2. Internal Topic Position

In LAC, *which*-phrases raise out of the VP to a preverbal position, and this position is situated in the lower TP domain, between subject and *vP*.

As argued by Aldridge (2006, 2007, 2010a), *wh*-phrases in LAC always undergo short movement, which can be supported by three reasons. First, preposed *wh*-phrases are preceded by modals which are lower than the subject, as in (117a). Second, *wh*-fronting can take place inside islands. In (117b), the *wh*-word moves within a relative clause, so the movement cannot target the scope position of the *wh*-word, otherwise the *wh*-word would have to raise out of the relative clause, ending up in a subadjacency violation. Additionally, in (117c), *wh*-fronting takes place inside one conjunct in a coordinate

construction, which means the preposing must not target matrix [Spec, CP], otherwise the Coordinate Structure Constraint (Ross 1967) would be violated. Third, *wh*-fronting in conditional and other embedded clauses can adopt an existential interpretation if it is short movement, because it lands in a position below TP, in the scope of the operator in [Spec, CP] (117d).

(117) a. 我 將 何 求? (左傳•僖公二十八年; Aldridge 2010a: 10)

Wo jiang he qiu?  
I will what ask.for  
'What will I ask for?'

b. 天 何 欲 何 惡 者 也? (墨子•法儀)

Tian [he<sub>i</sub> yu t<sub>i</sub> he<sub>j</sub> wu t<sub>j</sub> zhe] ye?  
Heaven what desire what despise Det Decl  
'Heaven is one who desires what and despises what?'

c. 何 恃 而 不 恐? (國語•魯語一)

[<sub>TP</sub> *pro* [He<sub>i</sub> shi t<sub>i</sub>] er [bu kong]]?  
what depend Conj Neg fear

'Based on what are (you) not afraid?' (Lit. 'What do you depend on and are not afraid?')

d. 誰 之 不 如, 可以 求 之。

[<sub>CP</sub> *Op* [Shui<sub>i</sub> zhi bu [ru t<sub>i</sub>]], keyi qiu zhi.  
who Gen Neg compare can rely 3.Obj

'If you don't measure up to someone, you can rely on him.'

(國語•晉語六; Aldridge 2007: 148–149)

In terms of the nature of *which*-phrases, I argue that they are consistent with topical properties. *Which*-phrases are D-linked, in that they are associated with a restricted set of possible answers known in the context; D-linked *which*-phrases are familiar rather than novel, 'returning old entries in the filing system of discourse' (Pesetsky 1987). For the notion of topic, Chafe (1976) defines it as the 'frame within which a sentence holds [...] limit [ing] the applicability of the main predication to a certain restricted domain'. Owing to the general understanding of topics being discourse-given elements and equivalent to

old information,<sup>63</sup> it is plausible to suppose that preposed D-linked *which*-phrases in LAC are topicalised. In (118a-b), the complex *wh*-phrases act like pronouns, and it is natural to obtain the interpretation that the questions are to ask for a choice among a list of ministers/positions. Similarly, in (118c), two options are mentioned in the discourse as the preexisting file entry applicable to the situation (Pesetsky 2000), so the purpose of the bare *wh*-word 奚 *xi* is also to choose an option. As for the simplex *wh*-phrase 孰 *shu* in (118d), according to Peyraube and Wu (2000), when 孰 *shu* functions as a *wh*-word questioning objects, it conveys the implication of choice. Since it is possible for 孰 *shu* to function as an object (Peyraube and Wu 2000), (118d) could involve object preposing rather than passivisation.

- (118) a. 齊 宣 王 問 卿。  
 Qi Xuan emperor wen qing.  
 Qi Xuan emperor ask.about minister  
 孟子 曰：‘王 何 卿 之 問 也？’  
 Mengzi yue: ‘Wang [he qing]<sub>i</sub> zhi [VP wen t<sub>i</sub>] ye?’  
 Mencius say Your.Majesty which minister ZHI ask.about Decl  
 ‘Emperor Xuan of Qi asked about ministers. Mencius said: “Which (kind of) ministers is Your Majesty asking about?”’  
(孟子•萬章下)
- b. 韓 宣 子 問 其 位 於 子產。  
 Han xuan zi wen qi wei yu zichan.  
 Han Xuan Hon consult Gen position from Zichan  
 子產 曰：“... 何 位 之 敢 擇？”(左傳•昭公七年)  
 Zichan yue: “... [he wei]<sub>i</sub> zhi gan [VP ze t<sub>i</sub>]?”  
 Zichan utter which position ZHI dare choose  
 ‘Mr Han Xuan consulted his position from Zichan. Zichan uttered: “... which position does (he) dare to choose?”’

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<sup>63</sup> Again, this statement does not hold true in modern Mandarin, as it is feasible to have an element carrying new information as the topic of a sentence (Paul 2005) (refer back to example (xii) in Footnote 19).

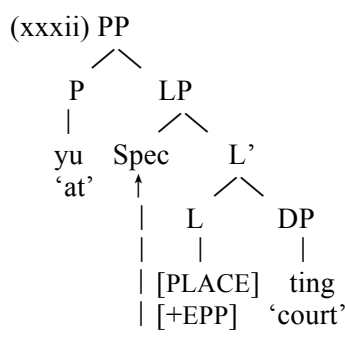


c. 其 一 能 鳴, 其 一 不 能 鳴,  
 Qi yi neng ming, qi yi bu neng ming,  
 between 1 can honk between 1 not can honk  
 請 奚 殺? (莊子•山木)  
 qing xi [sha t<sub>i</sub>]?  
 please which kill  
 ‘One (of the two geese) can honk, and the other cannot honk; which (goose should I) kill please?’

d. 八佾 舞 於<sup>64</sup> 庭, 是 可 忍 也,  
 Baiyi wu yu ting, shi<sub>i</sub> ke [VP ren t<sub>i</sub>] ye  
 Baiyi dance in court this can endure Nmlz  
 孰 不 可 忍 也!  
 shu<sub>i</sub> bu ke [VP ren t<sub>i</sub>] ye!  
 which not can endure Decl  
 ‘Baiyi dance in the court, (if he) can endure this, which cannot (he) endure!’<sup>65</sup>

<sup>64</sup> The locative PPs introduced by 於/于 *yu* almost exclusively appear in a postverbal position (Peyraube 1996, 2003).

<sup>65</sup> Archaic Chinese does not require an overt localiser (represented by ‘L’) for a place-denoting argument. Due to the fact that L is covert, it needs licensing. The covert L is strongly functional with [+EPP], so it triggers the movement of LP to Spec. Since the movement licenses L, L does not need to enter Agree with its complement, which allows non-locative DPs to appear directly with a location-selecting L head, without any overt L. The tree structure of 於庭 *yu ting* ‘at court’ is as follows (Huang 2009b):



- e. 何 哉, 爾 所 謂 達 者? (論語•顏淵)  
 He<sub>i</sub> zai, er suo wei [da zhe] t?  
 what Q you SUO call eminent ZHE  
 ‘What is the eminency that you meant?’

As can be seen from (118a), a *which*-phrase lands in a position between the subject and *vP* in the ‘low IP area’. Since a *which*-phrase targets a position between TP and *vP* which is topicalised, it can be postulated that a preposed *which*-phrase in LAC lands in an Internal topic position. Consequently, the fronting marker ZHI following a *which*-phrase is a topic marker. Following Hsu’s (2008) analysis on object preposing in modern Mandarin, I assume that internal topics are structurally higher than (internal) foci in LAC.

Note that (119a-b) are different from (118a-d) which involve *wh*-arguments raising to the Internal topic position in the medial domain, because (119a-b) contain *wh*-predicates fronting to the External topic position above the subject.

- (119) a. 何 哉 君 所 謂 逾 者? (孟子•梁惠王下)  
 He<sub>i</sub> zai jun suo wei [yu zhe] t?  
 what Q Your.Majesty SUO call arrogate ZHE  
 ‘What is the arrogation that Your Majesty meant?’
- b. 何 哉, 爾 所 謂 達 者? (論語•顏淵)  
 He<sub>i</sub> zai, er suo wei [da zhe] t?  
 what Q you SUO call eminent ZHE  
 ‘What is the eminency that you meant?’

As pointed out by Paul (2009), D-linked *wh*-elements in modern Mandarin can also front to a topic position (120a), as opposed to standard *wh*-phrases that have to remain in situ. According to my observation, D-linked *wh*-elements can not only raise into the left periphery as in (120a), but also function as internal topics in the sentence-internal domain (120b).

(120) a. [CP<sub>force</sub> [TOPP [DP Na-jian yifu] [TP ni yijing chuan-guo]],  
 which-CL dress 2SG already put.on-EXP  
 [TOPP [DP na-jian yifu] [TP ni hai mei chuan-guo]] (\*ma)  
 which-CL dress 2SG still NEG put.on-EXP FORCE  
 ‘Which dress have you already tried on and which haven’t you tried on yet?’  
 (From Paul 2009)

b. Ni [DP Na-jian yifu] yijing chuan-guo,  
 2SG which-CL dress already put.on-EXP  
 [DP na-jian yifu] hai mei chuan-guo (\*ma)  
 which-CL dress still NEG put.on-EXP FORCE  
 ‘Which dress have you already tried on and which haven’t you tried on yet?’

### 5.2.2. Two Internal Focus Positions

I argue in this chapter that there are two focalised positions in the ‘low IP area’, in line with Benincà and Poletto’s (2004) proposal for multiple focus positions. Both the higher focus position and the lower one are above vP, with negation intervening in between. In addition, there is an interpretational difference between the two focused positions (Wang 2015).

In LAC, non-D-linked *wh*-constituents consistently display focus properties.<sup>66</sup> Non-D-linked simplex *wh*-words and internally complex *wh*-elements other than *which*-phrases are not linked to any already existing entry (Pesetsky 1987), and they display features of foci, as expected. Taking the bare *wh*-word 何 *he* ‘what’ as an example: example (121) is composed of a question and answer pair, and the latter contains 唯 *WEI* ‘be (the one who/that)’ that indicates assertive modality and is frequently translated as ‘only’, reanalysed as an adverb (Djamouri 2001, Meisterernst 2010). I follow the hypothesis that the position of foci in an answer ‘correlates with the questioned position in *wh*-questions’ (Rooth 1996). Since the answer in (121) involves *WEI* implying an *only*-phrase which is analysed as an IdentF carrying an evaluative

<sup>66</sup> D-linked *wh*-constituents are like contrastive topics.

presupposition by É. Kiss (1998), I use this assumption to diagnose that the corresponding *wh*-word *he* in the question also occupies a focus position. Furthermore, non-D-linked *wh*-DPs are expected to be information focus, which merely express new, non-presupposed information, rather than exhaustivity (É. Kiss 1998).

- (121) 桓 公 曰:  
Heng gong yue:  
Heng Duke utter  
‘然則 吾 何 以 為 國?’  
‘Ranze wu he<sub>i</sub> yi<sub>j</sub> [PP t’<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP wei guo]?’  
then I what with manage state  
管子 對 曰:  
Guan zi dui yue:  
Guan Hon reply utter  
‘唯 官 山 海 為 可 耳。’ (管子•海王)  
‘Wei [guan shanhai] wei ke er.’  
WEI exploit mountain.sea Cop appropriate Decl  
‘Duke Heng uttered: “Then with what do I manage the state?” Mr Guan replied: “It is only exploiting mountains and seas that is appropriate.”’

### 5.2.2.1. Key Diagnostic Element

Before demonstrating two focalised landing sites, I show that there is a key adverb 獨 *du* ‘alone’ that can diagnose the position where negation is generated. My observation reveals that the adverb 獨 *du* ‘alone’ always immediately precedes negation, and no element can intervene between *du* and the following negative. So if a *wh*-element precedes or follows *du*, then this *wh* must precede or follow the position of negation accordingly. Therefore, *du* is a crucial diagnostic element to decide the relative order between *wh*-phrases and negation, even without the presence of negators (Wang 2015).

As presented previously, there are three types of negation: clausal negator 不 *bu*

‘not’ negating VPs, aspectual negator 未 *wei* ‘not yet’ negating the occurrence of actions, and quantificational negator 莫 *mo* ‘none’ (Aldridge 2015b). Except for the lack of examples involving the quantificational negator *mo*, 獨 *du* ‘alone’ immediately precedes both the clausal negator *bu* and the aspectual negator *wei*, as in (122a-c) and (122d) respectively. When *du* precedes the clausal negator *bu*, the constituent immediately following negation could be a VP (122a), an adjective phrase (122b) or a modal auxiliary verb such as 可以 *keyi* (122c). Questions involving *du* can be interrogative (122a-b) or rhetorical (122c). Additionally, *du* also precedes the negative copula 非 FEI ‘not be’, without any element intervening in between, as shown in the rhetorical question (122e).

(122) a. 子 獨 不 聞 涸 澤 之 蛇 乎? (韓非子•說林)

Zi du bu wen [he ze zhi she] hu?  
 you alone not hear.of dry marsh Gen snake Q

‘Have you alone not heard of (the parable about) snakes in a dry marsh?’

b. 吾 何 為 獨 不 然? (孟子•公孫丑下)

Wu he<sub>i</sub> wei<sub>j</sub> [pp t<sub>i</sub> t<sub>j</sub>] du bu ran?  
 I what for alone not correct

‘For what am I alone not correct?’

c. 獨 不 可以 舍 我 乎? (莊子•讓王)

Du bu keyi she wo hu?  
 alone not can spare me Q

‘Can’t (you) alone spare me?’

d. 且 女 獨 未 聞 牧野 之 語 乎?

Qie ru du wei wen Muye zhi yu hu?  
 Conj you alone not.yet hear.of Muye Gen words Q

‘Besides, have you alone not heard of the words of Muye?’

(禮記•樂記)

e. 今 魯國 獨 非 君 之 皮 邪? (莊子•山木)  
 Jin Luguo du fei jun zhi pi ye?  
 now Lu.State alone FEI Your.Majesty Gen fur Q  
 ‘Now aren’t the State of Lu alone Your Majesty’s fur?’<sup>67</sup>

I claim that *du*-Neg structure conveys the interpretation ‘alone not’, as there are instances where a comparison is available to indicate the unitary status. Example (123) describes a scenario that everyone else talked to a minister, but Mencius was the only one who did not. This comparison reveals that *du* here can only mean ‘alone’.

(123) 諸 君子 皆 與 歡 言,  
 zhu junzi jie yu Huan yan,  
 Pl gentleman all with Huan(me) converse  
 孟子 獨 不 與 歡 言 (孟子•離婁下)  
 Mengzi du bu yu Huan yan  
 Mencius alone not with Huan(me) converse  
 ‘all gentlemen converses with me, (but) Mencius alone does not converse with me’

Note that example (124) is not a counterexample against the generalisation that *獨* *du* ‘alone’ always immediately precedes negation. This example is biclausal, and negation is located in a following clause. As long as *du* and negation appear in the same clause, the construction \**du*-X-Neg is never allowed.

(124) 子 何 為 獨 立 而 不 憂?  
 Zi he<sub>i</sub> wei<sub>j</sub> [pp t<sub>i</sub> t<sub>j</sub>] du li er bu you?  
 you what for alone stand Conj not worry  
 ‘For what do you stand alone while not worry?’

(晏子春秋•內篇雜)

<sup>67</sup> This is a metaphorical expression: as fur to foxes and leopards, so the State of Lu to the addressee. The former acts as the causation of the latter’s suffering from calamity, i.e. being hunted for fur or persecuted as the ruler.

It should be pointed out that under some circumstances, negation may precede 獨 *du* in the same clause. However, instances involving Neg-*du* are not counterexamples against my observation, in that Neg-*du* in these instances adopts the meaning ‘not only’. In (125a), *du* follows the clausal negator 不 *bu* ‘not’, and in (125b), the negative copula 非 FEI ‘not be’; in both examples, *du* means ‘only’, rather than ‘alone’. Neg-*du* is often followed by an ‘also’ construction providing additional information in the following context, which verifies the ‘not only’ interpretation of Neg-*du*. On the contrary, the *du*-Neg order never precedes an ‘also’ construction that provides additional information.

(125) a. 存 亡 故 不 獨 是 也,  
 [Cun wang gu] bu du shi ye,  
 survival perishment cause not only this Decl  
 帝王 亦 然。 (呂氏春秋•仲春紀)  
 diwang yi ran.  
 emperor also like.this

‘The cause of survival and perishment (is) not only this; (the one concerning) the emperor (is) also like this.’

b. 非 獨 染 絲 然 也, 國 亦 有 染。  
 Fei du ran si ran ye, guo yi you ran.  
 FEI not dye silk like.this Decl state also have dyeing

‘(It is) not only dyeing silk (which is) like this; states also have “dyeing”.’

(墨子•所染)

### 5.2.2.2. High Focus Position above Negation

The key evidence validating the coexistence of two focalised landing site for preposed *wh*-constituents is an example containing a *wh*-element in each position. In (126a), there are two *wh*-PPs headed by different prepositions, and I postulate that the higher PP is an adverbial of reason, yet the lower PP acts as an instrumental adverbial. In (126b), the predicative *wh*-word 何 *he* ‘what’ raises from its postverbal base position to a position preceding negation; meanwhile, the direct object pronoun fronts to a position between

negation and *vP*, triggered by negation. Although this example only involves one *wh*-constituent, the concurrent fronting of both *wh*- and non-*wh*-elements lends support to the existence of multiple focalised positions. As for the multiple fronted pronouns in (126c), they also help to show the presence of multiple focus positions.

- (126) a. 然則 何 以 惡 乎 給 也?  
 Ranze he<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] wu<sub>k</sub> hu<sub>l</sub> [pp t'<sub>k</sub> t<sub>l</sub> t<sub>k</sub>] [vp dai ye?  
 then what for what with delude Decl  
 'Then what for and what with to delude?'  
 (穀梁傳•僖公元年)
- b. 何 不 吾 諫?  
 He<sub>j</sub> [pp t'<sub>j</sub> t<sub>j</sub>] bu wu<sub>i</sub> [vp jian t<sub>i</sub>?  
 what not me admonish  
 '(For) what (did you) not admonish me?'  
 (左傳•哀公十一年)
- c. 是 以 不 我 知。  
 Shi<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] bu wo<sub>k</sub> [vp zhi t<sub>k</sub>].  
 this for not me understand  
 '(People) for this do not understand me.'

In an approach recognising just one position for the focalisation of *wh*-phrases, (126) would be hard to account for. The grammaticality of these examples shows that *wh*-preposing within the minimal TP requires two focalised landing sites. Additionally, since a fronted phrase always targets a specifier node, (126) also justifies the possibility of multiple specifiers.

However, such examples are very rare in LAC, as this language does not normally allow multiple interrogation<sup>68</sup> or multiple raising. So I refer to the relative order between

<sup>68</sup> Modern Mandarin, however, permits multiple interrogation, as in (xxxiii).

- (xxxiii) Shui zhidao women zai naer mai-le shenme?  
 who know we at where buy-Asp what  
 'Who knows (at) where we bought what?'



these positions and negation to testify the proposal concerning two landing sites for *wh*-fronting.

In this subchapter, I show that there is a higher focalised position above negation, accommodating *wh*-adverbials of reason and *wh*-DPs. I call this position the High focus position.

As illustrated earlier, in the second clause of (127a), the simplex *wh*-word 何 *he* ‘what’ moves from its VP-internal base position to a preverbal position above negation. It is noteworthy that in (127a), actually only the second question illustrates that a raised *wh*-element can target a position higher than a negator; the former question is cited here to help to show that the latter question indeed involves object preposing. Since these two questions form a parallel construction, it is safe to assume that the latter clause involves an empty subject *wo* ‘I’, the same as its sentence-external antecedent in the first clause. So the *wh*-word *he* ‘what’ in the second clause should be regarded as a fronted object, instead of an internal argument moving to the subject position. In (127b), the same *wh*-word *he* ‘what’ raises out of its VP-internal base position and moves to a preverbal position in the medial domain, intervening between an aspecto-temporal adverb 將 *jiang* and a negator. As for (127c), it exemplifies complex *wh*-phrases preposed to a focus position. This example is a rhetorical question without a restricted set of possible answers known in the context, so it is non-D-linked.

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It is noteworthy that the sentence in (xxxiii) is ambiguous, in that ‘what’ may be correlated with either *wh* in the lower Comp or the *wh* in the higher Comp. Providing ‘what’ is paired with *wh* in the lower Comp, a felicitous answer has to be of the form in (xxxiva). Under the latter circumstance, a felicitous answer must be related to the form in (xxxivb) (Pesetsky 2000).

(xxxiv) a. John knows where we bought what (for instance, he knows that we bought the book in Amsterdam, the record in Groningen, etc.)

b. John knows where we bought the book (for instance, in Amsterdam); Mary knows where we bought the record (for instance, in Groningen); etc.

(From Pesetsky 2000: 99)

(127) a. 然则 我 何 爲 乎? 何 不 爲 乎?  
 Ranze wo he<sub>i</sub> [VP wei t<sub>i</sub>] hu? He<sub>j</sub> bu [VP wei t<sub>j</sub>] hu?  
 then I what do Q what not do Q  
 ‘Then what do I do? What (do I) not do?’

(莊子•秋水)

b. 將 何 不 忘 哉!  
 Jiang he<sub>i</sub> bu [VP wang t<sub>i</sub>] zai!  
 Fut what not forget Excl  
 ‘What will (he) not forget!’

(韓非子•喻老)

c. 以 此 攻 城, 何 城 不 克?<sup>69</sup>  
 Yi ci gong cheng, [he cheng]<sub>i</sub> bu [VP ke t<sub>i</sub>?  
 with this attack city what city not conquer  
 ‘(If I) attack cities with this, what city cannot (I) conquer?’

(左傳•僖公四年)

Nevertheless, the identical *wh*-word 何 *he* may appear in a position lower than negation. In (128), a negative polarity item (henceforth NPI) *wh*-word 何 *he* fronts across an existential 有 *you*<sup>70</sup> within an embedded clause, and lands in a preverbal

<sup>69</sup> Although there is a lack of solid evidence, e.g. an occupied subject position, to prove that the second clause in (112c) is not passive, it is plausible to assume it involves the raising of an internal argument ‘which city’, because according to the context, two clauses in (112c) share the same null subject ‘I’.

<sup>70</sup> According to Tsai’s (2003) categorisation based on modern Mandarin, this existential *you* is a presentational *you* that is a sentential unselective binder. This presentational *you* (xxxva) is different from the other two variants of existential *you*, i.e. partitive *you* (xxxvb) and specific plural *you* (xxxvc), both of which are determiners.

(xxxv) a. you ren lai-le.  
 have person come-Inc  
 ‘There is/are a person/people coming.’

position below a negative 無 *wu*. Although *he* functions as a *wh*-indefinite with an NPI interpretation (Aldridge 2010a), as opposed to those in (128) with an interrogative interpretation, its fronting reveals the fact that there is a landing site for *wh* located below negation.

- (128) 何 不 樹 之 於 無 何 有 之 鄉?  
 He bu shu zhi yu [wu [he<sub>i</sub> you t<sub>i</sub>]] zhi xiang]?  
 why not plant it in not.exist what exist Gen place  
 ‘Why don’t you plant it in a place where there isn’t anything?’  
 (莊子•逍遙遊; Aldridge 2010a:26)

In order to further validate the existence of two positions for raised *wh*-constituents, I refer to prepositional phrases. If a preposition takes a *wh*-complement, they usually appear in the form of *wh*-P driven by obligatory *wh*-fronting and occur preverbally. Here I analyse two types of *wh*-P: adverbials of reason ‘what for’ and adverbials of instrument ‘what(-DP) with’. The base position of the former type of *wh*-P is usually above negation, whereas that of the latter type is always above *v*P but below negation, thus the preposed *wh*-constituent accordingly occurs either in a position higher than negation, or in a position lower than negation. The most frequently attested construction of a preposition taking a bare *wh*-word as a complement is 何以 *he yi*, and it can either function as an adverbial of reason ‘what for’ or an adverbial of instrument ‘what with’.

The ‘high’ adverbial PP ‘why’ can take four forms: 1) *wh*-P, 2) *wh*(-P), 3) *wh* and 4) ditransitive VPs, all of which are always base-generated above *v*P. In order to justify the preverbal location of the base position of reason adverbials, I refer to non-*wh*-PPs with

- 
- b. you-de ren lai-le.  
 have-DE person come-Inc  
 ‘Some of the people are coming.’
- c. you-(yi)-xie ren lai-le.  
 have-one-some person come-Inc  
 ‘Some people are coming.’

and without a preposition. (129a-b) show the canonical order concerning a reason adverbial: P-DP-VP. (129c-d) contain reason adverbials with a null preposition, and I postulate that their unmarked counterparts are (129a-b). All these non-*wh*-PPs of reason are base-generated higher than negation (129e-g), so it is reasonable to posit that the four types of *wh*-adverbials of reason are also base-generated quite high.

(129) a. 吾 以 故 知 古 從 之 同 也。  
 Wu [PP yi gu] [VP zhi [gu cong zhi tong]] ye.  
 I for reason understand ancient follow Gen similarity Decl  
 ‘For (this) reason I understand the ancient similarity of following.’

(管子•白心)

b. 申 舟 以 孟諸 之 役 惡 宋  
 Shen Zhou [PP yi [Mengzhu zhi yi]] wu Song  
 Shen Zhou for [Mengzhu Gen battle] detest Song

‘Shen Zhou detested the State of Song due to the battle in Mengzhu’

(左傳•宣公十四年)

c. 余 是 故 許 而 弗 為 (左傳•定公十四年)  
 Yu [PP shi gu] [VP xu er fu wei]  
 I this reason promise Conj not do

‘(With) this reason I promised but did not do (it).’

d. 君 故 生 心。<sup>71</sup> (國語•晉語一)

Jun [PP gu] [VP sheng xin].

Your.Majesty reason conceive suspicion

‘(With this) reason Your Majesty conceived suspicion.’

<sup>71</sup> Note that 故 *gu* functions as the complement of a null preposition, rather than a conjunction ‘therefore’. When *gu* is used as a conjunction, it precedes the subject, as in (xxxvi).

(xxxvi) 故 聖人 慎 之。 (國語•周語下)

Gu shengren shen zhi.

therefore sage be.cautious.to 3.Obj

‘Therefore sages are cautious to it.’

- e. 吾 是 以 不 盡 受 也。(晏子春秋•內篇雜上)  
 Wu shij yi<sub>i</sub> [PP t<sub>i</sub> t<sub>j</sub>] bu jin shou ye.  
 I this for not all accept Decl  
 ‘I for this do not accept all.’
- f. 是 故 不 敢 受。 (ibid)  
 [Shi gu] bu gan shou.  
 this reason not dare accept  
 ‘(I for) this reason dare not accept.’
- g. 臣 故 不 敢 不 君。 (國語•晉語八)  
 Chen gu bu gan bu jun.  
 subject(I) reason not dare not monarch  
 ‘I (the subject) (for this) reason dare not not to (treat him as the) monarch.’

First, *wh*-P with the preposition adopting a rendering of ‘for’ is above *v*P, and furthermore, above negation. According to Djamouri et al (2012), in Shang and Classical Chinese, a verb is permitted to select exactly one VP shell, and the fact that adjuncts could appear to the right of VP and in a postverbal position should be accounted for by the structure ‘AdvP [<sub>vP</sub> V [<sub>vP</sub> t<sub>v</sub> [<sub>v</sub> AdvP]]]’. So I hypothesise that when a *wh*-PP functions as a ‘high’ adverbial PP ‘why’ and occurs preverbally, it is base-generated above *v*P. Since the reversed order of *wh*-P cannot be derived through an inversion with PP (see detailed discussions in Chapter 6.2.1 and 6.2.4), and obligatory *wh*-fronting is a robust aspect of LAC syntax, I posit that the *wh*-P construction has actually moved from its base position to a higher position. However, such movement is difficult to prove, because both the landing site and the base position of *wh*-P intervene between the subject and negation; although the landing site is supposed to be higher than the base position of *wh*-P ‘what for’, there is no solid evidence to prove their relative order.

The prepositional complement of *wh*-P is always a bare *wh*-DP, being either 何 *he*, 曷 *he* or 奚 *xi* ‘what’. Examples (130a-d) involve 何以 *he yi*, and the following negator could be 不 *bu* ‘not’ or a negative copula 非 FEI ‘not be’; (130e-f), however, involves 奚 *xi* ‘what’. Another form of adverbials of reason headed by a preposition 為 *wei* ‘for’ is also base-generated preceding negation (130f-g). The *wh*-word 曷 *he* ‘what’

in (130j) shares the same phonological and semantic properties with 何 *he*. *Wh*-complements in (130) raise from the complement node of PP to the specifier position of a functional projection, while the prepositions raise out of PP to the head of that functional projection.

(130) a. 聖人 何 以 不 可 欺? (荀子•非相)

Shengren he<sub>i</sub> yi<sub>j</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub>] bu ke [<sub>VP</sub> qi]?  
 sage what for not can deceive

'For what are sages not deceivable?'

b. 子 何 以 不 歸 耕 乎?

Zi he<sub>i</sub> yi<sub>j</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub>] bu [<sub>VP</sub> gui geng] hu?  
 you what for not return farming Q

'For what do you not return to farming?'

(呂氏春秋•不苟論)

c. 公 何 以 不 言 即 位? (公羊傳•隱公元年)

Gong<sub>k</sub> he<sub>i</sub> yi<sub>j</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub>] bu yan [<sub>TP</sub> t<sub>k</sub> ji wei]?  
 duke what for not say accede throne

'For what not say that the duke acceded to the throne?'

d. 四 卜 何 以 非 禮? (*ibid*)

Si bu he<sub>i</sub> yi<sub>j</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub>] [<sub>VP</sub> fei li]?  
 4 divine what for FEI etiquette

'For what is it that divining four times is not etiquette?'

e. 奚 以 之 九 萬 里

Xi<sub>i</sub> yi<sub>j</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub>] zhi jiu wan li  
 what for go 9 ten.thousand li (length unit)

而 南 為? (莊子•逍遙遊)

er nan wei?

Conj south Q

'For what (do you) go (up for) ninety thousand li (a length unit) and then (fly) towards the south?'

f. 君 奚 為 不 見 孟 軻 也?  
 Jun xi<sub>i</sub> wei<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] bu [VP jian Meng Ke] ye?  
 Your.Majesty what for not visit Meng Ke Decl  
 'For what did Your Majesty not visit Meng Ke?'

(孟子•梁惠王下)

g. 許 子 奚 為 不 自 織?  
 Xu zi xi<sub>i</sub> wei<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] bu [VP zi zhi]?  
 Xu Hon what for not personally weave  
 'For what does Mr Xu not personally weave?'

(孟子•滕文公上)

h. 吾 何 為 不 增?  
 Wu he<sub>i</sub> wei<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] bu [VP zeng]?  
 I what for not enhance  
 'For what do I not enhance (it)?'

(國語•晉語九)

i. 吾 何 為 獨 不 然?  
 Wu he<sub>i</sub> wei<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] du bu ran?  
 I what for alone not correct  
 'For what am I alone not correct?'

(孟子•公孫丑下)

j. 曷 為 獨 不 欲 富 與 貴 也?  
 He<sub>i</sub> wei<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] du bu yu fu yu gui ye?  
 what for alone not want wealth and prosperity Decl  
 'For what (do gentlemen) alone not want wealth and prosperity?'

(晏子春秋•內篇雜)

Second, bare *wh*-words and complex *wh*-nominals can function as adverbials of reason independently with null prepositions, appearing in a position intervening between the subject and *vP*. Similar to PPs 'what for' 何以 *he yi*, 奚以 *xi yi*, 何為 *he wei* and 曷為 *he wei* which are base-generated above *vP*, when the simplex *wh*-words 何 *he* and 奚 *xi* act as adverbs of reason independently without prepositions, they can also be base-generated preverbally, left-adjoined to *vP* (131a-e/f-g). I conjecture that all examples in (131a-g) involve an empty preposition 以 *yi* or 為 *wei* 'for', and *wh*-DPs move from their base position that is the complement of PP to a higher landing site, i.e.

the specifier position of a functional projection. It should be pointed out that although negation is absent from (131a), 何 *he* is situated in a position higher than the diagnostic adverb 獨 *du* which always precedes negators, so it is safe to say that 何 *he* occupies a position higher than negation.

(131) a. 今 子 何 獨 負 之 而 行?  
 Jin zi he<sub>i</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>i</sub>] du fu zhi er xing?  
 now you what alone carry 3.Obj Conj walk

'Now (for) what do you alone carry them and walk?'

(韓非子•喻老)

b. 二 子 何 不 對 乎?  
 Er zi he<sub>i</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>i</sub>] bu dui hu?  
 2 you what not reply Q

'(For) what do you two not reply?'

(管子•戒)

c. 古 之 賢 士 何 獨 不 然?  
 Gu zhi xian shi he<sub>i</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>i</sub>] du bu ran?  
 ancient.times GEN noble scholars what alone not such

'(For) what were noble scholars of ancient times alone not like this?'

(孟子•盡心)

d. 君 何 弗 為?  
 Jun he<sub>i</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>i</sub>] fu [<sub>VP</sub> wei]?

Your.Majesty what not do

'(For) what does Your Majesty not do (it)?'

(左傳•文公十三年)

e. 王孫 何 自 厲 也?  
 Wangsun he<sub>i</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>i</sub>] zi li ye?  
 Your.Highness what personally sharpen Decl

'(For) what does Your Highness personally sharpen (this sword)?'

(左傳•哀公十六年)



f. 我 奚 獨 不 可 以 然?<sup>72</sup> (墨子•小取)  
 Wo xi<sub>i</sub> [pp t' i t<sub>i</sub>] du bu ke yi ran?  
 I what alone not Pot consider correct  
 '(For) what am I alone not capable of being considered correct?'

g. 子 奚 不 為 政? (論語•為政)  
 Zi xi<sub>i</sub> [pp t' i t<sub>i</sub>] bu wei zheng?  
 you what not engage.in politics  
 '(For) what do you not engage in politics?'

In (132), a complex *wh*-phrase 何故 *he gu* 'what reason' functions as an adverb of reason alone without a preposition. Parallel to (131a), (132d) also lacks a negative, but the presence of *du* justifies the prominent position of the *wh*-element.

(132) a. 二 子 何 故 不 對? (管子•霸形)  
 Er zi [he gu]<sub>i</sub> [pp t' i t<sub>i</sub>] bu [vp dui]?  
 2 you what reason not reply  
 '(For) what reason do you two not reply?'

b. 何 故 不 為? (左傳•昭公十五年)  
 [He gu]<sub>i</sub> [pp t' i t<sub>i</sub>] bu wei?  
 what reason not do  
 '(For) what reason (do we) not do (it)?'

c. 我 何 故 不 得 福 也?  
 Wo [he gu]<sub>i</sub> [pp t' i t<sub>i</sub>] bu de fu ye?  
 I what reason not receive blessing Decl  
 '(For) what reason do I not receive blessing?'

(墨子•公孟)

<sup>72</sup> According to Aldridge (2010a), 奚 *xi* 'why' in (131f) is a 'why'-type adjunct *wh*-word preceding adverbs such as 獨 *du* 'alone'.

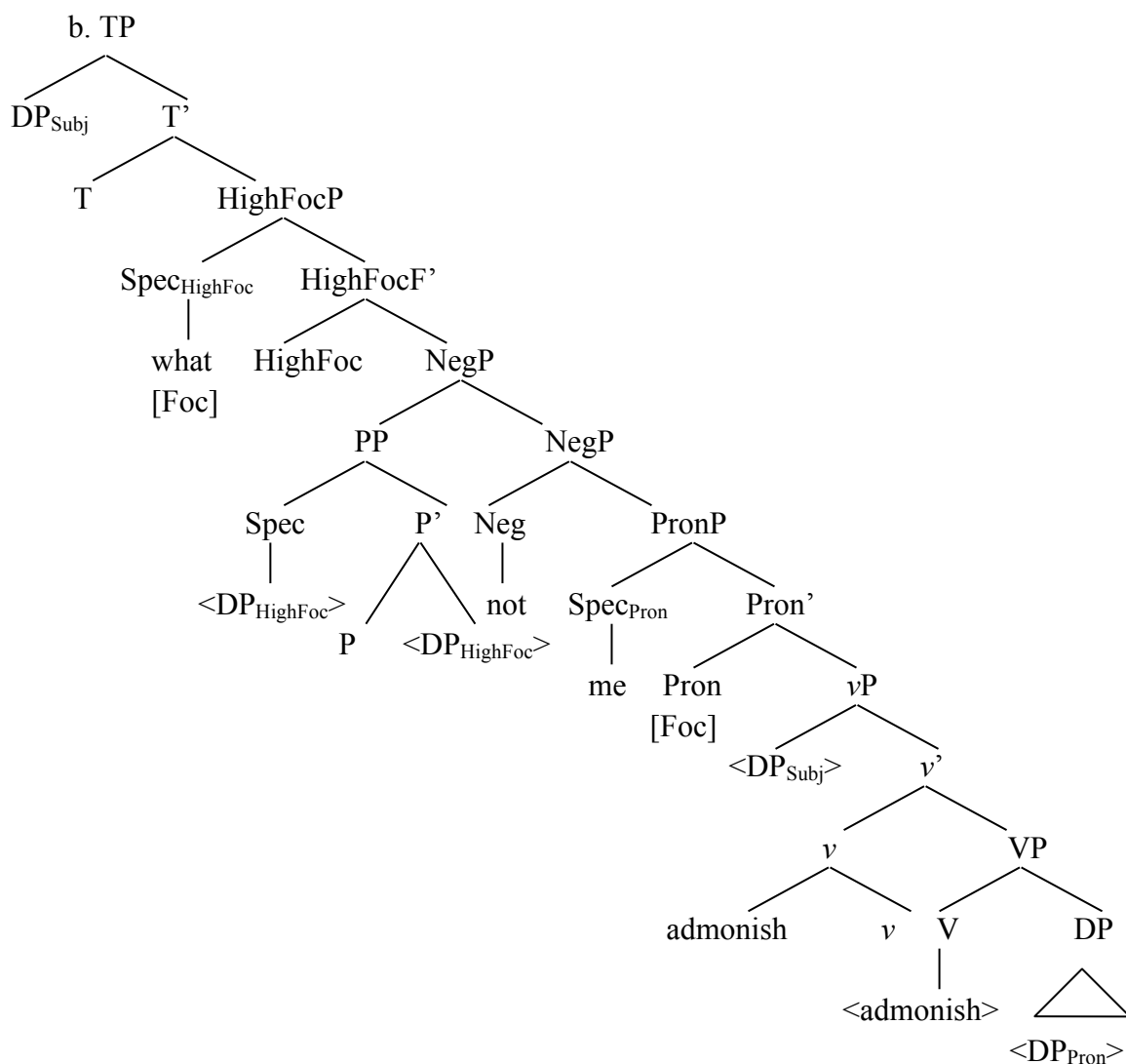
d. 何 故 獨 寡 功? (國語•齊語)  
 [He gu]<sub>i</sub> [pp t' i t<sub>i</sub>] du gua gong?  
 what reason alone lack achievement  
 '(For) what reason (do you) alone lack achievements?'

It is noteworthy that (133a) additionally contains the fronting of a focused pronoun 吾 *wu* 'me' to the Low focus position<sup>73</sup> in the context of negation, which is prevalent in LAC in that negators usually 'trigger' raising of pronouns. The motivation for pronoun fronting to negation, which I presume is due to [+Foc] feature, is independent of *wh*-preposing. The tree diagram of (133a) is presented in (133b). The *wh*-word and the focused pronoun are attracted simultaneously: the former moves out of the preverbal PP to the High focus position termed as HighFocP, while the latter moves out of the VP to the Pronoun/Low focus position due to [+Foc] feature.

(133) a. 何 不 吾 諫? (左傳•哀公十一年)  
 He<sub>j</sub> [pp t' j t<sub>j</sub>] bu wu<sub>i</sub> [vp jian t<sub>i</sub>]?  
 what not me admonish  
 '(For) what (did you) not admonish me?'

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<sup>73</sup> As discussed below in Chapter 5.3, the Low focus position may overlap with the Pronoun position exclusively for preposed pronouns.



A piece of evidence for the hypothesis regarding null prepositions is that the ellipsis of prepositions is a robust aspect of LAC syntax. The ellipsis of prepositions can apply to adjuncts. Example (134a) involves the preposition 以 *yi* ‘with’ heading a prepositional phrase of reason, while in (134b) that shares a parallel structure with (134a), the preposition is omitted. I treat 故 *gu* in (134b) as a DP ‘reason’, rather than an adverb ‘therefore’, as the adverbial use of 故 *gu* places it in front of the subject (134c). Another type of adjunct involving an empty preposition is source PP. Example (134d) contains a question and answer pair. In the question, the locative *wh*-word 惡 *wu* ‘where’ is selected by a preposition 乎 *hu* ‘from’, but in the answer, there is no preposition. Assuming these two sentences share structural parallelism, it is justifiable to state that the preposition in the answer has been omitted, probably due to the fact that the preposition can be easily recovered from the context.

- (134) a. 吾 以 故 知 古 從 之 同 也。  
 Wu [pp yi gu] zhi gu cong zhi tong ye.  
 I with reason understand ancient follow Gen similarity Decl  
 ‘With (this) reason I understand the ancient similarity of following.’  
 (管子•白心)
- b. 君 故 生 心。  
 Jun [pp gu] sheng xin.  
 Your.Majesty reason conceive suspicion  
 ‘(With) this reason Your Majesty conceived suspicion.’  
 (國語•晉語一)
- c. 故 先 王 貴 之。  
 Gu xian wang gui zhi.  
 therefore former emperor appreciate 3.Obj  
 ‘Therefore the former emperor appreciated it.’  
 (國語•周語下)
- d. 惡 乎 取 之? 取 之 曹 也。  
 Wu<sub>i</sub> hu<sub>j</sub> [vp qu zhi] [pp t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>?] [vp Qu zhi] [pp Cao] ye.  
 where from take 3.Obj take 3.Obj Cao Decl  
 ‘From where to take it? Take it (from) Cao.’  
 (公羊傳•僖公三十一年)

Furthermore, the ellipsis of prepositions also applies to arguments. The same ditransitive verb 加 *jia* ‘impose’ takes a PP direct object in (135a), whereas *jia* can also select a bare DP as its direct object, as in (135b) which involves the default double object construction. Since (135a) and (135b) have the same V-IO-(P-)DO order, it is hard to assume that the indirect object in (135b) is just a DP complement but not a PP.

- (135) a. 加 之 以 訓辭 (左傳•僖公七年)  
 jia zhi [pp yi xunci]  
 impose.on 3.Obj with indoctrination  
 ‘(Your Majesty) imposes indoctrinations on them’

b. 欲 加 之 罪 (左傳•僖公十年)  
 yu jia zhi [PP zui]  
 want impose.on 3.Obj accusation  
 ‘(if the emperor) wants to impose accusation on someone’

In terms of the contrast between (136a) and the second clause of (136b), it shows that the preposition in a locative PP can also be omitted (Pulleyblank 1995). The preposition 于 *yu* ‘in’ in (136a) is present as the head of the locative PP which is the object complement of the transitive verb 置 *zhi* ‘put’. In a parallel structure in the second clause of (136b), the preposition in the object complement PP is null. The first clause of (136b) also involves an empty preposition, but it involves a different ditransitive verb 取 *qu* ‘take’.

(136) a. 吾 懋 置 之 于 耳。 (國語•楚語上)  
 Wu yin [VP zhi zhi [PP yu er]].  
 I be.willing.to put 3.Obj in ear  
 ‘I am willing to listen to your words.’ (Lit. ‘I am willing to put it in my ear.’)

b. 取 之 中 厩,  
 [VP Qu zhi [PP zhong jiu]],  
 take 3.Obj internal stable  
 而 置 之 外 厩 也。 (穀梁傳•僖公二年)  
 er [VP zhi zhi [PP wai jiu]] ye.  
 then put 3.Obj external stable Decl  
 ‘Take it (from) the internal stable and then put it in the external stable.’

It is also possible to omit the preposition in a dative complement, as illustrated by the contrast between (137a) and (137b) (Phua 2008). Similarly, the preposition could be omitted in a source complement (cf. (137c/d)).

(137) a. 王 問 於 子 洩 (左傳•哀公八年; Phua 2008: 562)

wang wen yu zi xie

king ask Dat Zi Xie

‘The king asked Zi Xie (about something)’

b. 然 友 復 之 鄒 問 孟 子

ran you fu zhi zou wen meng zi

hence You again go Zou ask Meng Zi

‘On this, You went again to Zou and consulted Mencius.’

(孟子•滕文公上; Phua 2008: 563)

c. 吾 嘗 聞 大 勇 于 夫 子 矣

Wu chang [VP wen [da yong] [pp yu fuzi]] yi

I once hear great courage from Confucius Perf

‘I once heard great courage from Confucius’

(孟子•公孫丑上)

d. 臣 聞 之 胡 齧 曰 (孟子•梁惠王上)

Chen [VP wen zhi [pp hu he]] yue

subject(I) hear 3.Obj Hu He say

‘I once heard it (from) Hu He, saying ...’

Third, there are three *wh*-adverbs that can function as adverbials of reason alone, viz. 胡 *hu*, 盍 *he* and 闔 *he*. Parallel to other two forms of reason adverbials, these three *wh*-adverbs are also base-generated above *vP*, and furthermore, above negation, as in (138a-c). (138b) and (138c) illustrate 盍 *he* and its variant 闔 *he* respectively.

(138) a. 夫 子 胡 不 入 乎? (莊子•德充符)

Fuzi hu bu ru hu?

sir(you) why not enter Q

‘Why do you not enter?’

b. 盍 不 為 行 (莊子•盜跖)

He bu wei xing?

why not accomplish morality

‘Why not accomplish the morality?’

- c. 闔 不 起 為 寡人 壽 乎? (管子•小稱)  
 He bu qi wei guaren shou hu?  
 why not arise for me toast.longevity Q  
 ‘Why not arise and toast my longevity?’

Fourth, when a ditransitive verb 奈/若/如 *nai/ruo/ru* ‘treat’ selects the third person accusative pronoun 之 *zhi* and the *wh*-word 何 *he* ‘what’, the whole VP can function as an adverbial of reason preceding negation. Since the *wh*-element acts as the second argument of these ditransitive verbs, *wh* has to stay in situ, instead of undergoing obligatory fronting (see Chapter 7.1.1 for detailed discussion).

- (139) a. 若 之 何 不 弔? (左傳•襄公十四年)  
 [<sub>VP</sub> Ruo zhi he] bu diao?  
 treat 3.Obj what not condole  
 ‘Why (do I) not condole?’
- b. 若 之 何 不 冑? (左傳•哀公十六年)  
 [<sub>VP</sub> Ruo zhi he] bu zhou?  
 treat 3.Obj what not wear.helmet  
 ‘Why (do you) not wear a helmet?’
- c. 如 之 何 不 弔? (孟子•公孫丑下)  
 [<sub>VP</sub> Ruo zhi he] bu diao?  
 treat 3.Obj what not condole  
 ‘Why (do I) not condole?’

It should be mentioned that the ‘high’ base position of adverbials of reason is not determined or affected by negatives. In (140a), both the *wh*-DP and the preposition in the reverted DP-P structure are situated higher than the adverb 獨 *du* which is above the negator 不 *bu* in the medial domain. It can be observed from (140b) that even if negation is absent from this example, the bare *wh*-word 何 *he* functioning as an adverbial of reason without a preposition still precedes the adverb *du*. (140b) indicates that reason *wh*-phrases must be base-generated in a position higher than negation, even if the node for negatives is not occupied.

(140) a. 吾 何 為 獨 不 然? (孟子•公孫丑下)

Wu he<sub>i</sub> wei<sub>j</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] du bu ran?  
I what for alone not correct

‘For what am I alone not correct?’

b. 今 子 何 獨 負 之 而 行?

Jin zi he<sub>i</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>i</sub>] du fu zhi er xing?  
now you what alone carry 3.Obj Conj walk

‘Now (for) what do you alone carry them and walk?’

(韓非子•喻老)

To summarise, when bare *wh*-nominals 何 *he* and 奚 *xi* selected by ‘for’ as well as simplex and complex *wh*-phrases with a null preposition function as adverbials of reason, both their landing site and base position are higher than negation.

Given the fact that reason adverbials are the only ‘high’ adverbials in LAC, the higher focused position above negation, termed as the High focus position, might be expected to allow reason *wh*-adverbials exclusively.

### 5.2.2.3. Low Focus Position below Negation

In this chapter I discuss the lower focalised position for fronted *wh*-PPs, which is between negation and *vP*. I call this position the Low focus position, and it accommodates *wh*-complements of PPs other than reason adverbials, namely, instrument and other adjunct adverbials.

Analogous to *wh*-complements of adverbials of reason, when a *wh*-DP functions as the prepositional complement of an adverbial of instrument, its landing site is also above *vP*. Based on the configuration ‘AdvP [<sub>vP</sub> V [<sub>VP</sub> t<sub>v</sub> [<sub>V'</sub> AdvP]]]’ proposed by Djamouri et al (2012), I presume that when an instrument PP occurs in front of VP, it occurs above *vP*. As mentioned previously, apart from being an adverbial of reason ‘what for’, 何以 *he yi* can also function as an adverbial of instrument ‘what with’. Here I only discuss examples in which 何以 *he yi* ‘what with’ occurs in its unmarked preverbal position. The reason why I treat *he yi* as being base-generated preverbally is that the overwhelming majority



of instances involve *he-yi-VP*, and there is only one example with *VP-he-yi* is ever attested, as in (141). I follow Aldridge (2012b) and regard this example as being generated via VP-fronting.

- (141) 救 饑 何 以? (國語•晉語四)  
 [Jiu ji]<sub>k</sub> he<sub>i</sub> yi<sub>j</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [<sub>VP</sub> t<sub>k</sub>]?  
 solve famine what with  
 ‘What with to solve the famine?’

It is notable that the preposition 以 *yi* ‘with’ in instrument PPs cannot be omitted, unlike its counterpart heading adverbials of reason. Due to the reversed order between *wh* and P, along with the obligatory *wh*-fronting in LAC, I claim that the *wh*-complement raises from its base position, viz. the complement node of PP, to the specifier position of some functional projection, while the preposition targets the head of that functional projection. Similar to the situation concerning adverbials of reason, the fronting of adverbials of instrument cannot be proved either.

In (142a-b), 何以 *he yi* raises out of its base position and targets a position following the aspecto-temporal adverb 將 *jiang* (if it is present). In addition to 何 *he*, the preposition 以 *yi* ‘with’ can take another simplex *wh*-complement 奚 *xi*, which is the same morpheme as that in the adverbial of reason (see (131f-g)), as shown in (142c). That is to say, parallel to 何以 *he yi*, 奚以 *xi yi* also has two interpretations.

- (142) a. 將 何 以 守 國? (國語•周語上)  
 Jiang he<sub>i</sub> yi<sub>j</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [<sub>VP</sub> shou guo]?  
 Fut what with guard state  
 ‘With what will (he) guard the state?’
- b. 然則 吾 何 以 為 國? (管子•海王)  
 Ranze wu he<sub>i</sub> yi<sub>j</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [<sub>VP</sub> wei guo]?  
 then I what with manage state  
 ‘Then with what do I manage the state?’

- c. 子 奚 以 意 之? (管子•小問)  
 Zi xi<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [vp yi zhi]?  
 you what with speculate 3.Obj  
 'With what do you speculate it?'

Nevertheless, different from adverbials of reason, adverbials of instrument headed by the preposition 以 *yi* 'with' are base-generated below negation, and front to a position below negation, in that they follow the adverb 獨 *du* (143a) which always immediately precedes the negator 不 *bu*; in other words, a pattern like \**du ... bu* is never attested.<sup>74</sup> Therefore, I claim that despite the lack of negation in examples involving adverbials of instrument, *wh-yi* is lower than the projection for negatives. To further justify this statement, I refer to PPs with non-*wh* prepositional complements, which could be either left- or right-adjoined to vP/VP. In (143b), PPs selected by 'with' follow VPs, and they are lower than negation. Even if a non-*wh* PP is left-adjoined to vP, it always occurs after negation (143c-d).

- (143) a. 先生 獨 何 以 說 吾 君 乎?  
 Xiansheng du he<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [vp yue wu jun] hu?  
 sir(you) alone what with please my lord Q  
 'How did you alone please my lord?'

(莊子•徐無鬼)

<sup>74</sup> Due to the Intervention Effect of negation (discussed in Chapter 8), it is not possible to find positive evidence in favour of the statement of adverbials of instrument being under negation, so I have to refer to the adjacency of the adverb *du* and negation. This assertion again cannot be supported by positive evidence. However, there are no counterexamples to my hypothesis in existing corpora, so my data in this thesis is consistent.

b. 域 民 不 以 封 疆 之 界,  
 [VP Yu min] bu [pp yi [feng jiang zhi jie]],  
 enclose people not with close strong Gen border  
 固 國 不 以 山 溪 之 險,  
 [VP gu guo] bu [pp yi [shan xi zhi xian]],  
 secure country not with mountain stream Gen steep  
 威 天 下 不 以 兵 革 之 利。  
 [VP wei tianxia] bu [pp yi [bingge zhi li]].  
 impress world not with military Gen advantage

‘(A ruler) keeps his population not with tight borders, secures his country not with steep mountains and gorges, and impresses the rest of the world not with military might.’

(孟子•公孫丑下; Aldridge 2012b: 148)

c. 君 王 不 以 鞭 箠 使 之 (國語•吳語)  
 Junwang bu [pp yi bianchui] [VP shi zhi]  
 Your.Majesty not with whip enslave 3.Obj  
 ‘Your Majesty did not enslave them with a whip’

d. 君 子 不 以 其 所 以 養 人 者  
 Junzi bu yi [[qi suo yi yang ren] zhe]  
 gentleman not with 3.Gen SUO with nurture person ZHE  
 害 人。  
 hai ren.  
 harm person

‘Gentlemen do not harm people using that with which they nurture people.’

The relative order between the Low focus position and the higher base position for adjunct *wh*-adverbials are difficult to investigate, in that they both intervene between negation and *v*P. It is not infeasible that the surface structure of (142) and (143a) is actually derived through *wh*-fronting from the preverbal base position of adjunct adverbials to the Low focus position, because obligatory *wh*-fronting is a robust aspect of LAC syntax; although this presumption cannot be tested.

In summary, for adverbials of instrument headed by the preposition 以 *yi* ‘with’, they are base-generated above *vP* and below negation; when the *wh*-complements undergo overt fronting triggered by obligatory *wh*-fronting, their landing site is also expected to be lower than negation.

Other adjunct adverbials occupy the same position as adverbials of instrument, namely, intervening between negation and *vP*. Taking an adverb of manner 焉 *yan* ‘how’ as an example, parallel to adverbials of instrument, it also follows the adverb 獨 *du* ‘alone’ which always immediately precedes the negator 不 *bu* (144a). Another example supporting the view involves a source PP (144b). 諸 *zhu* in the answer intervenes between the transitive verb 聞 *wen* ‘hear’ and the indirect object 副墨之子 *Fumo zhi zi* ‘Fumo’s son’, functioning as the contraction of a direct object, third person accusative pronoun 之 *zhi* and a source preposition 于 *yu*/乎 *hu* ‘from’ introducing the indirect object (Wang 1962, Pulleyblank 1995, Chappell and Peyraube 2007).<sup>75</sup> Therefore, despite the absence of negation in this instance, the adjunct is supposed to be located in a position below the NegP.

- (144) a. 余 獨 焉 闕 之? (左傳·襄公二十八年)  
 Yu du yan<sub>i</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>i</sub>] [<sub>VP</sub> bi zhi]?  
 I alone how avoid 3.Obj  
 ‘How do I avoid them alone?’

<sup>75</sup> A canonical, uncontracted example could be (xxxvii):

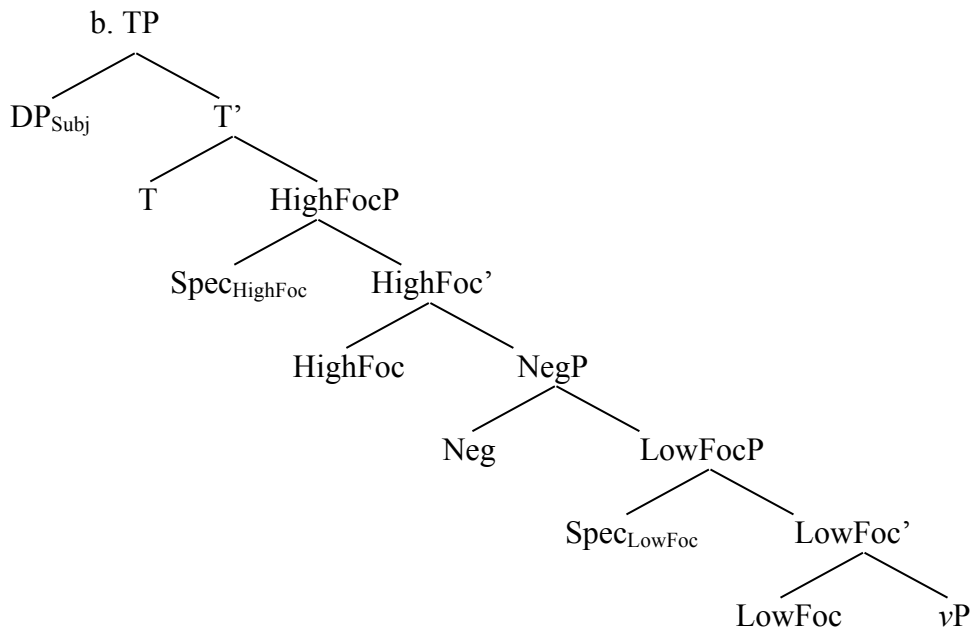
- (xxxvii) 臣 之 子 亦 不 能 受 之 于 臣  
 chen zhi zi yi bu neng shou zhi yu chen  
 subject(I) Gen son also not can receive 3.Obj from subject(me)  
 ‘My son cannot receive it from me either’

(莊子·天道)

- b. ‘子 獨 惡 乎 聞 之?’  
 Zi du wu<sub>i</sub> hu<sub>j</sub> [vp wen zhi] [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]?  
 you alone whom from hear 3.Obj  
 曰: ‘聞 諸 副墨 之 子...’ (莊子•大宗師)  
 Yue: ‘Wen zhu Fumo zhi zi...’  
 say hear 3.Obj.from Fumo Gen son  
 “‘From whom did you alone hear it?’ (Nanbo) says: ‘(I) heard it from Fumo’s son...’

To summarise, observations on *wh*-nominals and *wh*-adverbials suggest that LAC involves two focalised landing sites for *wh*-preposing within the medial domain between TP and *v*P, with negation situated in between, and evidence comes from the relative ordering between fronted *wh*-constituents and negation. The High focus position is above negation, yet the Low focus position is lower than negation. Hence, the linear template and the tree diagram concerning the two positions are as follows:

(145) a. Subject > High focus position > Negation > Low focus position > *v*P



In terms of the *wh*-elements targeting these two positions, the High focus position accommodates preposed *wh*-complements of reason adverbials exclusively, and the Low focus position is occupied by fronted *wh*-complements in instrumental PPs and other

adjunct PPs. The distribution of the fronted *wh*-phrases in the High and Low focus positions is shown in Table 3.

Table 3: Distribution of fronted *wh*-phrases in the High and Low focus positions (interim)

Type of <i>wh</i> -PPs	High focus position	Low focus position
Reason	√	
Instrument		√
Other adjunct		√

### 5.2.3. Complete Relative Order

In Chapter 3 I have illustrated the clausal positions for non-*wh*-fronting and the medial elements in (68), repeated in (146):

(146) Clausal positions for non-*wh*-fronting (updated):

External topic position > Subject > Modal adverbs > Aspectual/temporal adverbs > Focus position > Negation > Pronoun position > Root modal verbs > *v*P

In this chapter I discuss the relative order among topic and focus positions, medial elements and the base positions of *wh*-constituents, but before presenting the final version of the template demonstrating the complete order, I need to show the relative distribution between some medial elements and the landing site/base position of *wh*-phrases.

The External topic position for *wh*-predicates is located above TP. As discussed in Chapter 5.2.1.1, *wh*-predicates (and only *wh*-predicates) can move from a position following VP to an external topic position preceding the subject (147), although the preverbal positioning of predicative *wh*-phrases is unusual in LAC.

(147) a. 何 哉 君 所 謂 逾 者?  
 He<sub>i</sub> zai jun suo wei [yu zhe] t<sub>i</sub>?  
 what Q Your.Majesty SUO call arrogate ZHE  
 ‘What is the arrogation that Your Majesty meant?’

(孟子•梁惠王下)

b. 何 哉, 爾 所 謂 達 者? (論語•顏淵)  
 He<sub>i</sub> zai, er suo wei [da zhe] t<sub>i</sub>?  
 what Q you SUO call eminent ZHE  
 ‘What is the eminency that you meant?’

The External topic position for non-*wh*-fronting is located in the CP domain, and it accommodates topicalised nominal and pronominal DPs, as in (148a-b) and (148c-d) respectively. Since there is an external topic position for *wh*-predicates, it is plausible to assume that non-*wh*-phrases also move into this external topic position. I call this position External topic position.

(148) a. 其 父母 之 不 親 也,  
 [Qi fumu]<sub>i</sub> zhi bu [VP qin t<sub>i</sub>] ye,  
 3.Gen parents ZHI not adore Decl

又 能 親 君 乎? (韓非子•十過第十)

you neng qin jun hu?

then can adore lord Q

‘(He) does not adore his parents, then how can (he) adore the lord?’

b. 今 夫 豎 刁, 其 身 之 不 愛,  
 Jin fu Shu Diao, [qi shen]<sub>i</sub> zhi bu [VP ai t<sub>i</sub>]  
 now Decl Shu Diao, Gen body ZHI not love,

焉 能 愛 君? (管子•戒)

yan neng ai jun?

how can love Your.Majesty?

‘Now Shu Diao does not love his body; how can (he) love Your Majesty?’

c. 是 之 不 務 (左傳•昭公三十二年)  
 shi<sub>i</sub> zhi bu [VP wu t<sub>i</sub>]  
 this ZHI not conduct  
 ‘(if you) do not conduct this’

d. 此 之 謂 大 惑。 (呂氏春秋•重己)  
 Ci<sub>i</sub> zhi [VP wei t<sub>i</sub> [da huo]].  
 this ZHI call great confusion  
 ‘(People) call this great confusion.’

As for the Internal topic position for *wh*-items, *which*-phrases (and only *which*-phrases) raise out of the VP to the Internal topic position situated in the lower TP domain, between subject and *v*P (149). According to cross-linguistic evidence and data from modern Mandarin, topic positions should be located more prominently than focus positions. So the Internal topic position in the medial domain is expected to precede all (internal) focus positions, namely, it intervenes between TP and the High focus position which is the highest focus position. Note that the Internal topic position is normally for *which*-phrases exclusively, as non-*wh*-elements generally do not target the Internal topic position, except for one example. In the embedded clause in (149d), a VP 得國失國 *de guo shi guo* moves from its base position following a ‘high’ adverbial to a higher position preceding the ‘high’ adverbial and following the embedded subject 古之明主 *gu zhi ming zhu*. Since the landing site of the fronted VP intervenes between (the embedded) TP and the High focus position for the ‘high’ adverbial, this landing site must be the Internal topic position. This is the only solid example I can find to show that the Internal topic position may occasionally be occupied by a non-*wh*-element.



- (149) a. 齊 宣 王 問 卿。  
 Qi Xuan emperor wen qing.  
 Qi Xuan emperor ask.about minister  
 孟子 曰： ‘王 何 卿 之 問 也？’  
 Mengzi yue: ‘Wang [he qing]<sub>i</sub> zhi [VP wen t<sub>i</sub>] ye?’  
 Mencius say Your.Majesty which minister ZHI ask.about Decl  
 ‘Emperor Xuan of Qi asked about ministers. Mencius said: “Which (kind of) ministers is Your Majesty asking about?”’

(孟子•萬章下)

- b. 韓 宣 子 問 其 位 於 子產。  
 Han xuan zi wen qi wei yu zichan.  
 Han Xuan Hon consult Gen position from Zichan  
 子產 曰： ‘... 何 位 之 敢 擇？’ (左傳•昭公七年)  
 Zichan yue: ‘... [he wei]<sub>i</sub> zhi gan [VP ze t<sub>i</sub>]?’  
 Zichan utter which position ZHI dare choose  
 ‘Mr Han Xuan consulted his position from Zichan. Zichan uttered: “... which position does (he) dare to choose?”’

- c. 其 一 能 鳴， 其 一 不 能 鳴，  
 Qi yi neng ming, qi yi bu neng ming,  
 between 1 can honk between 1 not can honk  
 請 奚 殺？ (莊子•山木)  
 qing xi<sub>i</sub> [sha t<sub>i</sub>]?  
 please which kill  
 ‘One (of the two geese) can honk, and the other cannot honk; which (goose should I) kill please?’

d. 原 聞 古 之 明 主  
 Yuan wen [gu zhi ming zhu]  
 want hear ancient Gen wise lord  
 得 國 失 國 常 何 以? (韓非子•十過)  
 [VP de guo shi guo]<sub>k</sub> chang he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] t<sub>k</sub>?  
 obtain state lose state often what for  
 '(I) want to know often for what did wise lords of ancient times obtain and lose states.'

The High focus position for *wh*-complements in reason adverbials intervenes between TP and modal adverbs. As discussed previously, the modal adverb 必 *bi* 'certainly' is a medial element intervening between the subject and aspectual/temporal adverbs such as 將 *jiang* 'Fut'. In (150a), the *wh*-complement 何 *he* 'what' selected by a null preposition 以 *yi* 'for' in an adverbial of reason precedes the modal adverb 必 *bi* 'certainly'. Since 必 *bi* is situated in a position higher than other medial elements, it is safe to state that the landing site of reason adverbials, i.e. the High focus position, precedes all the medial elements. Furthermore, the simplex *wh*-word 何 *he* 'what' is non-D-linked, so as a focalised *wh*-constituent, its landing site cannot be in the left periphery. Similarly, the non-D-linked bare *wh*-word 曷 *he* 'what' is selected by a preposition 為 *wei* 'for' in an adverbial of reason, and this *wh*-P structure also precedes the modal adverb 必 *bi* 'certainly' (150b). This example lends further support to the statement that the landing site for reason adverbials, i.e. the High focus position, intervenes between the subject and modal adverbs, hence higher than any medial element.

(150) a. 何 必 罪 居 者? (左傳•僖公二十四年)  
 He<sub>i</sub> [PP t'<sub>i</sub> t<sub>i</sub>] bi zui ju zhe?  
 what certainly blame stay ZHE  
 '(For) what (do you) must blame those who stay?'

- b. 諸侯 曷 為 必 田狩? (公羊傳•恆公四年)  
 Zhuhou he<sub>i</sub> wei<sub>j</sub> [pp t' i t<sub>j</sub> t<sub>i</sub>] bi tianshou?  
 feudal.lords what for certainly hunt  
 'For what do feudal lords must hunt?'

The Focus position for non-*wh*-fronting, however, is lower than the aspectual adverb 將 *jiang*, hence lower than the modal adverb 必 *bi* which is even higher than *jiang*, as shown in (151a-c) and (151d) respectively. Therefore, it is safe to conclude that the High focus position for *wh*-fronting is different from the Focus position for non-*wh*-fronting, as the former is higher than the latter: the High focus position precedes the modal adverb and aspectual/temporal adverbs, yet the Focus position follows these medial elements.

- (151) a. 君子 將 險哀 之 不 暇 (國語•周語下)  
 junzi jiang xianai<sub>i</sub> zhi bu [VP xia t<sub>i</sub>]  
 gentleman Fut danger.sorrow ZHI not attend.to  
 'gentlemen will not (have time to) attend to danger or sorrow'
- d. 將 禍 是 務 去 (左傳•隱公三年)  
 jiang huoi<sub>i</sub> shi wu [VP qu t<sub>i</sub>]  
 Fut misfortune SHI endeavor dispel  
 '(monarchs) will endeavor to dispel misfortune'
- c. 小 国 將 君 是 望 (左傳•襄公二十八年)  
 xiao guo jiang jun<sub>i</sub> shi [VP wang t<sub>i</sub>]  
 small state Fut His.Majesty SHI expect  
 'small states will expect His Majesty'
- d. 余 必 臣 是 助 (左傳•昭公二十二年)  
 yu bi chen<sub>i</sub> shi [VP zhu t<sub>i</sub>]  
 I must subject SHI facilitate  
 'I must facilitate my subjects'

In terms of the Low focus position for *wh*-constituents other than reason adverbials, since it is located preceding root modal verbs in the sentence-internal domain and following negation, I presume that it is the same position exclusively accommodating

pronoun fronting to negation, namely, the Pronoun position as in (146). In (152a-b), the modal of ability 能 *neng* ‘can’ conveying dynamic modality is preceded by manner adverbials 何以 *he yi* ‘what with’ and 惡 *wu* ‘how’, both of which have been proved to occupy a focalised position between negation and *vP*. That is to say, the Low focus position for preposed non-reason *wh*-PPs intervenes between negation and root modal verbs, which means the Low focus position for *wh*-phrases could be the Focus position for non-*wh*-phrases. The monosyllabic character 與 *yu* in (152a) is contracted from two monosyllables 也 *ye* and 乎 *hu*. 乎 *hu* is either a variant of 於 *yu* ‘in, at, to, from’, or a final question particle (Pulleyblank 1995).

- (152) a. 吾 王 庶幾 無 疾病 與,  
 Wu wang shuji wu jibing yu,  
 my lord probably not.have disease Decl  
 何 以 能 田獵 也? (孟子•梁惠王下)  
 he<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] neng [vp tianlie] ye?  
 what with can hunt Decl  
 ‘My Lord probably does not have diseases, (otherwise) how can (he) hunt?’
- b. 惡 能 治 國家?  
 Wu neng zhi guojia?  
 how can manage state  
 ‘How can (one) manage the state?’

Recall that the position exclusively accommodating pronoun fronting to negation, namely, the Pronoun position as in (146) also intervenes between negation and root modal verbs, I therefore posit that the Pronoun position for fronted pronouns is exactly the Low focus position for preposed *wh*-phrases. As can be seen from (153), the fronted pronoun which occupies the Pronoun position intervenes between the aspectual negator 未 *wei* and the modal of ability 能 *neng* ‘can’. Since both positions are located between negation and root modal verbs in the sentence-internal domain, I presume that they are the same position which accommodates both preposed pronouns and *wh*-phrases. I call this position Low focus position from now on.



- (155) a. External topic position: topicalised *wh*-predicates and non-*wh*  
 b. Internal topic position: topicalised *which*-phrases  
 c. High focus position: focalised *wh* (reason adverbials)  
 d. Focus position: focalised non-*wh*  
 e. Low focus position: focalised *wh* (non-reason adverbials) and pronouns

### 5.3. Position-Based vs. Domain-Based Account

Interestingly, there is one and only one example that violates the relative order between fronting positions and medial elements suggested in (154). In (156), the *wh*-DP 何 *he* ‘what’ functions as the direct object and is base-generated within *vP*. Triggered by obligatory *wh*-fronting, *he* moves to the lower TP domain, landing in a position intervening between the aspecto-temporal adverb 將 *jiang* ‘Fut’ and the negative. Since the key diagnostic adverb 獨 *du* ‘alone’ always immediately precedes negation, the *wh*-word is expected to precede *du*, although *du* is absent. However, according to the proposed template in (154), provided a preposed *wh*-element precedes negation, it should also precede the modal adverb 必 *bi* ‘certainly’ which is higher than *jiang*.

- (156) 將      何      不      忘      哉!  
          Jiang    he<sub>i</sub>      bu [vP wang t<sub>i</sub>]    zai!  
          Fut    what    not    forget    Excl  
          ‘What will (he) not forget!’
- (韓非子·喻老)

The existence of such an extra position between the aspecto-temporal adverb 將 *jiang* ‘Fut’ and the key diagnostic element 獨 *du* ‘alone’ indicated by (156) is uncertain based on available data.

It is not impossible that there is no such an extra position. Since (156) is the only example adopting this ‘aspectual/temporal adverbs > *wh* > negation’ order, it may be hard to make tenable hypothesis on it, and it does not necessarily prove that the template in (154) is wrong.

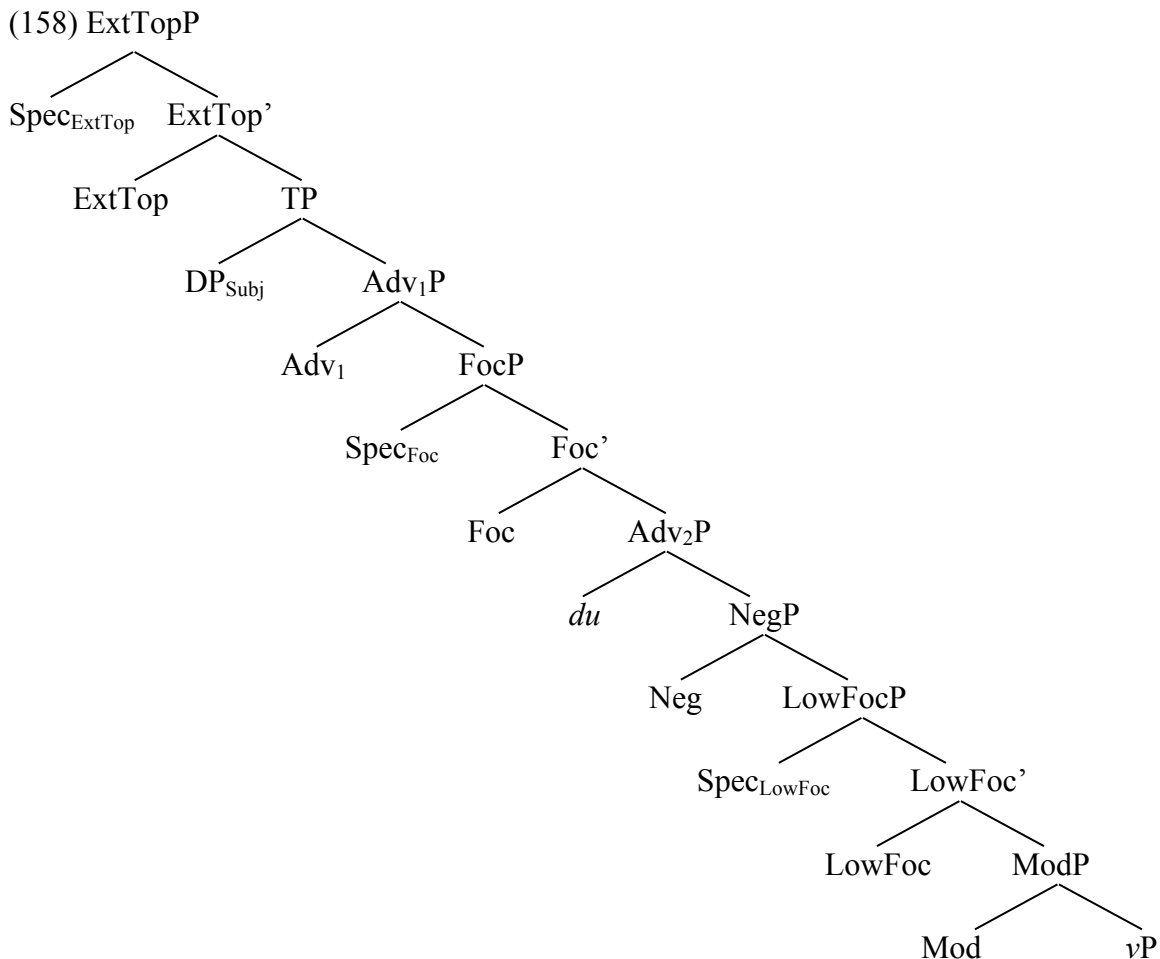
Alternatively, there does exist such an additional position between *jiang* and *du*, exclusively for *wh*-nominals. Note that 何 *he* in (156) is nominal, yet the High focus position and the high *wh* base position are for *wh*-adverbials, so it is not impossible that there might be an additional landing site for *wh*-nominals which intervenes between aspectual/temporal adverbs and negation. That means there are five landing sites for preposed *wh*-elements: 1) an external topic position above TP, 2) an internal topic position immediately below TP, 3) a high focus position between the internal topic position and the high *wh* base position, 4) an extra position between *jiang* and *du*, as well as 5) a low focus position between negation and the low *wh* base position.

Again, the format in (154) cannot be denied by only one single exception, nor the extra position can be confirmed due to this example.

Additionally, there are three landing sites for non-*wh*-elements: an external topic position above TP, a focus position between the aspecto-temporal adverb 將 *jiang* and 獨 *du*, as well as a position below negation exclusively for pronouns. As suggested in the previous subchapter, the topic position in the CP domain for non-*wh*-fronting and the one for *wh*-fronting are the same, called External topic position. Similarly, the focused position below negation for pronouns (used to be called Pronoun position) and the one for *wh*-phrases are the same, called Low focus position. The template for the landing sites of non-*wh*-phrases is in (157), and the tree diagram is in (158). In this final version, I have included the adverb *du*. Since *du* always immediately precedes negation, it should intervene between the Focus position and negation.

(157) Clausal positions for non-*wh*-fronting (final):

External topic position > Subject > Aspectual/temporal adverbs > Focus position > 獨 *du* > Negation > Low focus position (=Pronoun position) > Root modal verbs > *vP*



In total, there would be eight landing sites for *wh*- and non-*wh*-elements, as in Table 4 below:

Table 4: Landing sites for *wh*- and non-*wh*-fronting

	Position	Item(s)	Example(s)
<b><i>Wh</i></b>	External topic	<i>wh</i> -predicates	147
	Internal topic	<i>which</i> -phrases	149
	High focus	reason adverbials	150
	Extra	<i>he</i> ‘what’	156
	Low focus	non-reason adverbials	152
<b>Non-<i>wh</i></b>	External topic	NPs and pronouns	148
	Focus	NPs and pronouns	151
	Pronoun	pronouns	153

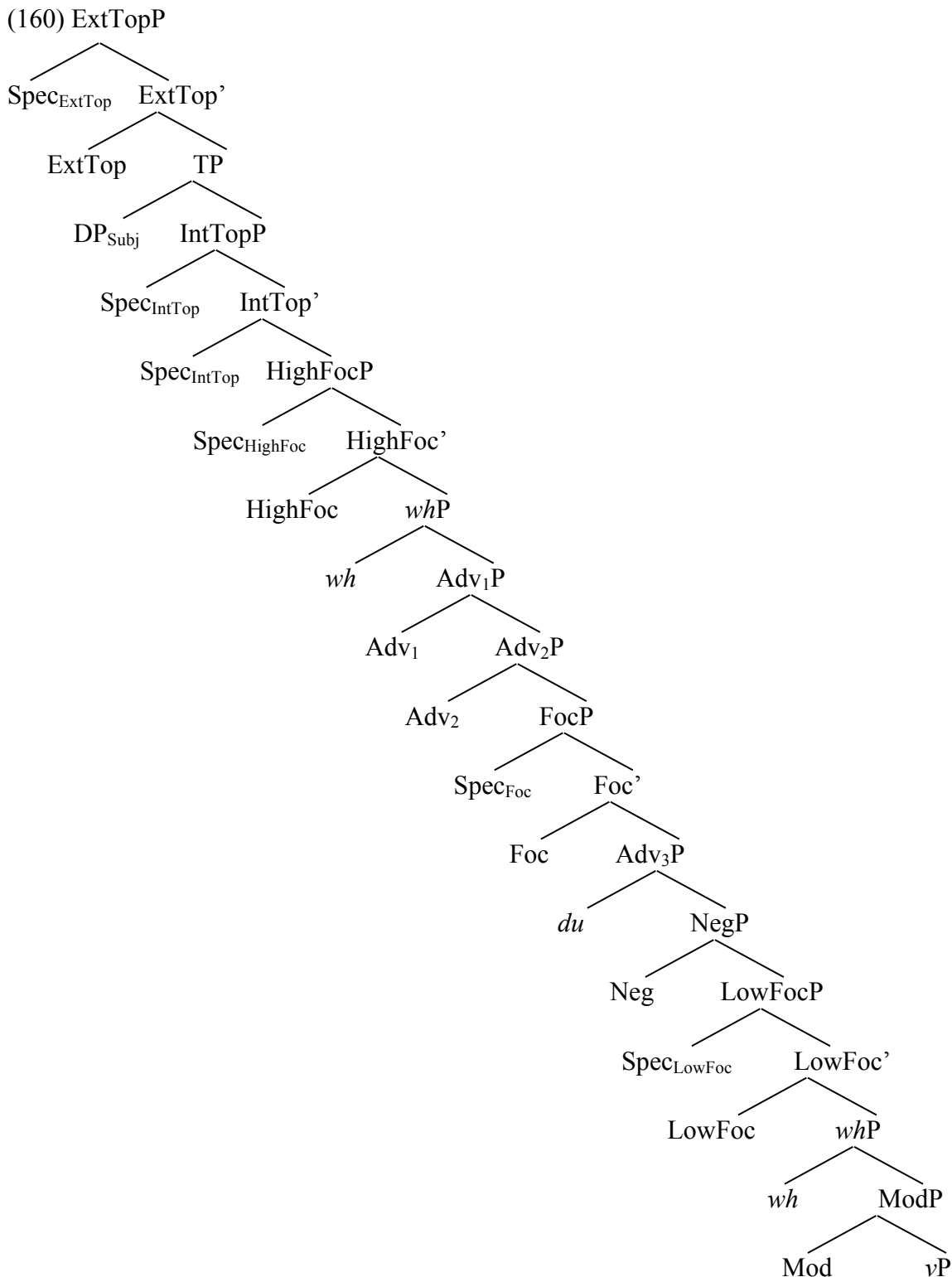


So this position-based approach seems to be too complicated. Of course, it is possible that there might be three repetitions: 1) the External topic position for non-*wh*-phrases may overlap with that for *wh*-predicates, as they both precede the subject; 2) the Focus position for non-*wh* may overlap with the extra *wh*-position as in (156), as they are both situated between the aspecto-temporal adverb 將 *jiang* and 獨 *du*; and 3) the Pronoun position below negation for fronted pronouns may overlap with the Low focus position for *wh*, as they both follow negation and precede root modal verbs.

Nonetheless, these potential repetitions cannot be justified based on available data. Even if I assume that there are three positions that can accommodate both *wh*- and non-*wh*-elements, there are still five positions in total. Information structure features of elements move into certain positions.

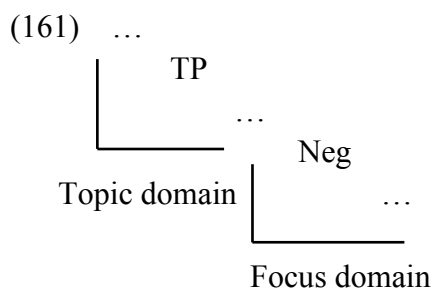
(159) Clausal positions for *wh*- and non-*wh*-fronting (?):

External topic position > Subject > Internal topic position > High focus position > High *wh* base position > Modal adverbs > Aspectual/temporal adverbs > Focus position > 獨 *du* > Negation > Low focus position > Low *wh* base position > Root modal verbs > vP



Alternatively, we can adopt a domain-based account and describe the landing sites of preposed phrases in terms of areas. As can be seen from observations, fronted *wh*- and non-*wh*-phrases with topical features always target the area around the subject, either below or above TP. Even when a topicalised phrase targets a position below the subject, it is still higher than negation. As for focused phrases, they always move to a domain around negation, either above or below negation. Even if when a focused phrase moves

to a position higher than negation, it never occurs higher than the subject. In this domain-based approach as shown in (161), analysis of a fronting element is not based on whether it is interrogative or not, but rather depends on its topical or focal nature. This theory does not attribute properties to specific features, but to two domains.



Both accounts have their respective drawbacks. Although the position-based approach is specific, it is complicated, as it involves too detailed partitions. The domain-based approach is straightforward, but it involves uncertainty, because it means floating landing sites. However, since adding some extra information into a mechanism would inevitably bring complication, the drawbacks of both approaches are understandable.

#### 5.4. Landing Site of *Wh*-Fronting

As discussed in Chapter 5.2, there are altogether four preverbal positions for *wh*-fronting: 1) the External topic position in the CP domain, 2) the Internal topic position in the ‘low IP area’, 3) the High focus position between TP and negation, and 4) the Low focus position between negation and *v*P. In this subchapter, I propose that *wh*-phrases preposed to all positions occupy the specifier node of functional projections.

I adopt the theory that a preposed *wh*-phrase occupies the specifier position of some functional category (Paul 2002, 2005, Wang 2013). If there is a fronting marker, it occurs in the head position of the relevant functional projection. Both fronting markers and prepositions target the head of corresponding functional projections, so that is why there is a complementary distribution of fronting markers and prepositions. To be more specific, the reason why a fronting marker only follows a preposed *wh*-DP (162a-c) but

never coexists with a preposed *wh*-PP (162d-g) is because when the head node of a topic (either the ExtTopP or IntTopP) or focus phrase (either the HighFocP or LowFocP) is occupied by a fronted preposition, there is no position for any fronting marker, and vice versa (see the next chapter for detailed discussion).

- (162) a. 齊 宣 王 問 卿。  
 Qi Xuan emperor wen qing.  
 Qi Xuan emperor ask.about minister  
 孟子 曰：‘王 何 卿 之 問 也？’  
 Mengzi yue: ‘Wang [he qing]<sub>i</sub> zhi [VP wen t<sub>i</sub>] ye?’  
 Mencius say Your.Majesty which minister ZHI ask.about Decl  
 ‘Emperor Xuan of Qi asked about ministers. Mencius said: “Which (kind of) ministers is Your Majesty asking about?”’

(孟子•萬章下)

- b. 韓 宣 子 問 其 位 於 子產。  
 Han xuan zi wen qi wei yu zichan.  
 Han Xuan Hon consult Gen position from Zichan  
 子產 曰：“... 何 位 之 敢 擇？”(左傳•昭公七年)  
 Zichan yue: “... [he wei]<sub>i</sub> zhi gan [VP ze t<sub>i</sub>]?”  
 Zichan utter which position ZHI dare choose  
 ‘Mr Han Xuan consulted his position from Zichan. Zichan uttered: “... which position does (he) dare to choose?”’

- c. 宋 何 役 之 不 會，  
 Song [he yi]<sub>i</sub> zhi bu [VP hui t<sub>i</sub>],  
 Song what battle ZHI not enter  
 而 何 盟 之 不 同？ (左傳•昭公二十五年)  
 er [he meng]<sub>j</sub> zhi bu [VP tong t<sub>j</sub>]?  
 Conj what alliance ZHI not join  
 ‘What battle does the State of Song not enter, and what alliance (does it) not join?’

d. 吾 何 為 不 增? (國語•晉語九)

Wu he<sub>i</sub> wei<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] bu [VP zeng]?

I what for not enhance

'For what do I not enhance (it)?'

e. 子 何 以 不 歸 耕 乎?

Zi he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] bu [VP gui geng] hu?

you what for not return farming Q

'For what do you not return to farming?'

(呂氏春秋•不苟論)

f. 君 奚 為 不 見 孟 軻 也?

Jun xi<sub>i</sub> wei<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] bu [VP jian Meng Ke] ye?

Your.Majesty what for not visit Meng Ke Decl

'For what did Your Majesty not visit Meng Ke?'

(孟子•梁惠王下)

g. 曷 為 獨 不 欲 富 與 貴 也?

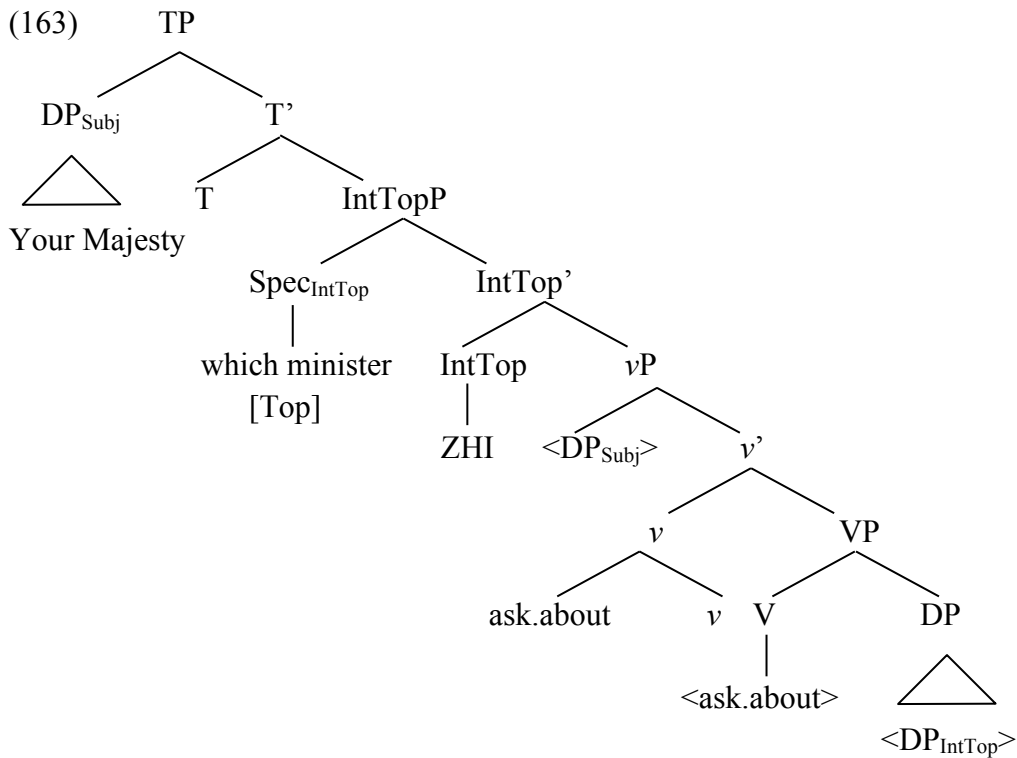
He<sub>i</sub> wei<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] du bu yu fu yu gui ye?

what for alone not want wealth and prosperity Decl

'For what (do gentlemen) alone not want wealth and prosperity?'

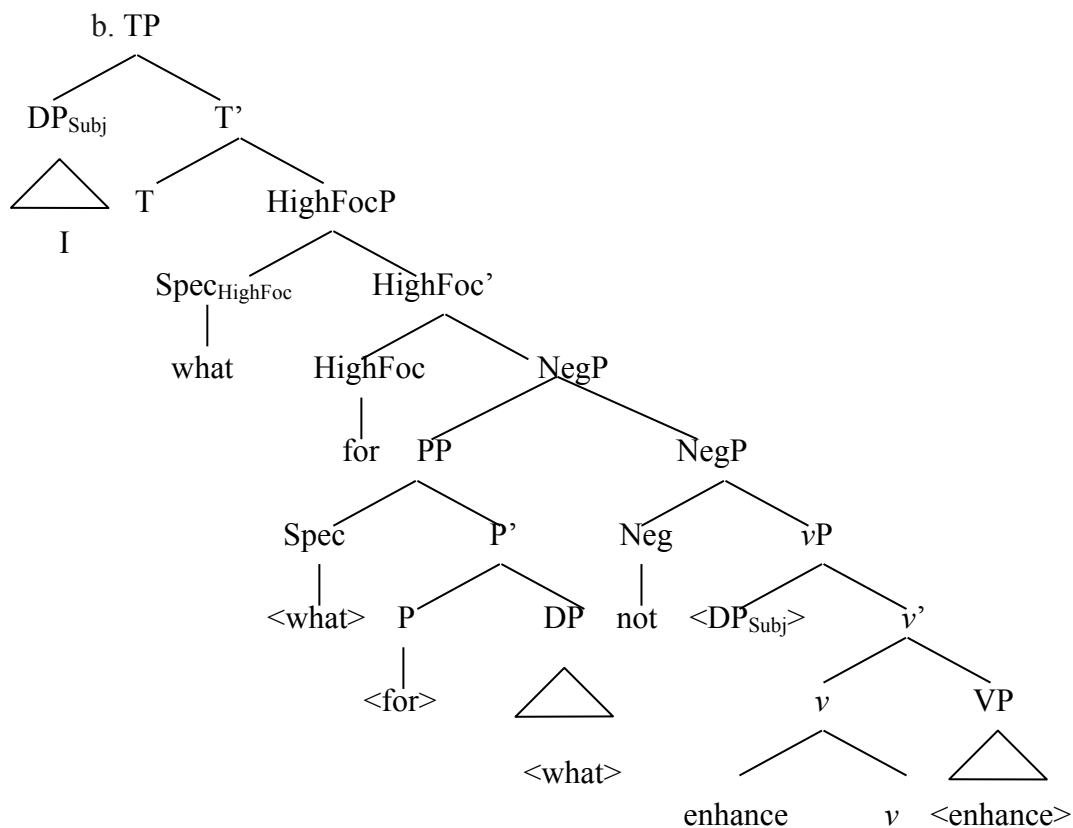
(晏子春秋•內篇雜)

The tree diagram of (162a) is (163). The *which*-phrase 何卿 *he qing* 'which minister' raises from its postverbal base position into the sentence-internal domain, landing in the Internal topic position. The topicalised *wh*-DP occupies [Spec, IntTopP], and the fronting marker (in this case, the topic marker) appears in IntTop<sup>0</sup>.



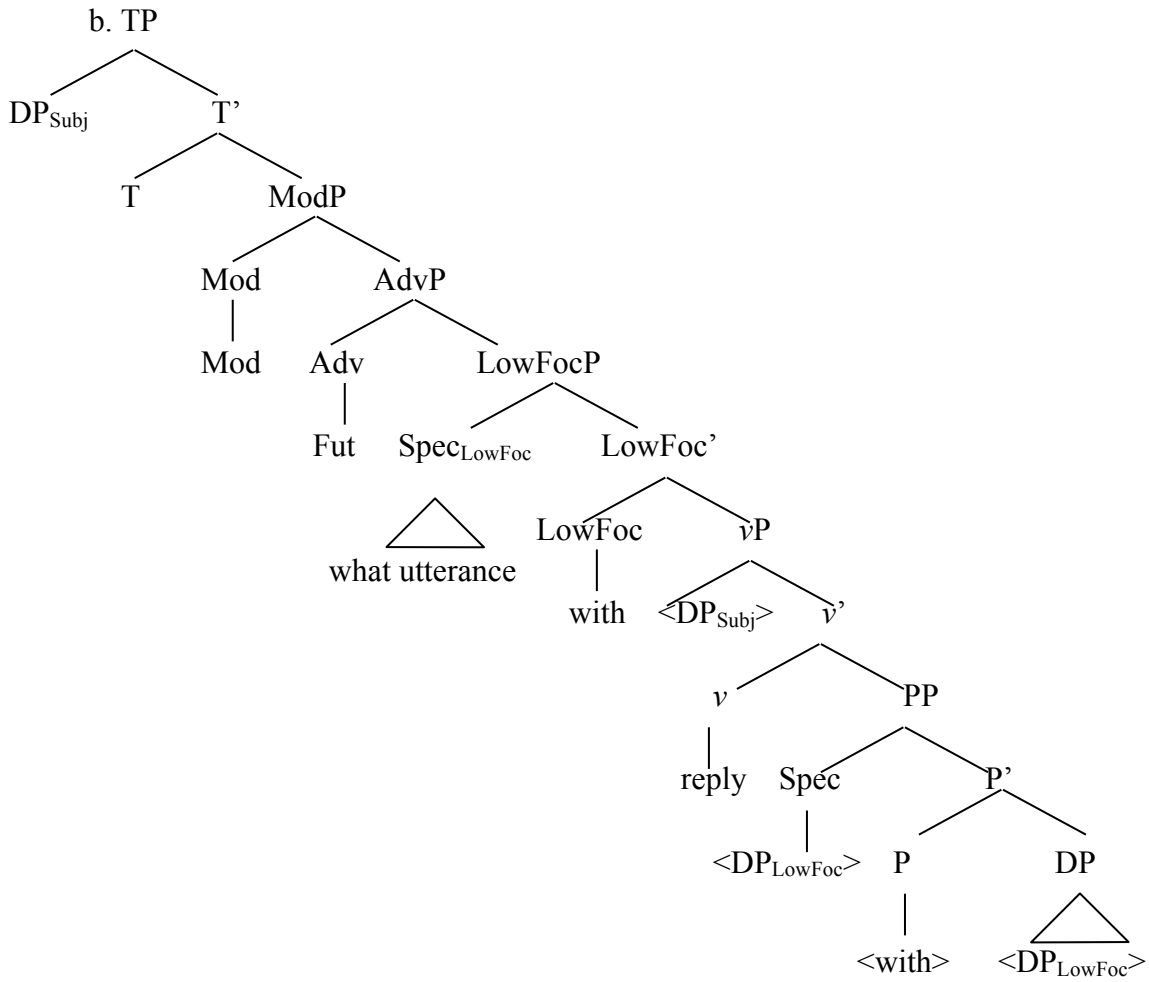
The tree diagram of (164a) is (164b), where the fronted *wh*-DP occupies the specifier node of the functional projection HighFocP, whereas the preposition 為 *wei* moves to the head of the functional category.

- (164) a. 吾 何 為 不 增? (國語•晉語九)  
 Wu he<sub>i</sub> wei<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] bu [v<sub>p</sub> zeng]?  
 I what for not enhance  
 'For what do I not enhance (it)?'



Similarly, the tree diagrams of (165a) is (165b). The complex *wh*-DP raises to the specifier node of the functional projection LowFocP, and the preposition 以 *yi* moves to the head of this functional projection.

- (165) a. 其 將 何 辭 以 對? (左傳•隱公三年)  
 Qi jiang [he ci]<sub>i</sub> yi<sub>j</sub> [<sub>VP</sub> dui [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?  
 Mod Fut what utterance with reply  
 'With what utterances will (I) reply?'





## 6. *Wh*-P

In this chapter I explore the construction *wh*-P that is mainly in the form of *wh*-YI. If 以 YI ‘for’ takes a non-*wh*-DP, the complement either stays in situ, maintaining the head-initial YI-DP order (166a), or fronts to a position preceding the head, generating the reversed DP-YI order, as in (166b). Similarly, when YI adopts the rendering ‘with’, its complement either follows it (166c) or fronts to a position preceding YI (166d).

- (166) a. 楚 人 以 是 咎 子重。 (左傳•襄公三年)  
 Chu ren [pp yi shi] [vp jiu Zizhong].  
 Chu person for this blame Zizhong  
 ‘People of Chu for this blame Zizhong.’
- b. 君子 是 以 惡 之。 (左傳•昭公元年)  
 Junzi [pp shi<sub>i</sub> yi t<sub>i</sub>] [vp wu zhi].  
 gentleman this for detest 3.Obj  
 ‘Gentlemen for this detest it.’
- c. 招 虞人 以 弓 (左傳•昭公二十年)  
 [vp zhao yuren [pp yi gong]]  
 summon ranger with bow  
 ‘(he) summoned with a bow’
- d. 弓 以 招 士 (ibid)  
 [pp gong<sub>i</sub> yi t<sub>i</sub>] zhao shi  
 bow with summon official  
 ‘(he) summoned officials with a bow’

Since *wh*-in-situ is generally forbidden in LAC, if *wh*-elements occur together with 以 *yi*, they always appear in the form of *wh*-YI, even if being internally complex (167a-b/c) (Wang 2013). I argue that 以 *yi* should be treated as a preposition ‘with’, and the inverted *wh*-YI order is derived from PP inversion followed by separate movement of *wh*-constituents and the preposition YI.

- (167) a. 何 以 卑 我? (國語•晉語四)  
 He<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [v<sub>P</sub> bei wo]?  
 what for despise me  
 'For what (do you) despise me?'
- b. 將 何 以 守 國? (國語•周語上)  
 Jiang he<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [v<sub>P</sub> shou guo]?  
 Fut what with guard state  
 'With what will (he) guard the state?'
- c. 其 將 何 辭 以 對? (左傳•隱公三年)  
 Qi jiang [he ci]<sub>i</sub> yi<sub>j</sub> [v<sub>P</sub> dui [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?  
 Mod will what utterance with reply  
 'With what utterances will (I) reply?'

## 6.1. Nature of YI

There are two categories of *wh*-YI: adverbials of reason (167a), and adverbials of instrument (167b-c). YI in adverbials of reason is a preposition 'for', yet when *wh*-YI functions as an adverbial of instrument, YI could be: 1) a preposition, 2) a light verb, or 3) a high applicative. In this subchapter, I only discuss the nature of YI in instrument PPs.

### 6.1.1. YI as a Preposition

I treat the morpheme 以 *yi* in the instrumental *wh*-YI as a preposition 'with' heading an adjunct prepositional phrase, following the traditional analysis (Wang 1958a, 1962, Zhou 1959, Peyraube 1996, 1997, p.c., Guo 1998, Djamouri 2009, among many others). I argue for the prepositional nature of 以 *yi* from two aspects: 1) the parallel between DP-YI and well-acknowledged PPs, as well as 2) the asymmetry between sentential negation and constituent negation.

The DP-YI structure is similar to well-acknowledged PPs in four aspects: 1) DP fronting, 2) flexible distribution, 3) intervening constituents between DP-YI/P and vP as

well as 4) complementary distribution with fronting markers. Moreover, YI can precede or follow the same main verbs.

First, the robust phenomenon of DP movement with a preposition occupying the head node of a functional projection lends indirect support to the traditional approach of analysing 以 *yi* as a preposition. In LAC, the canonical order of prepositional phrases is P-DP,<sup>77</sup> but the reverse order is also prevalent. Analogous to head-initial prepositional phrases, the YI-DP order is also regarded as canonical; moreover, the presumed basic order YI-DP can be reversed into the marked order DP-YI.

For a non-*wh*-DP, when it functions as the complement of a preposition, it can follow the preposition in the canonical order, as in (168a). It is also widespread for a prepositional complement to front to a position preceding the preposition. In the PP headed by 與 *yu* in (168b), the non-*wh*-DP object moves from the complement to the specifier position of PP, generating the reverse order DP-*yu*. It is notable that 與 *yu* ‘with; than’ in (168) functions differently: it introduces the theme argument in (168a), whereas forms a comparative construction in (168b).

- (168) a. 子木 與 之 語 (國語•楚語上)  
 Zimu [pp yu zhi] yu  
 Zimu with 3.Obj talk  
 ‘Zimu talked with him’
- b. 八 世 之 後, 莫 之 與 京。  
 Ba shi zhi hou, mo [pp zhi<sub>i</sub> yu t<sub>i</sub>] jing.  
 8 generation Gen after none 3.Obj than great  
 ‘After eight generations, there will be no one greater than him.’  
 (左傳•莊公二十二年)

In (169a-b), the argument PP is base-generated postverbally, and the prepositional complement ‘this’ raises to a specifier position preceding its head preposition ‘in’, generating the order VP-DP-P. The canonical order is VP-P-DP, as shown in (169c-d)

<sup>77</sup> The claim of P-DP being the unmarked order is supported by the overwhelming proportion of P-DP structures relative to the DP-P configuration.

which involve prepositions *yu* and *hu* ‘in’ respectively. (169a-b) show that a PP can be base-generated postverbally and still follow the verb after movement. I mark *shi fei* ‘right wrong’ in the first clause of (169c) as a PP, as there is a null preposition. The second clause contains the unmarked, complete PP, i.e. *yu*-DP. Since these two clauses are parallel, I assume that the first clause shares the same structure and it should also involve a preposition *yu*. In this specific example, the preposition is null.

- (169) a. 皆 知 己 之 所 願欲 之 舉  
 Jie zhi ji zhi suo yuanyu zhi ju  
 all know self Gen SUO desire Gen behaviour  
 在 是 于 也...  
 zai [pp shi<sub>i</sub> yu t<sub>j</sub>] ye  
 be.in this in Decl  
 皆 知 己 之 所 畏恐 之 舉  
 Jie zhi ji zhi suo weikong zhi ju  
 all know self Gen SUO fear Gen behaviour  
 在 是 于 也 (荀子•富國)  
 zai [pp shi<sub>j</sub> yu t<sub>j</sub>] ye  
 be.in this in Decl

‘(people) all know that the behaviours they desire themselves depend on this ...

(people) all know that the behaviours they fear themselves depend on this’

- b. 禍 其 在 此 乎! (左傳•僖公二十一年)

Huo qi zai [pp ci<sub>j</sub> hu t<sub>j</sub>]!

Misfortune Mod be.in this in

‘Misfortune lies in this!’

- c. 安危 在 是 非, 不 在 于 強 弱。

Anwei zai [pp [shi fei]], bu zai [pp yu [qiang ruo]].

safety be.in right wrong not be.in in strongness weakness

‘The safety (of a country) depends (on whether its ruler has a sense of) right and wrong, but not depends on (the country being) strong or weak.’

(韓非子•安危)

- d. 榮辱 之 責 在 乎 己,  
 Rongru zhi ze zai [pp hu yi],  
 honour.shame Gen responsibility be.in in self  
 而 不 在 乎 人。 (韓非子•大體)  
 er bu zai [pp hu ren].  
 Conj not be.in in others  
 ‘The responsibilities of honour and shame depend on oneself, but not depend on others.’

PP Inversion between complements and head prepositions within adjunct adverbials is also a robust aspect of LAC. In (170a), the complement DP follows the preposition 於/于 *yu* ‘at; in/from’, yet the prepositional complements in (170b-c) precede their head P. In (170c), the head-initial order in the latter clause is canonical, and the DP-P order in the former clause is marked. Similarly, when the prepositional complement is pronominal, it can front to a position preceding its head preposition, generating an inverted Pron-P order. (170d) shows the unmarked P-Pron order, with the demonstrative pronoun 是 *shi* ‘this’ staying in its base position following the preposition. In (170e) however, the same demonstrative pronoun raises to a higher position preceding its head preposition.

- (170) a. 盟 于 唐 (左傳•隱公十九年)  
 meng [pp yu tang]  
 ally at Tang  
 ‘(they) allied at Tang’
- b. 室 於 怒, 市 於 色 (左傳•昭公十九年)  
 [pp shi<sub>i</sub> yu t<sub>i</sub>] nu, [pp shi<sub>j</sub> yu t<sub>j</sub>] se  
 home at get.angry market at get.angry  
 ‘get angry at home (but) flare up at the market’

c. 野 于 飲 食 ... 渝 食 于 野  
 [pp ye<sub>i</sub> yu t<sub>i</sub>] yin shi ... yu shi yu ye  
 wild-field at drink eat ... abuse food at wild-field

‘Eating in the wild fields ... abusing the food in the wild fields.’

(墨子·非樂上; Xu 2006: 37)

d. 亦 乃 取 於 是 者 也 (莊子·知北遊)

Yi nai qu [pp yu shi] zhe ye.  
 also be take from this ZHE Decl

‘(It) is also taken from this.’

e. 皆 知 己 之 所 願 欲 之 舉

Jie zhi ji zhi suo yuanyu zhi ju  
 all know self Gen SUO desire Gen behaviour

在 是 于 也...

zai [pp shi<sub>i</sub> yu t<sub>i</sub>] ye  
 be.in this in Decl

皆 知 己 之 所 畏 恐 之 舉

Jie zhi ji zhi suo weikong zhi ju  
 all know self Gen SUO fear Gen behaviour

在 是 于 也 (荀子·富國)

zai [pp shi<sub>j</sub> yu t<sub>j</sub>] ye  
 be.in this in Decl

‘(people) all know that the behaviours they desire themselves depend on this ...

(people) all know that the behaviours they fear themselves depend on this’

Parallel to PPs with well-acknowledged prepositions, when the YI-DP construction functions as an adjunct adverbial, the inverted order is also prevalent. Examples (171a) and (171b) involve non-*wh*-DPs being taken as complements by 以 *yi*. (171a) demonstrates the default order YI-DP, yet the nominal DP 弓 *gong* ‘bow’ in (171b) raises to a position preceding the preposition, generating DP-YI.<sup>78</sup> Such an inversion

<sup>78</sup> Based on the breakdown of the occurrences of YI-DP-VP and DP-YI-VP in a 5<sup>th</sup>c BC text 左傳 *Zuozhuan*, the former is much more frequent than the latter, hence taken to be basic.

also applies to pronominal complements as in (171d) where the demonstrative pronoun 是 *shi* raises to a position preceding its head preposition *yi*. (171c) shows the unmarked P-Pron order.

- (171) a. 將 以 戈 擊 之 (左傳•昭公二十五年)  
jiang [vp[pp yi ge] ji zhi]  
Fut with spear strike 3.Obj  
‘(he) will strike him with a spear’
- b. 弓 以 招 士 (左傳•昭公二十年)  
[pp gong<sub>i</sub> yi t<sub>i</sub>] [vp zhao shi]  
bow with summon official  
‘(he) summoned officials with a bow’
- c. 楚 人 以 是 咎 子重。 (左傳•襄公三年)  
Chu ren [pp yi shi] [vp jiu Zizhong].  
Chu person for this blame Zizhong  
‘People of Chu for this blame Zizhong.’
- d. 君子 是 以 惡 之。 (左傳•昭公元年)  
Junzi [pp shi<sub>i</sub> yi t<sub>i</sub>] [vp wu zhi].  
gentleman this for detest 3.Obj  
‘Gentlemen for this detest it.’

For a *wh*-DP, when it functions as the complement of a well-accepted preposition, it always moves to a position preceding the preposition driven by obligatory *wh*-fronting. There are *wh*-P arguments in LAC concerning prepositions such as 與 *yu* ‘with; than’ (172a-d) and 乎 *hu* ‘to’ (172e-f). The preposition 與 *yu* takes 誰 *shui* or 孰 *shu* ‘who’ as its complement and they form a PP theme argument (172a-d). When a PP argument is headed by 乎 *hu* that selects 惡 *wu* ‘who; what’ as its complement, it functions as a goal argument (172e-f).

(172) a. 吾 誰 與 歸? (國語•晉語八)

Wu shui<sub>i</sub> yu<sub>j</sub> [VP [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] gui]?  
I whom with classify

'With whom am I classified?'

b. 吾 又 誰 與 爭?

Wu you shui<sub>i</sub> yu<sub>j</sub> [VP [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] zheng]?  
I then whom with compete

'Then who could we compete with?'

(左傳•昭公四年; Aldridge 2015a)

c. 王 誰 與 為 善? (孟子•滕文公上)

Wang shui<sub>i</sub> yu<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP wei shan]?  
emperor whom with conduct benevolence

'With whom does the emperor conduct benevolence?'

d. 吾 孰 與 處 于 此? (公羊傳•宣公十五年)

Wu shu<sub>j</sub> yu<sub>i</sub> [PP t<sub>i</sub> t<sub>j</sub>] [VP chu [PP yu ci]]?  
I whom with stay in here

'With whom do I stay in here?'

e. 則 寡人 惡 乎 屬 國 而 可?

[CP [TP Ze guaren wu<sub>i</sub> hu<sub>j</sub> [VP shu guo [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]] er ke?  
then I whom to entrust state Conj appropriate

'Then to whom do I entrust the state would be appropriate?'

(莊子•徐無鬼)

f. 女 將 惡 乎 比 予 哉?

Ru jiang wu<sub>i</sub> hu<sub>j</sub> [VP bi yu [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] zai?  
you Fut what to compare me Q

若 將 比 予 于 文 木 邪? (莊子•人間世)

Ruo jiang [VP bi yu [PP yu [wen mu]]] ye?  
you Fut compare me to useful wood Q

'To what will you compare me? Will you compare me to useful wood?'

When a *wh*-DP is taken by another well-accepted preposition 為 *wei* 'for' in an adjunct



PP, it also undergoes obligatory *wh*-fronting. In (173), the *wh*-complements of the preposition 為 *wei* ‘for’, i.e. 何 *he*, 奚 *xi* and 曷 *he* raise out the head-initial adjuncts PP to a position preceding the preposition.

(173) a. 吾 何 為 不 增? (國語•晉語九)

Wu he<sub>i</sub> wei<sub>j</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] bu [<sub>vp</sub> zeng]?

I what for not enhance

‘For what do I not enhance (it)?’

b. 君 奚 為 不 見 孟 軻 也?

Jun xi<sub>i</sub> wei<sub>j</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] bu [<sub>vp</sub> jian Meng Ke] ye?

Your.Majesty what for not visit Meng Ke Decl

‘For what did Your Majesty not visit Meng Ke?’

(孟子•梁惠王下)

c. 曷 為 獨 不 欲 富 與 貴 也?

He<sub>i</sub> wei<sub>j</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] du bu yu fu yu gui ye?

what for alone not want wealth and prosperity Decl

‘For what (do gentlemen) alone not want wealth and prosperity?’

(晏子春秋•內篇雜)

Likewise, I assume that argument and adjunct *wh*-YI constructions share the same underlying structure with *wh*-PPs. In (174a), *wh*-P is the preverbal complement of the ditransitive verb ‘give’, and there is an inversion within this PP, generating *wh-yi*. (174b-c) are the canonical examples involving non-*wh*-PP arguments which show the unmarked order *yi*-DP.

(174) a. 將 何 以 給 之? (左傳•昭公十六年)

Jiang he<sub>i</sub> yi<sub>j</sub> [<sub>vp</sub> [<sub>pp</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] gei zhi]?

Fut what with give 3.Obj

‘What will (we) give them?’

- b. 惠 王 以 樑 与 魯陽 文子 (國語•楚語下)  
 Hui wang [VP [PP yi Liang] yu Luyang Wenzhi].  
 Hui emperor with Liang give Luyang Wenzhi  
 ‘Emperor Hui gave Luayng Wenzhi (the land of) Liang.’
- c. 天子 不 能 以 天下 与 人。 (孟子•萬章下)  
 Tianzi bu neng [VP [PP yi tianxia] yu ren].  
 monarch not can with world give others  
 ‘The monarch cannot give others the world.’

In (175), the *wh*-complement raises out of an adjunct prepositional phrase headed by *yi*, and lands in a position in front of *yi*, generating the derived order *wh*-YI.

- (175) a. 將 何 以 守 國? (國語•周語上)  
 Jiang he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP shou guo]?  
 Fut what with guard state  
 ‘With what will (he) guard the state?’
- b. 將 何 以 戰? (左傳•僖公二十八年)  
 Jiang he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP zhan]?  
 Fut what with fight  
 ‘With what will (we) fight?’
- c. 吾 何 以 堪 之? (左傳•僖公三十年)  
 Wu he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP gan zhi]?  
 I what with deserve 3.Obj  
 ‘How do I deserve it?’
- d. 子 何 以 知 之? (左傳•襄公三十一年)  
 Zi he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP zhi zhi]?  
 you what with know 3.Obj  
 ‘How do you know it?’

e. 先生 獨 何 以 說 吾 君 乎?  
 Xiansheng du he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP yue wu jun] hu?  
 sir(you) alone what with please my lord Q  
 'How did you alone please my lord?'

(莊子•徐無鬼)

Second, both PPs and YI-DP (or DP-YI) constructions display flexible distribution, in that these phrases can appear either before or after the verb. It is generally acknowledged that word order flexibility is a robust property of PPs in LAC (He 1989, 1992, Peyraube 1996, Aldridge 2012b). Both (176a) and (176b) contain head-initial source PPs, and they are excerpted from the same chapter of the same book. In (176a), the preposition 自 *zi* 'from' and the nominal argument it selects occur in front of the verb 反 *fan* 'return', whereas the source PP in (176b) follows the verb 出 *chu* 'exit'. Likewise, locative PPs headed by the same preposition 于 *yu* 'at' either precede the verb (176c) or follow the verb (176d-e). According to Xu (2006), 於/于 *yu* introduces an NP[+locative], with the word order *yu*-NP[+locative]-V or V-*yu*-NP[+locative]. Peyraube (1994, 1996) points out that in Archaic Chinese, locative PPs were almost always postverbal, but there are cases of preverbal locative PPs. The preposition *yu* is essentially postverbal: the VP-PP order accounts for more than 90% of all cases.

(176) a. 世子 自 楚 反, 復 見 孟子。  
 Shizi [zi Chu] fan, fu jian Mengzi.  
 heir from Chu return again see Mencius  
 'The heir returned from Chu and again visited Mencius.'

(孟子•滕文公上; Aldridge 2012b: 140)

b. 吾 聞 出 於 幽 谷 遷 于 喬 木 者。  
 Wu wen chu [yu you gu] qian [yu qiao mu] zhe.  
 I hear exit Loc dark valley move P tall tree Det  
 'I have heard of leaving a dark valley and heading to a tall tree.'

(*ibid*)

c. 吾 見 子 于 此 止 矣。 (國語•吳語)

Wu jian zi [yu ci] zhi yi.

I see you at here cease Decl

‘Our meeting ceases at here.’

d. 必 死 于 此。 (國語•晉語四)

Bi si [yu ci].

must die at here.

‘(I) must die at here.’

e. 盜 跖 死 利 于 东陵 之 上。<sup>79</sup>

Dao Zhi si li [yu [Dongling zhi shang]].

thief Zhi die.for profit at Dongling Gen top

‘Zhi the thief died for profit at the top of (Mt.) Dongling.’

(庄子•骈拇)

Similarly, YI-DP constructions can also occupy variable positions, preceding or following a verb. Examples (177a) and (177b) involve *yi*-PP adjuncts, and they are extracted from the same source. The YI-DP adjunct in the former precedes the verb 擊 *ji*, yet that in the latter follows the verb 討 *tao* and the direct object 臣 *chen*. A YI-DP adjunct also appears postverbally in (177c) which involves the same verb *ji* as that in (177a). The preposition 以 *yi* is essentially a preverbal preposition, as 88% of *yi*-PPs are preverbal yet only 12% of *yi* occurs in a postverbal position (Sun 1991, Peyraube 1996).

(177) a. 將 以 戈 擊 之 (左傳•昭公二十五年)

jiang [vp [pp yi ge] ji zhi]

Fut with spear strike 3.Obj

‘(he) will strike him with a spear’

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<sup>79</sup> In Archaic Chinese, locative words such as 上 *shang* ‘top’ could appear in [N 之上] (‘the top of N’), functioning as an independent noun. As a syntactic head of a non-locative noun, the locative word *shang* binds prosodically with a non-locative noun, and is reanalysed as occupying the L position (Feng 2015).

- b. 使 有司 討 臣 以 乾戈 (ibid)  
 shi yousi [VP tao chen [PP yi gange]]  
 make official crusade.against subject(me) with weapon  
 ‘(Your Majesty) ordered officials to crusade against me, your subject, with weapons’
- c. 武子 擊 之 以 杖 (韓非子•外儲說下)  
 Wuzi [VP ji zhi [PP yi zhang]]  
 Wuzi strike 3.Obj with cane`  
 ‘Wuzi strikes him with a cane’

The observation on the flexible distribution of YI-DP constructions also applies to YI-PP arguments. When *yi*-DP acts as an argument of a ditransitive verb ‘change’, it either appears preverbally (178a) or postverbally (178b). Example (178a) and (178b) are also extracted from the same book.

- (178) a. 何 可 廢 也? 以 羊 易 之。  
 He ke fei ye? Yi yang yi zhi.  
 what Pot stop Nmlz YI sheep change 3.Obj  
 ‘How could we discontinue (the sacrifice)? Exchange it for a sheep.’  
 (孟子•梁惠王上; Aldridge 2012b: 140)
- b. 我 非 愛 其 財 而 易 之 以 羊 也。  
 Wo fei ai qi cai er yi zhi yi yang ye.  
 I not.be love 3.Gen cost Conj change 3.Obj YI sheep Nmlz  
 ‘It is not that I care about the cost and exchanged it for a sheep.’  
 (ibid)

When YI selects a *wh*-complement, they always appear in the derived order *wh*-YI due to obligatory *wh*-fronting. Analogous to YI-DP (non-*wh*), YI-*wh* can be base-generated either before or after the verb. In (179a), the base position of the YI-*wh*-PP is preverbal, as can be shown by the canonical sentence in (179b) which involves a similar structure but two non-*wh*-complements. After fronting, *wh*-YI still precedes the verb. In (179c) however, the *wh*-YI-PP is base-generated postverbally, and

it appears in a preverbal position after movement. The canonical structure of (179c) is in (179d) which involves the same verb but non-*wh*-complements.

(179) a. 將 何 以 給 之? (左傳•昭公十六年)

Jiang he<sub>i</sub> yi<sub>j</sub> [vP [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] gei zhi]?

Fut what with give 3.Obj

‘What will (we) give them?’

b. 惠 王 以 樑 与 魯陽 文子 (國語•楚語下)

Hui wang [vP [pp yi Liang] yu Luyang Wenzhi].

Hui emperor with Liang give Luyang Wenzhi

‘Emperor Hui gave Luayang Wenzhi (the land of) Liang.’

c. 何 以 報 我? (國語•晉語四)

He<sub>i</sub> yi<sub>j</sub> [vP bao wo [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] ]?

what with requite me

‘With what (will you) requite me?’

d. 君 必 報 之 以 爵祿 (禮記•燕義)

Jun bi [vP bao zhi [pp yi juelu]]

monarch must requite 3.Obj with title.stipend

‘The monarch must requite them with title and stipend.’

Third, a DP-YI construction allows an intervening constituent between it and vP, which is also a robust feature of PP structures in LAC. In (180a), *wh*-YI appears above vP, and the modal of ability 能 *neng* is located between *wh*-YI and vP. Similarly, a non-*wh*-PP can also be followed by a medial element above vP, as shown by (180b) where an adverb 小 *xiao* ‘fractionally’ intervenes between DP-YI and a verb 賜 *ci*. In terms of (180c), it illustrates the location of the aspectual adverb 將 *jiang* ‘Fut’ which intervenes between an unmarked head-initial PP 與客 *yu ke* ‘with protégé’ and vP. The resemblance between DP-YI (180a) and well-acknowledged PPs (180b-c) with regard to the fact that either of them has to immediately precede V indirectly indicates their common nature.

- (180) a. 吾 王 庶幾 無 疾病 與,  
 Wu wang shuji wu jibing yu,  
 my lord probably not.have disease Decl  
 何 以 能 田獵 也? (孟子•梁惠王下)  
 he<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] neng [v<sub>p</sub> tianlie] ye?  
 what with can hunt Decl  
 'My Lord probably does not have diseases, (otherwise) how can (he) hunt?'
- b. 今 將 惠 以 小 賜 (國語•魯語上)  
 jin jiang [pp hui<sub>i</sub> yi t<sub>i</sub>] xiao ci  
 now Fut benefaction with fractionally grant  
 'now (you) will fractionally grant benefactions'
- c. 鄭 也 與 客 將 行 事 (國語•晉語三)  
 Zheng ye [pp yu ke] jiang [v<sub>p</sub> xing shi]  
 Zheng also with protégé Fut execute incident  
 'Zheng will also execute the incident with his protégé'

It is noteworthy that the non-*wh*-DP 惠 *hui* 'benefaction' in (180b) moves to a higher position preceding the preposition 以 *yi* 'with', yet the prepositional complement 客 *ke* 'protégé' in (180c) remains in its base position following the preposition 與 *yu* 'with'. 惠 *hui* undergoes positioning because it is selected by an instrument preposition, but 客 *ke* is an indirect object, so it stays in situ.

Fourth, prepositions preceded by preposed *wh*- and non-*wh*-DPs are always in complementary distribution with fronting markers ZHI/SHI. This statement also applies to constructions involving 以 *yi*: a fronting marker can only follow a DP, but never a DP-*yi* structure. This fact not only suggests the parallel between *yi* and other well-recognised prepositions, but also supports the view that both prepositions and fronting markers target the head node of some functional projection.

Additionally, to provide an extra piece of evidence supporting the prepositional nature of *yi*, I show that *yi*-DP can either precede or follow the same group of main verbs, as in (181-184). In (181b/182b/183b/184b), *yi* following VP should be a preposition, rather than a *v*. Therefore, it would be unreasonable to claim that *yi* following some main verbs in (181b/182b/183b/184b) is a preposition, but it is not a preposition when

preceding the same group of main verbs in (181a/182a/183a/184a). 服 *fu* means ‘to dress up’ (184a), and 朝服 *chaofu* in which 朝 *chao* means ‘court’, conveys the meaning ‘to dress up with a court dress’ (184b).

(181) a. 將 以 戈 擊 之 (左傳•昭公二十五年)

jiang [vp [pp yi ge] ji zhi]

Fut with spear strike 3.Obj

‘(he) will strike him with a spear’

b. 武子 擊 之 以 杖 (韓非子•外儲說下)

Wuzi [vp ji zhi [pp yi zhang]]

Wuzi strike 3.Obj with cane

‘Wuzi strikes him with a cane’

(182) a. 是 可 以 少 固。 (國語•鄭語)

Shi<sub>i</sub> ke [pp t’<sub>i</sub> yi t<sub>i</sub>] [vp shao gu].

this can with slightly secure

‘(You) can slightly secure (it) with this.’

b. 固 國 不 以 山 溪 之 險

[vp gu guo] bu [pp yi [shan xi zhi xian]]

secure country not with mountain stream Gen steep

‘(a ruler) secures his country not with steep mountains and gorges’

(孟子•公孫丑下; adapted from Aldridge 2012b: 148)

(183) a. 此 可 以 觀 德行 矣。 (禮記•射義)

Ci<sub>i</sub> ke [pp t’<sub>i</sub> yi t<sub>i</sub>] [vp guan dexing] yi.

this can with observe morality.behaviour Perf

‘(People) can observe (one’s) morality and behaviours with this.’

b. 觀 之 以 其 遊 (晏子春秋•問上)

[vp guan zhi] [pp yi [qi you]]

observe 3.Obj with Gen company

‘observe him with his companies’



- (184) a. 未 之 能 以 服 ...  
 wei zhi<sub>i</sub> neng [pp t'<sub>i</sub> yi t<sub>i</sub>] [v<sub>p</sub> fu] ...  
 not.yet 3.Obj can with dress.up  
 未 之 能 以 出 (春秋公羊傳)  
 wei zhi<sub>j</sub> neng [pp t'<sub>j</sub> yi t<sub>j</sub>] [v<sub>p</sub> chu]  
 not.yet 3.Obj can with present  
 ‘(I) have not been able to dress up with it...(I) have not been able to present (sacrifices) with it’
- b. 朝服 之 以 縞 也 (禮記•玉藻)  
 [v<sub>p</sub> chaofu zhi] [pp yi gao] ye  
 court.dress.up 3.Obj with silk Decl  
 ‘dress up oneself in a court dress with silk’

This point is further supported by examples extracted from the same text and sharing the same meaning (185) (= (178)). Each example in (185) involves a VP *yi zhi* ‘change it’ and the *yi*-DP *yi yang*. Since *yi* following VP in (185b) cannot be a *v* but a preposition, the same *yi* in (185a) should be treated as a preposition too.

- (185) a. 何 可 廢 也? 以 羊 易 之。  
 He ke fei ye? Yi yang yi zhi.  
 what Pot stop Nmlz YI sheep change 3.Obj  
 ‘How could we discontinue (the sacrifice)? Exchange it for a sheep.’  
 (孟子•梁惠王上; Aldridge 2012b: 140)
- b. 我 非 愛 其 財 而 易 之 以 羊 也。  
 Wo fei ai qi cai er yi zhi yi yang ye.  
 1 not.be love 3.Gen cost Conj change 3.Obj YI sheep Nmlz  
 ‘It is not that I care about the cost and exchanged it for a sheep.’  
 (*ibid*)

Owing to the resemblances of phrases headed by prepositions and those headed by YI as well as the extra evidence discussed above, it is justifiable to claim that YI shares some similarities with prepositions.

To reinforce the prepositional analysis of 以 *yi*, I refer to the asymmetry between sentential negation and constituent negation. Examples (186a-b) and (186c-d) demonstrate wide negation and narrow negation respectively. In (186a), it is obvious that both the *yi*-DP construction as well as the VP ‘harm people’ are negated, because gentlemen do not harm people in any way. Similarly, the negator 不 *bu* in (186b) negates both conjoined VPs, as it would be unreasonable if one did not ‘get’ a sage yet still managed to see him. The DP 聖人 *shengren* is an external topic preceding the subject, and the movement of this topic from the clause-internal domain to the left periphery leaves a trace in the form of an overt resumptive pronoun 之 *zhi*. By contrast, negation in the former clause of (186c) only takes scope over *yi*-DP whereas the VP ‘obtain them’ is not negated, because the verb ‘retain’ in the posterior context implies that the action of obtaining wealth and status must have been conjectured to be done, otherwise the action of retaining them would not have been mentioned. As for (186d), it reveals the other form of constituent negation with the postverbal *yi*-DP. I claim that (186d) involves constituent negation, in that based on contextual information, the negation only takes scope over the specific methods to realise those goals, excluding the goals themselves. For sentences involving constituent negation, they either take the sequence of Neg-*yi*-DP-VP, as in (186c), or VP-Neg-*yi*-DP, as in (186d).

- (186) a. 君子 不 以 其 所 以 養 人 者  
 Junzi bu yi [[qi suo yi yang ren] zhe]  
 gentleman not with 3.Gen SUO with nurture person ZHE  
 害 人。<sup>80</sup> (孟子•梁惠王上)  
 hai ren.  
 harm person  
 ‘Gentlemen do not harm people using that with which they nurture people.’

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<sup>80</sup> As a third person genitive pronoun, 其 *qi* functions as the subject of a nominalised embedded clause.

b. 聖人 吾 不 得<sup>81</sup> 而 見 之 矣 (論語•述而)

Shengren wu bu de er jian zhi yi  
sage I not get Conj see 3.Obj Perf

‘I will not be able to get to see a sage’

c. 不 以 其 道 得 之, 不 處 也。

Bu yi [qi dao] de zhi, bu chu ye.  
not with 3.Gen means obtain 3.Obj not retain Decl

‘(If people) obtain them not by their means, (people) do not retain (them).’

(論語•裏仁)

d. 域 民 不 以 封 疆 之 界,

[<sub>VP</sub> Yu min] bu yi [feng jiang zhi jie],  
enclose people not with close strong Gen border

固 國 不 以 山 溪 之 險,

[<sub>VP</sub> gu guo] bu yi [shan xi zhi xian],  
secure country not with mountain stream Gen steep

威 天 下 不 以 兵 革 之 利。

[<sub>VP</sub> wei tianxia] bu yi [bingge zhi li].

impress world not with military Gen advantage

‘(A ruler) keeps his population not with tight borders, secures his country not with steep mountains and gorges, and impresses the rest of the world not with military might.’

(孟子•公孫丑下; Aldridge 2012b: 148)

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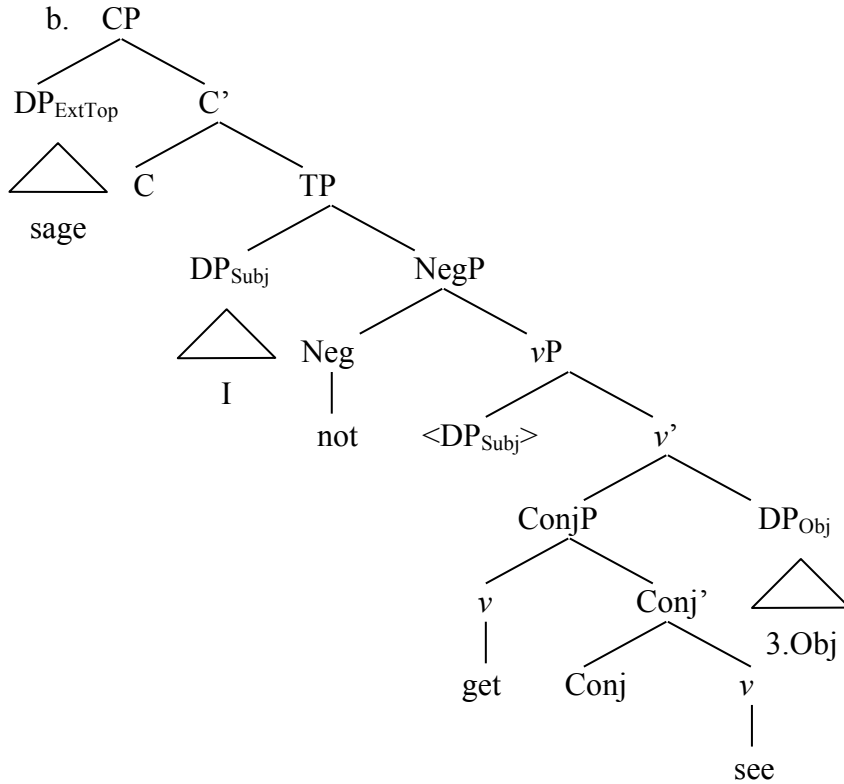
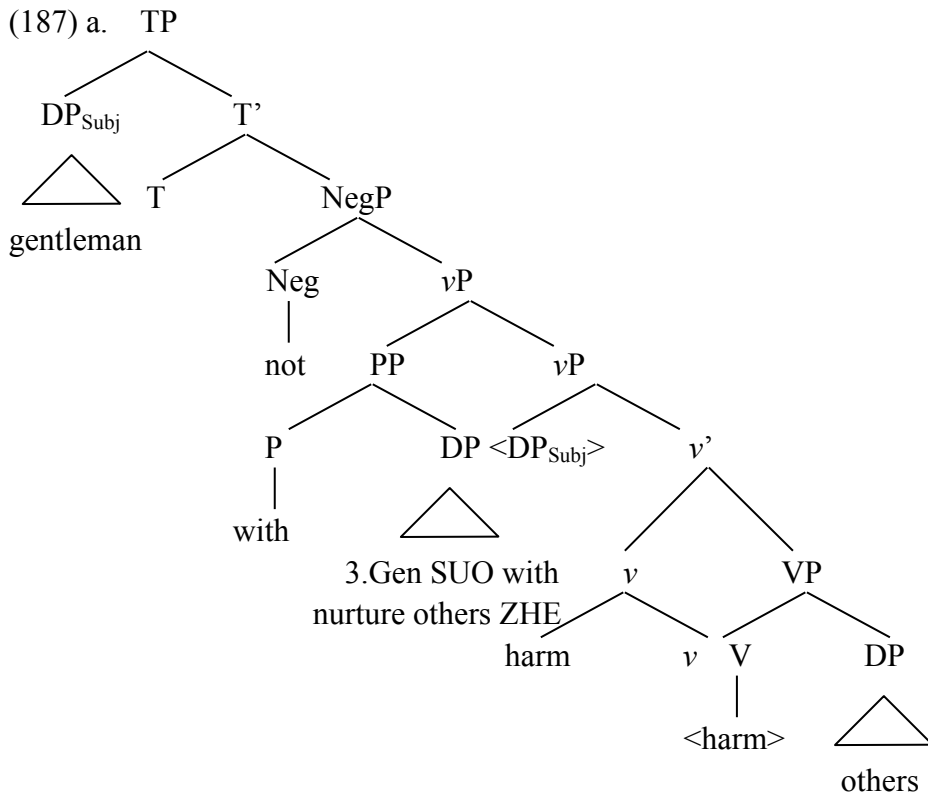
<sup>81</sup> The verb 得 *de* ‘get’ is an auxiliary verb expressing the meaning ‘get to, manage to, be able to, can’. Different from 能 *neng* ‘be capable of, can’ that takes a clausal object, *de* is involved in a serial verb construction ‘get and do (something)’. 而 *er* can be optionally inserted between the two verbs (Pulleyblank 1995) (cf. (186b) and (xxxviii)).

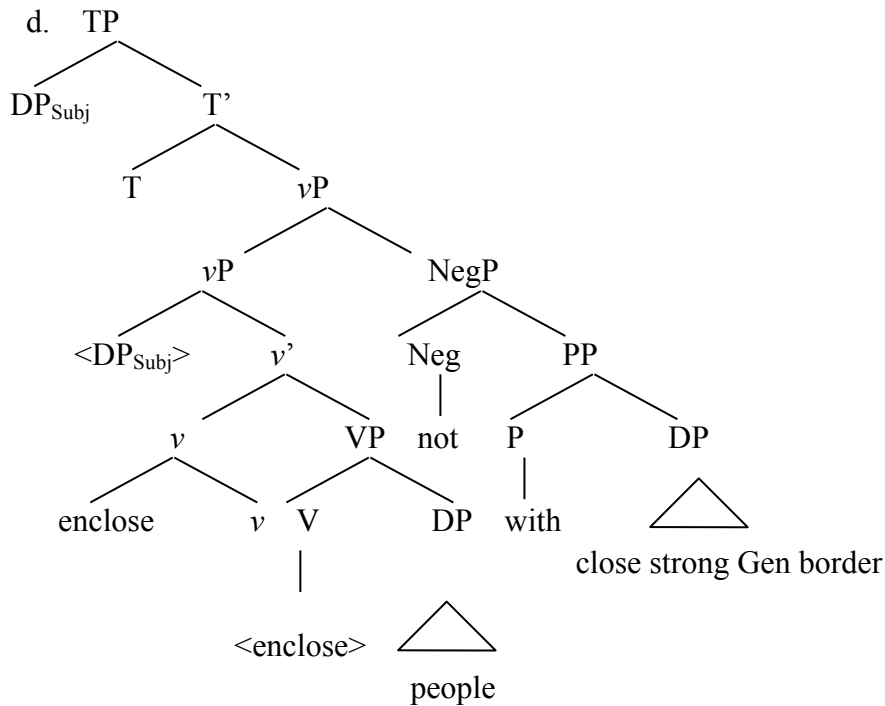
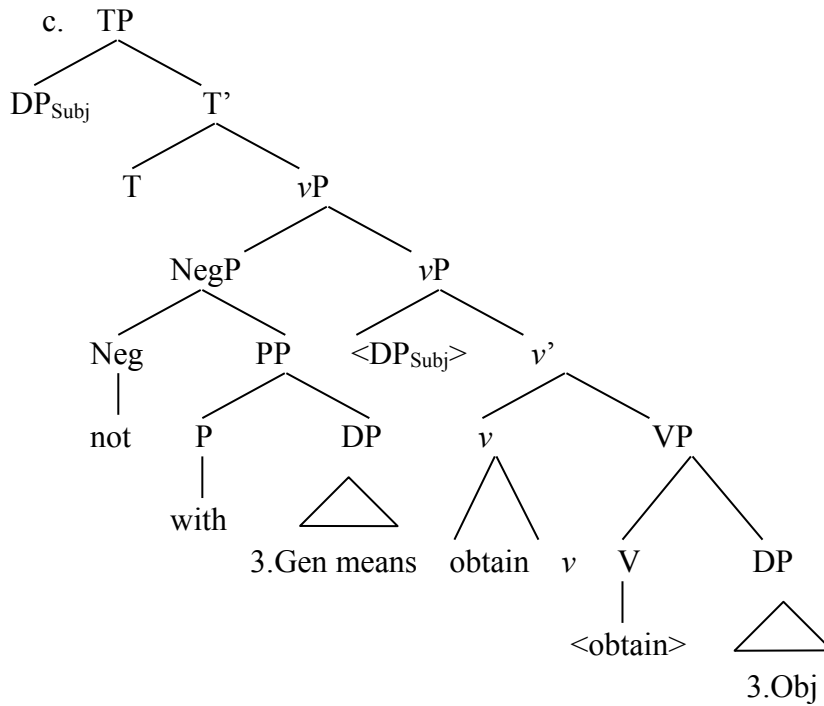
(xxxviii) 而 未 得 見 (左傳•襄公三十一年)

er wei de jian  
Conj not.yet get see

‘but (we) have not got to see (you) yet’

The tree diagrams of (186a-b) and (186c-d) are (187a-b/c-d), illustrating wide negation and narrow negation respectively.





Therefore, it would be difficult to account for the presence of constituent negation if *yi*-DP was not analysed as a PP: if *yi*-DP was not a constituent, but rather a high applicative (see Chapter 6.1.3 for detailed discussion), then there would only be sentential negation like that in (186a), as that would be no other constituent to negate.

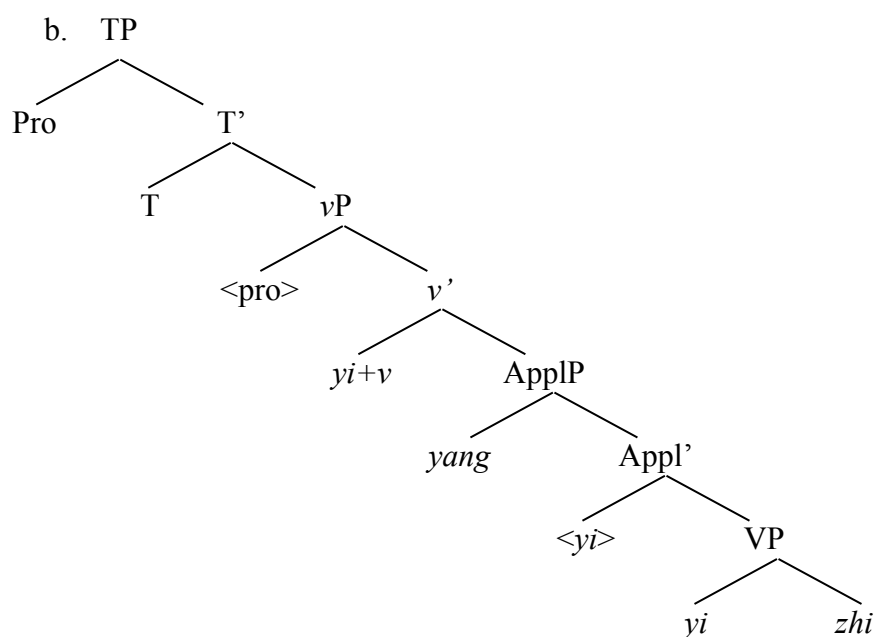
To summarise, owing to the robustness of DP-P pattern, the distributional parallel between DP-YI and PPs as well as the presence of constituent negation, I stick to the traditional view and treat 以 *yi* as a preposition.



arguments involving movement, the position of negation and constituency. According to Aldridge (2012b), the functional morpheme 以 *yi* heads a high applicative phrase, namely, the nature of YI-DP is ApplP rather than PP. The Appl head *yi* moves to *v*, generating the order YI-DP-VP, which is taken to be basic, based on its frequent occurrence in a 5<sup>th</sup>c BC text. When the YI-DP sequence appears preverbally (189a), the tree structure is presented in (189b). Following this analysis, the *wh*-YI-VP configuration is formed via *wh*-fronting from the specifier of ApplP to a focus node.

(189) a. 何 可 廢 也? 以 羊 易 之  
 He ke fei ye? Yi yang yi zhi.  
 what Pot stop Nmlz YI sheep change 3.Obj  
 ‘How could we discontinue (the sacrifice)? Exchange it for a sheep.’

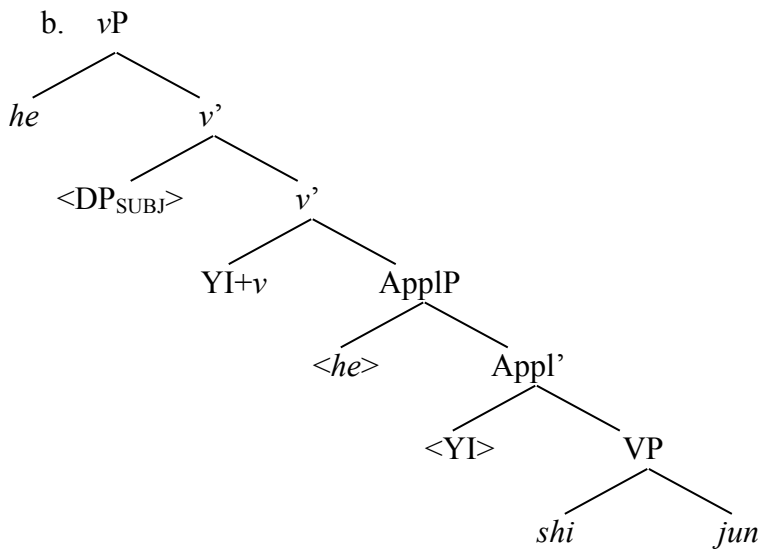
(孟子•梁惠王上; Aldridge 2012b: 140)



(From Aldridge 2012b: 141)

As for the structure involving a *wh*-word preceding YI (190a), it is generated via *wh*-movement which is focus movement to the edge of *vP* (Aldridge 2010a). The *wh*-word moves from [Spec, ApplP] to a focus position (190b).

- (190) a. 何 以 事 君? (左傳•僖公五年; Aldridge 2012b: 143)  
 He yi shi jun?  
 what with serve lord  
 ‘What does one serve his lord with?’



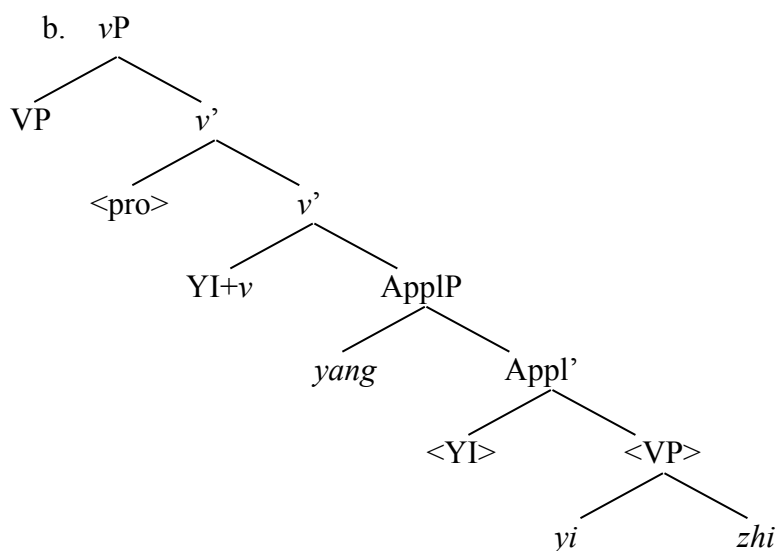
(From Aldridge 2012b: 143)

When the YI-DP sequence follows the verb and direct object, the structure of VP-YI-DP is hypothesised to be derived from VP fronting to the edge of  $\nu$ P, as in (191).

- (191) a. 我 非 愛 其 財 而 易 之 以 羊 也。  
 Wo fei ai qi cai er yi zhi yi yang ye.  
 I not.be love 3.Gen cost Conj change 3.Obj YI sheep Nmlz  
 ‘It is not that I care about the cost and exchanged it for a sheep.’

(孟子•梁惠王上; Aldridge 2012b: 140)





(From Aldridge 2012b: 142)

Since raisings of both the focused DP and VP target the outer specifier of  $\nu\text{P}$ , the movement of focused DPs is blocked. Consequently, extraction is expected to be impossible when YI-DP is postverbal, and this prediction is borne out in that the \*DP-VP-YI pattern with *yi* stranded in a postverbal position by focus fronting is indeed unattested. The main argumentation for this proposal is derived from structural asymmetries between YI-DP-VP and VP-YI-DP, which could not be accounted for if YI-DP was a PP base-generated either inside or outside of VP.

There is no denying the fact that the \*DP-VP-*yi* ordering is impermissible in LAC. However, this theory predicts the wrong order between postverbal *wh*-word and *yi*: the presumed VP-*yi-wh* pattern is not attested for an independent reason, namely, *wh*-phrases other than those acting as the second complement of double object constructions must front. Moreover, I adopt the theory that a preposed *wh*-element occupies a specifier position of some functional projection above  $\nu\text{P}$ , not the edge of  $\nu\text{P}$ , so the assumed blocking effect on partial *wh*-movement caused by VP fronting should not occur. The blocking effect predicts that there should not be instances of *yi* being stranded in a postverbal position. Nevertheless, the availability of VP-*wh-yi* instances in LAC (192) demonstrates that the blocking effect on *wh*-movement triggered by VP fronting does not exist. This example also illustrates that VP fronting targets a node above  $\nu\text{P}$ , instead of the specifier of  $\nu\text{P}$ , because VP is higher than the functional projection for preposed *wh*-elements that is above  $\nu\text{P}$  (Wang 2013).

(192) 救 饑 何 以?<sup>82</sup> (國語•晉語四)

[Jiu ji] [pp he<sub>i</sub> yi t<sub>i</sub>] [VP t<sub>j</sub>]?  
solve famine what with

‘What with to solve the famine?’

Another defect of the applicative approach lies in the analysis concerning negation in the *yi* construction. Aldridge (2012b) generalises that both *yi*-DP and the following VP are in the scope of negation if *yi*-DP precedes the VP. However, this argument fails to take into consideration the asymmetry between sentential negation and constituent negation, as shown in (193a-b) (=186a-b) and (193c-d) (=186c-d) respectively.

(193) a. 君子 不 以 其 所 以 養 人 者  
Junzi bu yi [[qi suo yi yang ren] zhe]  
gentleman not with 3.Gen SUO with nurture person ZHE  
害 人。 (孟子•梁惠王上)

hai ren.  
harm person

‘Gentlemen do not harm people using that with which they nurture people.’

b. 聖人 吾 不 得 而 見 之 矣 (論語•述而)  
Shengren wu bu de er jian zhi yi  
sage I not get Conj see 3.Obj Perf

‘I will not be able to get to see a sage’

c. 不 以 其 道 得 之, 不 處 也。  
Bu yi [qi dao] de zhi, bu chu ye.  
not with 3.Gen means obtain 3.Obj not retain Decl

‘(If people) obtain them not by their means, (people) do not retain (them).’

(論語•裏仁)

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<sup>82</sup> 救饑 *jiu ji* ‘solve famine’ in (192) is treated as a VP, instead of a sentential subject, otherwise there would be no predicate in this sentence.

d. 域 民 不 以 封 疆 之 界,  
 [VP Yu min] bu yi [feng jiang zhi jie],  
 enclose people not with close strong Gen border  
 固 國 不 以 山 溪 之 險,  
 [VP gu guo] bu yi [shan xi zhi xian],  
 secure country not with mountain stream Gen steep  
 威 天下 不 以 兵革 之 利。  
 [VP wei tianxia] bu yi [bingge zhi li].  
 impress world not with military Gen advantage

‘(A ruler) keeps his population not with tight borders, secures his country not with steep mountains and gorges, and impresses the rest of the world not with military might.’

(孟子•公孫丑下; Aldridge 2012b: 148)

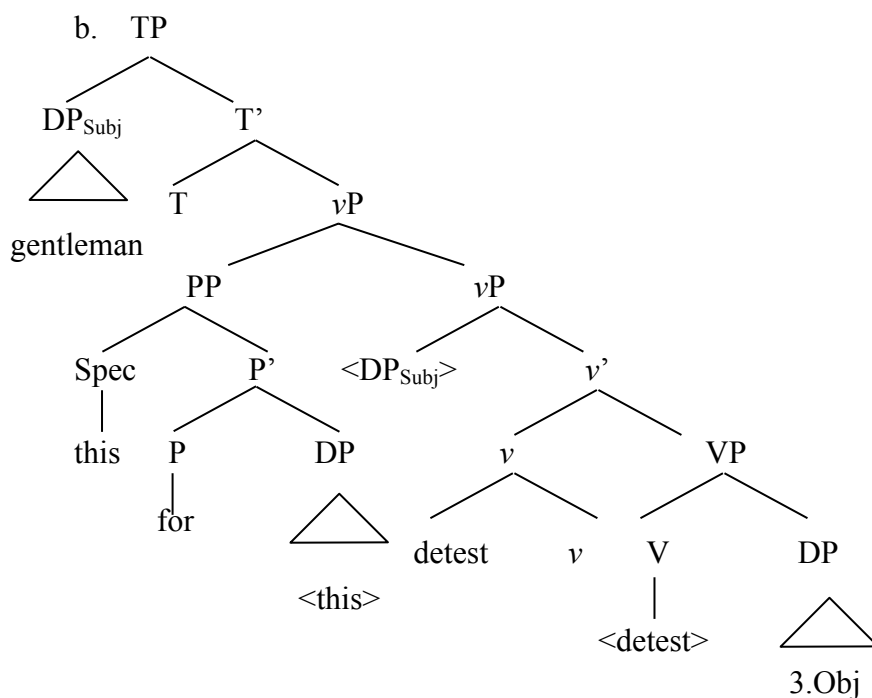
The applicative theory predicts that if *yi*-DP were analysed as a PP within VP, negation in (193d) would precede the verb and take scope over *yi*-DP; but the \*Neg-V...*yi*-DP pattern is unattested (Aldridge 2012b).

Nevertheless, I argue that according to contextual information, (193d) actually involves constituent negation, in that the negation only applies to the specific methods to realise those goals, excluding the goals themselves. For sentences involving constituent negation, they either take the form of VP-Neg-*yi*-DP, as in (166d), or Neg-*yi*-DP-VP, as in (193c). That is to say, \*Neg-V...*yi*-DP would not be a feasible pattern of constituent negation anyway: it represents either sentential negation, or negating only the VP but not *yi*-DP, which is unreasonable. Therefore, the lack of the \*Neg-V...*yi*-DP pattern fails to invalidate *yi*-DP as a PP (Wang 2013).

## 6.2. Reversed Order of *Wh*-P

I come up with altogether five potential explanations for the inverse order of *wh*-P: 1) inversion within PP, 2) mere *wh*-fronting, with the preposition stranded in its base position, 3) inversion within PP, with the preposition is then pied-piped with the *wh* to





The approach of inversion within PP applies well to non-*wh*-PPs. For non-*wh* non-pronominal *yi*-DPs, the canonical *yi*-DP order can be in the preverbal position (195a) or appear in a postverbal position (195b-c). Moreover, the canonical head-initial order can be inverted to DP-*yi* in a preverbal position (195d). Interestingly, if the DP is not a pronoun or a *wh*-phrase, the marked DP-*yi* order is always confined to the preverbal environment, namely, only when the PP itself precedes V, like that in (195d) (Wang 2013). That is to say, the VP-DP-*yi* pattern with DP being non-*wh* and non-pronominal is unattested, and there is only one example with the VP-*wh-yi* configuration (195e).<sup>83</sup> This observation coincides with Aldridge's (2012b) generalisation that extraction is possible when YI-DP is preverbal (195f), but impossible when YI-DP is postverbal (195g). So it seems that the approach of inversion within PP fails to account for the DP-P construction, otherwise the inverse order DP-*yi* should be expected to appear both preverbally and postverbally.

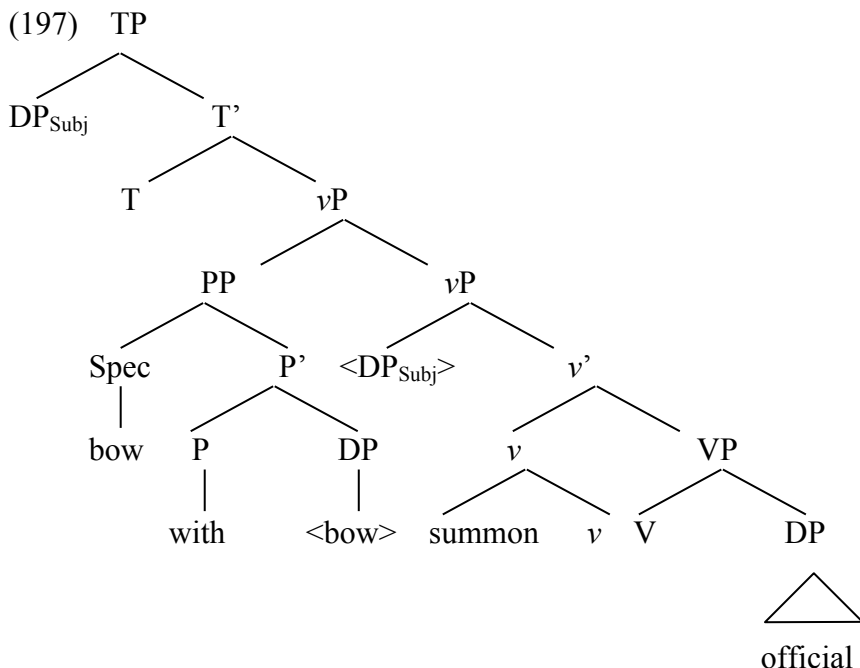
<sup>83</sup> When the DP is a *wh*-element, there is one and only one example of VP-DP-P in all corpora I use, as in (195e). However, this VP-*wh-yi* construction is formed via VP-fronting, and *wh-yi* is originally base-generated preverbally, so it is not a convincing example.

- (195) a. 將 以 戈 擊 之 (左傳•昭公二十五年)  
 jiang [VP [PP yi ge] ji zhi]  
 Fut with spear strike 3.Obj  
 ‘(he) will strike him with a spear’
- b. 武子 擊 之 以 杖 (韓非子•外儲說下)  
 Wuzi [VP ji zhi [PP yi zhang]]  
 Wuzi strike 3.Obj with cane  
 ‘Wuzi strikes him with a cane’
- c. 招 虞人 以 弓 (左傳•昭公二十年)  
 [VP zhao yuren [PP yi gong]]  
 summon ranger with bow  
 ‘(he) summoned with a bow’
- d. 弓 以 招 士 (ibid)  
 [VP [PP gong<sub>i</sub> yi t<sub>i</sub>] zhao shi]  
 bow with summon official  
 ‘(he) summoned officials with a bow’
- e. 救 饑 何 以? (國語•晉語四)  
 [Jiu ji]<sub>j</sub> [PP he<sub>i</sub> yi t<sub>i</sub>] [VP t<sub>j</sub>?]  
 solve famine what with  
 ‘What with to solve the famine?’
- f. [TP ... [VP DP [WH] ... YI <DP [WH]> V ... ]] (From Aldridge 2012b: 145)
- g. \* [TP ... [VP DP [WH] ... V ... YI <DP [WH]>]] (ibid)

However, the lack of the VP-DP-*yi* pattern does not mean that VP-DP-P is unavailable in LAC, as it is due to the preposition *yi* per se. (196a/b) shows that a PP headed by another preposition 于 *yu* or 乎 *hu* ‘in’ can appear postverbally in the reverse DP-P order, so the VP-DP-P order, together with DP-P-VP (195d) and VP-P-DP (196c-d), is available in LAC.

- (196) a. 皆 知 己 之 所 願欲 之 舉  
 Jie zhi ji zhi suo yuanyu zhi ju  
 all know self Gen SUO desire Gen behaviour  
 在 是 于 也...  
 zai [pp shi<sub>i</sub> yu t<sub>i</sub>] ye  
 be.in this in Decl  
 皆 知 己 之 所 畏恐 之 舉  
 Jie zhi ji zhi suo weikong zhi ju  
 all know self Gen SUO fear Gen behaviour  
 在 是 于 也 (荀子·富國)  
 zai [pp shi<sub>j</sub> yu t<sub>j</sub>] ye  
 be.in this in Decl  
 ‘(people) all know that the behaviours they desire themselves depend on this ...  
 (people) all know that the behaviours they fear themselves depend on this’
- b. 禍 其 在 此 乎! (左傳·僖公二十一年)  
 Huo qi zai [pp ci<sub>i</sub> hu t<sub>i</sub>]!  
 Misfortune Mod be.in this in  
 ‘Misfortune lies in this!’
- c. 不 在 于 強 弱。 (韓非子·安危)  
 bu zai [pp yu [qiang ruo]].  
 not be.in in strongness weakness  
 ‘(The safety of a country) does not depend on (the country being) strong or weak.’
- d. 榮辱 之 責 在 乎 己,  
 Rongru zhi ze zai [pp hu yi],  
 honour.shame Gen responsibility be.in in self  
 而 不 在 乎 人。 (韓非子·大體)  
 er bu zai [pp hu ren].  
 Conj not be.in in others  
 ‘The responsibilities of honour and shame depend on oneself, but not depend on others.’

Therefore, I refer to the approach of PP inversion to account for non-*wh*-PPs. Under this analysis, the tree diagram for (195d) should be (197).



Nonetheless, I argue that although the theory of inversion within PP applies to non-*wh*-PPs, it does not apply to *wh*-PPs. When a *wh*-PP functions as a complement of a ditransitive verb, as in the first question of (198a), it is base-generated postverbally, shown by the canonical order in the second question of (198a) involving a non-*wh*-PP. Similarly, in (198b) a *wh*-PP complement is base-generated postverbally, as can be seen from the canonical order in (198c). As for (198d), it involves an internally complex *wh*-complement, and the canonical order is V-P-*wh*, as shown in (198e). When the *wh*-complement fronts to a preverbal position due to obligatory *wh*-preposing, the preposition has to move to a preverbal position too, immediately following the *wh*-complement. If the inverse order *wh*-P was generated via inversion within PP, we would expect a surface order \*V-*wh*-P. However, as can be seen from the first question in (198a), (198b) and (198d), the derived construction is *wh*-P-V. So inversion within PP alone cannot generate the surface order, and there must be additional movement or a different mechanism.



(198) a. 女 將 惡 乎 比 予 哉?

Ru jiang wu<sub>i</sub> hu<sub>j</sub> [VP bi yu [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] zai?

you Fut what to compare me Q

若 將 比 予 于 文 木 邪?

Ruo jiang [VP bi yu [PP yu [wen mu]]] ye?

you Fut compare me to useful wood Q

'To what will you compare me? Will you compare me to useful wood?'

(莊子•內篇•人間世)

b. 何 以 報 我?

(國語•晉語四)

He<sub>i</sub> yi<sub>j</sub> [VP bao wo [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?

what with requite me

'With what (will you) requite me?'

c. 君 必 報 之 以 爵 祿 (禮記•燕義)

Jun bi [VP bao zhi [PP yi juelu]]

monarch must requite 3.Obj with title.stipend

'The monarch must requite them with title and stipend.'

d. 其 將 何 辭 以 對? (左傳•隱公三年)

Qi jiang [he ci]<sub>i</sub> yi<sub>j</sub> [VP dui [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?

Mod will what utterance with reply

'With what utterances will (I) reply?'

e. 我 對 以 忠 貞。 (國語•晉語二)

Wo [VP dui [PP yi zhongzhen]].

I reply with loyalty

'I replied with (the word) "loyalty".'

Similarly, when a *wh*-PP functions as an adjunct, its reverse order *wh*-P cannot be generated via PP inversion either. Each example in (199) consists of a question and answer. According to the answer which involves a non-*wh*-PP but no movement, the canonical order for the question should be VP-P-*wh*. If only PP inversion applied to *wh*-PPs, the derived order should be \*VP-*wh*-P. However, as can be seen from questions in (199a-c), the surface order is *wh*-P-VP, which means the surface order cannot be generated by inversion within PP.

(199) a. 惡 乎 取 之? 取 之 曹 也。<sup>84</sup>  
 Wu<sub>i</sub> hu<sub>j</sub> [VP qu zhi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>?] [VP Qu zhi [PP Cao]] ye.  
 where from take 3.Obj take 3.Obj Cao Decl  
 'From where to take it? Take it (from) Cao.'

(公羊傳•僖公三十一年)

b. '天下 惡 乎 定?'

'Tianxia wu<sub>i</sub> hu<sub>j</sub> [VP ding] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]  
 world what in be.stable

吾 對 曰: '定 于 一。' (孟子•梁惠王上)

Wu dui yue: '[VP Ding [PP yu yi]].'

I reply say be.stable in unification

"How can be world be stable?" I replied: "(The world) is stable out of unification."

c. '子 惡 乎 求 之 哉?'

'Zi wu<sub>i</sub> hu<sub>j</sub> [VP qiu zhi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] zai?'

you where from seek 3.Obj Q

曰: '吾 求 之 於 度數... ' (莊子•天運)

Yue: 'Wu [VP qiu zhi] [PP yu dushu]...'

say I seek 3.Obj from principle

"From where did you seek it?" (Confucius) said: "I sought it from principles..."

Although the approach of PP inversion applies to non-*wh*-PPs, the wrong prediction \*VP-*wh*-P made by this approach shows that the *wh*-P structure in LAC is not induced by a mere inversion within PP.

<sup>84</sup> I mark *Cao* in this sentence as a PP, because there is a null preposition in this specific example. Since the question and answer are parallel and the question contains the complete PP, I assume that the answer shares the same structure and it should also involve a preposition 'from'.

### 6.2.2. Mere *Wh*-Fronting

With respect to the second potential explanation for *wh*-P, it only involves *wh*-fronting, with the preposition stranded in its base position. This assumption implies that there may be elements intervening between the fronted *wh*-phrase and the preposition.

First, when a non-reason adjunct *wh-yi* appears in its unmarked preverbal position,<sup>85</sup> negation, modal adverbs, aspectual/temporal adverbs, 独 *du* and fronting markers are predicted to be allowed to intervene between the proposed *wh*-constituent and the stranded preposition. That is to say, under the analysis of mere *wh*-fronting while P stranding, the preposition 以 *yi* is always stranded in the Low *wh* base position (as in the template in (159), repeated as (200)), but the *wh*-complement of 以 *yi* could move to the High focus position preceding negation.

(200) Clausal positions for *wh*- and non-*wh*-fronting:

External topic position > Subject > Internal topic position > High focus position > High *wh* base position > Modal adverbs > Aspectual/temporal adverbs > Focus position > 独 *du* > Negation > Low focus position > Low *wh* base position > Root modal verbs > *v*P

As demonstrated previously, instrumental PPs are base-generated below negation, as in (201), Neg-YI-DP-VP. As for fronted *wh*-DPs, they always land in a position higher than negation (due to the Intervention Effect which is discussed in Chapter 8). Therefore, negation should be a realistic potential intervener between *wh* and YI, in the pattern *wh*-Neg-YI-VP (Wang 2013).

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<sup>85</sup> The assertion of *yi*-DP-VP being the basic order can be proved by its overwhelming proportion relative to the postverbal PP order. Since only 12 percent of *yi* appears in a postverbal position, it is justifiable to claim that the base position of *yi*-PP is preverbal (Sun 1991, Peyraube 1996).

(201) 君子 不 以 其 所 以 養 人 者  
 Junzi bu yi [[qi suo yi yang ren] zhe]  
 gentleman not with 3.Gen SUO with nurture person ZHE  
 害 人。 (孟子•梁惠王上)  
 hai ren.  
 harm person  
 ‘Gentlemen do not harm people using that with which they nurture people.’

Likewise, under this analysis, if *wh* moves to the High focus position which is located quite high (due to the Intervention Effect), then modal adverbs, aspectual/temporal adverbs and the adverb 独 *du* should also become potential interveners between the preposed *wh* and the stranded P. This prediction is supported by canonical, unmarked examples involving the modal adverb 必 *bi*, the aspectual adverb 將 *jiang* and the adverb 独 *du* that precede YI-(non-*wh*-)DP, as shown in (202a), (202b) and (202c) respectively. Therefore, these medial elements, together with fronting markers which can follow fronted *wh*-elements, should all be able to function as interveners between *wh*-DP and YI, generating *wh*-X-YI.

- (202) a. 必 以 其 血 污 其 衣 (呂氏春秋•不侵)  
 Bi [vp[pp yi [qi xue]] wu [qi yi]]  
 certainly with 3.Gen blood stain 3.Gen clothes  
 ‘(they) certainly would stain his clothes with their blood’
- b. 將 以 戈 擊 之 (左傳•昭公二十五年)  
 jiang [vp[pp yi ge] ji zhi]  
 Fut with spear strike 3.Obj  
 ‘(he) will strike him with a spear’
- c. 而 獨 以 吾 國 為 智 氏 質 乎?  
 Er du [vp[pp yi [wu guo]] wei [zhi shi zhi]] hu?  
 Conj alone with our state be Zhi clay target Q  
 ‘... but treat our state alone as the target of the Zhi clay?’  
 (韓非子•說林)

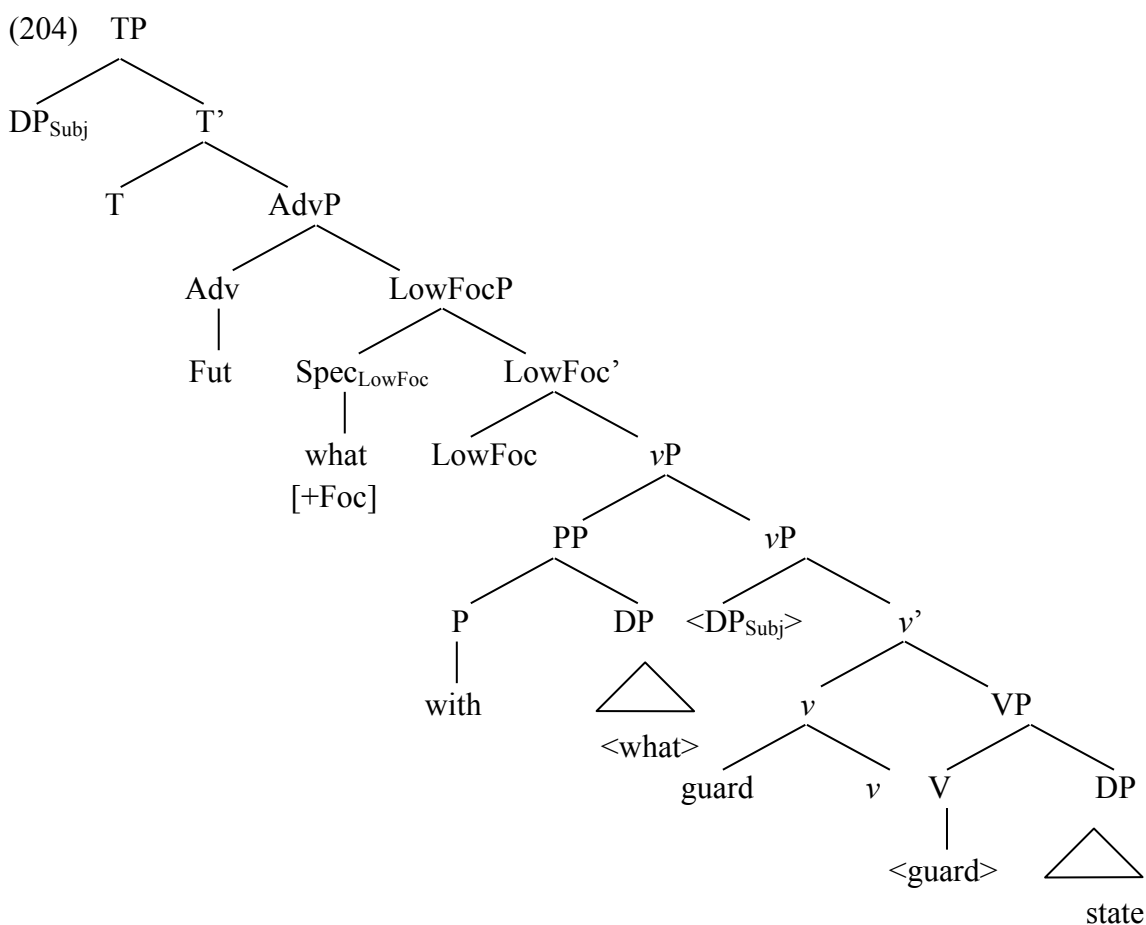
If there is no negator, hence lack of the Intervention Effect, then the *wh*-complement is expected to only raise to the Low focus position below negation, rather than the High focus position, and the preposition *yi* stays in the Low *wh* base position. Under this circumstance, only fronting markers are predicted to intervene between *wh* and *yi*. That is to say, *wh*-X-YI is still expected, but with X only denoting a fronting marker.

Nevertheless, there is a lack of such data validating intervening medial elements or fronting markers, and examples (203a-e) involving instrument and manner adverbials show that the focalised *wh*-phrases always immediately precede the preposition *yi*. Since the strategy of mere *wh*-fronting predicts a wrong structure \**wh*-X-YI, it is ruled out.

- (203) a. 將 何 以 守 國? (國語•周語上)  
 Jiang he<sub>i</sub> [VP [PP yi t<sub>i</sub>] shou guo]?  
 Fut what with guard state  
 ‘With what will (he) guard the state?’
- b. 將 何 以 戰? (左傳•僖公二十八年)  
 Jiang he<sub>i</sub> [VP [PP yi t<sub>i</sub>] zhan]?  
 Fut what with fight  
 ‘With what will (we) fight?’
- c. 子 何 以 知 其 賢 也? (國語•晉語五)  
 Zi he<sub>i</sub> [VP [PP yi t<sub>i</sub>] zhi [qi xian]] ye?  
 you what with know 3.Gen virtue Decl  
 ‘How do you know his virtue?’
- d. 吾 何 以 堪 之? (左傳•僖公三十年)  
 Wu he<sub>i</sub> [VP [PP yi t<sub>i</sub>] gan zhi]?  
 I what with deserve 3.Obj  
 ‘How do I deserve it?’
- e. 子 何 以 知 之? (左傳•襄公三十一年)  
 Zi he<sub>i</sub> [VP [PP yi t<sub>i</sub>] zhi zhi]?  
 you what with know 3.Obj  
 ‘How do you know it?’

Under the analysis of mere *wh*-fronting while P-stranding, the tree diagram of (203a)

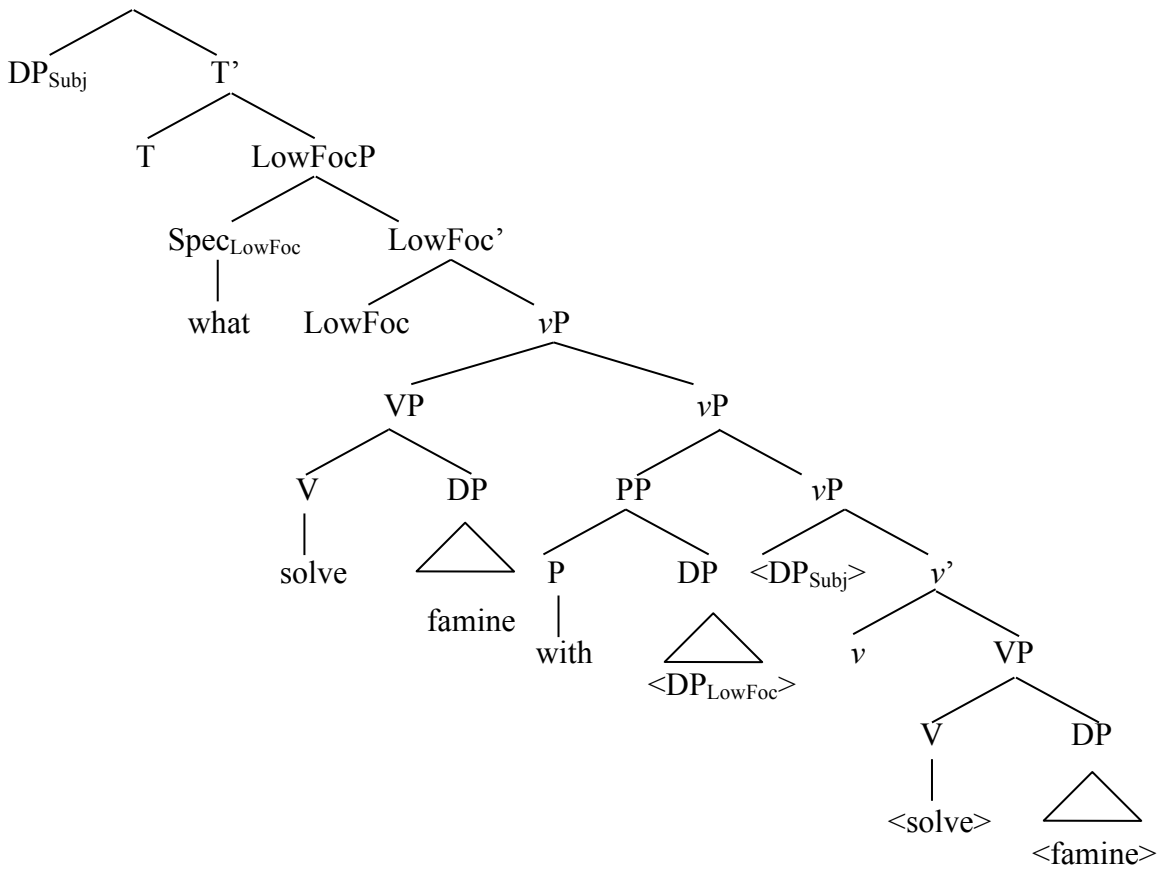
would be as follows:



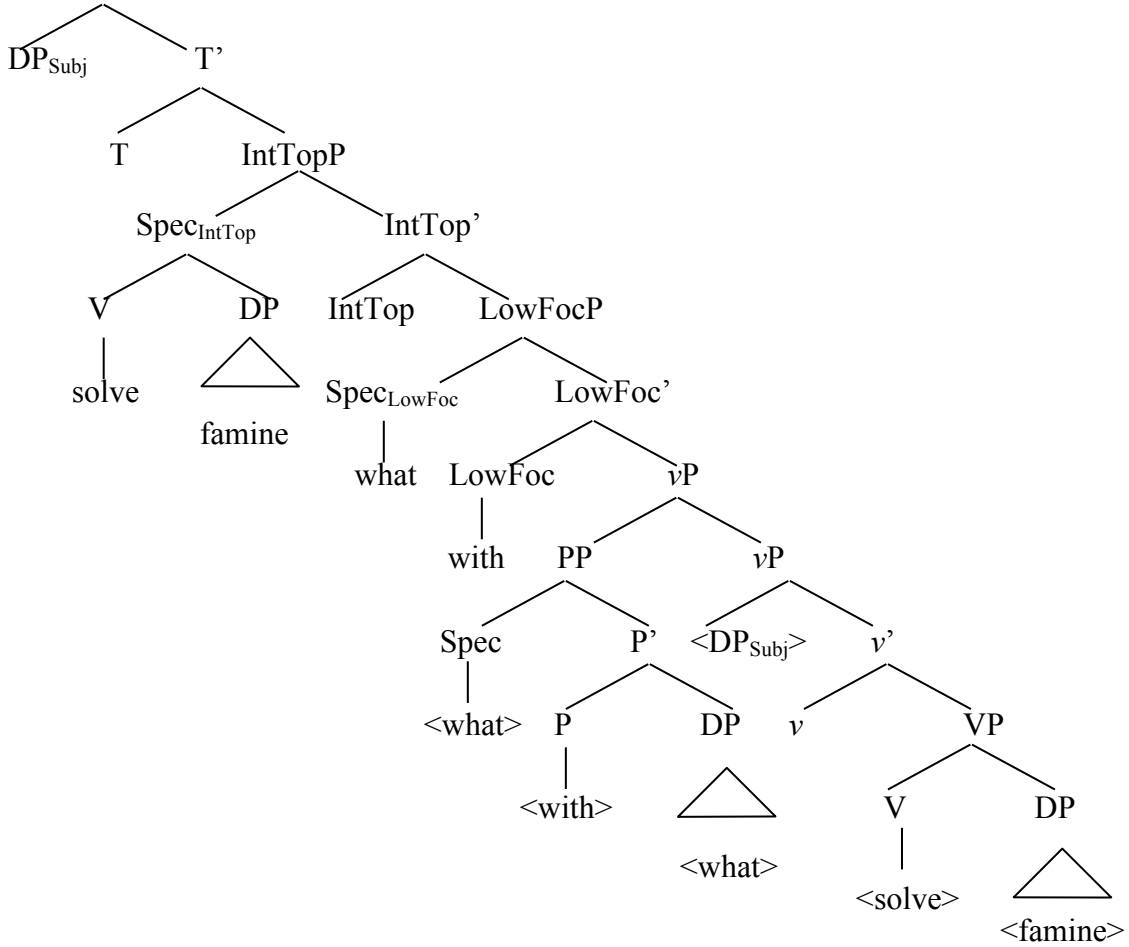
Second, when a non-reason adjunct *YI-wh* is base-generated preverbally and there are *wh*-fronting and VP-fronting, it is predicted that the VP can intervene between the preposed *wh*-complement and its stranded head preposition, generating *wh*-VP-*yi*. An instrumental adverbial *yi-wh* is always base-generated preverbally, and the *wh*-complement has to front to a position preceding the preposition in the medial domain, which I assume is the specifier position of a functional projection. Meanwhile, if there is VP-fronting, the moved VP targets another functional projection. Since the functional projection for *wh* could be higher than that for the moved VP, it is possible to have a surface structure *wh*-VP-*yi*, with the preposition stranded in its base position. Nonetheless, this prediction is not borne out, and the \**wh*-VP-*yi* pattern is never attested. As shown in example (205), when a sentence involves both *wh*-preposing and VP-fronting, its surface structure is VP-*wh*-*yi*, which means *wh*-fronting yet P-stranding cannot generate the right output. The reason why \**wh*-VP-*yi* is ungrammatical is because *wh* and YI cannot be separated and should be the specifier and head of the same



(206) a. TP



b. TP





- c. 原 聞 古 之 明 主  
 Yuan wen [gu zhi ming zhu]  
 want hear ancient Gen wise lord  
 得 國 失 國 常 何 以? (韓非子•十過)  
 [VP de guo shi guo]<sub>k</sub> chang he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] t<sub>k</sub>?  
 obtain state lose state often what for  
 ‘(I) want to know often for what did wise lords of ancient times obtain and lose states.’

Third, for a ‘high’ *wh*-PP indicating reason that is always base-generated above negation, the *wh*-fronting approach also predicates the pattern *wh*-X-YI with X denoting a fronting marker. When a *wh*-PP functions as a reason adverbial, its head position *yi* stays in the High *wh* base position, and the *wh*-complement moves to the High focus position. Although it is impossible for medial elements such as negation and modal adverbs to intervene between *wh* and P, it is feasible in theory for fronting markers (FM) to intervene between *wh* and the stranded P, generating *wh*-FM-YI. However, such a prediction is not borne out, because no element can separate *wh* from *yi* (207).

- (207) a. 聖人 何 以 不 可 欺? (荀子•非相)  
 Shengren he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] bu ke [VP qi]?  
 sage what for not can deceive  
 ‘For what are sages not deceivable?’
- b. 子 何 以 不 歸 耕 乎?  
 Zi he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] bu [VP gui geng] hu?  
 you what for not return farming Q  
 ‘For what do you not return to farming?’  
 (呂氏春秋•不苟論)
- c. 公 何 以 不 言 即 位? (公羊傳•隱公元年)  
 Gong<sub>k</sub> he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] bu yan [TP t<sub>k</sub> ji wei]?  
 duke what for not say accede throne  
 ‘For what not say that the duke acceded to the throne?’

d. 四 卜 何 以 非 禮? (ibid)  
 Si bu he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>i</sub> t<sub>j</sub>] [VP fei li]?  
 4 divine what for FEI etiquette  
 'For what is it that divining four times is not etiquette?'

Fourth, under the analysis of *wh*-preposing and P-stranding, when a *wh*-PP argument is base-generated postverbally, the VP would be able to intervene between the fronted *wh*-complement and its head preposition. However, this prediction is not borne out, as the \**wh*-VP-P pattern is never attested. The canonical position of PPs in prepositional dative constructions involving ditransitive verbs such as 屬 *shu* 'entrust' and goal prepositions such as 於/于 *yu* and 乎 *hu* 'to' is postverbal (see (208a) for the canonical order),<sup>87</sup> but *wh* never fronts to a preverbal position alone and strands the goal preposition in its base position, generating \**wh*-VP-P. That is to say, the *wh*-element and its corresponding preposition are always attached directly to each other, as in (208b-c). Similarly, in (208d) involving the verb 報 *bao* 'requite', the canonical order is V-DP-PP. When the prepositional complement 'what' raises to a preverbal position in (208e), the preposition *yi* has to move to a preverbal position too, immediately following the *wh*-word, instead of being stranded in its postverbal position. As for (208g), it involves an internally complex *wh*-phrase, and (208f) shows the canonical order V-P-*wh*.

(208) a. 屬 其 子 於 鮑 氏 (左傳·哀公十一年)  
 [VP shu [qi zi] [PP yu [bao shi]]]  
 entrust 3.Gen son to Bao clay  
 '(he) entrusted his son to the Bao clay'

<sup>87</sup> The preposition *yu* is essentially postverbal, in that more than 90% of *yu* PPs occur postverbally. All those preverbal *yu* are marked constituents (Peyraube 1996, 2003).

b. 則 寡人 惡 乎 屬 國 而 可?

[<sub>CP</sub>[<sub>TP</sub> Ze guaren wu<sub>i</sub> hu<sub>j</sub> [<sub>VP</sub> shu guo [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] er ke?  
then I whom to entrust state Conj appropriate

‘Then to whom do I entrust the state would be appropriate?’

(莊子•徐無鬼)

c. 女 將 惡 乎 比 予 哉?

Ru jiang wu<sub>i</sub> hu<sub>j</sub> [<sub>VP</sub> bi yu [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] zai?  
you Fut what to compare me Q

若 將 比 予 于 文 木 邪?

Ruo jiang [<sub>VP</sub> bi yu [<sub>PP</sub> yu [wen mu]]] ye?  
you Fut compare me to useful wood Q

‘To what will you compare me? Will you compare me to useful wood?’

(莊子•內篇•人間世)

d. 君 必 報 之 以 爵 祿 (禮記•燕義)

Jun bi [<sub>VP</sub> bao zhi [<sub>PP</sub> yi juelu]]

monarch must requite 3.Obj with title.stipend

‘The monarch must requite them with title and stipend.’

e. 何 以 報 我? (國語•晉語四)

He<sub>i</sub> yi<sub>j</sub> [<sub>VP</sub> bao wo [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?

what with requite me

‘With what (will you) requite me?’

f. 我 對 以 忠 貞。 (國語•晉語二)

Wo [<sub>VP</sub> dui [<sub>PP</sub> yi zhongzhen]].

I reply with loyalty

‘I replied with (the word) “loyalty”’.

g. 其 將 何 辭 以 對? (左傳•隱公三年)

Qi jiang [he ci]<sub>i</sub> yi<sub>j</sub> [<sub>VP</sub> dui [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?

Mod will what utterance with reply

‘With what utterances will (I) reply?’

Therefore, given the wrong predictions made by this assumption in both contexts of

preverbal and postverbal *wh*-PPs, the presumption of *wh*-fronting while P-stranding is ruled out. This conclusion coincides with Huang's (1982a) analysis on modern Mandarin that preposition stranding is impossible whether the dominating PP is subcategorised (and properly governed) or not.

### 6.2.3. Pied-Piping

The third potential accounting for *wh*-P involves two steps: the *wh*-DP fronts within the PP first, and then it further moves to the final landing site, pied-piping the preposition with it, along the lines of Aissen (1996).<sup>88</sup> This strategy has four obvious advantages. First, it would not violate the Head Movement Constraint (HMC) (Travis 1984) or the Condition on Extraction Domain (CED) (Huang 1982a, Huang et al 2009).

(209) Head Movement Constraint

Head movement of X to Y cannot 'skip' an intervening head Z.

(From Roberts 2001: 113)

(210) Condition on Extraction Domain (Huang 1982a: 505)

A phrase A may be extracted out of a domain B only if B is properly governed.

Second, it would solve a problem that there is no obvious motivation for the movement of P other than deriving the correct word order. Third, it would account for the fact that *wh-yi* never appears postverbally. Fourth, it would account for the fact that there is no intervening element between *wh* and YI.

Aissen (1996) discusses the role of (abstract) agreement within functional projections in Tzotzil through constraints on pied-piping. When an instrumental PP undergoes *wh*-movement in Tzotzil, only the DP object fronts, as in (211). (211a) displays the canonical order of an instrumental PP. (211b) illustrates that extraction of *ta*'s object is infeasible, and (211c) shows the well-formed analogue of (211b), in which pied-piping is

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<sup>88</sup> I would like to thank an anonymous reviewer for pointing out this potential analysis.

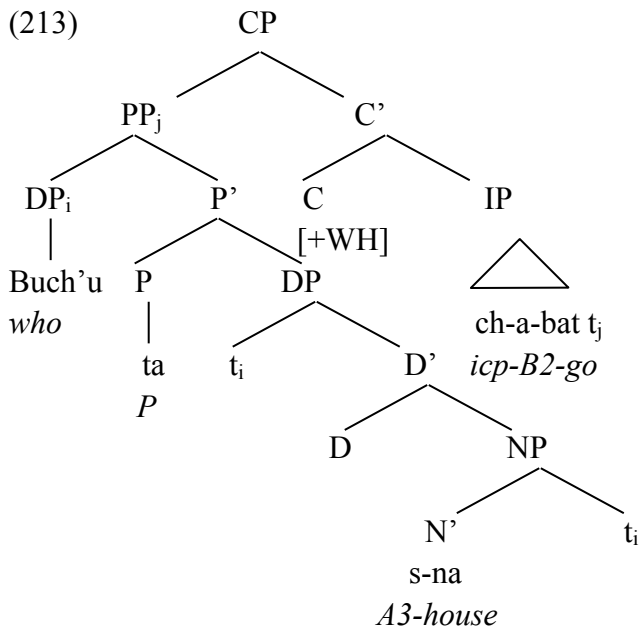
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- (211) a. I-s-tuch' ta machita.  
CP-A3-cut P machete  
'S/he cut it with a machete.'
- b. \* K'usi<sub>i</sub> a-tuch' a-si' ta t<sub>i</sub>?  
what A2-cut A2-wood P  
'What did you cut your wood with?'
- c. Buch'u y-ek'el ch-a-tuch' o si'?  
who A3-ax ICP-A2-cut CL wood  
'With whose ax did you cut your wood?'

(From Aissen 1996: 468/470)

However, if the possessor is questioned from within a PP, the entire PP is pied-piped with it. There is a reordering of the possessor within PP: the possessor of the object of the preposition cannot stay in situ anymore, but has to precede the preposition. In (212a), the possessor of the object of the preposition remains in its base position, resulting in ungrammaticality. (212b) involves extraction of the possessor, which is also infelicitous. In the felicitous form of (212c), *buch'u* 'who' occupies a specifier position within PP, pied-piping the entire PP. The tree structure of (212c) is (213).

- (212) a. \* Ta s-na buch'u ch-a-bat?  
P A3-house who ICP-B2-go  
'Whose house are you going to?'
- b. \* Buch'u<sub>i</sub> ch-a-bat [ta s-na t<sub>i</sub>]?  
who ICP-B2-go P A3-house  
'Whose house are you going to?'
- c. Buch'u ta s-na ch-a-bat?  
who P A3-house ICP-B2-go  
'To whose house are you going?'

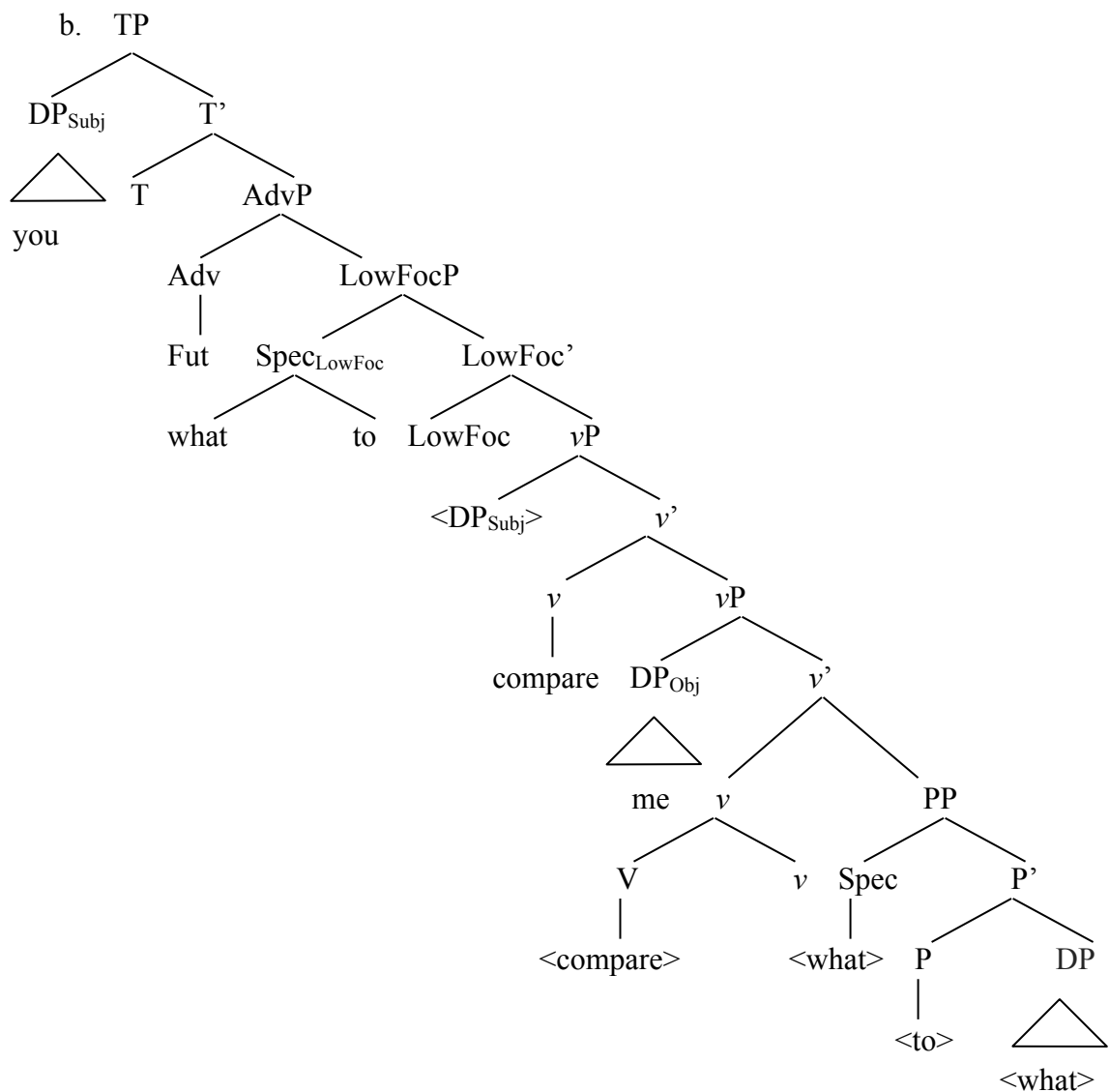


(From Aissen 1996: 469–471)

Under this analysis, the tree diagram of the first question in (214a) is (214b). From the second question in (214a) which involves the canonical order V-DP<sub>DO</sub>-P-DP<sub>IO</sub>, it can be seen that the goal PP should be head-initial, base-generated after VP. Triggered by obligatory *wh*-preposing, the *wh*-complement 惡 *wu* ‘whom’ first fronts within the PP, landing in the specifier position higher than its head preposition 乎 *hu* ‘to’. The second step of movement is P movement. The preposition *hu* raises out of *v*P to the specifier position of a functional projection which I assume is LowFocP, pied-piping its *wh*-complement with it. The second step of movement does not violate the HMC, and since the *wh*-PP is a complement rather than an adjunct, the CED is not violated either.

- (214) a. 女 將 惡 乎 比 予 哉?  
 Ru jiang wu<sub>i</sub> hu<sub>j</sub> [<sub>VP</sub> bi yu [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] zai?  
 you Fut what to compare me Q  
 若 將 比 予 于 文 木 邪?  
 Ruo jiang [<sub>VP</sub> bi yu [<sub>PP</sub> yu [wen mu]]] ye?  
 you Fut compare me to useful wood Q  
 ‘To what will you compare me? Will you compare me to useful wood?’

(莊子•內篇•人間世)



Nonetheless, I argue that *wh* and P do not form a constituent. If the *wh*-complement fronted within PP first and was pied-piped with the preposition to a higher functional category, both the *wh*-DP and the preposition would occupy the specifier position of that functional category. This presumption implies that the head position of the functional projection could be occupied by a fronting marker ZHI or SHI. However, the construction \**wh*-P-FM is never attested. When a fronted *wh*-complement is followed by its head preposition, whether above or below negation, *wh*-P is never co-occurs with a fronting marker (215a/b). If a fronting marker is present, it always follows a simplex or complex DP (215c/d), rather than a PP.

(215) a. 吾 何 為 不 增? (國語•晉語九)

Wu he<sub>i</sub> wei<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] bu [VP zeng]?

I what for not enhance

'For what do I not enhance (it)?'

b. 先生 獨 何 以 說 吾 君 乎?

Xiansheng du he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP yue wu jun] hu?

sir(you) alone what with please my lord Q

'How did you alone please my lord?'

(莊子•徐無鬼)

c. 吾 斯 之 未 能 信。 (論語•公冶長)

Wu si<sub>i</sub> zhi wei neng [VP xin t<sub>i</sub>].

I this ZHI not.yet can be.confident

'I have not been able to be confident in this.'

d. 其 父母 之 不 親 也,

[Qi fumu]<sub>i</sub> zhi bu [VP qin t<sub>i</sub>] ye,

3.Gen parents ZHI not adore Decl

又 能 親 君 乎?

(韓非子•十過第十)

you neng qin jun hu?

then can adore lord Q

'(He) does not adore his parents, then how can (he) adore the lord?'

It could be argued that fronting markers never follow *wh*-elements anyway, so it could be the interrogative nature of the PP that bans following fronting markers. Although it is true that a fronting marker never follows a bare *wh*-word, it is possible for a fronting marker to follow a complex *wh*-DP, as in (216). (216a-b) involve D-linked *which*-phrases that occupy the Internal topic position lower than TP; (216c) involves a non-D-linked *wh*-phrase which occupies the High focus position above negation.



- (216) a. 齊 宣 王 問 卿。  
 Qi Xuan emperor wen qing.  
 Qi Xuan emperor ask.about minister  
 孟子 曰： ‘王 何 卿 之 問 也？’  
 Mengzi yue: ‘Wang [he qing]<sub>i</sub> zhi [VP wen t<sub>i</sub>] ye?’  
 Mencius say Your.Majesty which minister ZHI ask.about Decl  
 ‘Emperor Xuan of Qi asked about ministers. Mencius said: “Which (kind of) ministers is Your Majesty asking about?”’

(孟子•萬章下)

- b. 韓 宣 子 問 其 位 於 子 產。  
 Han xuan zi wen qi wei yu zichan.  
 Han Xuan Hon consult Gen position from Zichan  
 子 產 曰： ‘... 何 位 之 敢 擇？’ (左傳•昭公七年)  
 Zichan yue: ‘... [he wei]<sub>i</sub> zhi gan [VP ze t<sub>i</sub>]?’  
 Zichan utter which position ZHI dare choose  
 ‘Mr Han Xuan consulted his position from Zichan. Zichan uttered: “... which position does (he) dare to choose?”’

- c. 宋 何 役 之 不 會，  
 Song [he yi]<sub>i</sub> zhi bu [VP hui t<sub>i</sub>],  
 Song what battle ZHI not enter  
 而 何 盟 之 不 同？ (左傳•昭公二十五年)  
 er [he meng]<sub>j</sub> zhi bu [VP tong t<sub>j</sub>]?  
 Conj what alliance ZHI not join  
 ‘What battle does the State of Song not enter, and what alliance (does it) not join?’

Therefore, the complementary distribution of fronting markers and PPs must be triggered by another reason: the head node of the functional projection, which is expected to be the landing site for fronting markers, must be occupied by the preposition, so there is no position to accommodate fronting markers. To be more specific, the reason why the focus marker ZHI only follows focalised DPs (see, for instance, (215c) and (216c)) but never coexists with focalised PPs is because when the head node of HighFocP or LowFocP is occupied by a fronted preposition, there is no position for any focus marker,

and vice versa. Similarly, if a raised preposition and the topic marker ZHI both target IntTop<sup>0</sup>, only one of these two constituents can exist (see, for instance, (215d) and (216a-b)). It is reasonable to assume that as long as the preposition is null, a fronting marker may occupy the head position, accompanying the prepositional complement.

Of course, if ZHI occupies the head of ExtTopP or IntTopP, it may co-occur with (and precede) a preposition in HighFoc<sup>0</sup> or LowFoc<sup>0</sup>; when ZHI acts as a focus marker, it may be preceded by a preposition that is the head of ExtTopP or IntTopP (or even another ZHI as a topic marker). These presumptions apply to SHI and its corresponding preposition as well. Such possibilities are feasible in principle, although they are not borne out due to semantic restrictions.

In a word, although the approach of PP-inversion and pied-piping demonstrates four advantages, it fails to account for the complementary distribution of fronting markers and prepositions, hence it is ruled out.

#### **6.2.4. PP Inversion Followed by PP Movement**

The fourth potential account for the inverted *wh*-P order could be a combination of PP inversion and PP movement. This approach is two-fold: inversion takes place within PP first, generating the reverse order *wh*-P; the whole PP then moves to the specifier position of some functional projection.

This account has three advantages: 1) it would not violate the Head Movement Constraint (HMC) (Travis 1984) or the Condition on Extraction Domain (CED) (Huang 1982a; Huang et al 2009), 2) its second step, PP movement, accounts for the fact that *wh*-P always appears preverbally, which cannot be explained by the approach simply involving inversion and 3) it guarantees that *wh* and P stay in the same projection, with no intervening element in between.

Under this analysis, a *wh*-P is realised in two steps: the *wh*-complement first moves to the specifier position of PP, generating the reversed *wh*-P order; next, the whole PP raises to the specifier position of a functional projection. The target functional projection could be the High focus position or the Low focus position, depending on the nature of the PP. Since the first step only involves *wh*-fronting within a phrase and the second step

moves a whole PP, this approach does not violate the HMC or CED. There is no denying the fact that the second step, viz. PP movement, seems redundant for *wh*-PPs base-generated preverbally, as it does not change the inherent order within PP or the relative order between PP and VP. This second step may appear to be pointless concerning *wh*-P base-generated preverbally, but it is indispensable for *wh*-P base-generated postverbally, otherwise the configuration DP-P-VP (underlying order: VP-P-DP) cannot be explained.

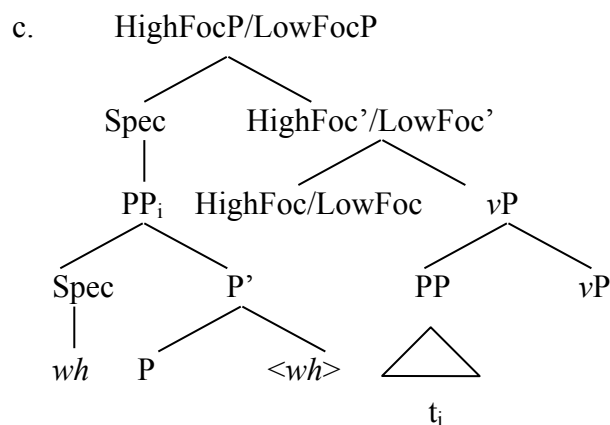
For a reason adverbial as that in (217a), since it is base-generated in the High *wh* base position above negation, *wh*-P finally lands in the specifier position of the High focus position. For a non-reason adverbial as that in (217b), however, since its base position is the Low *wh* base position below negation, *wh*-P lands in the specifier position of the Low focus position (unless there is an Intervention Effect triggered by negation, hence further *wh*-fronting). The tree diagram is in (217c).

- (217) a. 子 何 以 不 歸 耕 乎?  
 Zi [PP he<sub>i</sub> yi t<sub>i</sub>] t<sub>j</sub> bu [VP gui geng] hu?  
 you what for not return farming Q  
 ‘For what do you not return to farming?’

(呂氏春秋•不苟論)

- b. 將 何 以 守 國?  
 Jiang [PP he<sub>i</sub> yi t<sub>i</sub>] t<sub>j</sub> [VP shou guo]?  
 Fut what use guard state  
 ‘What will (he) use to guard the state?’

(國語•周語上)

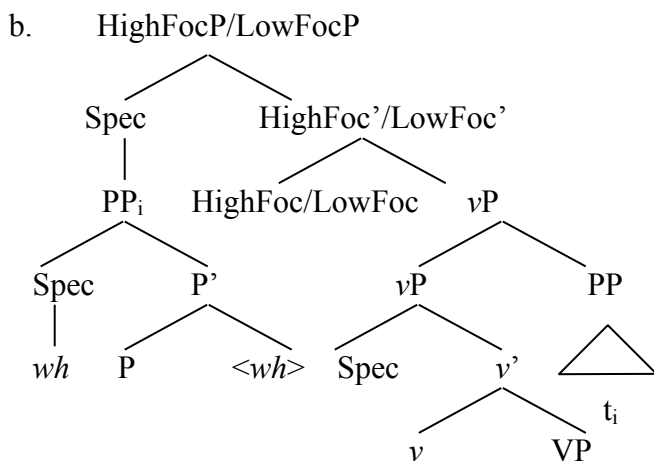


For a postverbal adjunct *wh*-PP fronting to a preverbal position, its surface structure

*wh*-P-VP is also realised in two steps: inversion within PP, and the movement of PP from its postverbal base position to the specifier position of a functional projection. For instance, in (218a), the source PP is base-generated postverbally (see the second sentence for the canonical order) as an adjunct. After movement, *wh*-P appears preverbally in the Low focus position, but not the High focus position which is for ‘high’ reason PPs. The tree diagram of (218a) is in (218b). Of course, if negation is present and imposes the Intervention Effect on *wh*, *wh*-P will be expected to land in [Spec, HighFocP] above negation.

(218)a. 惡 乎 取 之? 取 之 曹 也。  
 [pp Wu<sub>i</sub> hu t<sub>i</sub>] [vP qu zhi] t<sub>j</sub>? [vP Qu zhi [pp Cao]] ye.  
 where from take 3.Obj take 3.Obj Cao Decl  
 ‘From where to take it? Take it (from) Cao.’

(公羊傳•僖公三十一年)



If a postverbal argument *wh*-PP appears in the surface structure *wh*-P-VP (219a-c), the presumption is similar to that concerning an adjunct *wh*-PP. The derivation is also two-fold: inversion within PP, and the movement of PP from its postverbal base position to the specifier position of HighFocP or LowFocP, depending on the presence or absence of negation. The tree diagram of (219a) is in (219d).

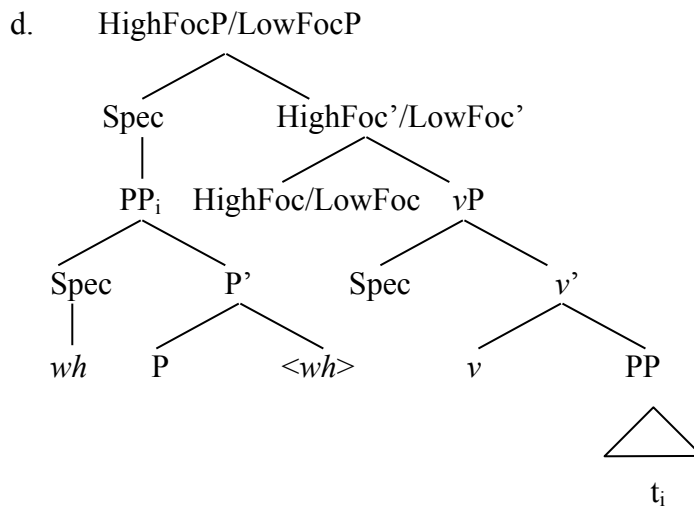
- (219) a. 女 將 惡 乎 比 予 哉?  
 Ru jiang [PP wu<sub>i</sub> hu]<sub>j</sub> [VP bi yu t<sub>j</sub>] zai?  
 you Fut what to compare me Q  
 若 將 比 予 于 文 木 邪?  
 Ruo jiang [VP bi yu [PP yu [wen mu]]] ye?  
 you Fut compare me to useful wood Q  
 ‘To what will you compare me? Will you compare me to useful wood?’

(莊子•內篇•人間世)

- b. 何 以 報 我?  
 [PP He<sub>i</sub> yi]<sub>j</sub> [VP bao wo t<sub>j</sub>]?  
 what with requite me  
 ‘With what (will you) requite me?’

(國語•晉語四)

- c. 其 將 何 辭 以 對?  
 Qi jiang [he ci]<sub>i</sub> yi<sub>j</sub> [VP dui [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?  
 Mod will what utterance with reply  
 ‘With what utterances will (I) reply?’



Nevertheless, the movement of the whole PP fails to satisfy the licensing requirement of *wh*-phrases, because *wh* has to be licensed in a clausal specifier position in the medial domain. Although PP movement guarantees that *wh* lands in the medial domain, it fails to allow *wh* to occupy a clausal specifier position, hence no *wh*-licensing. Therefore, this approach does not hold.

With respect to the reason why *wh* cannot be licensed in a non-clausal specifier

position, it could be that this is monitored by the language per se, like the fact that *wh* in modern English has to be licensed in [Spec, CP]. Alternatively, the [*wh*] feature may percolate up to the whole PP, which would be in a specifier position in the medial domain. In this way the *wh*-licensing can be realised.

I argue that moving *wh*-items to a clausal specifier position is dictated by the requirement of structural arguments. If a *wh*-DP complement moves embedded in a PP, the entire PP would land in the specifier position of a functional projection. Since the prepositional complement has a *wh*-feature, the *wh*-feature of a DP may be transferred to the label of the PP. This statement is suggested by morphological coalescence of P and D in some Romance and Germanic languages, which is a visible manifestation of relation Agree between P and D licensing the prepositional object. Given the fact that the prepositional complement has a *wh*-feature, it is matched by Agree on the preposition, thus the *wh*-feature is visible in the label of the entire PP (Stepanov 2007). However, I conjecture that only one uninterpretable feature is not adequate to qualify a DP as a structural argument, and a structural argument DP must have both uninterpretable features, i.e. the *wh*-feature and structural Case (see below for detailed analysis in Chapter 7.1.1). If the *wh*-PP only contains one uninterpretable feature, it would be a structural adjunct, hence entering the structure by virtue of substitution as a specifier, and being subject to cyclic *wh*-dependency. Consequently, the *wh*-DP cannot undergo fronting, and the adjunction Merge changes the set of c-command relations in the syntactic object. These predictions are obviously counterfactual, in that the *wh*-DP is subject to fronting, and the Merge simply creates new structure on top of the syntactic object. Therefore, although the *wh*-DP has already obtained one uninterpretable feature, viz. *wh*-feature, it needs another one: structural Case. If the whole *wh*-PP moved to the specifier position of the functional projection, *wh* would receive dative Case from the head preposition within the PP. Instead, *wh* has to raise to the specifier position of the functional projection alone, so as to receive structural Case from a higher c-commanding node.

The requirement of *wh*-DP receiving structural Case also provides another piece of evidence invalidating the pied-piping account discussed in Chapter 6.2.3. Recall that the theory of pied-piping involves moving *wh*-DP complement to the specifier position of a functional projection, pied-piping the preposition with it. This approach also gives rise

to the consequence that *wh*-DP can only receive inherent dative Case. For the *wh*-PP to be a structural argument thus is subject to movement, a cyclic *wh*-dependency, and is immune from Late Adjunction Hypothesis that specifies a strict timing of the application of substitution and adjunction Merge (Stepanov 2007), *wh*-DP must occupy a clausal specifier position.

To further invalidate this approach of PP inversion followed by PP movement, I refer to non-*wh*-PPs. Different from *wh*-PPs, within which inversion is obligatory due to obligatory *wh*-fronting, non-*wh*-PPs involve optional inversion, so P-DP and DP-P are both permitted, in both preverbal and postverbal environments (220). As justified in Chapter 6.2.1, the reverse order of non-*wh*-PPs is generated via PP inversion. Now I presume that for a non-*wh*-PP base-generated preverbally, its surface order P-DP-VP (220a) or DP-P-VP (220b) is generated via optional inversion within PP, followed by PP movement to a functional projection, i.e. the High or Low focus position. Additionally, for a non-*wh*-PP base-generated postverbally, its surface order VP-P-DP (220c-d) or VP-DP-P (220e-f) is also realised by optional inversion within PP, followed by PP movement to the High or Low focus position. Again, PP movement as a second step may be redundant and irrelevant in both situations. However, my assumption is that this approach always involves PP movement to a functional projection as the second step, otherwise the order DP-P-VP derived from VP-P-DP (as that in (219)) cannot be explained. The former clause of (220c) involves a null preposition which I assume is 于 *yu* ‘in’ according to contextual information from the latter, canonical clause, so I mark 是非 *shi fei* as a PP.

- (220) a. 楚 人 以 是 咎 子重。 (左傳•襄公三年)  
 Chu ren [pp yi shi]<sub>i</sub> t<sub>i</sub> [vp jiu Zizhong].  
 Chu person for this blame Zizhong  
 ‘People of Chu for this blame Zizhong.’

b. 臣 是 以 不 獲 從 君  
 chen [PP shi<sub>i</sub> yi t<sub>j</sub>] t<sub>j</sub> bu huo [VP cong jun]  
 subject(I) this for not can follow Your.Majesty  
 ‘I for this could not follow Your Majesty’

(左傳•哀公二十五年)

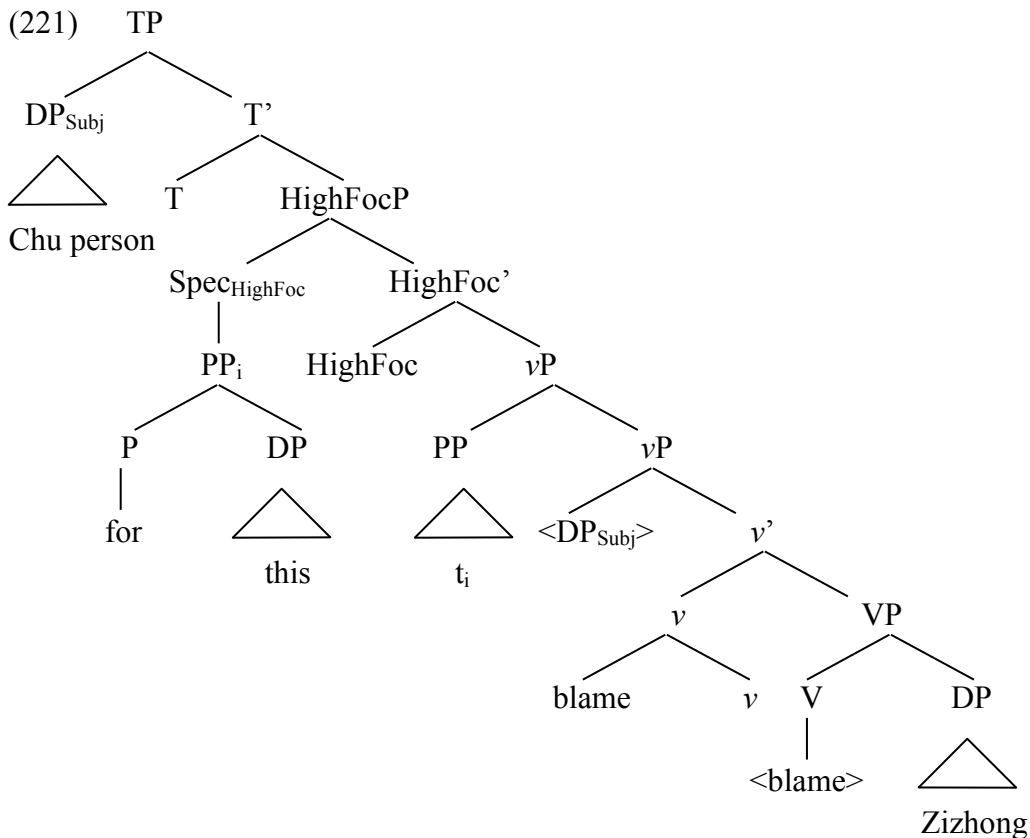
c. 安危 在 是 非,  
 Anwei zai [PP [shi fei]]<sub>i</sub> t<sub>i</sub>,  
 safety be.in right wrong  
 不 在 于 強 弱。 (韓非子•安危)  
 bu zai [PP yu [qiang ruo]]<sub>j</sub> t<sub>j</sub>.  
 not be.in in strongness weakness  
 ‘The safety (of a country) depends (on whether its ruler has a sense of) right and wrong, but not depends on (the country being) strong or weak.’

d. 榮辱 之 責 在 乎 己,  
 Rongru zhi ze zai [PP hu yi]<sub>i</sub> t<sub>i</sub>,  
 honour.shame Gen responsibility be.in in self  
 而 不 在 乎 人。 (韓非子•大體)  
 er bu zai [PP hu ren]<sub>j</sub> t<sub>j</sub>.  
 Conj not be.in in others  
 ‘The responsibilities of honour and shame depend on oneself, but not depend on others.’



- e. 皆 知 己 之 所 願欲 之 舉  
 Jie zhi ji zhi suo yuanyu zhi ju  
 all know self Gen SUO desire Gen behaviour  
 在 是 于 也...  
 zai [PP shi<sub>i</sub> yu t<sub>i</sub>] t<sub>j</sub> ye  
 be.in this in Decl  
 皆 知 己 之 所 畏恐 之 舉  
 Jie zhi ji zhi suo weikong zhi ju  
 all know self Gen SUO fear Gen behaviour  
 在 是 于 也 (荀子•富國)  
 zai [PP shi<sub>k</sub> yu t<sub>k</sub>]<sub>i</sub> t<sub>i</sub> ye  
 be.in this in Decl  
 ‘(people) all know that the behaviours they desire themselves depend on this ...  
 (people) all know that the behaviours they fear themselves depend on this’
- f. 禍 其 在 此 乎! (左傳•僖公二十一年)  
 Huo qi zai [PP ci<sub>i</sub> hu t<sub>i</sub>] t<sub>j</sub>!  
 Misfortune Mod be.in this in  
 ‘Misfortune lies in this!’

If I adopted the theory of PP inversion followed by PP movement to account for examples involving non-*wh*-PPs, the tree diagram of the former clause in (220a) would be (221). The prepositional complement in (220a) does not undergo movement, so the PP displays the canonical P-Pron order. The PP moves as a whole to the specifier position of a functional projection. Since this non-*wh*-PP is a reason adverbial, its landing site is the High focus position.



Since inversion is optional for a non-*wh*-PP (cf. (220a) and (220b)), the second step, PP movement, should be able to happen independent of inversion. This means PP movement can take place regardless of whether inversion happens or not. For a non-*wh*-PP base-generated postverbally and fronting to a preverbal position, if inversion did not happen but PP movement happened, we would expect an order P-DP-VP, generated from (long-distance) PP movement only. However, the order \*P-DP-VP (derived from VP-P-DP) predicted by this approach is never attested. This account makes a wrong prediction about the ordering involving non-*wh*-PPs only.

Even if the inversion did happen and the PP moved to a preverbal position successively, this approach would still make a wrong prediction that DP-P could be followed by a fronting marker. Since DP-P occupied the specifier position of a functional projection as a phrase, the head position of the functional projection was not occupied. As a consequence, a fronting marker should be able to appear in that head position. However, there is never any data validating the \*DP-P-FM-VP pattern. This wrong prediction about fronting markers involves both *wh*- and non-*wh*-PPs.

The availability of the construction DP-Mod-P also helps to rule out the hypothesis of inversion within PP followed by PP movement. In (222a-c), pronominal prepositional

complements *zhi*, *shi* and *ci* first raise from the complement position to the specifier position within PP. Next, pronouns move from [Spec, PP] and land in the specifier position of the functional projection LowFocP. If the whole PPs moved, the relative order between PPs and the modal of ability 能 *neng* and the modal auxiliary verb 可 *ke* would be DP-P-Mod or Mod-DP-P, because DP and P need to stay adjacent to each other in the same projection. Nonetheless, the surface order in (222) is DP-Mod-P, showing that the prediction made by PP movement is wrong.

- (222) a. 未 之 能 以 服 ...  
 wei zhi<sub>i</sub> neng [pp t'<sub>i</sub> yi t<sub>i</sub>] [VP fu] ...  
 not.yet 3.Obj can with dress.up  
 未 之 能 以 出 (春秋公羊傳)  
 wei zhi<sub>j</sub> neng [pp t'<sub>j</sub> yi t<sub>j</sub>] [VP chu]  
 not.yet 3.Obj can with present  
 '(I) have not been able to dress up with it...(I) have not been able to present (sacrifices) with it'
- b. 是 可 以 少 固。 (國語•鄭語)  
 Shi<sub>i</sub> ke [pp t'<sub>i</sub> yi t<sub>i</sub>] [VP shao gu].  
 this can with slightly secure  
 '(You) can slightly secure (it) with this.'
- c. 此 可 以 觀 德行 矣。(禮記•射義)  
 Ci<sub>i</sub> ke [pp t'<sub>i</sub> yi t<sub>i</sub>] [VP guan dexing] yi.  
 this can with observe morality.behaviour Perf  
 '(People) can observe (one's) morality and behaviours with this.'

To summarise, although the approach combining inversion within PP and PP movement explains the facts that *wh*-P always appears preverbally and *wh* and P always stay in the same projection, and avoids the potential violation of HMC and CED, this account fails to allow *wh*-licensing and makes wrong predictions concerning both *wh*- and non-*wh*-PPs. Therefore, this approach of PP inversion followed by PP movement is ruled out.

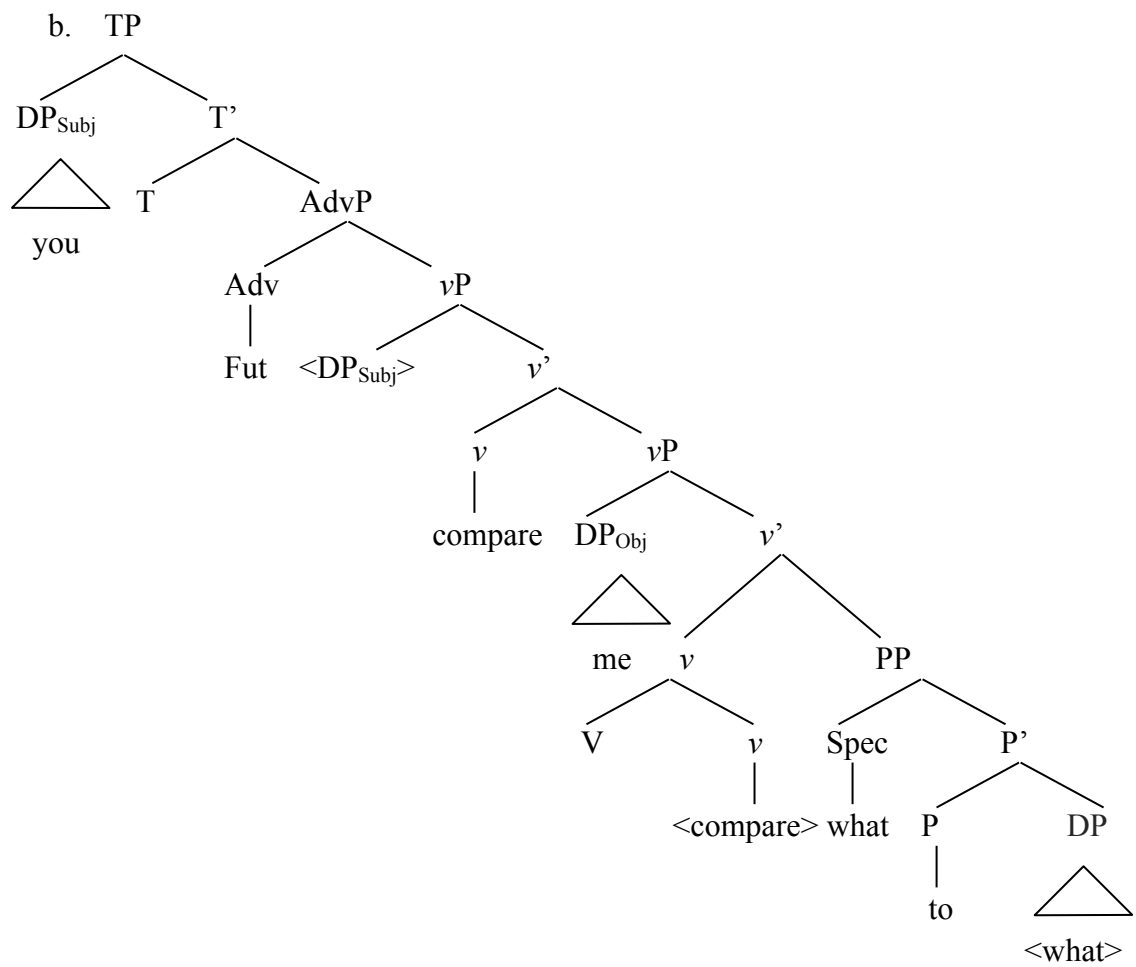
### 6.2.5. PP Inversion Followed by Separate Movement of *Wh* and P

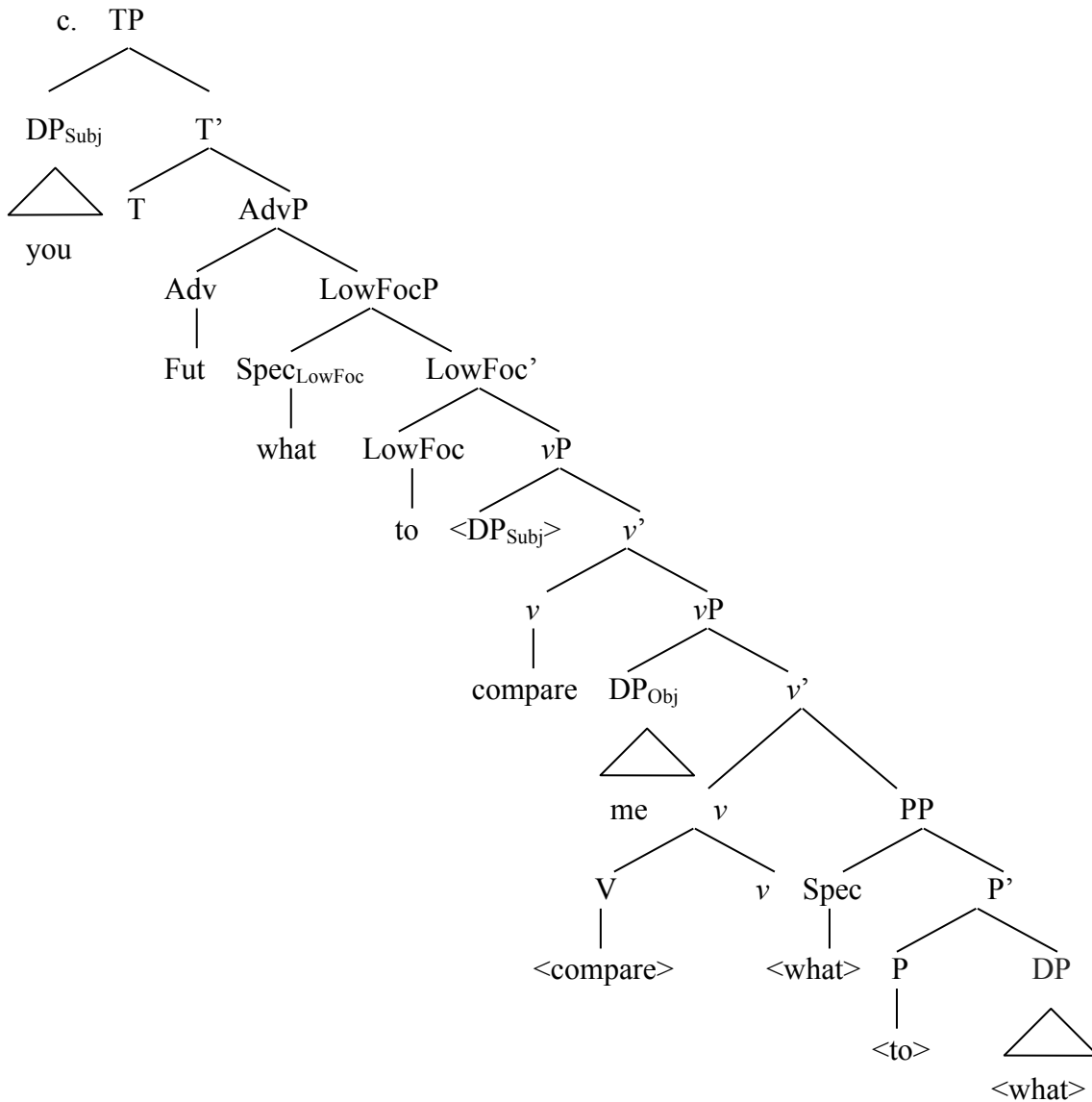
Since none of the approach of PP inversion, mere *wh*-fronting, PP inversion followed by pied-piping or PP inversion followed by PP movement can account for the inverse order of *wh*-P, in this subchapter I propose a theory of PP inversion followed by separate movement of *wh* and P. This approach involves two steps. First, the *wh*-complement raises to the specifier position of the PP, generating a *wh*-P order. Second, the *wh*-element raises to the specifier of a functional projection, while the preposition fronts to the head of the functional projection accordingly.

For the first question in example (223a), the tree structure for the first step, i.e. inversion within PP, is in (223b). (223c) shows the second step, namely the separate raising of the *wh*-complement *wu* ‘what’ and the preposition *hu*.

- (223) a. 女 將 惡 乎 比 予 哉?  
 Ru jiang wu<sub>i</sub> hu<sub>j</sub> [VP bi yu [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] zai?  
 you Fut what to compare me Q  
 若 將 比 予 于 文 木 邪?  
 Ruo jiang [VP bi yu [PP yu [wen mu]]] ye?  
 you Fut compare me to useful wood Q  
 ‘To what will you compare me? Will you compare me to useful wood?’

(莊子•內篇•人間世)





This argument accounts for four facts: 1) preposed *wh*-element is higher than its corresponding preposition in the tree; 2) there is no intervening element between the preposed *wh*-phrase and its corresponding preposition; 3) there is complementary distribution of fronting markers ZHI/SHI and corresponding prepositions; and 4) the derived order *wh*-P only occurs preverbally, but not postverbally.

For *wh*-PPs base-generated both preverbally and postverbally, their *wh*-complements undergo movement within the PP from the complement position to the specifier position, generating *wh*-P. This is the first step: inversion within PP. The second step is the separate movement of *wh* and P: *wh* moves from [Spec, PP] to the specifier position of a functional projection (IntTopP, HighFocP or LowFocP, depending on its information structure properties), and then the preposition moves from P<sup>0</sup> to the head of the functional projection.

The existence of DP-P-VP structure generated from VP-P-DP justifies the separate movement of DP and P. If the DP is a *wh*-phrase, it is unreasonable to claim that the inverted DP-P order is definitely caused by separate movement of *wh*-DP and P, because the inverted order is already generated in the first step due to obligatory *wh*-fronting. However, the relative order between PP and VP must be caused by separate movement of DP and P, because the first step, inversion, can only produce the VP-DP-P structure, not the final DP-P-VP structure (generated from VP-P-DP).

There is no denying the fact that these two steps have overlaps. First, they both lead to the *wh*-P order. Second, both steps guarantee that no element can intervene between *wh* and P, which occupy the specifier and head position of the same projection respectively. In other words, the construction *wh*-X-P is prohibited. Third, they both ensure *wh* and P to stay in the same projection but not to be followed by any fronting marker or other prepositions, because *wh* and P occupy the specifier and head position respectively, leaving no space for a fronting marker or preposition targeting the head node too. That is to say, both steps ensure that \*DP-P-X is not allowed, with X standing for P or FM.

However, I argue that both steps are necessary for *wh*-PPs, because apart from the above-mentioned three common functions, each step has indispensable function(s): the first step allows the second step to take place, and the second step guarantees the right output and *wh*-licensing.

The first step, inversion within PP allows the *wh*-complement to front to a specifier position, so that *wh* can further move to a higher specifier position.

As for the second step, the separate further movement of *wh* and P, as mentioned earlier, it generates the surface order *wh*-P-VP (derived from VP-P-*wh*). Additionally, moving *wh* alone instead of embedding *wh* within a prepositional phrase permits *wh* to occupy a clausal specifier position, so as to get licensed.

Although both steps are indispensable for *wh*-PPs, they are not for non-*wh*-PPs. In theory, both inversion within PP and separate movement of P and its complement could apply to non-*wh*-PPs, but the second step is often optional, and it means that these two steps are independent of each other. Since the unique function of the second step is to generate the surface order *wh*-P-VP from VP-P-*wh* and ensure *wh*-licensing, as long as the right order has been derived after the first step and *wh*-licensing is not needed, the

second step can be left out. For non-*wh*-PPs, *wh*-licensing is never required, but the right output might need the second step. If the first half of the second step (movement of the prepositional complement) can generate the right output alone, I conjecture that the second half of the second step (P-movement) would be omitted out of the economical principle. These predictions are indeed borne out.

First, the first step may happen even if the second step does not take place at all. In (224), because the prepositional complement is a non-*wh*-DP, it need not, and indeed does not, undergo further movement after inversion within PP, as there is no motivation for the non-*wh*-DP prepositional complement to further raise to a higher, functional projection. Besides, the process of deriving DP-P-VP from P-DP-VP has completed through the first step, so no further movement is required. However, the movement of the DP from the complement position to the specifier position within PP, i.e. PP inversion, happens anyway as the first step, giving rise to the surface order DP-P-VP. The reason I conjecture that the first step has happened is due to the reversed DP-P order. If the inversion within PP did not happen and both DP and P stayed in situ, we would expect the order P-DP, because the second step cannot happen (owing to lack of motivation).

- (224) a. 君子 是 以 惡 之。 (左傳•昭公元年)  
 Junzi [pp shi<sub>i</sub> yi t<sub>i</sub>] [vp wu zhi].  
 gentleman this for detest 3.Obj  
 ‘Gentlemen for this detest it.’
- b. 臣 是 以 不 獲 從 君  
 chen [pp shi<sub>i</sub> yi t<sub>i</sub>] bu [vp huo cong jun]  
 subject(I) this for not can follow Your.Majesty  
 ‘I for this could not follow Your Majesty’  
 (左傳•哀公二十五年)

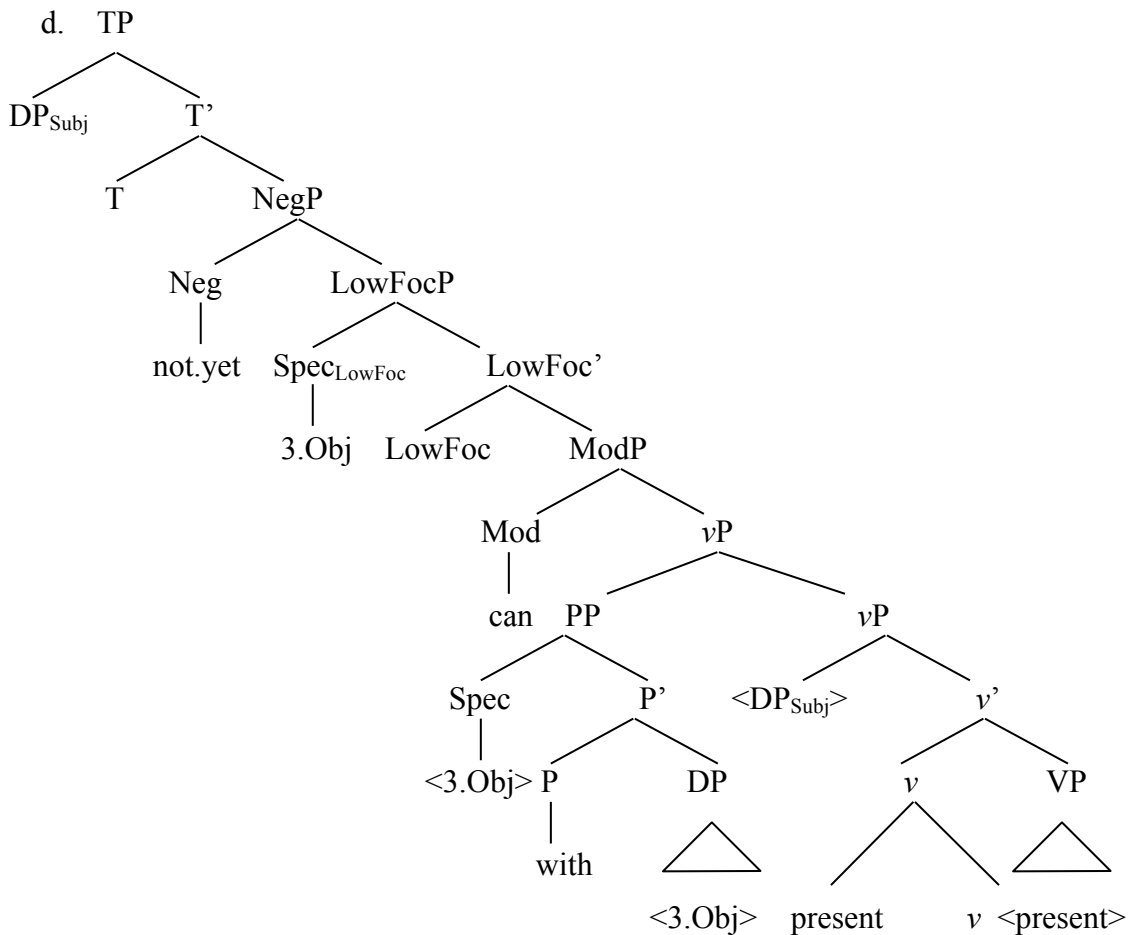
Second, after the first step takes place, the second step does not have to fully happen. In (225a-c) (= (222a-c)), after the prepositional complement moves from the complement position to the specifier position within PP, it further moves to the specifier position of the functional projection LowFocP, as the first part of the second step. The remaining part of the second step should be P-movement from P<sup>0</sup> to LowFoc<sup>0</sup> (for the motivation of



P-movement, see below). However, the surface structure of DP-Mod-P-VP clearly shows that P-movement did not happen, otherwise we would have seen a \*DP-P-Mod-VP order. The only feasible explanation for the structure DP-Mod-P-VP is that the pronominal DP moves from the complement position within PP to [Spec, PP] and then to [Spec, LowFocP], yet the preposition stays in its base position P<sup>0</sup> and never moves. That is to say, after the first step of separate movement takes place, the second step does not have to happen, or at least ‘fully’ happen. It is acceptable for the separate movement to be partially completed. In fact, in structures like those in (225a-c), if the second half of separate movement, i.e. P-movement, happened, ungrammatical sentences would be generated. Such an observation only applies to non-*wh*-PPs, and for a preposition in a *wh*-PP, it must raise to the head of some functional projection in order to stay in the same projection with its *wh*-complement. The tree diagram of (225a) is in (225d). Note that the head position of LowFocP is empty, but according to my analysis, this position could be occupied by a fronting marker. I claim that this postulation is feasible in principle, and the fact that no fronting marker appears in this position may be caused by semantic constraints.

- (225) a. 未 之 能 以 服 ...  
 wei zhi<sub>i</sub> neng [pp t'<sub>i</sub> yi t<sub>i</sub>] [VP fu] ...  
 not.yet 3.Obj can with dress.up  
 未 之 能 以 出 (春秋公羊傳)  
 wei zhi<sub>j</sub> neng [pp t'<sub>j</sub> yi t<sub>j</sub>] [VP chu]  
 not.yet 3.Obj can with present  
 ‘(I) have not been able to dress up with it...(I) have not been able to present (sacrifices) with it’
- b. 是 可 以 少 固。 (國語•鄭語)  
 Shi<sub>i</sub> ke [pp t'<sub>i</sub> yi t<sub>i</sub>] [VP shao gu].  
 this can with slightly secure  
 ‘(You) can slightly secure (it) with this.’

c. 此 可 以 觀 德行 矣。(禮記•射義)  
 Ci<sub>i</sub> ke [pp t'<sub>i</sub> yi t<sub>i</sub>] [vP guan dexing] yi.  
 this can with observe morality.behaviour Perf  
 '(People) can observe (one's) morality and behaviours with this.'



Therefore, I conclude that the two steps of DP-P are independent of each other: the first step can take place without the (full) completion of the second step. There is no denying the fact that when only the first step takes place, yet the second step which is optional does not happen, the account seems to coincide with the above-mentioned approach of mere PP inversion (which has been proven invalid for *wh*-PPs in Chapter 6.2.1). Even if the approach of mere PP inversion seems to be able to explain non-*wh*-PPs, it fails to account for *wh*-PPs. Therefore, in order to find an unified approach that can explain both *wh*- and non-*wh*-PPs, I adopt the approach of PP inversion followed by separate movement of DP and P.

It should be mentioned that adopting the approach of PP inversion followed by separate movement of DP and P to account for *wh*- and non-*wh*-PPs does not contradict

the argument in Chapter 6.2.1 that the reverse order of non-*wh*-PPs is caused by PP inversion only. When applying to non-*wh*-PPs, the second step of the approach is often omitted out of the economical principle, as the first step alone can generate the right output, as in (188). So I argue in Chapter 6.2.1 that mere PP inversion applies well to non-*wh*-PPs. However, for the structure DP-Mod-P-VP as in (189), the second step, or at least a part of it, is obligatory: after PP inversion, the non-*wh*-DP has to further move to a functional projection higher than ModP, but the preposition does not have to (and actually, cannot) move. Therefore, I postulate that the approach of inversion followed by separate movement applies to non-*wh*-PPs, but in most cases the second step is (partially) optional, so examples involving DP-(*\*Mod*-)P can be accounted for via mere PP inversion.

Although the approach of inversion followed by separate movement seems to be the most feasible strategy to account for *wh*-P, there are three significant issues for this explanation: 1) constituency of *wh* and P, 2) the locality problem of PPs, and 3) motivation for P-movement.

For the constituency question of *wh* and P, it denotes that the preposition and its *wh*-complement used to form a constituent before movement, but they fail to form one after movement: the *wh*-complement stays in the specifier position of a functional projection, yet the preposition occupies the head of the functional projection. There is no denying the fact that such a constituency mismatch before and after movement seems to be counterintuitive; however, I argue that this constituency mismatch is the natural consequence of the language per se. As discussed in Chapter 6.2.3 and 6.2.4 concerning PP inversion followed by pied-piping and PP inversion followed by PP movement respectively, there are four pieces of evidence supporting the approach of inversion within PP followed by separate movement of *wh* and P.

First, there is a complementary distribution of fronting markers and PPs. If the fronted *wh*-complement and the fronted preposition still stayed in the same projection, both *wh* and P would occupy the specifier position of a functional category, so the head position of the functional projection could be occupied by a fronting marker ZHI or SHI. However, *wh*-P never co-occurs with a fronting marker, whether above or below negation, because the construction *\*wh*-P-FM is never attested.

Second, LAC has a licensing requirement for *wh*-phrases, i.e. *wh* has to be licensed in

a clausal specifier position in the medial domain. Although placing preposed *wh* and P into the same projection guarantees that *wh* lands in the medial domain, it fails to allow *wh* to occupy a clausal specifier position, hence no *wh*-licensing.

Third, the unavailability of \*P-DP-VP derived from VP-P-DP concerning non-*wh*-DPs justifies that a preposition and its complement cannot form a constituent after movement. Unlike *wh*-PPs that always end up in a reverted *wh*-P order due to obligatory *wh*-fronting, inversion within non-*wh*-PPs is optional, and both P-DP and DP-P are permitted, as in (226a-b) and (226c-d) respectively. Since inversion, as the first step, is optional for a non-*wh*-PP, the second step, PP movement, should be able to take place independent of the first step. For a non-*wh*-PP base-generated postverbally and fronted to a preverbal position, if inversion did not happen but P and DP still form a constituent, we would expect (long-distance) PP movement only hence an order P-DP-VP. However, the order \*P-DP-VP (derived from VP-P-DP) is never attested. Therefore, the wrong prediction concerning non-*wh*-PPs helps to show that it is impossible for *wh* and P to still form a constituent after movement.

- (226) a. 安危 在 是 非,  
 Anwei zai [PP [shi fei]]<sub>i</sub> t<sub>i</sub>,  
 safety be.in right wrong  
 不 在 于 強 弱。 (韓非子•安危)  
 bu zai [PP yu [qiang ruo]]<sub>j</sub> t<sub>j</sub>.  
 not be.in in strongness weakness  
 ‘The safety (of a country) depends (on whether its ruler has a sense of) right and wrong, but not depends on (the country being) strong or weak.’
- b. 榮辱 之 責 在 乎 己,  
 Rongru zhi ze zai [PP hu yi]<sub>i</sub> t<sub>i</sub>,  
 honour.shame Gen responsibility be.in in self  
 而 不 在 乎 人。 (韓非子•大體)  
 er bu zai [PP hu ren]<sub>j</sub> t<sub>j</sub>.  
 Conj not be.in in others  
 ‘The responsibilities of honour and shame depend on oneself, but not depend on others.’

- c. 皆 知 己 之 所 願欲 之 舉  
 Jie zhi ji zhi suo yuanyu zhi ju  
 all know self Gen SUO desire Gen behaviour  
 在 是 于 也...  
 zai [pp shi<sub>i</sub> yu t<sub>j</sub>] t<sub>j</sub> ye  
 be.in this in Decl  
 皆 知 己 之 所 畏恐 之 舉  
 Jie zhi ji zhi suo weikong zhi ju  
 all know self Gen SUO fear Gen behaviour  
 在 是 于 也 (荀子·富國)  
 zai [pp shi<sub>k</sub> yu t<sub>k</sub>]<sub>i</sub> t<sub>i</sub> ye  
 be.in this in Decl  
 ‘(people) all know that the behaviours they desire themselves depend on this ...  
 (people) all know that the behaviours they fear themselves depend on this’
- d. 禍 其 在 此 乎! (左傳·僖公二十一年)  
 Huo qi zai [pp ci<sub>i</sub> hu t<sub>j</sub>] t<sub>j</sub>!  
 Misfortune Mod be.in this in  
 ‘Misfortune lies in this!’

I mark *shi fei* ‘right wrong’ in the first clause of (226a) as a PP, as there is a null preposition. The second clause contains an unmarked PP *yu*-DP. I assume that the first clause is parallel to the second one so it should also involve a preposition *yu*. In this specific example, the preposition *yu* is null.

Fourth, the availability of the construction DP-Mod-P concerning non-*wh*-PPs helps to rule out the possibility of *wh* and P staying as a constituent after movement. For a non-*wh*-PP, if DP and P stayed in the same constituent, the relative order between the PP and the modal of ability or the modal auxiliary verb would be DP-P-Mod or Mod-DP-P. Nonetheless, the order attested is always DP-Mod-P, as in (227), indicating that the requirement of *wh* and P forming a constituent after movement is infeasible.

- (227) a. 未 之 能 以 服 ...  
 wei zhi<sub>i</sub> neng [pp t'<sub>i</sub> yi t<sub>i</sub>] [VP fu] ...  
 not.yet 3.Obj can with dress.up  
 未 之 能 以 出 (春秋公羊傳)  
 wei zhi<sub>j</sub> neng [pp t'<sub>j</sub> yi t<sub>j</sub>] [VP chu]  
 not.yet 3.Obj can with present  
 '(I) have not been able to dress up with it...(I) have not been able to present (sacrifices) with it'
- b. 是 可 以 少 固。 (國語•鄭語)  
 Shi<sub>i</sub> ke [pp t'<sub>i</sub> yi t<sub>i</sub>] [VP shao gu].  
 this can with slightly secure  
 '(You) can slightly secure (it) with this.'
- c. 此 可 以 觀 德行 矣。(禮記•射義)  
 Ci<sub>i</sub> ke [pp t'<sub>i</sub> yi t<sub>i</sub>] [VP guan dexing] yi.  
 this can with observe morality.behaviour Perf  
 '(People) can observe (one's) morality and behaviours with this.'

As argued previously in Chapter 6.1.1, I treat 以 *yi* in LAC as a preposition and illustrate the similarities between *yi* and well-acknowledged PPs. To reinforce the argument indicating the prepositional nature of *yi*, I show that *yi*-DP can appear postverbally following the same group of main verbs as in (227). In (228), *yi* following VP should be a preposition, rather than a *v*. Therefore, it would be unreasonable to claim that *yi* following some main verbs in (228) is a preposition, but it is not a preposition when preceding the same group of main verbs in (227). Therefore, I suggest that in (227) *yi* also functions as a preposition, and *yi*-DP is a PP preceding VP (227).

- (228) a. 朝服 之 以 縞 也 (禮記•玉藻)  
 [VP chaofu zhi] [PP yi gao] ye  
 court.dress.up 3.Obj with silk Decl  
 'dress up oneself in a court dress with silk'

b. 固 國 不 以 山 溪 之 險  
 [VP gu guo] bu [PP yi [shan xi zhi xian]]  
 secure country not with mountain stream Gen steep

‘(a ruler) secures his country not with steep mountains and gorges’

(孟子•公孫丑下; adapted from Aldridge 2012b: 148)

c. 觀 之 以 其 遊 (晏子春秋•問上)  
 [VP guan zhi] [PP yi [qi you]]  
 observe 3.Obj with Gen company

‘observe him with his companies’

The second question, the locality problem of PPs is that for a *wh*-PP, its movement may potentially violate HMC, CED or both.

First, when the *wh*-complement of a goal PP follows the ditransitive verb and the theme argument, it undergoes long-distance movement from a postverbal position to a position above *vP*, but the movement of its head preposition seems to violate the HMC. The second, the rhetorical question of (229a) helps to show that the extraction site of the *wh*-PP in its former counterpart is postverbal; likewise, (229c-e) also illustrate that the base position of (229b) is V-DP-PP.

(229) a. 女 將 惡 乎 比 予 哉?  
 Ru jiang wu<sub>i</sub> hu<sub>j</sub> [VP bi yu [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] zai?  
 you Fut what to compare me Q  
 若 將 比 予 于 文 木 邪?  
 Ruo jiang [VP bi yu [PP yu [wen mu]]] ye?  
 you Fut compare me to useful wood Q

‘To what will you compare me? Will you compare me to useful wood?’

(莊子•內篇•人間世)

b. 則 寡人 惡 乎 屬 國 而 可?

[<sub>CP</sub>[<sub>TP</sub> Ze guaren wu<sub>i</sub> hu<sub>j</sub> [<sub>VP</sub> shu guo [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] er ke?  
 then I whom to entrust state Conj appropriate  
 'Then to whom do I entrust the state would be appropriate?'

(莊子•徐無鬼)

c. 兼 屬 之 乎 晏子。 (晏子春秋•內諫篇上)

Jian [<sub>VP</sub> shu zhi [<sub>PP</sub> hu yanzi]]  
 also entrust 3.Obj to Yanzi.  
 '(He) also entrusted it to Yanzi.'

d. 請 屬 天下 于 夫子。 (呂氏春秋•慎行)

Qing [<sub>VP</sub> shu tianxia [<sub>PP</sub> hu yanzi]]  
 please entrust world to sir(you)  
 'Please (allow me to) entrust the world to you.'

e. 屬 其 子 于 鮑 氏 (左傳•哀公十一年)

[<sub>VP</sub> shu [qi zi] [<sub>PP</sub> hu [Bao shi]]]  
 entrust 3.Gen son to Bao clay  
 '(he) entrusted his son to the Bao clay'

Similarly, when another *wh*-PP 以何 *yi he* 'with what' functions as a complement and is base-generated postverbally (230a), it undergoes long-distance movement to a preverbal position in the medial domain, and the movement of its head preposition also seems to violate the HMC. (230b) which involves the same verb but two non-*wh*-complements shows the canonical order V-DP-PP. (230c) however, involves an internally complex *wh*-PP moving from its postverbal base position to a preverbal position, and (230d) shows its canonical order.

(230) a. 何 以 報 我? (國語•晉語四)

He<sub>i</sub> yi<sub>j</sub> [<sub>VP</sub> bao wo [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?  
 what with requite me  
 'With what (will you) requite me?'



b. 君 必 報 之 以 爵 祿 (禮記•燕義)

Jun bi [VP bao zhi [PP yi juelu]]

monarch must requite 3.Obj with title.stipend

‘The monarch must requite them with title and stipend.’

c. 其 將 何 辭 以 對? (左傳•隱公三年)

Qi jiang [he ci]<sub>i</sub> yi<sub>j</sub> [VP dui [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]]?

Mod will what utterance with reply

‘With what utterances will (I) reply?’

d. 我 對 以 忠 貞。 (國語•晉語二)

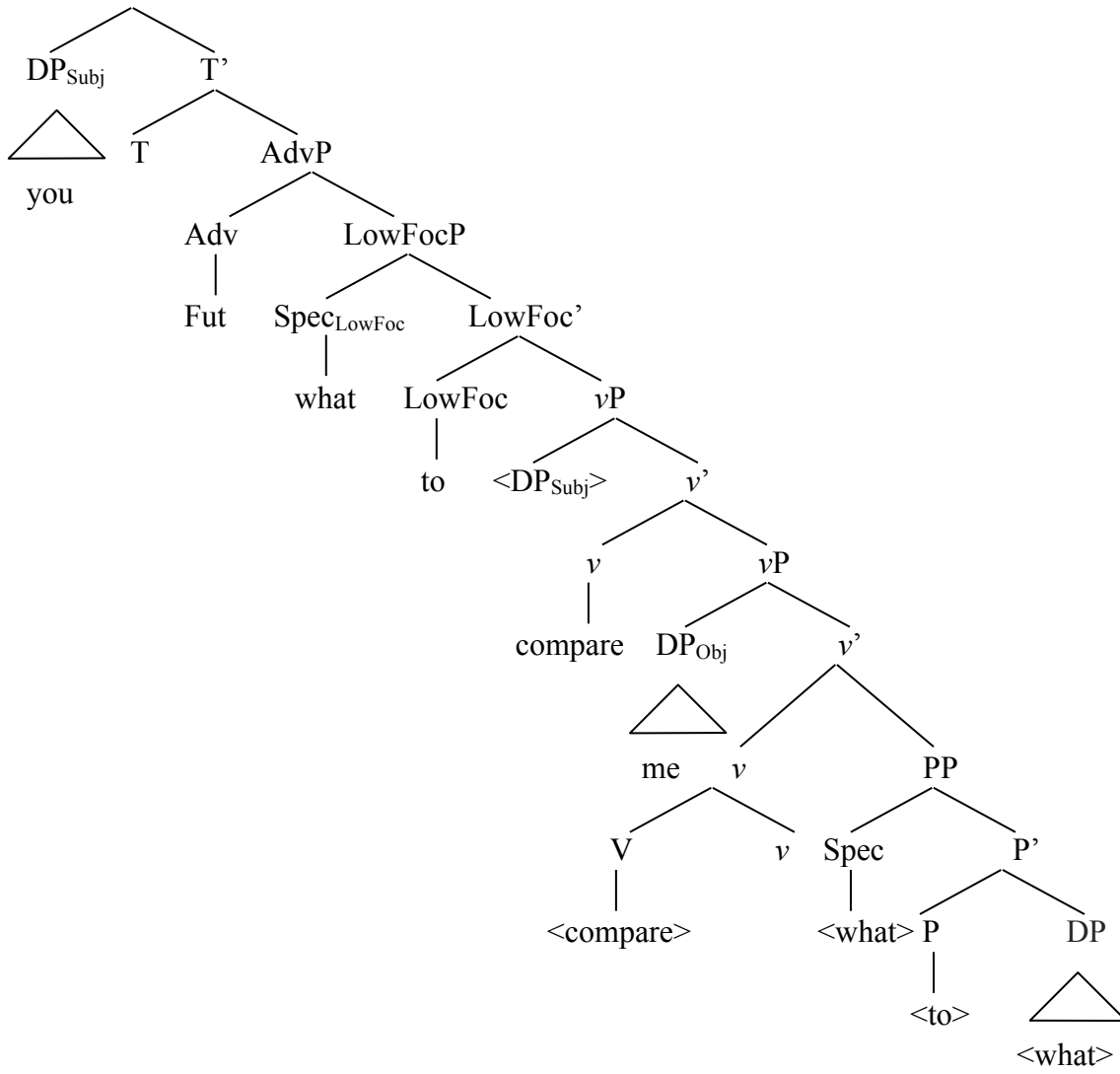
Wo [VP dui [PP yi zhongzhen]].

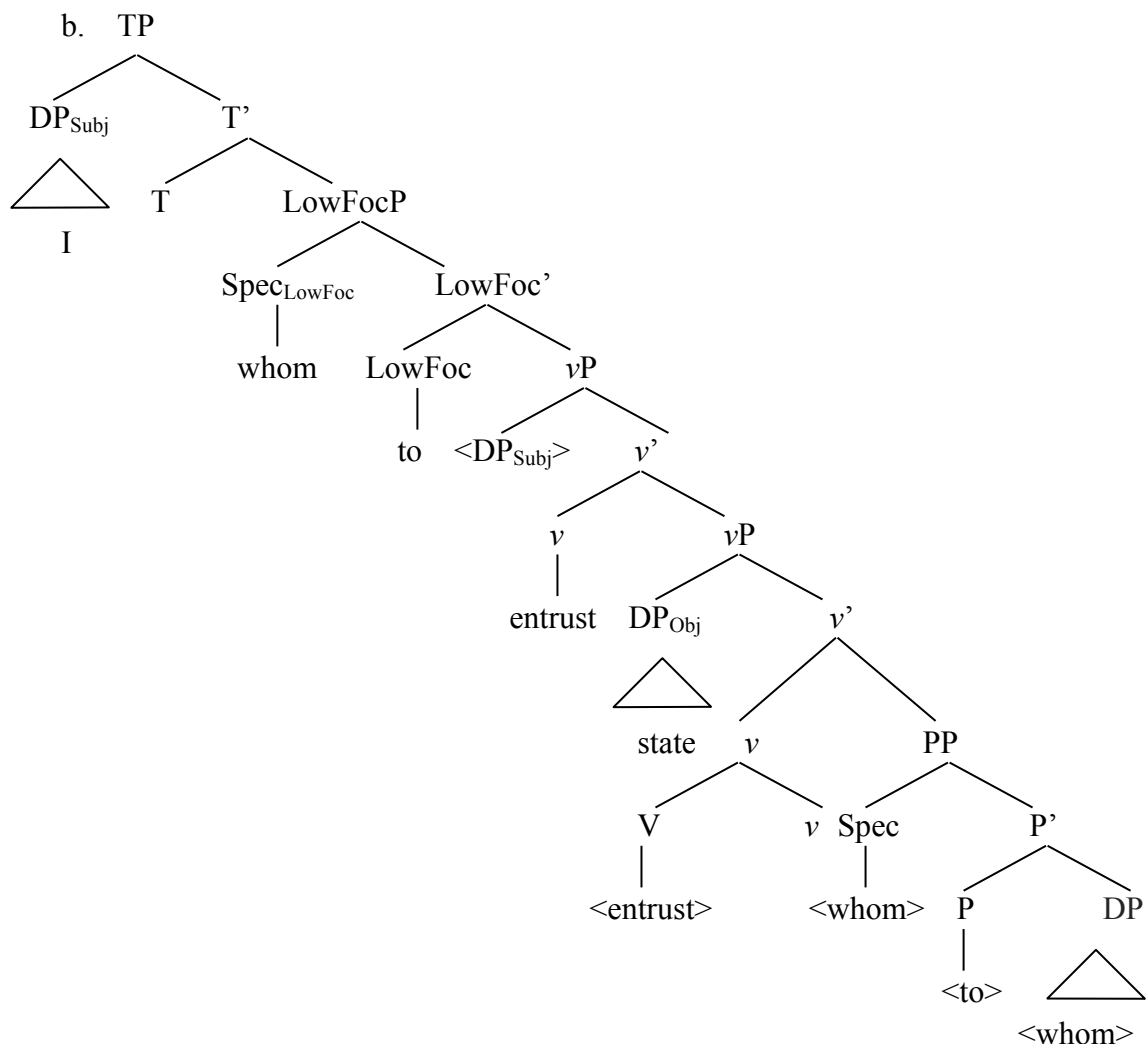
I reply with loyalty

‘I replied with (the word) “loyalty”’.

The tree diagrams of the first question in (229a) and 寡人惡乎屬國 *guaren wu hu shu guo* ‘I whom to entrust state’ in (229b) are shown in (231a-b). As can be seen from the trees, in order to move into the final position which does not properly governs it, the head preposition 乎 *hu* ‘to’ has to skip over governing heads, i.e. the verbs 比 *bi* ‘compare’ and 屬 *shu* ‘entrust’, violating the HMC.

(231) a. TP





Second, when a *wh*-PP is generated preverbally, both *wh* and P front out of the PP to higher positions, so it seems that if the *wh*-PP was an adjunct, the P-movement and *wh*-preposing out of this phrase would violate the CED. (232a-f) illustrate six types of *wh*-PP adjuncts that are base-generated preverbally: reason, instrument, manner, locative, temporal and source *wh*-PPs.<sup>89</sup> The reversed order *wh*-P indicates that movement has happened.

- (232) a. 何 以 卑 我? (國語•晉語四)  
 He<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP bei wo]?  
 what for despise me  
 'For what (do you) despise me?'

<sup>89</sup> The preverbal location of the base positions of reason and instrumental *wh*-PPs has been discussed in Chapter 5.2.2.2. For base positions of other *wh*-PPs, see Chapter 7.2.2 below.

b. 將 何 以 守 國? (國語•周語上)

Jiang he<sub>i</sub> yi<sub>j</sub> [VP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP shou guo]?

Fut what with guard state

'What will (he) use to guard the state?'

c. 子 何 以 知 其 賢 也? (國語•晉語五)

Zi he<sub>i</sub> yi<sub>j</sub> [t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP zhi [qi xian]] ye?

you what with know 3.Gen virtue Decl

'How do you know his virtue?'

d. 周 尚 安 所 事 金 乎? (莊子•說劍)

Zhou shang [an suo]<sub>i</sub> [pp t'<sub>i</sub> t<sub>i</sub>] shi jin hu?

Zhou then what place use gold Q

'Then (in) what place does Zhou (I) use the gold?'

e. 而 人主 奚 時 得 悟 乎?

Er renzhu [xi shi]<sub>i</sub> [pp t'<sub>i</sub> t<sub>i</sub>] de wu hu?

Conj monarch what time can understand Q

'While what time can the monarch understand?'

(韓非子•孤憤)

f. 而 君 焉 取 余? (左傳•莊公六年)

Er jun yan<sub>i</sub> [pp t'<sub>i</sub> t<sub>i</sub>] [VP qu yu]?

then Your.Majesty where obtain surplus

'Then (from) where does Your Majesty obtain the surplus?'

Third, when an adjunct *wh*-PP is base-generated postverbally yet the surface structure is *wh*-P-VP, there must be frontings of both the preposition and *wh* from postverbal to preverbal positions: the fronting of P violates the HMC and CED, and the fronting of *wh* violates CED. As can be deduced from the order of the second declarative sentence in (233a), the unmarked order of the first interrogative sentence must be VP-PP. To obtain the surface structure, both the head preposition and its *wh*-complement need to move to preverbal positions (the latter is triggered by obligatory *wh*-preposing). Similarly, in (233b-e), both the *wh*-complement and the head preposition of the adjunct PP front to preverbal positions. As can be seen from the tree diagram of (233a) in (233f), the movement of the head preposition would violate the HMC and CED, and the fronting of

the preposition and its *wh* prepositional complement would violate the CED if the PP was analysed as an adjunct island.

- (233) a. 惡 乎 取 之? 取 之 曹 也。  
 Wu<sub>i</sub> hu<sub>j</sub> [VP qu zhi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>?] [VP Qu zhi [PP Cao]] ye.  
 where from take 3.Obj take 3.Obj Cao Decl  
 'From where to take it? Take it (from) Cao.'

(公羊傳•僖公三十一年)

- b. '天下 惡 乎 定?'  
 'Tianxia wu<sub>i</sub> hu<sub>j</sub> [VP ding] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]'  
 world what in be.stable  
 吾 對 曰: '定 于 一。' (孟子•梁惠王上)  
 Wu dui yue: '[VP Ding [PP yu yi]].'  
 I reply say be.stable in unification  
 "How can be world be stable?" I replied: "(The world) is stable out of unification."

- c. '子 惡 乎 求 之 哉?'  
 'Zi wu<sub>i</sub> hu<sub>j</sub> [VP qiu zhi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] zai?'  
 you where from seek 3.Obj Q  
 曰: '吾 求 之 於 度數...?' (莊子•天運)  
 Yue: 'Wu [VP qiu zhi] [PP yu dushu]...'  
 say I seek 3.Obj from principle  
 "From where did you seek it?" (Confucius) said: "I sought it from principles..."

- d. '子 獨 惡 乎 聞 之?'  
 Zi du wu<sub>i</sub> hu<sub>j</sub> [VP wen zhi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>?]  
 you alone whom from hear 3.Obj  
 曰: '聞 諸 副墨 之 子...?' (莊子•大宗師)  
 Yue: 'Wen zhu Fumo zhi zi...'  
 say hear 3.Obj.from Fumo Gen son  
 "From whom did you alone hear it?" (Nanbo) says: '(I) heard it from Fumo's son...'

e. 當 察 亂 何 自 起?

Chang cha luan he<sub>i</sub> zi<sub>j</sub> [VP qi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]?

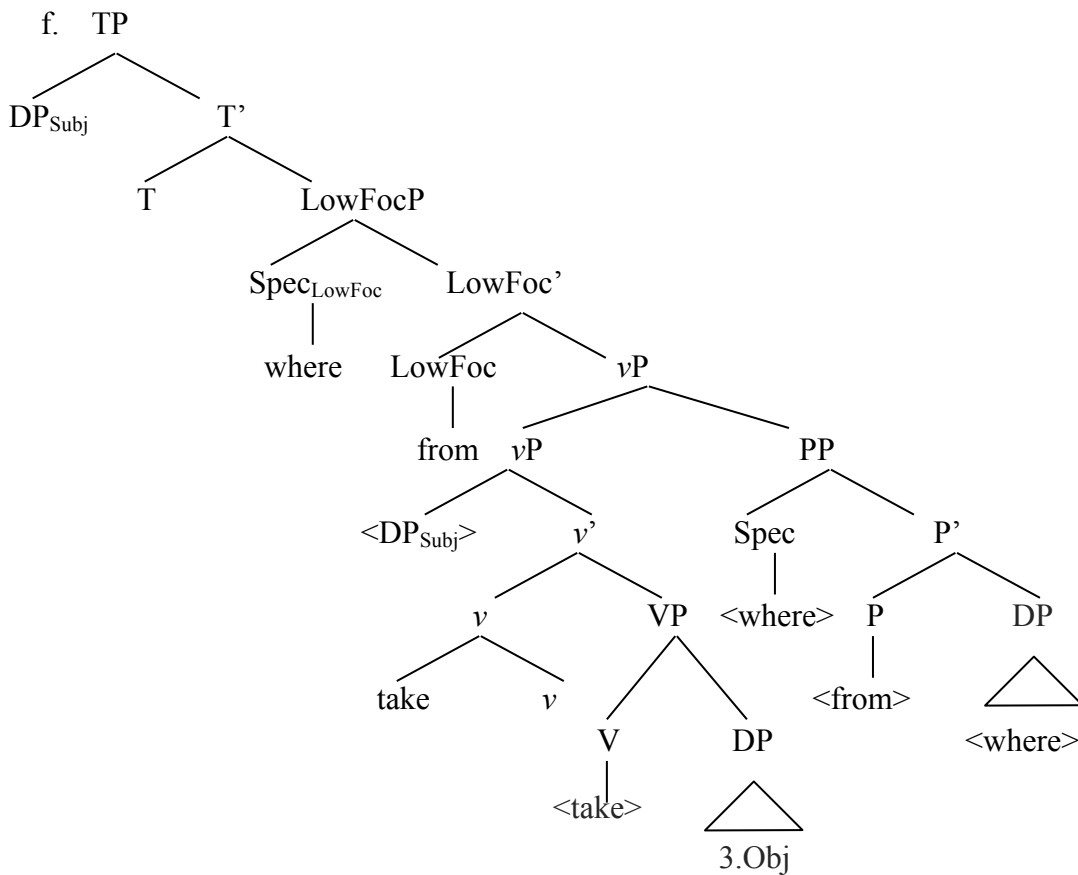
try investigate turbulence where from arise

起 不 相 愛。 (墨子•兼愛)

[VP Qi [PP [bu xiang ai]]].

arise not mutually love

'Try to investigate from where does the turbulence arise. (It) arises (from people) not loving each other.'



For HMC, it requires that a head must move to the next head position, so it prevents head movement from non-complement categories. A head can be displaced over a long distance in the tree as long as it moves through all the intervening head positions and does not skip any position. HMC was first explicitly formulated in Travis (1984):

(234) Head Movement Constraint

Head movement of X to Y cannot 'skip' an intervening head Z.

(From Roberts 2001: 113)

As suggested by Rizzi (2001), (234) is derived from Relativised Minimality that employs Minimal Configuration (MC) and chains which denote the connection between a displaced element and its trace:

(235) Y is a MC with X iff there is no Z such that

- (i) Z is of the same structural type as X, and
- (ii) Z intervenes between X and Y.

The notion of ‘same structural type’ in (i) involves that heads are of the same structural type as other heads. Intervention in (ii) is defined in terms of asymmetric c-command that Z asymmetrically c-commands Y and does not asymmetrically c-command Z. Applied to head chains which involve identity, c-command and Minimality, (235) blocks the formation of a head chain across an intervening head (Rizzi 2001).

The HMC can be shown by the example that in English only the highest functional verb can move to C (236-237). Additionally, lexical verbs which cannot occupy I, cannot move to C either (238) (Rizzi 2001).

(236) a. They have left.

b. Have they <have> left?

(237) a. They could have left.

b. \* Have they could <have> left?

c. Could they <could> have left?

(238) a. He has often seen Mary.

b. He *I* often sees Mary.

c. \* He sees often <sees> Mary.

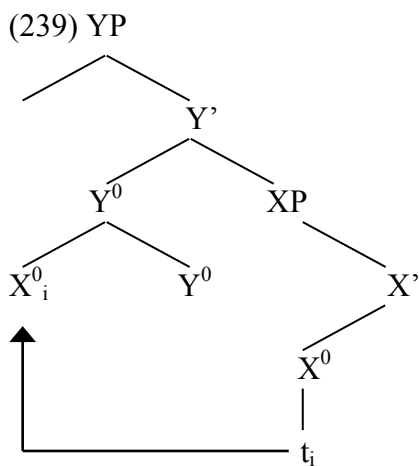
d. \* Sees he *I* often <sees> Mary?

(From Rizzi 2001: 92)

Head movement is the case of Move- $\alpha$  in which the value of  $\alpha$  is  $X^0$ . As a case of Move- $\alpha$ , head movement is subject to three standard conditions on movement: structure preservation, locality and the requirement that the trace generated by the movement operation must meet the relevant well-formedness conditions on traces. The structure

preservation requirement on head movement is that the landing site of head movement must be another head. The main locality condition on head movement is the HMC that bans movement of  $X^0$  directly to a head  $Z^0$  if it asymmetrically c-commands  $Y^0$  (namely, taking YP as its complement). A main well-formedness condition on traces is that they must be c-commanded by their antecedents; consequently, head movement always takes place in an upward direction. The HMC can be derived from the Empty Category Principle (ECP) which requires all traces to be properly governed, and HMC forces head movement to be cyclic. The ECP requires that all traces must be both head governed and antecedent governed, and analysing the trace of head movement in terms of ECP explains why head movement from subjects and adjuncts and downgrading to a non-c-commanding head are impossible (Roberts 2001, 2011).

The general schema for head movement of  $X^0$  to  $Y^0$  is as follows:



The HMC forbids movement of  $X^0$  directly to a head that asymmetrically-commands  $Y^0$  and takes YP as a complement. However,  $X^0$  can move to a head if  $Y^0$  containing  $X^0$  moves to that head (Roberts 2001). For this structure,  $Y^0$  could select for  $X^0$  or XP. In the case where  $Y^0$  selects for  $X^0$ , when movement takes place,  $X_i^0$  stays inside of  $Y^0$ , because  $Y^0$  selects for it. When  $Y^0$  selects for XP, if  $X^0$  needs to undergo head movement, it moves to  $Y^0$  (due to the HMC) and then  $X^0$  can excorporate. The former situation applies to Dutch data (240b), and the latter situation is consistent with Italian data (240a). An analysis of Verb Raising is that *willen bellen* right-adjoins to I or the clause-final position of the finite verb before the application of Verb second. When Verb Second does not apply, the finite verb that is combined with the infinitives forms an uninterruptible cluster



[[had] willen bellen]. When Verb second applies, the finite verb exorporates from the cluster and moves to C, as in (240b).

(240) a. Italian

La<sub>3</sub> volevo [ t<sub>2</sub> chiamare] t<sub>1</sub> ieri.  
 her I.wanted to.call yesterday  
 ‘Yesterday I wanted to call her up.’

b. Dutch

Gisteren had ik [mijn vriendin op t] t willen bellen.  
 yesterday had I my girlfriend up want call  
 ‘Yesterday I wanted to call my girlfriend up.’

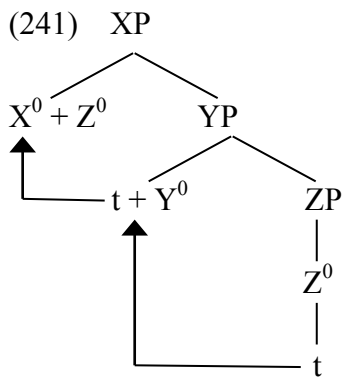
(From Roberts 1991: 212)

As suggested by Pesetsky (1982, 1995), the locality conditions on head movement also restrict another syntactic process, i.e. c(ategorial)-selection: a head can c-select only its complement, which is also true for c-selection. Since c-selection shows the same kind of locality constraint as head movement and it is a syntactic process, head movement might not be completely ad hoc. Being a search procedure, C-Select is the trigger for head movement, yet the existence of locality constraints is due to the Transparency Condition (‘A head ceases to be accessible once another head starts to project.’) proposed by Matushansky (2006) that links the syntactic accessibility of a head to its ability to project. The Transparency Condition ensures that as long as a new c-selecting head is determined, the nonprojecting head becomes inaccessible (only a head that c-selects the head of its sister can project) (Matushansky 2006).

Nonetheless, according to Roberts (1994), there are two types of head movement in Romance. One kind is referred to as L-related head movement, triggered by morphological properties of the host head. The other kind is referred to as non-L-related head movement, often triggered by some property of the moved head. The definition of L-relatedness from Chomsky and Lasnik (1991: 37) is that ‘Given a lexical head L, we say that a position is L-related if it is the specifier or complement of a feature of L.’ Roberts (1994) further proposes that ‘Given a lexical head L, a position is L-related if: (i) it is a feature of L; (ii) it is a specifier or complement of a feature of L.’ Though both

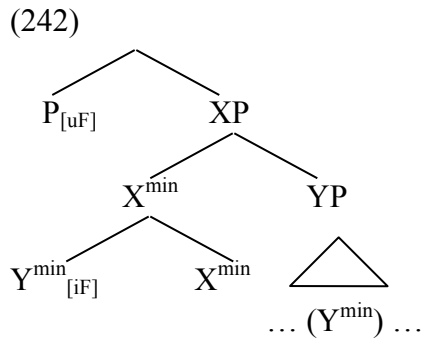
types of head movement are subject to the ECP, only L-related head movement obeys the HMC. The local nature of head movement arises from the local nature of Agree and the Phase Impenetrability Condition (Chomsky 2001a), but is not predicted by the HMC.

In terms of the movement of head prepositions in LAC, it may be analysed in line with Roberts' (1991) excorporation account. According to Baker (1988), the operation that derives morphologically complex words from more basic elements is the variant of Move- $\alpha$  that applies to heads. Baker (1988: 73) rules out excorporation by arguing that words cannot contain traces. Excorporation seems impossible in morphological cases of head-to-head movement. Roberts (1991, 2001) states that it is feasible for  $Y^0$  to block antecedent government of the intermediate trace, as in the schema below. All cases of excorporation hence are reduced to the HMC.



(From Roberts 2001: 119)

Excorporation is the successive-cyclic, non-roll-up movement of a head 'passing through' the edge of another head. When the host of head movement is overt, the element passing through the edge is different from the host, and a higher trigger probes the element that passes through the edge (Roberts 2010). Roberts (1991) argues that a clitic incorporates into a particle by adjunction to a head, and then moves independently through all the embedded functional heads to the matrix, higher verb via excorporation which is the successive-cyclic movement of a head passing through another head (242):



(From Roberts 2010: 206)

The element passing through the edge of a head,  $Y^{\min}$ , can be probed by a higher trigger  $P$  and then incorporate into  $P$ . In this situation, one head simply moves through another and then moves on. The lower  $X^{\min}$ , however, cannot excorporate due to the A-over-A Principle (Roberts 2010).

Roberts (1991) suggests that clitic climbing and verb-raising provide evidence for successive head-incorporation and excorporation. He proposes that excorporation of a left-adjoined head can be demonstrated by clitic climbing (236a), and excorporation from the host of an adjunction can be demonstrated by verb raising in Germanic V2 environment (236b). Clitic climbing is treated as successive-cyclic head movement, and the clitic *la* in (243a) (=240a) moves through the heads to the surface position, carrying no feature of the heads it moves through. Successive applications of verb raising in (243b) (=240b) create a verbal complex, yet only the inflected verb *had* moves to satisfy the verb-second requirement. It is the original incorporation host *had* that excorporates, rather than the infinitival verb *willen bellen* which is generated from an earlier incorporation. The adjoined element is not the head of the complex, hence not an intervening governor for the trace of the inflected verb *had*. A complex head is formed during the derivation by an in-situ substitution process, and further excorporation is banned. When incorporation generates a combination of two heads, the potential incorporation host morphologically subcategorises for its incorporee as a function of its lexical properties. The incorporation host creates a structural slot for the incorporee at D-Structure. If the potential host fails to create a structural slot by means of subcategorisation, head-to-head movement either realises in the form of adjunction or substitution into the empty head position. When the incorporation host does not select for

the incorporated verbal complex, substitution cannot happen, so excorporation becomes possible.

(243) a. Italian

La<sub>3</sub> volevo [ t<sub>2</sub> chiamare] t<sub>1</sub> ieri.  
her I.wanted to.call yesterday  
'Yesterday I wanted to call her up.'

b. Dutch

Gisteren had ik [mijn vriendin op t] t willen bellen.  
yesterday had I my girlfriend up want call  
'Yesterday I wanted to call my girlfriend up.'

(From Roberts 1991: 212)

For the preposition base-generated after VP in LAC, it may be analysed in a similar way to clitic climbing. The head preposition first incorporates to a V<sup>0</sup>, and then moves alone to the head position of a functional projection through excorporation. The adjunction of the preposition can take place through functional heads.

With regard to CED, it treats extraction out of subjects and adjuncts in a unified manner. This condition only applies in the syntactic component, but not in LF. If the CED is analysed as a condition on output representations, it applies merely at SS; if the CED is analysed as a condition on the application of move  $\alpha$ , it only applies to the application of move  $\alpha$  in syntax. CED rules out the possibility of extraction out of a (sentential) subject in English, and accounts for the (un)grammaticality of preposition stranding in English: stranding of a preposition is allowed if the PP dominating it is subcategorised (and properly governed), and is disallowed otherwise. Moreover, the distinction between bridge verbs and non-bridge verbs in terms of extraction can be explained by the fact that complements of bridge verbs are properly governed yet those of non-bridge verbs are not. Though CED is not a subcase of ECP, it is correlated to ECP via the notion of proper government (Huang 1982a).

#### (244) Condition on Extraction Domain

A phrase A may be extracted out of a domain B only if B is properly governed.

(Huang 1982a: 505)

Chomsky (1986) incorporates the original CED into the Barriers system under the principles of Subjacency that confines the number of barriers being crossed during movement. The Barriers account is similar to the original CED in two aspects: the Barriers analysis of extractability is developed based on the complement/noncomplement distinction, and the licensing of a domain for extraction is realised through lexical licensing encoded in the notion of L-marking ( $\theta$ -marking by a lexical head). Complements and ECM subjects are L-marked, yet subjects and adjuncts are not. Since noncomplements are not L-marked, they become barriers for extraction. As for the conceptual question that extractability out of a domain depends on its being licensed by a lexical head, the Barriers system suggests that the answer might be related to  $\theta$ -assigning properties of a lexical head.

The original Connectedness theory of Kayne (1983) accounts for Subject Condition effects in languages like English by virtue of generalising the fact that Subject Condition effects and other related effects arise when extraction takes place from a left branch. The Connectedness excludes extraction from a left branch by means of referring to the notion of canonical government configuration. Longobardi (1985) points out that the original Connectedness theory fails to explain the impossibility of extraction out of adjuncts, most of which are right branching. Longobardi (1985) thus proposes a revised formulation of Connectedness theory in order to extend it to adjunct cases, which is related to a different module of grammar. The modification incorporates Adjunct Condition effects by referring to a notion other than canonical government configuration.

As for the minimalist analyses of the CED effects, Takahashi (1994) refers to external constraints on movement, inheriting the idea of the Barriers theory. The Shortest Move condition ('Make the shortest move.') makes an item undergoing A'-movement reach the landing site via short successive adjunctions to the maximal projections. This condition also requires movement to target the closest asymmetrically c-commanding site according to the movement type. The Chain Uniformity condition ('Chains must be uniform.') prevents derivational processes from disturbing the uniform status of chains.

Takahashi (1994) hence proposes a Uniformity Corollary of Adjunction that adjunction to a part of a nontrivial chain or coordination is not allowed.

Another minimalist analysis of the CED effects focuses on syntactic machinery in the minimalist programme and tries to derive the CED effects in terms of derivational dynamics in a cyclic system (Nunes and Uriagereka 2000). The basic idea of this structure-building approach is:

(245) If a phrase marker *X* was assembled in parallel with a phrase marker *Y*, and then *X* and *Y* were Merged, whereupon *Y* projects, no extraction is ever possible from *X*.

(246) *X* is assembled in parallel with *Y* iff there exists a derivational point at which *X* and *Y* coexist in the derivational space and are unconnected.

CED effects arise when a syntactic object that is required at a given derivational step becomes inaccessible to the computational system at a previous derivational stage, when the structure containing the syntactic object has been spelt out. However, standard parasitic gap constructions do not exhibit CED effects, in that the syntactic object moves to a different derivational point before the structure containing it has been spelt out. When parasitic gap constructions appear to show CED effects, this structure-building approach accounts for this phenomenon by referring to the cyclic access to the numeration.

However, as suggested by Stepanov (2007), all the preminimalist and minimalist approaches have inadequacies. The original CED formulation and its Barriers version face an empirical challenge, and rely on the notions of lexical government and L-marking that unify noncomplements (subjects and adjuncts). Additionally, these approaches specify that Infl is lexical and can govern the subject. In respect of the structure-building approach, since it unifies subjects and adjuncts, it has a similar empirical problem that it fails to distinguish between languages like English and languages like Turkish in which extraction out of subjects, but not out of adjuncts, is allowed. Sentences involving extraction out of subject are predicted to be ungrammatical in those languages, which is counterfactual. Moreover, there is another problem involving extraction out of certain subjects even in English where the Subject Condition otherwise holds. In terms of



adjuncts. The criterion for determining structural argumenthood and adjuncthood lies in the uninterpretable features in the label of the element being Merged. If the element does not contain any uninterpretable feature, it enters the structure by adjunction, hence being subject to the Late Adjunction Hypothesis that specifies a strict timing of the application of substitution and adjunction Merge: any adjunction must take place postcyclically after all substitution Merge has applied. Substitution Merge simply creates new structure on top of the set of c-command relations, but never changes it. Adjunction Merge, however, results in the change in the set of c-command relations inside the existing structure. So this thematic adjunct is also a structural adjunct. In contrast, if an element involves any uninterpretable feature in its label, i.e. structural Case or a *wh*-feature, it enters the structure by substitution, thus being a structural argument. If the prepositional complement has a *wh*-feature, it is matched by Agree on the preposition, thus the *wh*-feature is visible in the label of the entire PP. Therefore, a *wh*-PP is a thematic adjunct, but a structural argument, entering the structure by substitution (as a specifier) cyclically. Consequently, a *wh*-PP is subject to *wh*-fronting, a cyclic *wh*-dependency. An example of a structural adjunct and one of a structural argument are in (247a) and (247b) respectively, both of which are thematic adjuncts. Therefore, it is the structural, rather than thematic, definition of adjunction that determines the timing of Merger of an element.

(247) a. John fixed the car with a hammer.

b. How/?With what did John fix the car?

(From Stepanov 2007: 112)

Thematic adjuncts *wh*-PPs in (248-249) (= (232-233)) have a visible *wh*-feature as an uninterpretable feature, so they act as structural arguments, and enter the structure by substitution. Since the substitution Merge of structural arguments applies before adjunction, extraction out of *wh*-PP adjuncts is expected.



- (248) a. 何 以 卑 我? (國語•晉語四)  
 He<sub>i</sub> yi<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP bei wo]?  
 what for despise me  
 'For what (do you) despise me?'
- b. 將 何 以 守 國? (國語•周語上)  
 Jiang he<sub>i</sub> yi<sub>j</sub> [VP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP shou guo]?  
 Fut what with guard state  
 'What will (he) use to guard the state?'
- c. 子 何 以 知 其 賢 也? (國語•晉語五)  
 Zi he<sub>i</sub> yi<sub>j</sub> [t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP zhi [qi xian]] ye?  
 you what with know 3.Gen virtue Decl  
 'How do you know his virtue?'
- d. 周 尚 安 所 事 金 乎? (莊子•說劍)  
 Zhou shang [an suo]<sub>i</sub> [pp t'<sub>i</sub> t<sub>i</sub>] shi jin hu?  
 Zhou then what place use gold Q  
 'Then (in) what place does Zhou (I) use the gold?'
- e. 而 人主 奚 時 得 悟 乎?  
 Er renzhu [xi shi]<sub>i</sub> [pp t'<sub>i</sub> t<sub>i</sub>] de wu hu?  
 Conj monarch what time can understand Q  
 'While what time can the monarch understand?'  
 (韓非子•孤憤)
- f. 而 君 焉 取 余? (左傳•莊公六年)  
 Er jun yan<sub>i</sub> [pp t'<sub>i</sub> t<sub>i</sub>] [VP qu yu]?  
 then Your.Majesty where obtain surplus  
 'Then (from) where does Your Majesty obtain the surplus?'
- (249) a. 惡 乎 取 之? 取 之 曹 也。  
 Wu<sub>i</sub> hu<sub>j</sub> [VP qu zhi] [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP Qu zhi [pp Cao]] ye.  
 where from take 3.Obj take 3.Obj Cao Decl  
 'From where to take it? Take it (from) Cao.'  
 (公羊傳•僖公三十一年)

b. ‘天下 惡 乎 定?’

‘Tianxia wu<sub>i</sub> hu<sub>j</sub> [VP ding] [PP t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]

world what in be.stable

吾 對 曰: ‘定 于 一。’ (孟子•梁惠王上)

Wu dui yue: ‘[VP Ding [PP yu yi]].’

I reply say be.stable in unification

“How can be world be stable?” I replied: “(The world) is stable out of unification.”

c. ‘子 惡 乎 求 之 哉?’

‘Zi wu<sub>i</sub> hu<sub>j</sub> [VP qiu zhi] [PP t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] zai?’

you where from seek 3.Obj Q

曰: ‘吾 求 之 於 度數...’ (莊子•天運)

Yue: ‘Wu [VP qiu zhi] [PP yu dushu]...’

say I seek 3.Obj from principle

“From where did you seek it?” (Confucius) said: “I sought it from principles...”

d. ‘子 獨 惡 乎 聞 之?’

Zi du wu<sub>i</sub> hu<sub>j</sub> [VP wen zhi] [PP t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]?

you alone whom from hear 3.Obj

曰: ‘聞 諸 副墨 之 子...’ (莊子•大宗師)

Yue: ‘Wen zhu Fumo zhi zi...’

say hear 3.Obj.from Fumo Gen son

“From whom did you alone hear it?” (Nanbo) says: ‘(I) heard it from Fumo’s son...’

e. 當 察 亂 何 自 起?

Chang cha luan he<sub>i</sub> zi<sub>j</sub> [VP qi] [PP t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]?

try investigate turbulence where from arise

起 不 相 愛。 (墨子•兼愛)

[VP Qi [PP [bu xiang ai]]].

arise not mutually love

‘Try to investigate from where does the turbulence arise. (It) arises (from people) not loving each other.’

This approach also accounts for extraction out of subjects of ECM verbs. 使 *shi* in (250) is an ECM verb embedding a TP complement whose subject is exceptionally case-marked by accusative Case from matrix *v*. The DP following 使 *shi* is an embedded subject undergone long-distance movement from an embedded clause across a TP boundary to a position preceding the causative verb *shi*. Since subjects always have an uninterpretable feature (structural Case) in their label, they enter the structural by substitution, hence cyclically. Besides, the embedded subjects are *wh*-phrases, which means they have another uninterpretable feature: the *wh*-feature. Subjects of ECM verbs are not subject to Adjunct Condition effects, so they can undergo movement (Stepanov 2007).

(250) a. 吾 誰 使 正 之? (莊子•齊物論)

Wu shui<sub>i</sub> [<sub>VP</sub> shi [<sub>TP</sub> t<sub>i</sub> zheng zhi]]?

I who make rectify 3.Obj

‘Who will I have rectify it?’

b. 將 誰 使 代 子? (韓非子•說林)

Jiang shui<sub>i</sub> [<sub>VP</sub> shi [<sub>TP</sub> t<sub>i</sub> dai zi]]?

Fut who make replace you

‘Who will (I) have replace you?’

It seems that Stepanov’s (2001, 2007) theory cannot account for examples such as (251a/b/e). The canonical counterparts of (251a-b) are (251c-d) which indicate that the base position of the non-*wh* ‘high’ adverbial is above negation. The non-*wh*-PP reason adjunct *shi yi* ‘this for’ in (251a-b) does not contain any uninterpretable feature: it does not have any *wh*-feature; since the demonstrative *shi* is assigned dative Case, there is no structural Case either. Similarly, in (251e) the demonstrative *shi* raises out of a locative PP-complement headed by another preposition 于 *yu* ‘in’. The unmarked counterpart of (251e) is (251f-g) where the PP argument follows the verb below negation. Given the fact that PPs in (251a-b/e) do not have an uninterpretable feature in their label, they must have been Merged by adjunction, hence no extraction is expected. If we assume that both the first step, inversion within PP, as well as the second step, separate movement of DP and P, happened, then the second step would contradict Stepanov’s argument.

(251) a. 君子 是 以 惡 之。 (左傳•昭公元年)

Junzi [pp shi<sub>i</sub> yi t<sub>i</sub>] [vp wu zhi].

gentleman this for detest 3.Obj

‘Gentlemen for this detest it.’

b. 臣 是 以 不 獲 從 君

chen [pp shi<sub>i</sub> yi t<sub>i</sub>] bu [vp huo cong jun]

subject(I) this for not can follow Your.Majesty

‘I for this could not follow Your Majesty’

(左傳•哀公二十五年)

c. 楚 人 以 是 咎 子重。 (左傳•襄公三年)

Chu ren [pp yi shi] [vp jiu Zizhong].

Chu person for this blame Zizhong

‘People of Chu for this blame Zizhong.’

d. 以 此 不 和。 (左傳•僖公十五年)

[pp Yi ci] bu he.

for this not harmonious

‘(The State of Jin) for this is not harmonious.’

e. 皆 知 己 之 所 願欲 之 舉

Jie zhi ji zhi suo yuanyu zhi ju

all know self Gen SUO desire Gen behaviour

在 是 于 也...

zai [pp shi<sub>i</sub> yu t<sub>i</sub>] ye

be.in this in Decl

皆 知 己 之 所 畏恐 之 舉

Jie zhi ji zhi suo weikong zhi ju

all know self Gen SUO fear Gen behaviour

在 是 于 也

(荀子•富國)

zai [pp shi<sub>j</sub> yu t<sub>j</sub>] ye

be.in this in Decl

‘(people) all know that the behaviours they desire themselves depend on this ...

(people) all know that the behaviours they fear themselves depend on this’

f. 安危 在 是 非,  
 Anwei zai [PP [shi fei]],  
 safety be.in right wrong  
 不 在 于 強 弱。 (韓非子•安危)  
 bu zai [PP yu [qiang ruo]].  
 not be.in in strongness weakness  
 ‘The safety (of a country) depends (on whether its ruler has a sense of) right and wrong, but not depends on (the country being) strong or weak.’

g. 榮辱 之 責 在 乎 己,  
 Rongru zhi ze zai [PP hu yi],  
 honour.shame Gen responsibility be.in in self  
 而 不 在 乎 人。 (韓非子•大體)  
 er bu zai [PP hu ren].  
 Conj not be.in in others  
 ‘The responsibilities of honour and shame depend on oneself, but not depend on others.’

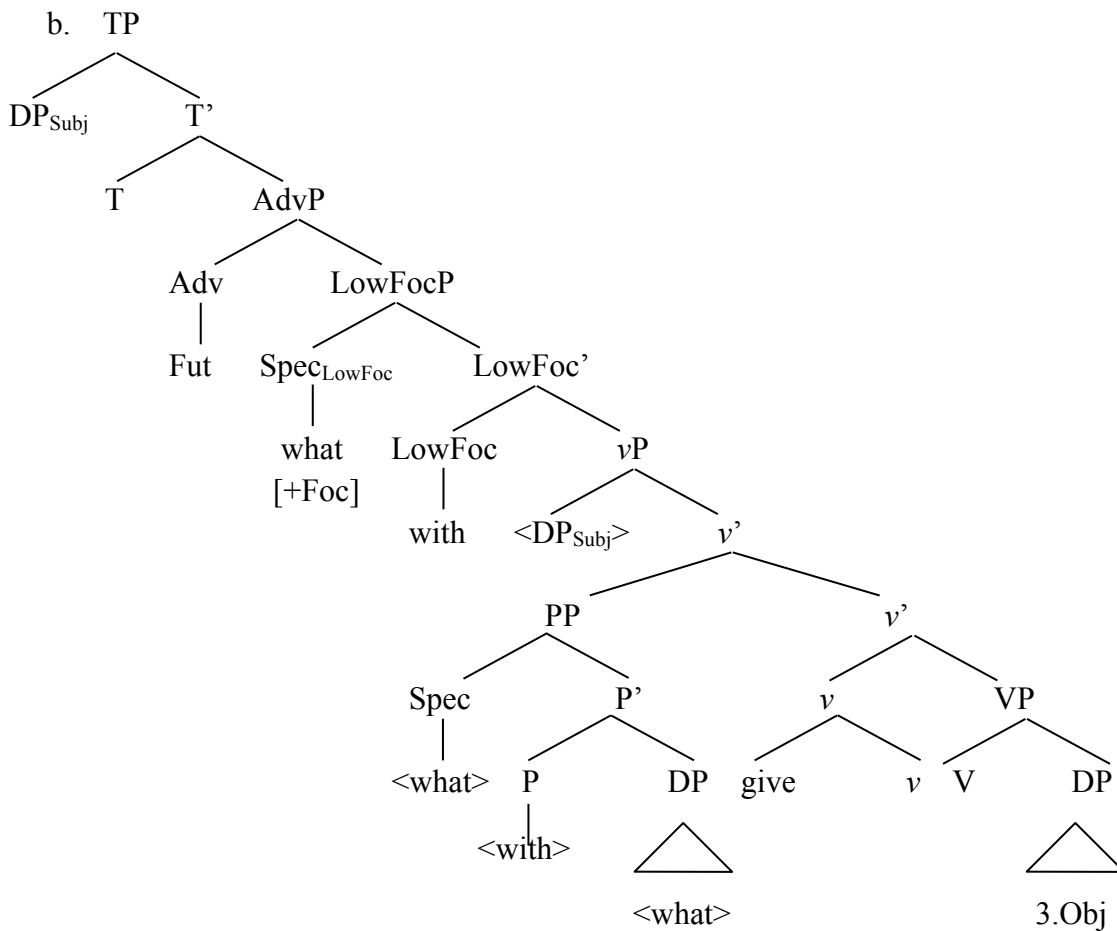
Nonetheless, the PPs in (251a/b/e) are non-*wh*-PPs, so the second step should be optional, and I state that the second step does not take place. According to my presumption, the surface order DP-P-VP is derived from DP movement from the complement position to the specifier position of PP, and nothing else. Since the movement is only concerned with a DP and happens within a PP, no extraction is involved. Therefore, data in (251) does not go against Stepanov’s theory.

In summary, *wh*-P in LAC may be accounted for by the approach involving inversion and separate movement, and there are three steps in total. First, *wh* raises to a specifier position within PP. Second, *wh* further moves to the specifier position of a functional projection. Third, the head preposition moves to the head position of the functional projection. The third step needs to be split into two parts if necessary, depending on the base position of *wh*-PPs. When a *wh*-PP is base-generated preverbally and moves to a higher position, the preposition can move directly from P<sup>0</sup> to the head of the functional projection. However, if the *wh*-PP is base-generated postverbally and moves to a preverbal position, the preposition cannot move directly to its final landing site, but has

to first incorporate to a  $V^0$ , and then moves to the head position of the functional projection through excorporation.

(252a) involves a *wh*-PP 以何 *yi he* ‘with what’ which functions as a theme argument and precedes a ditransitive verb 給 *gei* ‘give’ and a goal DP 之 *zhi*. The canonical order is P-*wh*-V-DP, and the derived order is *wh*-P-V-DP. As in the tree diagram (252b), the *wh*-word first fronts from the complement position of the *wh*-PP to [Spec, PP], and then further moves to the specifier position of the Low focus position following the aspecto-temporal adverb 將 *jiang* ‘Fut’. The preposition *yi* moves from  $P^0$  directly to the head position of the Low focus position.

(252) a. 將 何 以 給 之? (左傳•昭公十六年)  
 Jiang he<sub>i</sub> yi<sub>j</sub> [<sub>VP</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] gei zhi]?  
 Fut what with give 3.Obj  
 ‘What will (we) give them?’



(253a) involves a *wh*-complement of a goal PP which follows the ditransitive verb 比 *bi* ‘compare’ and the theme argument 予 *yu* ‘me’. In the tree diagram in (253b), the

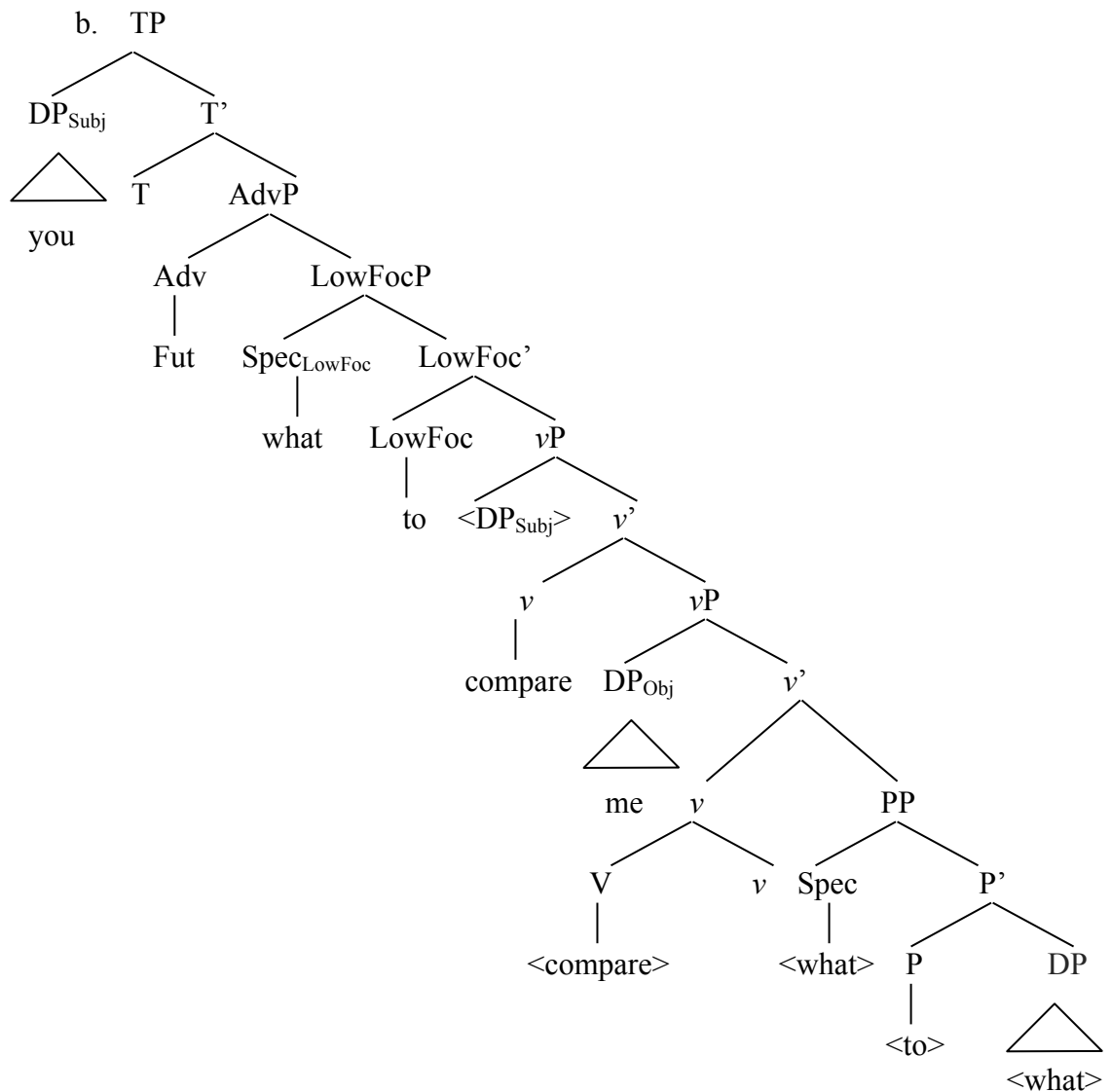
*wh*-complement first fronts to a specifier position within PP and then further moves to [Spec, LowFocP]. The preposition 乎 *hu* ‘to’ cannot move from P<sup>0</sup> directly into LowFoc<sup>0</sup>, as the *wh*-PP is base-generated postverbally. So the preposition first incorporates to a V<sup>0</sup>, and then moves to the head of LowFocP through excorporation.

(253) a. 女 將 惡 乎 比 予 哉?  
 Ru jiang wu<sub>i</sub> hu<sub>j</sub> [<sub>VP</sub> bi yu [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] zai?  
 you Fut what to compare me Q

若 將 比 予 于 文 木 邪?  
 Ruo jiang [<sub>VP</sub> bi yu [<sub>PP</sub> yu [wen mu]]] ye?  
 you Fut compare me to useful wood Q

‘To what will you compare me? Will you compare me to useful wood?’

(莊子•內篇•人間世)



The question in (254a) involves an adjunct *wh*-PP which is base-generated postverbally. The base structure of (254a) is VP-P-*wh* (see the second sentence in (254a) for the canonical order), yet the surface structure is *wh*-P-VP. Similarly, in (254b), the *wh*-complement fronts to a specifier position within PP and then the specifier of the Low focus position; the preposition first incorporates to V<sup>0</sup> and then moves to the head of the Low focus position through excorporation.

(254) a. ‘子 惡 乎 求 之 哉?’

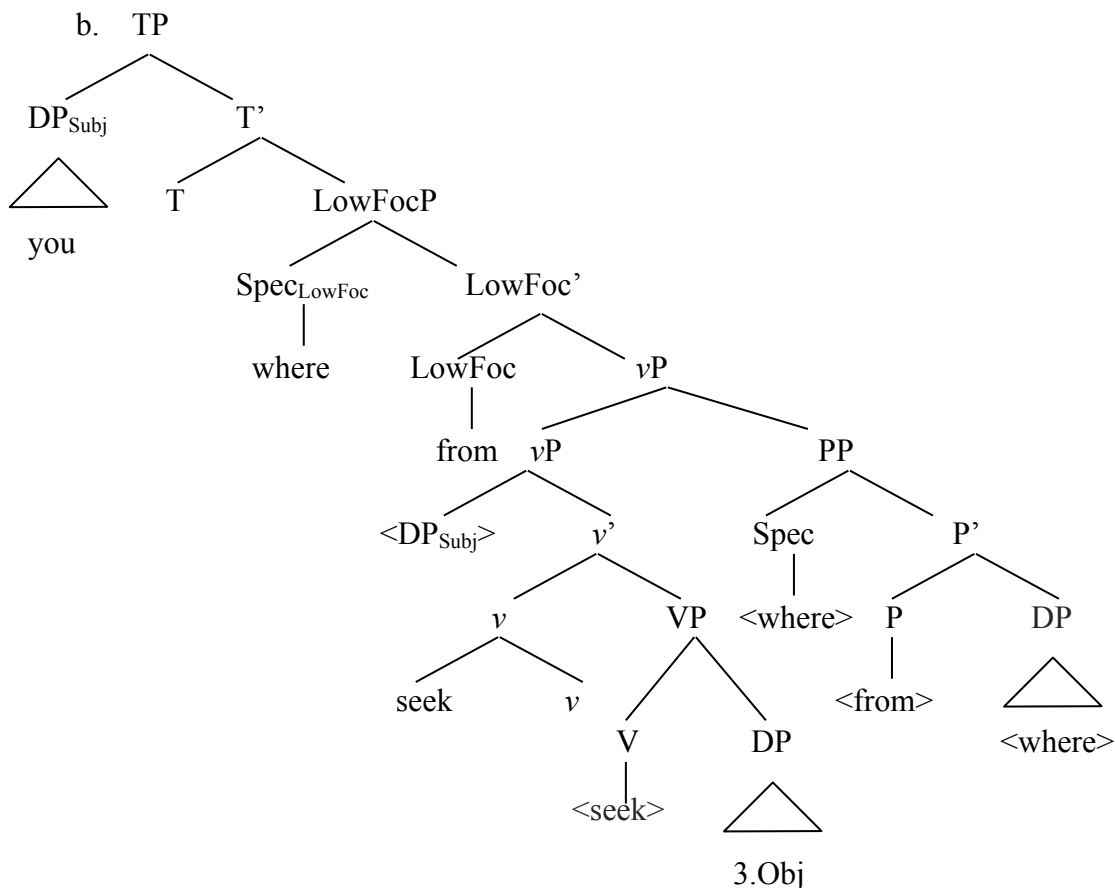
‘Zi wu<sub>i</sub> hu<sub>j</sub> [v<sub>P</sub> qiu zhi] [p<sub>P</sub> t<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] zai?’  
 you where from seek 3.Obj Q

曰: ‘吾 求 之 於 度數...’ (莊子•天運)

Yue: ‘Wu [v<sub>P</sub> qiu zhi] [p<sub>P</sub> yu dushu]...’

say I seek 3.Obj from principle

“From where did you seek it?” (Confucius) said: “I sought it from principles...”

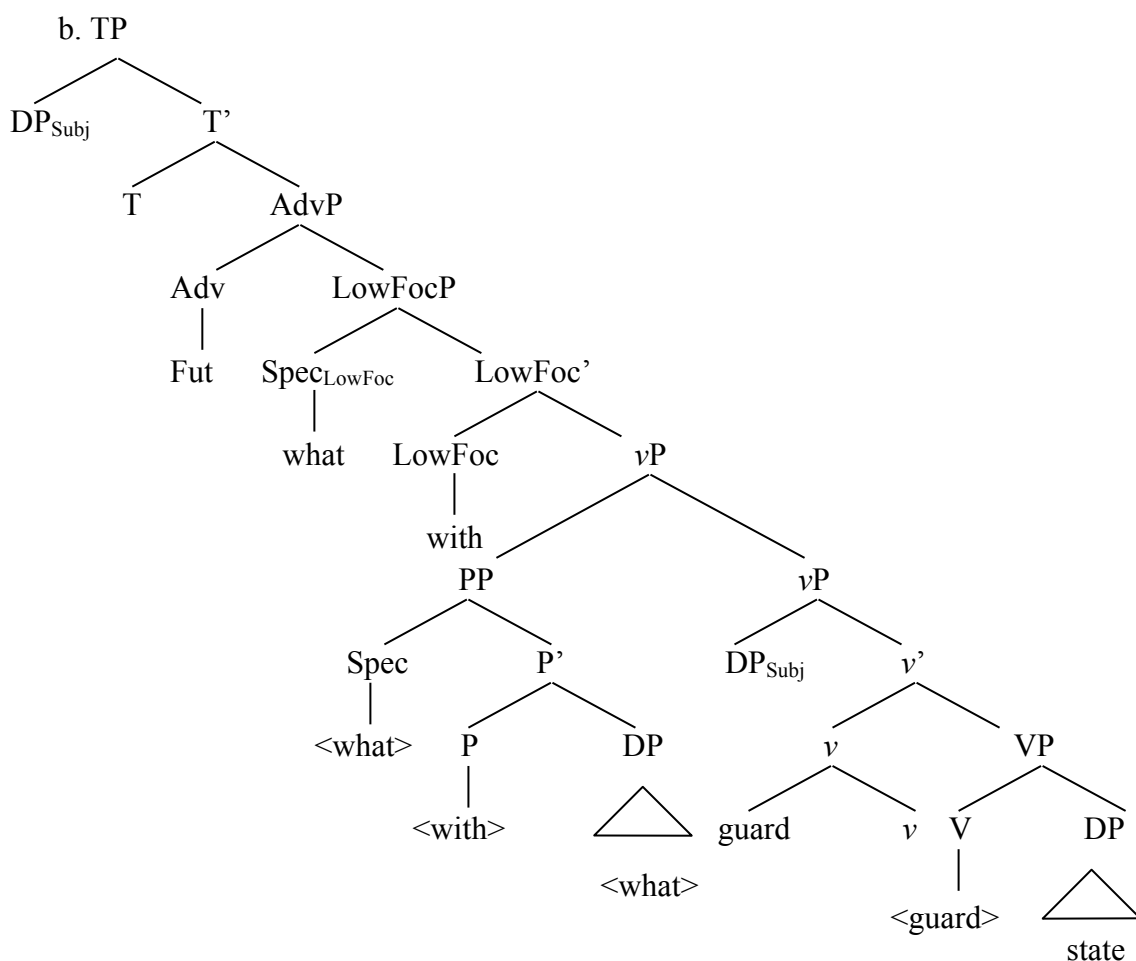


(255a) involves an instrument *wh*-PP which is generated preverbally, and both *wh*



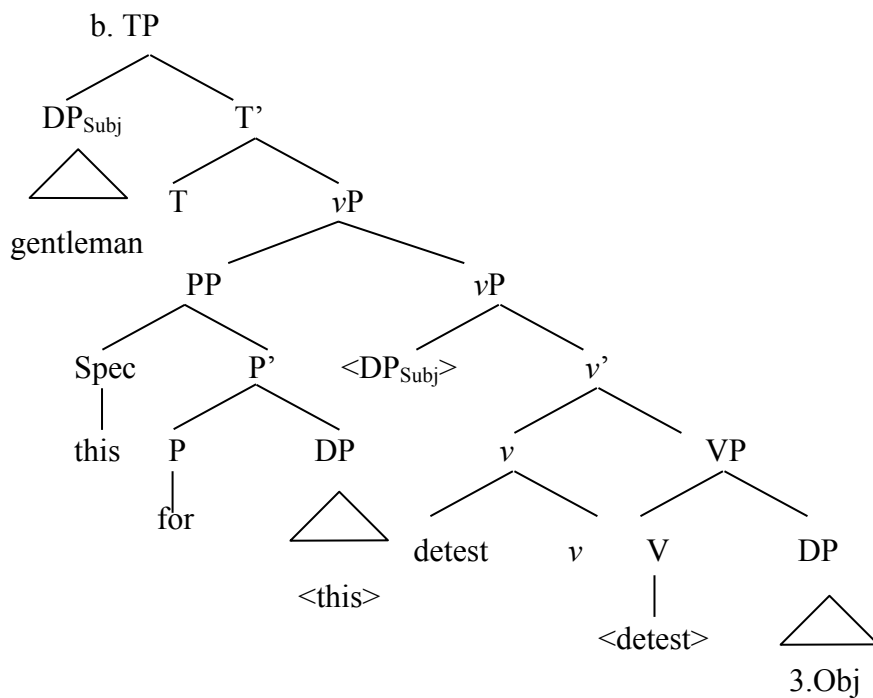
and P front out of PP to higher positions. *Wh* targets the specifier of the Low focus position, and the preposition lands in the head of the Low focus position. The tree diagram of (255a) is in (255b).

- (255) a. 將 何 以 守 國? (國語•周語上)  
 Jiang he<sub>i</sub> yi<sub>j</sub> [<sub>VP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [<sub>VP</sub> shou guo]?  
 Fut what with guard state  
 'What will (he) use to guard the state?'



In respect of the motivation for P-movement, it could be that LAC is an 'intermediate' P-stranding language that permits P-stranding for non-*wh*-PPs, but the preposition somehow is prohibited to be separated from its fronted *wh*-complement. Therefore, after a prepositional complement raises to a higher position motivated by obligatory *wh*-fronting, the preposition has to raise, or be attracted, to a higher position too, so as to stay adjacent to its complement in the same projection and share some common feature. Since the landing site of the *wh* prepositional complement is the Spec of a functional





c. 未 之 能 以 服 ...

wei zhi<sub>i</sub> neng [pp t'<sub>i</sub> yi t<sub>i</sub>] [vP fu] ...

not.yet 3.Obj can with dress.up

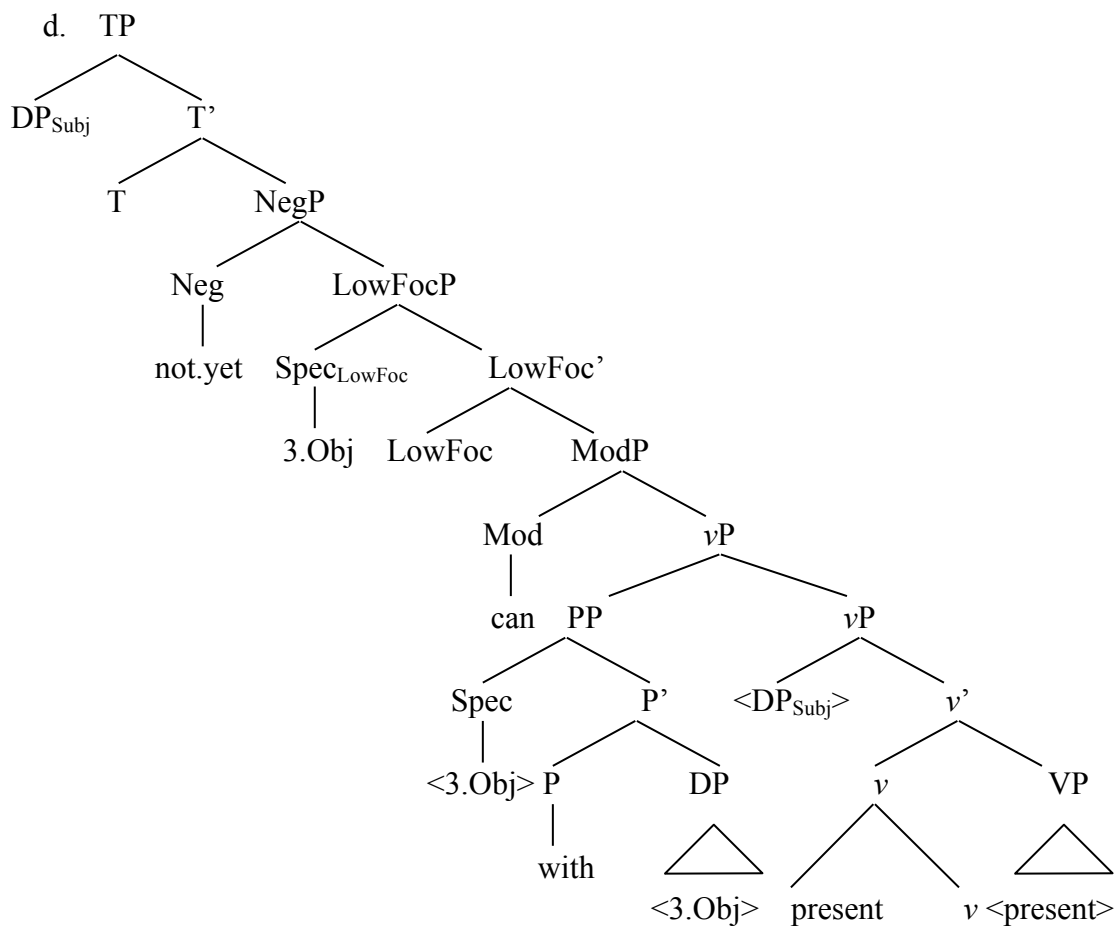
未 之 能 以 出

(春秋公羊傳)

wei zhi<sub>j</sub> neng [pp t'<sub>j</sub> yi t<sub>j</sub>] [vP chu]

not.yet 3.Obj can with present

'(I) have not been able to dress up with it...(I) have not been able to present (sacrifices) with it'



It should be mentioned that example (256c) provides an extra piece of evidence supporting the approach of PP inversion followed by separate movement of *wh* and P. The movement of the non-*wh*-DP yet P-stranding shows that a non-*wh*-DP can move independently of a preposition. Therefore, when both DP-complements and prepositions front, as in *wh*-PPs, there must be (at least) two separate movements.

## 7. *Wh*-in-Situ

Although LAC is a *wh*-fronting language, there are two and only two exceptions to the obligatory preposing of VP-internal *wh*-items: first, the second complement of ditransitive verbs 奈/若/如 *nai/ruo/ru* ‘treat’ and 謂 *wei* ‘call; speak of; tell’; second, the direct object of the verb ‘say’. *Wh*-DPs in these two situations must stay in situ. Additionally, there are two types of optional *wh*-in-situ, namely, *wh*-predicates and *wh*-complement of adjunct adverbials. When simplex and complex *wh*-phrases following VPs function as nominal predicates, they normally do not front, but they can raise under special circumstances. Some *wh*-PPs functioning as adjuncts involve flexible distribution: they can be base-generated either in a higher position above *v*P and move to the Low focus position, or in a lower postverbal position and adopt the option of staying in situ.

### 7.1. Obligatory *Wh*-in-Situ

In LAC which is a *wh*-fronting language, there are two and only two exceptions to the obligatory *wh*-preposing. When a *wh*-DP functions as the second complement of some ditransitive verb, it has to stay in situ. Moreover, parallel to the second complement of some ditransitive verbs, the direct object of the verb ‘say’ must stay in situ too.

#### 7.1.1. Second Complement of Ditransitive Verbs

In some double object constructions, if a *wh*-DP functions as the second complement, it must remain in situ. According to Aldridge’s (2010a) generalisation, verbs taking two internal arguments and requiring *wh*-in-situ as the second argument are 奈/若/如 *nai/ruo/ru* ‘treat’, and their second complement is always in situ if being a *wh*-phrase (257a-c).

(257) a. 奈 吾 君 何? (國語•晉語二)

Nai [wu jun] he?

treat my lord what

‘What does (this) do to my lord?’

b. 子 若 國 何? (左傳•僖公二十三年)

Zi ruo guo he?

you treat state what

‘What do you do to the state?’

c. 將 如 君 何? (左傳•襄公二十三年)

Jiang ru jun he?

Fut treat lord what

‘What will (we) do to the lord?’

The *wh*-in-situ is not motivated by these three ditransitive verbs per se: the first complement of 奈/若/如 *nai/ruo/ru* ‘treat’ can raise out of the VP to a higher position. In (258a), ZHI intervenes between the subject and verb to mark explicit subordination (Fuller 1999). The first argument in (258b) moves out of the VP across a modal verb and negation. (258c) involves a hanging topic which is linked to a resumptive pronoun *zhi* as the first argument of the ditransitive verb. A *wh*-DP acting as the second argument in these three ditransitive constructions always remains in its base position, even if the first argument moves to a preverbal position (258a-c).

(258) a. 趙 盾 之 復 國 奈 何? (公羊傳•宣公六年)

[Zhao dun zhi fu guo]<sub>i</sub> [VP nai t<sub>i</sub> he]?

Zhao Dun ZHI recapture state treat what

‘What (do we) do with Zhao Dun’s recapture of the state?’

b. 知 其 不 可 奈 何  
zhi qi bu ke [VP nai ti he]  
know 3.Obj not can treat what  
而 安 之 若 命 (莊子•人間世)  
er an zhi ruo ming  
Conj embrace 3.Obj as destiny  
‘(they) know there is nothing (they) can do about it, so (they) embrace it as the destiny’

c. 君 使 臣, 臣 侍 君,  
[Jun shi chen, chen shi jun],  
lord employ official official serve lord  
如 之 何? (論語•八佾)  
[VP ru zhi he]?  
treat 3.Obj what  
‘A lord employing officials and officials serving the lord, what about it?’

In terms of another ditransitive verb 謂 *wei* ‘call; speak of; tell’, it may take a *wh*-phrase as the first or second complement. There is an asymmetry between the two arguments of 謂 *wei*. When a *wh*-element acts as the first complement, it always fronts to a preverbal position (259a). By contrast, if a simplex or complex *wh*-phrase functions as the second complement, it normally remains in situ, as shown in (259b-c) and (259d) respectively, regardless of whether the first complement moves (259d) or not (259b-c). However, there is one and only one exception: if and only if 1) the first argument fronts to a preverbal position, and 2) the second argument, i.e. the *wh*-phrase, is simplex (cf. (259b-c) where the first object remains in situ and (259d) where the *wh*-phrase is complex, hence *wh*-in-situ in these examples), the second argument raises to a position intervening between the fronted first complement and the ditransitive verb (259e-f).

(259) a. 何 謂 德義? (國語•晉語七)  
He<sub>i</sub> [VP wei t<sub>i</sub>] deyi  
what call virtue.righteousness  
‘What (do we) call as virtue and righteousness?’

b. 國 謂 君 何? (左傳•僖公十五年)

Guo wei jun he?  
state call lord what

‘How does the state speak of the lord?’ (Lit. ‘What does the state call the lord?’)

c. 吾 獨 謂 先 王 何 乎? (呂氏春秋•季秋紀)

Wu du wei xian wang he hu?  
I alone tell former lord what Q

‘What do I alone tell the former lord?’

d. 此 所 謂 何 聲 也? (韓非子•十過)

Ci suo [VP wei ti [he sheng]] ye?  
this SUO call what sound Decl

‘What sound (do we) call this?’

e. 是 何 謂 也? (左傳•昭公二十九年)

Shi he [VP wei ti tj] ye?  
this what call Decl

‘How (do we) understand these?’ (Lit. ‘What (do we) call these?’)

f. 此 言 何 謂 也? <sup>92</sup> (孟子•滕文公上)

[Ci yan]<sub>i</sub> he<sub>j</sub> [VP wei ti tj] ye?  
this sentence what call Decl

‘How (do we) understand this sentence?’ (Lit. ‘What (do we) call this sentence?’)

It should be pointed out that there is another double object construction involving the verb 取 *qu* ‘approve of’ that is similar to the one with 謂 *wei*. According to Peyraube (1997), there are two constituents following the verb 取 *qu* ‘approve of’: the former is an interrogative pronoun which moves to a preverbal position, whereas the latter fuses a preposition ‘in’ and a third person accusative pronoun (260). As the first argument of the ditransitive verb 取 *qu*, the *wh*-word 奚 *xi* ‘what’ undergoes preverbal positioning, similar to its counterpart in (259a). So far, I am not aware of any instances with a *wh*-phrase acting as the second complement of 取 *qu*.

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<sup>92</sup> Although there is no solid evidence to argue that (259a/c/d/e) are not passive, it is plausible to assume that they involve object preposing.



- (260) 孔子 奚 取 焉? (孟子•滕文公下; Peyraube 1997: 6)  
 Kongzi xi qu yan?  
 Confucius what approve.of in+him  
 ‘What did Confucius approve of in him?’

It is noteworthy that the *wh*-in-situ is not motivated by ditransitive verbs per se: providing the second argument of these ditransitives is a non-*wh*-constituent, it may raise to a preverbal position. For instance, in example (261) involving the ditransitive 謂 *wei*, the second object *bu shi shangxing* ‘not neglect rewards and punishments’ moves from its base position to a position preceding the ditransitive *wei*. Additionally, the first complement moves to the CP domain as a left-dislocated topic clause that is syntactically related to *wei* through linking to a gap, and this gap occupies the position of the first object.

- (261) ‘惠 此 中 國, 以 綏 四 方’,  
 [‘Hui ci zhong guo, yi sui sifang’]<sub>i</sub>,  
 benefit this central state to appease four.direction  
 不 失 賞 刑 之 謂 也。  
 [bu shi shangxing]<sub>j</sub> zhi [<sub>VP</sub> wei t<sub>i</sub> t<sub>j</sub>] ye.  
 not neglect reward.punishment ZHI call Decl  
 ‘‘Benefiting this central state to appease (vassal states in) all directions’’, (people)  
 call it not to neglect rewards and punishments.’

(左傳•僖公二十八年)

In summary, when a *wh*-phrase acts as the second argument of ditransitives 奈/若/如 *nai/ruo/ru* ‘treat’, it must undergo covert phrasal movement. Similarly, when a simplex or complex *wh*-DP acts as the second complement of the ditransitive verb 謂 *wei* ‘call; speak of; tell’ or 取 *qu* ‘approve of’, it normally moves covertly.

The mismatch between the first argument that is subject to *wh*-fronting and the second argument that must stay in situ (cf. (262a) and (262b)) may be accounted by Stepanov’s (2001, 2007) theory. If a thematic argument contains any uninterpretable feature (structural Case or *wh*-feature) in its label, it enters the structure by substitution,

hence a structural argument; if not, the thematic argument enters the structure by adjunction, hence a structural adjunct. Only a structural argument is subject to movement, yet a structural adjunct without structural Case or *wh*-feature always enters the structure postcyclically. Since a structural adjunct cannot be Merged by the time the interrogative feature Q of the matrix complementiser is Merged with IP, as a consequence, an inherent Case marked DP cannot undergo raising and is inert.

(262) a. 何 謂 德義? (國語•晉語七)

He<sub>i</sub> [VP wei t<sub>i</sub>] deyi  
 what call virtuerighteousness

‘What (do we) call as virtue and righteousness?’

b. 國 謂 君 何? (左傳•僖公十五年)

Guo wei jun he?  
 state call lord what

‘How does the state speak of the lord?’ (Lit. ‘What does the state call the lord?’)

In a ditransitive construction, the first complement is assigned accusative structural Case, yet the second argument receives dative inherent Case. A DP that is only marked inherent Case is inert (and transparent). For instance, a direct object in Albanian can move across an indirect object, but the indirect object cannot raise (McGinnis 1998, Stepanov 2007). Since both the first complement in (262a) and the second complement in (262b) display *wh*-feature, the only parameter that causes their disparity must be Case. As can be seen from Table 5, the first thematic argument contains both *wh*-feature and structural Case, which makes it a structural argument, hence being subject to *wh*-fronting. However, the second thematic argument only has *wh*-feature, yet the inherent Case it receives brings the derivational property of inertness. Consequently, extraction out of an inherently Case marked DP is impossible.

Table 5: Uninterpretable features and *wh*-fronting

	Uninterpretable feature		Structural argument	<i>Wh</i> -fronting
	<i>Wh</i> -feature	Structural Case		
<b>First complement</b>	√	√	√	√
<b>Second complement</b>	√	*	*	*

This conclusion agrees with the conjecture in Chapter 6.2.4 that only one uninterpretable feature is not sufficient to qualify a DP as a structural argument. A DP must have both uninterpretable features, i.e. *wh*-feature and structural Case, so as to be a structural argument, thus undergoing movement.

### 7.1.2. Direct Object of the Verb ‘Say’

When the *wh*-word 何 *he* ‘what’ acts as the direct object of the verb ‘say’, it must stay in its postverbal position.

In LAC, the verb ‘say’ exhibits a variety of morphological forms, and it can take the form of 谓 *wei*,<sup>93</sup> 云 *yun*, 语 *yu*, 曰 *yue*, 言 *yan* or 说 *shuo*. Based on available data in existing corpora, 何 *he* ‘what’ cannot necessarily follow all these graphs conveying the meaning ‘say’, but providing that *he* ‘what’ is preceded by any of these morphemes, it remains in situ (263).

- (263) a. 子 謂 何? (國語•晉語二)  
 Zi wei he?  
 you say what  
 ‘What did you say?’

<sup>93</sup> This graph can also function as a ditransitive verb, as in (261-262).

b. 荀 息 謂 何? (ibid)

Xun xi wei he?

Xun Xi say what

‘What did Xun Xi say?’

c. 子夏 云 何? (論語•子張)

Zixia yun he?

Zixia say what

‘What did Zixia say?’

d. 其 名 云 何? (管子•桓公問)

Qi ming yun he?

Gen name say what

‘What is its name?’

Occasionally, there are examples involving 何 *he* ‘what’ like (264a) that seem to be counterexamples against the generalisation that as the complement of the verb ‘say’, *he* must stay in situ. Nevertheless, although the verb in (264a) shares the identical graph with that in (263a), I argue that the former functions as a ditransitive verb whose second argument is omitted. As for the position where the null second complement of *wei* should be, it could postverbal, parallel to *deyi* ‘virtue and righteousness’ in (264b). An alternative presumption is that the second complement may raise to the CP domain and get deleted due to the existence of an antecedent as a discourse topic, similar to (264c-d). As can be seen from (264d), such binding may even cross a clause boundary.

(264) a. 曰: ‘勝 而 不 吉。’

Yue: ‘Sheng er bu ji.’

say victorious Conj not auspicious

公 曰: ‘何 謂 也?’

(國語•晉語一)

Gong yue: ‘He<sub>i</sub> [<sub>VP</sub> wei t<sub>i</sub>] ye?’

duke say what call Decl

‘(He) said: ‘Victorious but not auspicious.’ The duke said: “What does it mean?”’

- b. 何 謂 德義? (國語•晉語七)  
 He<sub>i</sub> [VP wei t<sub>i</sub>] deyi  
 what call virtue.righteousness  
 ‘What (do we) call as virtue and righteousness?’
- c. 此 言 何 謂 也? (孟子•滕文公上)  
 [Ci yan]<sub>i</sub> he<sub>j</sub> [VP wei t<sub>i</sub> t<sub>j</sub>] ye?  
 this sentence what call Decl  
 ‘How (do we) understand this sentence?’ (Lit. ‘What (do we) call this sentence?’)
- d. 人 有 言 曰 ‘死 而 不 朽’,  
 Ren you yan yue ‘[si er bu xiu]<sub>i</sub>,  
 people have proverb say die Conj not decay  
 何 謂 也? (國語•晉語八)  
 he<sub>j</sub> [VP wei t<sub>i</sub> t<sub>j</sub>] ye?  
 what call Decl  
 ‘People have a proverb saying “die but not decay”; what does it mean?’

Therefore, examples such as (264a) cannot deny the generalisation that the direct object of the verb ‘say’ always remains in situ.

To summarise, as a *wh*-fronting language, LAC allows two and only two situations of *wh*-in-situ, i.e. the second complement of ditransitive verbs *nai/ruo/ru* and *wei*, along with the direct object of the verb ‘say’. However, under a rare circumstance, there could be an extra construction that does not involve obligatory *wh*-fronting.

Though as a *wh*-word, 誰 *shui* ‘who’ is supposed to raise to a preverbal position motivated by obligatory *wh*-fronting in LAC, there is one and only one situation in which *shui* has to stay in its base position: when 為誰 *wei shui* ‘be whom’ is used in place of 誰也 *shui ye* ‘who Q’ which is much more common, there cannot be *wh*-preposing. The existence of such a rare pattern may be due to the reason that the expected answer is the addressee’ name, viz. an identification among people already known, instead of descriptive information (Pulleyblank 1995).

- (265) a. 子 為 誰? (論語•衛子)
- Zi wei shui?
- you be who
- ‘Who are you?’
- b. 子 名 為 誰? (公羊傳•宣公六年)
- Zi ming wei shui?
- you name be who
- ‘What is your name?’

## 7.2. Optional *Wh*-in-Situ

Apart from the only two situations, i.e. the second complement of ditransitive verbs 奈/若/如 *nai/ruo/ru* and 謂 *wei*, as well as the direct object of the verb ‘say’, *wh*-in-situ in LAC is optional. There are two types of optional *wh*-in-situ: 1) *wh*-predicates and 2) *wh*-complement of adjunct adverbials.

### 7.2.1. *Wh*-Predicates

*Wh*-nominals in LAC can be arguments or adverbs. When *wh*-phrases function as nominal predicates, they do not normally raise. It is generally acknowledged that Archaic Chinese has no copula,<sup>94</sup> so in equational sentences ‘subject-nominal-*ye*’, predicate nominals directly follow the subject, with a declarative particle 也 *ye* often occurring in a sentence-final position (Chang 2006). *Wh*-phrases in LAC move to a position between the subject and *v*P, rendering fronting of predicates pointless, so predicates do not raise in general, giving the appearance of *wh*-in-situ (Aldridge 2006, 2007).

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<sup>94</sup> The copula *shi* that is still used in modern Mandarin (and being optional in equational sentences) did not come into form until Pre-Medieval times (1<sup>st</sup>c AD). According to the hypothesis proposed by Wang (1958b), Peyraube and Wiebusch (1994) and Chang (2006), the copula *shi* developed from a demonstrative pronoun.

First, when nominal predicates indicate object and person, they can be simplex 何 *he* ‘what; who’ (266a/b) and 誰 *shui* ‘who’ (266c), or complex ones such as 何物 *he wu* ‘what thing’ (266d) and 何人 *he ren* ‘what person’ (266e). 者 ZHE can select a NP or TP complement and bind the variable (the head position) introduced by the complement. If the binding is purely semantic, nominalising ZHE indicates the definiteness of the constituent it projects; if the variable is a gap, hence syntactic binding, relativising ZHE does not mark definiteness, but only binds the gap. In (266a), nominalising ZHE takes a nominal complement and semantically binds the variable introduced by the predicate NP. The nominalising ZHE may alternatively select a clausal complement projection and enable the TP to occur in an argument position as a sentential subject (266c). As for (266b), it contains a relativising ZHE that forms a relative clause on a verbal predicate in a *vP*-external position, and functions as an operator binding the head position within the relative clause. In addition to a verbal projection, relativising ZHE can select an adjective or a TP and relativise on (and always relativise on) the subject position (Aldridge 2009a).

- (266) a. 七 律 者 何? (國語•周語下)  
 [[Qi lv] zhe] he?  
 seven rhythm ZHE what  
 ‘What are seven rhythms?’
- b. 來 者 何? (穀梁傳•僖公四年)  
 [Lai zhe] he?  
 come ZHE who  
 ‘Who is the one that comes?’
- c. 追 我 者 誰 也? (孟子•離婁; Aldridge 2007: 144)  
 [Zhui wo zhe] shui ye?  
 pursue me ZHE who Decl  
 ‘Who is the one pursuing me?’
- d. 天下 之 害 何 也? (墨子•兼愛)  
 Tianxia zhi hai he ye?  
 world Gen calamity what Decl  
 ‘What is the world’s calamity?’

e. 是 何 物 也? (左傳•昭公二十一年)  
 Shi [he wu] ye?  
 this what thing Decl  
 ‘What thing is this?’

f. 舜 何 人 也? (孟子•滕文公上)  
 Shun [he ren] ye?  
 Shun what person Decl  
 ‘What kind of person is Shun?’

Second, the quantity adverbials 幾 *ji* and 幾何 *jihe* ‘how much/how many’ can also function as predicates following the subject and staying in situ (267a/b). Analogous with the simplex *wh*-word 何 *he* ‘what; who’, 幾 *ji* and 幾何 *jihe* can also combine with NPs and form sentential predicates, as in (267c) and (267d). As exemplified by (267d), the NP following 幾何 *jihe* may indicate person (人 *ren* ‘person/people’; see also (267c)), object (家 *jia* ‘household’) or time (年 *nian* ‘year’). Moreover, 幾何 *jihe* can be used alone to indicate ‘how much/how many’ (267e-f).

(267) a. 廢 者 幾? (禮記•曾子問)  
 Fei zhe ji  
 cease ZHE how.many  
 ‘How many (situations are there that are) ceased?’

b. 年 幾何 矣? (晏子春秋)  
 Nian jige yi  
 age how.many Perf  
 ‘How old (are you)?’

c. 關 人 問 從 者 幾 人。(禮儀•聘禮)  
 Guan ren wen cong zhe ji ren.  
 checkpoint person ask follow ZHE how.many person  
 ‘The guard at the checkpoint asks how many people who are following.’



- d. 子弟 以 孝 聞 于 鄉里 者  
 Zidi yi xiao wen yu xiangli zhe  
 offspring for filial.pietty hear in hometown ZHE  
 幾何 人? ...  
 jihe ren?  
 how.many person
- 債 而 食 者 幾何 家? ...  
 Zhai er si zhe jihe jia?  
 debt Conj feed ZHE how.many household  
 問 執 官都 者 其 位 事  
 Wen zhi guandu zhe qi wei shi  
 ask hold Guandu ZHE 3.Obj undertake duty  
 幾何 年 矣? (管子•問第)  
 jihe nian yi?  
 how.many year Perf
- ‘How many offspring who are heard in (their) hometowns due to filial piety? ...  
 How many households that (borrow) debt to feed? ... Ask those who hold (the  
 position) of Guandu: how many years have (they) been undertaking duties?’
- e. 出 入 死 生 之 會 幾何? (ibid)  
 Chu ru si sheng zhi hui jihe?  
 sell buy die bear Gen number how.many  
 ‘What is the number of selling, buying, dying and bearing (livestock)?’
- f. 薛 之 地 小 大 幾何? (呂氏春秋•季冬紀)  
 Xue zhi di xiao da jihe?  
 Xue Gen land small big how.much  
 ‘How big is the land of Xue?’

Third, simplex and complex *wh*-phrases indicating reason can serve as predicates and stay in situ. As presented earlier, adverbials of reason have four forms: 1) *wh*-P, 2) *wh*(-P), 3) *wh* and 4) ditransitive VPs, all of which are base-generated above negation. As opposed to the first, third and fourth types of adverbial PPs which are always base-generated above *vP* (refer back to the discussion in Chapter 5.2.2.2), when simplex

and complex *wh*-phrases indicating reason independently with an empty preposition (i.e. the second type), they have the option to function as predicates and stay in their base position following the sentential subject. When the bare *wh*-word 何 *he* is selected by a null preposition, it can be base-generated after the sentential subject and function as a predicate (268a). Likewise, complex *wh*-nominals 何故 *he gu* and 何義 *he yi* also follow the sentential subjects as predicates, as in (268b-c). There is lack of motivation for *wh*-predicates to raise to a higher position, so they stay in situ.

- (268) a. 君 與 我 此 何 也? (國語•晉語一; Aldridge 2007: 144)  
 Jun yu wo ci he ye?  
 lord give me this what Decl  
 ‘Why is it that my lord gives me these things?’
- b. 受 之 何 義 也? (孟子•章句下)  
 Shou zhi [<sub>pp</sub> [he yi]] ye?  
 accept 3.Obj what reason Decl  
 ‘(For) what reason (does one) accept it?’
- c. 子 賀 我 何 故? (國語•晉語八)  
 Zi he wo [<sub>pp</sub> [he gu]]?  
 you congratulate me what reason  
 ‘(For) what reason do you congratulate me?’

I analyse some simplex and complex *wh*-phrases following VP as nominal predicates, following Peyraube and Wu (2000). Additionally, some examples like (268a-b) contain declarative particle 也 *ye* in a clause-final position which typically accompanies a nominal predicate in LAC (Aldridge 2007).

It is important to point out that although the bare *wh*-word 何 *he* as well as complex *wh*-phrases 何故 *he gu* and 何義 *he yi* in (268) indicate reason, they cannot be treated as reason adverbials, as those in (269). First, according to my observation, only 何 *he* and complex phrases starting with 何 *he* can function as predictive phrases, yet the other *wh*-words indicating reason such as 奚 *xi* (269a) can only act as adverbials. Second, as mentioned previously, *wh*-phrases functioning as adverbials of reason always appear as ‘high’ adverbials preceding *v*P (or more precisely, preceding negation), different from

predicates following sentential subjects. (269b) and (269c) show that simplex and complex *wh*-adverbials are base-generated above negation. Although negation is absent from (269b-c), the key diagnostic element 獨 *du* can indicate the position of *wh*-phrases. I state that *wh*-adverbials in (269b-c) are base-generated preverbally, as there is no motivation for them to undergo long-distance movement. Moreover, (269d) which is an unmarked sentence with a non-*wh*-PP also helps to indicate the base position of reason adverbials. Third, adverbials, but not predicates, can intervene between the subject and *vP*. If *he* and *he gu* were predicates, *zi du fu zhi er xing* ‘you alone carry them and walk’ in (269b) should be treated as subject clauses, but predicates can never raise into sentential subjects and sentences (269b) should be infelicitous accordingly.

- (269) a. 子 奚 不 為 政? (論語•為政)  
 Zi xi<sub>i</sub> [pp t' i t<sub>i</sub>] bu wei zheng?  
 you what not engage.in politics  
 ‘(For) what do you not engage in politics?’
- b. 今 子 何 獨 負 之 而 行?  
 Jin zi he<sub>i</sub> [pp t' i t<sub>i</sub>] du fu zhi er xing?  
 now you what alone carry 3.Obj Conj walk  
 ‘Now (for) what do you alone carry them and walk?’  
 (韓非子•喻老)
- c. 何 故 獨 寡 功?  
 [He gu]<sub>i</sub> [pp t' i t<sub>i</sub>] du gua gong?  
 what reason alone lack achievement  
 ‘(For) what reason (do you) alone lack achievements?’  
 (國語•齊語)
- d. 吾 以 故 知 古 從 之 同 也。  
 Wu [pp yi gu] zhi gu cong zhi tong ye.  
 I for reason understand ancient follow Gen similarity Decl  
 ‘For this reason I understand the ancient similarity of following.’  
 (管子•白心)

Fourth, only under the analysis of *wh*-predicates, can example (270) be explained. Based



in (272).

(272) a. 何 哉 君 所 謂 逾 者? (孟子•梁惠王下)

He<sub>i</sub> zai jun suo wei [yu zhe] ti?

what Q Your.Majesty SUO call arrogate ZHE

‘What is the arrogation that Your Majesty meant?’

b. 何 哉, 爾 所 謂 達 者? (論語•顏淵)

He<sub>i</sub> zai, er suo wei [da zhe] ti?

what Q you SUO call eminent ZHE

‘What is the eminency that you meant?’

### 7.2.2. *Wh*-Complements in Adjunct Adverbials

Some non-reason adjunct adverbs can be base-generated either in a higher position above *vP* and move to the Low focus position, or in a lower postverbal position and adopt the option of staying in situ. This observation coincides with the generalisation from Djamouri et al (2012) that adjunct PPs in Classical Chinese may occur in a pre- or postverbal position.

As discussed previously, word order flexibility is a robust property of PPs in LAC, in that PPs can appear either before or after verbs (He 1989, 1992, Peyraube 1996, Aldridge 2012b). Take source PPs as an example, (273a-b) illustrate the flexible distribution of source PPs: in the former example, the preposition 自 *zi* ‘from’ and the nominal argument it selects precede the verb 反 *fan* ‘return’, yet the source PP in the latter example occurs after the verb 出 *chu* ‘exit’.

(273) a. 世子 自 楚 反, 復 見 孟子。

Shizi zi Chu fan, fu jian Mengzi.

heir from Chu return again see Mencius

‘The heir returned from Chu and again visited Mencius.’

(孟子•滕文公上; Aldridge 2012b: 140)

b. 吾 聞 出 於 幽 谷 遷 于 喬 木 者。  
 Wu wen chu yu you gu qian yu qiao mu zhe.  
 I hear exit Loc dark valley move P tall tree Det  
 ‘I have heard of leaving a dark valley and heading to a tall tree.’

(*ibid*)

I hypothesise that *wh*-PPs functioning as adjuncts also involve flexible distribution, parallel to their non-*wh* counterparts.

For manner, locative, temporal and source adverbials, they can be base-generated preverbally, and raise to a position higher than their base position. I postulate that their landing site is the Low focus position below negation.

First, a manner *wh*-adverbial can be base-generated preverbally. As proposed by Peyraube and Wu (2000), manner adverbials are constituted of disyllabic *wh*-phrases and monosyllabic ones, the former of which are interrogative, questioning manner, quality or state, yet the latter are rhetorical. (274a) and (274b-c) illustrate a *wh*-PP and simplex *wh*-phrases respectively, and I state that all of them have raised to a position higher than their preverbal extraction site. (274d) involves the key diagnostic adverb *du*, so it illustrates that the landing site for raised manner adverbials is below negation. (274e) is a canonical example involving a non-*wh*-PP intervening between negation and VP, and it helps to show that manner adverbials are located preverbally. To summarise, when a manner adverbial is realised in the form of a *wh*-PP or a simplex *wh*-word, it always undergoes obligatory *wh*-fronting to a higher position between negation and its preverbal base position.

(274) a. 子 何 以 知 其 賢 也?  
 Zi he<sub>i</sub> yi<sub>j</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [<sub>VP</sub> zhi qi xian] ye?  
 you what with know 3.Gen virtue Decl  
 ‘How do you know his virtue?’

(國語•晉語五)

- b. 余 安 能 知 之? (國語•周語中)  
 Yu an<sub>i</sub> t<sub>i</sub> neng zhi zhi?  
 I how can control 3.Obj  
 ‘How can I control it?’
- c. 余 焉 能 戰? (左傳•閔公二年)  
 Yu yan<sub>i</sub> t<sub>i</sub> neng zhan?  
 I how can fight  
 ‘How can I fight?’
- d. 吾 獨 焉 知 之? (呂氏春秋•季冬紀)  
 Wu du yan<sub>i</sub> t<sub>i</sub> zhi zhi?  
 I alone how know 3.Obj  
 ‘How do I alone know it?’
- e. 不 以 其 道 得 之 (論語•裏仁)  
 bu [<sub>pp</sub> yi [qi dao]] [<sub>VP</sub> de zhi]  
 not with 3.Gen means obtain 3.Obj  
 ‘obtain them not by their means’

For manner *wh*-adverbials base-generated preverbally, apart from *wh*-PPs and simplex *wh*-phrases (274a/b-d), there is another form, i.e. VP construction consisting of a ditransitive verb 奈/若/如 *nai/ruo/ru* ‘treat’ and its *wh*-complement 何 *he* ‘what’ (or 奚 *xi* ‘what’). Unlike a *wh*-PP or a simplex *wh*-phrase which always undergoes obligatory *wh*-fronting, the *wh*-complement in the VP construction does not have to move, so the order could be *wh*-V or V-*wh*. 何若 *he ruo* in (275a) is derived from *wh*-fronting, and its unmarked counterpart is 若何 *ruo he* (275b). Note that although this *wh*-V construction is derived from *wh*-fronting, its internal movement is different from PP adverbials. The *wh*-complement *he* in (275a) raises out of the VP and lands in a preverbal position preceding the ditransitive verb *ruo*. As argued before, *wh*-P is generated via PP inversion followed by separate fronting of *wh* and P (as in (274a)), but for verbal structures like *he ruo*, there is no motivation for the verb to move, so *wh*-complement is the only element that fronts. (275c-d) involves 奈何 *nai he* which is another V-*wh* without fronting.

(275) a. 齊王 何 若 是 之 賢 也?  
 Qiwang he<sub>i</sub> [VP ruo t<sub>i</sub>] shi zhi xian ye?  
 Qi.emperor what treat this ZHI virtuous Decl  
 ‘How can the Emperor of Qi be this virtuous?’

(韓非子•外儲說下)

b. 若 何 許 之?  
 [VP Ruo he] xu zhi?  
 treat what permit 3.Obj

(晏子春秋•內篇諫下)

‘How (can you) permit him?’

c. 奈 何 察 之 也?  
 [VP Nai he] cha zhi ye?  
 treat what investigate 3.Obj Decl

(韓非子•內儲說下)

‘How to investigate it?’

d. 奈 何 不 謹 稟 也?  
 [VP Nai he] bu jin lin ye?  
 treat what not careful.of granary Decl

(韓非子•外儲說右上)

‘How (can one) not be careful of granary?’

When a manner adverbial is indicated by *V-wh* (275b-d), it seems that *wh* remaining in situ violates the requirement of obligatory *wh*-preposing in LAC. However, as discussed previously, these three verbs are ditransitives which require their second complement to remain in situ. I assume that 何 *he* ‘what’ in these VP constructions is the second complement, and the first complement is null. For instance, the unmarked, complete counterpart of 若何 *ruo he* (275b) is 若之何 *ruo zhi he* which contains both the first and the second complement (276a). *Ruo zhi he* can even occur in the left periphery (276b), but in this situation, it acts as a ‘high’ adverbial indicating reason rather than manner.

(276) a. 若 之 何 不 弔?  
 [VP Ruo zhi he] bu diao?  
 treat 3.Obj what not condole

(左傳•襄公十四年)

‘How (do we) not condole?’



b. 若 之 何 子 之 不 言 也?(左傳•哀公十一年)  
 [vP Ruo zhi he] zi zhi bu yan ye?  
 treat 3.Obj what you ZHI not speak Decl  
 ‘Why do you not speak?’

So I hypothesise that *wh*-in-situ in the surface structure of (275b-d) is caused by the fact that 何 *he* ‘what’ acts as the second argument of the ditransitive verbs 奈 *nai* and 若 *ruo*, thus prohibited from raising, even if being VP-internal. This presumption is supported by Peyraube and Wu (2000) that 若何 *ruo he* ‘treat what’ is derived from 若之何 *ruo zhi he* ‘treat it what’ from Early Archaic Chinese through the process of lexicalisation. I notice that there are still instances involving *ruo zhi he* ‘treat it what’ in LAC period (as in (276)). With respect to examples that actually involve *wh*-preposing (275a), the explanation is that although adverbials in the V-*wh* order such as 如何 *ru he* and 若何 *ruo he* had developed into fixed expressions in the period of LAC, language users found the opposite order *wh*-V such as 何如 *he ru* and 何若 *he ruo* more acceptable based on their native speakers’ intuition (Peyraube and Wu 2000). Therefore, *wh*-V constructions as in (275a) are still attested in LAC period.

Second, when simplex and complex locative adverbials are base-generated above vP, the *wh*-constituents always raise out of the PPs to some preverbal position in the medial domain, without the presence of preposition (277a-b). According to Feng (2015), it is perfectly grammatical for locative PPs in LAC to involve a null preposition, and an example involving a non-*wh*-PP is in (277c). An example involving a preverbal locative PP with the presence of a preposition 于 *yu* is cited in (277d). *Wh*-words 安 *an* and 惡 *wu* do not normally indicate ‘what’ in locative adverbials, unless they combine with 所 *suo* ‘place’ (277b) and 許 *xu* ‘place’ (277e) respectively (Peyraube and Wu 2000).

(277) a. 其 何 所 可以 逃 死? (國語•鄭語)  
 Qi [he suo]<sub>i</sub> [pp t’<sub>i</sub> t<sub>i</sub>] keyi tao si?  
 Mod what place can avoid death  
 ‘(In) what place can I avoid death?’

- b. 周 尚 安 所 事 金 乎? (莊子•說劍)  
 Zhou shang [an suo]<sub>i</sub> [pp t' i t<sub>i</sub>] shi jin hu?  
 Zhou then what place use gold Q  
 'Then (in) what place does Zhou (I) use the gold?'
- c. 子產 使 校人 畜 之 池。 (孟子•萬章; Feng 2015: 20)  
 Zichan shi Xiaoren xu zhi chi  
 Zichan order Xiaoren put it pool  
 'Zichan orders Xiaoren to put it in the pool.'
- d. 吾 見 子 于 此 止 矣。 (國語•吳語)  
 Wu jian zi [yu ci] zhi yi.  
 I see you at here cease Decl  
 'Our meeting ceases at here.'
- e. 吾 將 惡 許 用 之? (墨子•非樂)  
 Wu jiang [wu xu]<sub>i</sub> [pp t' i t<sub>i</sub>] yong zhi?  
 I Fut what place use it  
 '(In) what place will I use it?'

Third, instances (278a-d) illustrate temporal *wh*-adverbials base-generated preverbally and undergone obligatory fronting. Parallel to (277a-b/e), temporal adverbials in (278) also involve empty prepositions. As suggested by Peyraube and Wu (2000, 2005), there is one and only question word 曷(害) *he* indicating 'when'; moreover, instances involving 曷(害) *he* are quite sparse (278a). The function of interrogating time is usually realised by means of 何 *he*/奚 *xi* followed by temporal nouns, as shown in (278b) and (278c-d) respectively. (278e) is the canonical example involving a non-*wh*-adverbial with a null preposition to express temporal information.

- (278) a. 吾 子 其 曷 歸? (左傳•昭公元年)  
 Wu zi qi he<sub>i</sub> [pp t' i t<sub>i</sub>] gui?  
 my son Decl when return  
 'When will my son return?'

- b. 當 何 時 作 之? (管子•度地)  
 Dang [he shi]<sub>i</sub> [pp t' i t<sub>i</sub>] zuo zhi?  
 should what time construct 3.Obj  
 ‘What time should (people) construct it?’
- c. 而 人主 奚 時 得 悟 乎?  
 Er renzhu [xi shi]<sub>i</sub> [pp t' i t<sub>i</sub>] de wu hu?  
 Conj monarch what time can understand Q  
 ‘While what time can the monarch understand?’  
 (韓非子•孤憤)
- d. 奚 時 止 矣?  
 [Xi shi]<sub>i</sub> [pp t' i t<sub>i</sub>] zhi yi?  
 what time cease Perf  
 ‘What time does it cease?’  
 (呂氏春秋•慎勢)
- e. 予 來 年 變齊 (莊子•則陽)  
 Yu [pp [lai nian]] bianqi  
 I coming year reform  
 ‘I reform (in) the coming year’

Fourth, a source *wh*-PP can be base-generated preverbally, and its *wh*-complement raises to a higher landing site. In (279a-c), the source *wh*-PP is generated preceding the verb 取 *qu* ‘obtain’. The *wh*-complement in the source PP above *vP* has undergone preposing. I presume that analogous to locative adverbials, source PPs may also omit the preposition ‘from’. (279d) with the unmarked order P-DP-VP is cited here to show that it is possible for source PPs to be base-generated preverbally.

- (279) a. 而 君 焉 取 余? (左傳•莊公六年)  
 Er jun yan<sub>i</sub> [pp t' i t<sub>i</sub>] [vp qu yu]?  
 then Your.Majesty where obtain surplus  
 ‘Then (from) where does Your Majesty obtain the surplus?’

b. 將 何 所 取? (左傳•襄公二十九年)

Jiang [he suo]<sub>i</sub> [pp t' i t<sub>i</sub>] qu?

Fut what place obtain

‘(From) what place will (they) obtain (land)?’

c. 將 安 可 得 乎? (墨子•非樂)

Jiang an<sub>i</sub> [pp t' i t<sub>i</sub>] ke de hu?

Fut where can obtain Q

‘(From) where will (the fortune) can be obtained?’

d. 世子 自 楚 反, 復 見 孟子。

Shizi [zi Chu] fan, fu jian Mengzi.

heir from Chu return again see Mencius

‘The heir returned from Chu and again visited Mencius.’

(孟子•滕文公上; Aldridge 2012b: 140)

Unlike adverbials of instrument that are always in the form of *wh*-P, manner, locative, temporal and source adverbials do not involve obligatory prepositions, so when a preposition is absent, it is impossible to find out whether the adjunct *wh*-adverbial appearing above *vP* has moved or not. It seems plausible to claim that the surface structure of (278-279) is not derived through *wh*-fronting, and there is no movement at all. However, obligatory *wh*-fronting is a robust aspect of LAC syntax. Furthermore, if a preposition does exist, it always appears in a reversed relative order with its *wh*-complement (280), which proves the occurrence of *wh*-fronting. Different from 何 (所) *he (suo)* and 安 *an*, when 惡 *wu* functions as a locative adverb, it must be selected by the preposition 乎 *hu* (280b), unless the verb is 在 *zai* ‘exist’ (Peyraube and Wu 2000).

(280) a. 子 何 以 知 其 賢 也?

Zi he<sub>i</sub> yi<sub>j</sub> [pp t' i t<sub>j</sub> t<sub>i</sub>] [vp zhi qi xian] ye?

you what with know 3.Gen virtue Decl

‘How do you know his virtue?’

(國語•晉語五)

- b. 君子 去 仁,  
 Junzi qu ren,  
 gentleman abandon benevolence  
 惡 乎 成 名 (論語•里仁)  
 wu<sub>i</sub> hu<sub>j</sub> [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [vp cheng ming]?  
 where in form reputation  
 '(If) gentlemen abandon benevolence, where (can they) form reputation?'

When manner, locative, temporal and source *wh*-adverbials are base-generated above *vP*, they occupy the same position with adverbials of instrument, namely, intervening between negation and *vP*. Taking an adverb of manner 焉 *yan* 'how' as an example, parallel to adverbials of instrument, it also follows the diagnostic adverb 獨 *du* 'alone' which always immediately precedes negation (281). Therefore, despite the absence of negation in these examples, the adjunct is supposed to be located in a position below the NegP.

- (281) a. 余 獨 焉 闢 之? (左傳•襄公二十八年)  
 Yu du yan<sub>i</sub> t<sub>i</sub> [vp bi zhi]?  
 I alone how avoid 3.Obj  
 'How do I avoid them alone?'
- b. 吾 獨 焉 知 之? (呂氏春秋•季冬紀)  
 Wu du yan<sub>i</sub> t<sub>i</sub> [vp zhi zhi]?  
 I alone how know 3.Obj  
 'How do I alone know it?'

Since it has been proved that adjunct *wh*-adverbials base-generated preverbally must move to a higher position, and these non-reason adverbials share the same base position with instrumental adverbials, it is safe to assume that their landing site must be the one accommodating the preposed *wh*-complements of instrumental adverbials, namely, the Low focus position between negation and *vP*. That is to say, non-reason adjunct *wh*-adverbials that are base-generated above *vP* generally move to the Low focus position below negation.

Alternatively, manner, locative, temporal and source adverbials can be base-generated postverbally. Moreover, despite the lack of evidence proving that a quantity adverbial may be base-generated preverbally, it can be base-generated postverbally and remain in situ. If these *wh*-adverbials are base-generated preverbally, they must raise to the Low focus position. Nevertheless, when these *wh*-adverbials are base-generated postverbally, they have two options: either front to the Low focus position, or stay in situ. With respect to quantity adverbials, although there is lack of data supporting their preverbal distribution, they can also remain in their postverbal base position.

First, a manner *wh*-adverbial can be base-generated postverbally; moreover, it has the option of either fronting to a higher position, or remaining in situ. Examples (282a-d) involve ditransitive verbs 若 *ruo* and 如 *ru*, and the *wh*-complement they take can be 何 *he* or 奚 *xi*. I claim that examples in (282) involve fronting, because the relative order between the verb and its argument has been inverted. Again, as discussed earlier, as the second complement of a ditransitive verb, *he* or *xi* is supposed to remain in situ. However, despite the fact that the V-*wh* order 如何 *ru he* and 若何 *ruo he* had developed into fixed expressions in LAC, language users found the reverse order *wh*-V more acceptable (Peyraube and Wu 2000). Therefore, *wh*-V constructions as in (282) are still attested.

- (282) a. 事                    之        何        若?                    (庄子·外物)  
 Shi                    zhi        he<sub>i</sub>    [VP ruo t<sub>i</sub>?  
 make.progress 3.Obj what        treat  
 ‘How is it going?’
- b. 当        皆        法        其        父母        奚        若?                    (墨子·法仪)  
 Dang        jie        fa        qi        fumu        xi<sub>i</sub>    [VP ruo t<sub>i</sub>?  
 if        all        emulate    Gen        parents        what        treat  
 ‘How is it if (people) all emulate their parents?’

- c. 若 以 石 投 水 奚 若? <sup>95</sup> (呂氏春秋·審應覽)  
 Ruo yi shi tou shui xi [VP ruo ti]?  
 like YI stone toss water what treat  
 ‘How is it (if) it is like tossing stones (into) water?’
- d. 以 夫子 之 行为 奚 如? (莊子·天運)  
 Yi fuzi zhi xingwei xi [VP ru ti]?  
 think Confucius Gen behaviour what treat  
 ‘How (do you) think of Confucius’ behaviour?’

Alternatively, the *wh*-complement of the ditransitive verb can stay in its postverbal base position, and this V-O structure also functions as a manner adverbial (283).

- (283) a. 而 为 之 若 何? (管子·侈靡)  
 Er wei zhi [VP ruo he]?  
 Conj conduct 3.Obj treat what  
 ‘Then how to conduct it?’
- b. 佞人 之 事 君 如 何? (晏子春秋·内篇问上)  
 Ningren zhi shi jun [VP ru he]?  
 sycophant ZHI wait.upon monarch treat what  
 ‘How do sycophants wait upon the monarch?’

Second, locative adverbials can be base-generated postverbally and they must undergo fronting to a preverbal position. As suggested by Peyraube (1996), locative PPs are predominantly postverbal in Archaic Chinese. Example (284a-b) contain a question and answer pair. As can be seen from the answer, locative information is situated after the verb. So it is safe to assume that in the default, base order, the *wh*-phrase 惡乎 *wu hu* ‘where in’ concerning the locative information in the question should also occur after the verb. However, in the surface structure, *wu hu* ‘where in’ precedes the verb. Therefore, I postulate that when locative *wh*-adverbials are right-adjoined to VP, they

<sup>95</sup> (282c) contains a disposal construction involving 以 *yi*, rather than an instrumental construction.

front to the Low focus position triggered by obligatory *wh*-fronting, as in (284a-b). This assumption coincides with Aldridge’s (2006, 2007, 2010a) generalisation that in LAC, VP-internal *wh*-constituents are required to land in a position between the verb and the subject. (284c) is similar to (284a-b), but with a null preposition. (284d) is another unmarked example with a different preposition 于 *yu* ‘in’ introducing locative information. So far, no example involving a locative adverbial in its postverbal base position has been attested.

(284) a. 惡 乎 用 之? 用 之 社 也。  
 Wu<sub>i</sub> hu<sub>j</sub> [<sub>VP</sub> yong zhi] [<sub>PP</sub> t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]? [<sub>VP</sub> Yong zhi] [<sub>PP</sub> she] ye.  
 where in use 3.Obj use 3.Obj shrine Decl  
 ‘In where (did he) use him? (He) used him in the shrine.’

(公羊傳•僖公十九年)

b. 惡 乎 捷? 捷 乎 宋。  
 Wu<sub>i</sub> hu<sub>j</sub> [<sub>VP</sub> jie] [<sub>PP</sub> t’<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]? [<sub>VP</sub> Jie] [<sub>PP</sub> hu song].  
 where in win win in Song  
 ‘In where (did he) win? (He) won in the State of Song.’

(公羊傳•僖公二十一年)

c. ‘吾 將 惡 許 用 之?’  
 Wu jiang [wu xu]<sub>i</sub> yong zhi [<sub>PP</sub> t’<sub>i</sub> t<sub>i</sub>]?  
 I Fut what place use 3.Obj

曰: ‘舟 用 之 水...’ (墨子•非樂)

Yue: ‘Zhou yong zhi [<sub>PP</sub> shui]...’  
 say boat use 3.Obj water

“(In) what place will I use them?” (Mozi) said: ‘Boats, (you) use them (on) the water...’”

d. 殺 子遊 于 宋 (左傳•莊公十二年)  
 sha Ziyou [<sub>PP</sub> yu Song]  
 kill Ziyou in Song  
 ‘(he) killed Ziyou in Song’

Third, (285a-b) illustrate temporal *wh*-adverbials base-generated postverbally.



Parallel to the locative *wh*-adverbial in (284a) that is base-generated postverbally and fronts to the Low focus position, when a temporal *wh*-phrase is base-generated postverbally, as in (285a), it can move to the Low focus position too. However, different from locative adverbials that always undergo fronting, when a temporal *wh*-adverbial is base-generated postverbally, it has another option of staying in situ, as in (285b). (285c) is a non-*wh* canonical sentence showing the unmarked order VP-PP.

- (285) a. 吾 子 其 曷 歸? (左傳•昭公元年)  
 Wu zi qi he<sub>i</sub> [<sub>VP</sub> gui] [<sub>PP</sub> t'<sub>i</sub> t<sub>i</sub>]?  
 my sir(you) Mod when return  
 ‘When do you return?’
- b. 攻 虢 何 月 也? (國語•晉語二)  
 Gong Guo [<sub>PP</sub> [he yue]] ye?  
 attack Guo what month Decl  
 ‘(In) what month (should we) attack the State of Guo?’
- c. 使 民 以 時 (論語•學而; Xu 2006: 124)  
 shi min [<sub>PP</sub> yi shi]  
 use people Prep time  
 ‘put the common people to work only at the proper time of year.’

Fourth, the base position of source adverbials can be postverbal. In (286), the *wh*-element moves from a postverbal position to a preverbal position triggered by obligatory *wh*-preposing. I suggest that the source adverbial in (286a) involves an empty preposition which I presume is 於/于 *yu* ‘at; in/from’. The *wh*-word 何 *he*, which normally adopts the rendering ‘what’, functions as a locative adverb in (286d) and hence is translated as ‘where’ (Peyraube and Wu 2000).

- (286) a. 仲尼 焉 學? (論語•子張)  
 Zhongni yan<sub>i</sub> [<sub>VP</sub> xue] [<sub>PP</sub> t'<sub>i</sub> t<sub>i</sub>]?  
 Zhongni where study  
 ‘(From) where does Zhongni study?’

b. 惡 乎 取 之? 取 之 曹 也。  
 Wu<sub>i</sub> hu<sub>j</sub> [VP qu zhi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>?] [VP Qu zhi] [PP Cao] ye.  
 where from take 3.Obj take 3.Obj Cao Decl  
 'From where to take it? Take it (from) Cao.'

(公羊傳•僖公三十一年)

c. '子 獨 惡 乎 聞 之?'  
 Zi du wu<sub>i</sub> hu<sub>j</sub> [VP wen zhi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>?]  
 you alone whom from hear 3.Obj

曰: '聞 諸 副墨 之 子...'  
 Yue: 'Wen zhu Fumo zhi zi...'  
 say hear 3.Obj.from Fumo Gen son

say hear 3.Obj.from Fumo Gen son

'"From whom did you alone hear it?" (Nanbo) says: '(I) heard it from Fumo's son...'

d. 當 察 亂 何 自 起?

Chang cha luan he<sub>i</sub> zi<sub>j</sub> [VP qi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>?]  
 try investigate turbulence where from arise

起 不 相 愛。  
 rise not mutually love (墨子•兼愛)

[VP Qi [PP [bu xiang ai]]].  
 arise not mutually love

'Try to investigate from where does the turbulence arise. (It) arises (from people) not loving each other.'

I argue that the locative PPs in (286) are base-generated postverbally. The unmarked counterparts of (286a) which involves a null preposition 於/于 *yu* are in (287). Locative PPs headed by *yu* is base-generated postverbally, in that Peyraube (1997) generalises that *yu* is a preposition with a relatively rigid postverbal position and *yu*-PPs in (287) follow NPs. Examples (286b-d) where a question and its answer demonstrate a structural similarity also support the argument that locative PPs are base-generated postverbally. Since in the answer the locative PP follows the VP, it is natural to posit that the *wh*-PP in the question is also base-generated postverbally, and the surface order *wh*-P-VP is derived from *wh*-fronting and P-movement.

(287) a. 孔子 學 於 老聃、 孟蘇夔、 靖叔。  
 Kongzi [VP xue] [PP yu [Laodan, Meng Sukui, Jingshu]].  
 Confucius study from Laodan Meng Sukui Jingshu  
 ‘Confucius studied from Laodan, Meng Sukui and Jingshu.’

(呂氏春秋•仲春紀)

b. 且 子 獨 不 聞  
 Qie zi du bu wen  
 Conj you alone not hear

夫 壽陵 余子 之 學 于 邯鄲 歟?  
 fu Shouling yuzi zhi [VP xue] [PP yu Handan] yu?  
 Det Shouling youth ZHI learn from Handan Q

‘Besides, did you alone not hear of that youth from Shouling who learned (the manner of walking) from Handan?’

(莊子•秋水)

c. 柏矩 學 于 老聃  
 Boju [VP xue] [PP yu Laodan]  
 Boju study from Laodan

‘Boju studied from Laodan’

(莊子•則陽)

d. 子之 不 能 受 燕 于 子噲。  
 Zizhi bu neng shou Yan yu Zikuai  
 Zizhi negation can receive Yan prep Zikuai

‘Zizhi cannot receive (the state of) Yan from Zikuai.’

(孟子•公孫丑下; Peyraube 1997: 13)

e. 葉公 問 孔子 於 子路 (論語•述而)  
 Shegong wen Kongzi [PP yu Zilu]

Duke.She ask.about Confucius from Zilu

‘Duke She asked about Confucius from Zilu’

In contrast with temporal *wh*-adverbials in (285a-b) that are base-generated postverbally and have the option of either fronting to a focus position or staying in situ, when source *wh*-phrases are base-generated postverbally, as in (286), they must undergo

fronting. So far, no example involving a source adverbial in its postverbal base position has been attested.

Fifth, a quantity adverbial may be base-generated postverbally and remain in situ, provided that the preposition is null. In (288a), the quantity adverb 幾 *ji* ‘how much/how many’ combines with a temporal NP and forms a postverbal adjunct phrase. This quantity NP is selected by an empty preposition, so it has the option to stay in its base position following the verb 來 *lai* ‘come’. In (288b), 幾何 *jihe* ‘how many’ is base-generated postverbally and stays in situ.

(288) a. 子 來 幾 日 矣? (孟子•離婁上)

Zi lai [pp [ji ri]] yi?  
you come how.many day Perf

‘How many days have you been (here)?’

b. 為 仆 幾何? (晏子春秋•內篇第五)

Wei bu [pp jihe]?  
be servant how.many

‘How long have (you) been a servant?’

The distribution and movement option(s) of five types of adjunct *wh*-adverbials are as follows:<sup>96</sup>

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<sup>96</sup> \* means that the non-interrogative counterparts of a certain type of *wh*-adverbials have been attested and they can appear in a certain base or moved position, but the corresponding *wh*-adverbials cannot. ? means that no non-interrogative counterpart of a certain type of *wh*-adverbials (in this case, quantity adverbials) has been attested, hence it is impossible to determine whether that type of *wh*-adverbials can occur in some position or not.

Table 6: Distribution and movement option(s) of adjunct *wh*-adverbials

Type of <i>wh</i> -adverbial	Base-generated preverbally		Base-generated postverbally	
	Move	Stay in-situ	Move	Stay in-situ
Manner	√	√	√	√
Location	√	*	√	*
Time	√	*	√	√
Source	√	*	√	*
Quantity	?	?	?	√

As can be observed from the above table, adjunct *wh*-adverbials exhibit flexible distribution. These *wh*-adjuncts normally can be base-generated preverbally, and if they do, they must undergo obligatory movement, unless selected by some ditransitive verbs in manner adverbials. Additionally, these adjunct *wh*-adverbials can be base-generated postverbally, and if they do, they normally have the option to remain in situ, unless being locative or source.

To summarise, manner, temporal and quantity adverbials can be base-generated postverbally, and have the option of staying in situ. In other words, the *wh*-in situ involving these *wh*-adjuncts is optional.

## 8. The Intervention Effect

In LAC, negation displays the Intervention Effect on *wh*-phrases. There are two types of *wh*-items that are subject to the Intervention Effect triggered by negation, namely, *wh*-arguments and adverbials that are supposed to move to the Low focus position below negation, and those that have the option to stay in situ. Due to the intervening negative barrier, these c-commanded *wh*-phrases have to raise to the High focus position above negation so as to circumvent the Intervention Effect. By contrast, focus or quantificational phrases do not display the Intervention Effect in LAC.

### 8.1. Literature Review

The Intervention Effect in the sense of Beck (1996a) and Beck and Kim (1997) refers to the fact that a barrier may not intervene between a question existential operator (Q-operator) and a function variable bound by that Q-operator. Such a blocking effect applies to *wh*-in-situ, the stranded restriction of *wh*-constituents moving overtly, as well as *wh*-scope marking structures. Interrogatives in modern Mandarin could be introduced by  $C_{l-spec}$  or  $C_{m-spec}$ , but this language pronounces all *wh*-phrases in the pre-*wh*-moved position. The sign of such a ‘superficial’ *wh*-in-situ language is the lack of the Intervention Effect in simple *wh*-questions (Pesetsky 1999).

Beck and Kim (1997) observe that a *wh*-phrase must not be c-commanded by an NPI in Korean, which is related to the fact that a *wh*-phrase must not be c-commanded by negation or a negative quantifier. Both Korean and German are sensitive to the Minimal Negative Structure Constraint that prohibits LF movement of *wh*-in-situ across negation: If an LF trace  $\beta$  is dominated by a Negation Induced Barrier (NIB)<sup>97</sup>  $\alpha$ , then the binder of  $\beta$  must also be dominated by  $\alpha$  (Beck 1996a). In a multiple question whose ungrammaticality is caused by the occurrence of a negative quantifier, the interrogative

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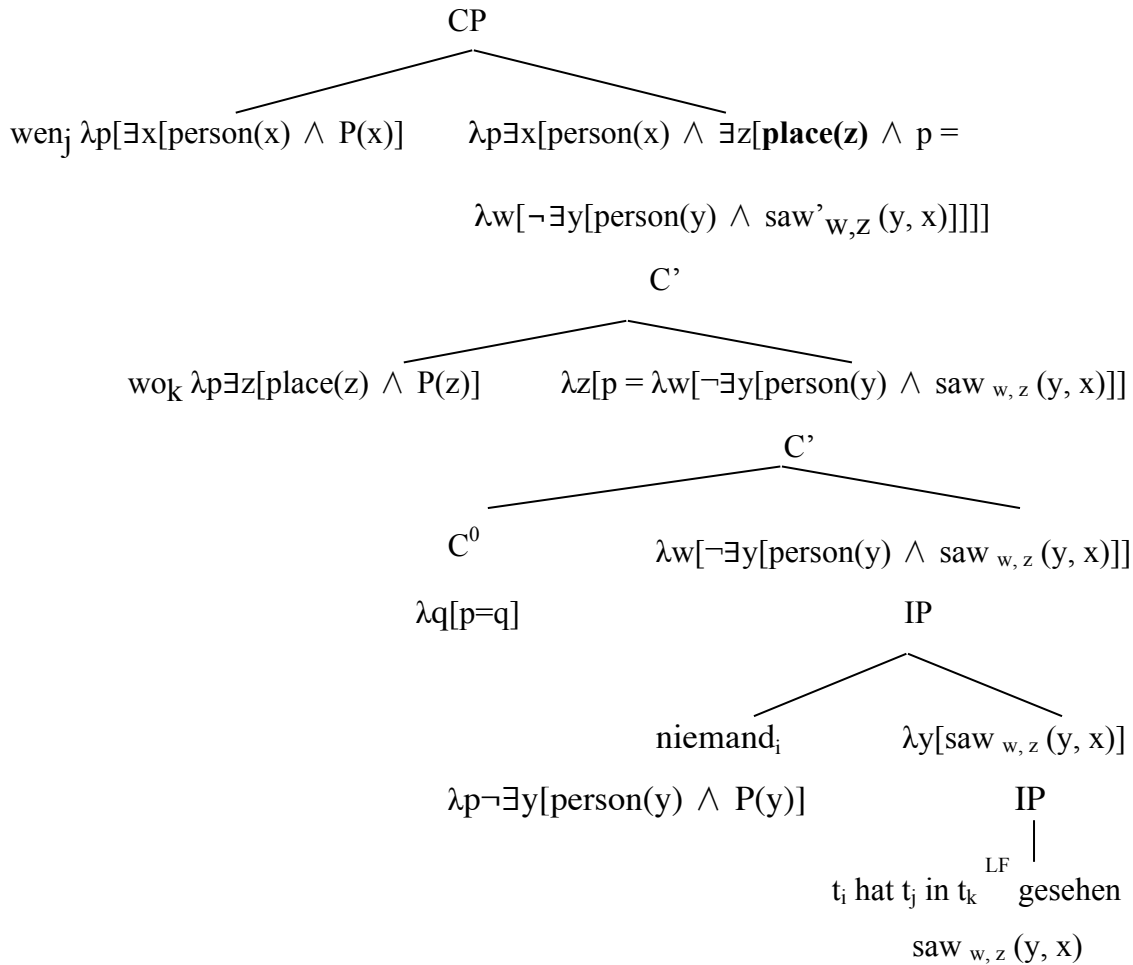
<sup>97</sup> As defined in Beck and Kim (1997), ‘[T]he first node that dominates a negative quantifier, its restriction, and its nuclear scope is a Negation Induced Barrier (NIB)’.

operator is associated with the  $C^0$  position at (transparent) LF. In order to be interpreted as an interrogative *wh*-phrase, *wh* has to be interpreted outside the scope of the operator, so it has to end up in a position structurally more prominent than  $C^0$ , but leaves a trace (which only exists at LF) in the scope of negation. That is to say, there is covert movement from the medial domain up to C. The relation between *wh* and its LF trace is hence blocked by negation, which means there is a restriction on the binding of LF traces. The foundation of Beck and Kim's theory is the postulation of a close correlation between c-command relations at S-structure and the quantifier scope at LF. The S-structure c-command relation is significant for the relative scope of quantifier phrases. Additionally, LF *wh*-movement is assumed to always create an LF trace in Korean and German. For a multiple question in German (289a), in order to derive the interpretation (289b), the sentence should have an LF in (289c).

(289) a. \* Wen        hat        niemand        wo        gesehen?  
           whom    has        nobody        where        seen  
           'Where did nobody see whom?'

b.  $\lambda p \exists x [\text{person}(x) \wedge \exists z [\mathbf{place}(z) \wedge p = \lambda w [\neg \exists y [\text{person}(y) \wedge \text{saw}'_{w,z}(y, x)]]]]]$

c.  $\lambda p \exists x [\text{person}(x) \wedge \exists z [\mathbf{place}(z) \wedge p = \lambda w [\neg \exists y [\text{person}(y) \wedge \text{saw}'_{w,z}(y, x)]]]]]$



(From Beck and Kim 1997: 344–346)

Kim (2002a, 2006) analyses the blocking effect on LF (covert) dependency of *wh*-in-situ as a function variable bound by a Q-operator (termed by Hagstrom (1998) and Pesetsky (2000) as the Intervention Effect), and proposes that it is a focus phrase that induces an Intervention Effect in modern Mandarin, instead of negation or quantifiers in general. Kim (2002b) reviews two intervention constraints: Minimal Quantified Structure Constraint on LF movement of *wh*-in-situ (Beck 1996a) and Immediate Scope Constraint (Linebarger 1987), both of which postulate that LF dependency cannot cross a quantificational barrier. Kim (2002b) points out that both analyses face the overgeneralisation problem. She proposes the Focus Intervention Effect that in a focus-sensitive licensing construction, an independent focus phrase cannot intervene between the licensor and the licensee. The licensing relationships of Q-operator and NEG (as focus-sensitive operators) are interrupted by another element with the same feature



[+Foc], which can be considered as a case of the ‘Defective Intervention Effect’ (Chomsky 2000, 2001b) in the sense that a focus-sensitive probe cannot AGREE with its goal carrying the same feature [+Foc]:

(290) \* $[_{CP} Q_i [ FocP_{[+Foc]} [ \dots wh_{i[+Foc]} \dots ] ] ]$

(291) \* $[ NEG [ FocP_{[+Foc]} [ \dots NPI_{[+Foc]} \dots ] ] ]$

Additionally, there is a repair strategy to circumvent the Intervention Effect in modern Mandarin by means of raising in-situ *wh*-items to a position preceding the focus-induced barrier. The Intervention Effect in the sense of Kim (2002a, 2006) in modern Mandarin can be illustrated by examples in (292-295) which contain focus constructions. In the canonical order, the functional variable *wh*-in-situ is c-commanded by a focus phrase that is a barrier for the interpretation (Q-binding), so it has to be fronted to a sentence-initial position in order to circumvent the Intervention Effect. Kim (2002a) suggests that the core set of interveners that is cross-linguistically stable contains focusing operators ‘only’, ‘even’ and ‘also’. Example (292) contains a *lian ... dou/ye* construction semantically equivalent to *even* that is generally assumed to rely on focus alternatives. The *lian ... dou* structure consists of a focus particle *lian* conveying additivity, as well as a maximality operator *dou* defining a scalar extreme; *lian* picks the entity and affirms properties hold of that entity at the scalar extreme referred to by *dou*. The *lian ... dou* combination is almost interchangeable with *lian ... ye*, but the former imposes strong maximality/exhaustivity, yet the latter simply confirms that some alternatives are true (Xiang 2008, Cheng 2009, Cheng and Vicente 2013). The scalar implicature is calculated using focus alternatives, and in (292) is that for Lili to understand certain book is the least likely thing to happen.

- (292) a. ? Lili    *ye*        kan-le        na-ben        shu?  
           Lili    also    read-Asp    which-CL    book  
       b. Na-ben        shu        Lili        *ye*        kan-le?  
           which-CL    book        Lili        also        read-Asp  
           ‘Which book did Lili, too, read?’

- (293) a. ?? *Lian* Lili *ye* kan de dong na-ben shu?  
 even Lili also read DE understand which-CL book  
 b. Na-ben shu *lian* Lili *ye* kan de dong?  
 which-CL book even Lili also read DE understand  
 ‘Which book could even Lili understand?’
- (294) a. ?\* *Zhiyou* Lili kan-le na-ben shu?  
 only Lili read-Asp which-CL book  
 b. Na-ben shu *zhiyou* Lili kan-le?  
 which-CL book only Lili read-Asp  
 ‘Which book did only Lili read?’
- (295) a. \* *Shui* *ye* kan bu dong na-ben shu?  
 Who also read not understand which-Cl book  
 b. Na-ben shu *shui* *ye* kan bu dong?  
 Which-Cl book who also read not understand  
 ‘Which book could no one understand?’

(From Kim 2002a: 626)

Example (295) involves an NPI *shui ye* ‘who also’ (‘anyone’) that is morphologically comprised of a *wh*-pronoun *shui* and the focus particle *ye*. Since cross-linguistically, an NPI is composed of an indefinite NP (or a *wh*-pronoun) and an overt scalar focus particle expressing the meaning ‘even; also’, they can be analysed as focus constructions, and NPI-licensing can be treated as a case of focus-sensitive quantification (Lee and Horn 1994, Krifka 1995, Haspelmath 1997, Lahiri 1998, Kim 2006). Therefore, NPIs are barriers blocking the LF movement of *wh*-in-situ to an operator position.

An NPI in LAC is merely constituted of an indefinite NP (296a), while its counterpart in modern Mandarin may additionally contain an overt focus particle *dou/ye* meaning ‘even; also’, namely *shenme dou/ye meiyou*. Alternatively, the counterpart of 無何有 *wu he you* in modern Mandarin can be *meiyou shenme* ‘not.have what’ without *wh*-fronting.<sup>98</sup> The modern Mandarin counterparts of (296a) are in (296b/c). Following

<sup>98</sup> *Meiyou shenme* in modern Mandarin could be either an NPI (as in (296c)) or an interrogative construction (xxxx), because negation does not function as a barrier for Q-binding in modern

the same pattern, if the *wh*-indefinite is ‘who’, the corresponding NPI in modern Mandarin is *shui dou/ye* ‘who even/also’ or *meiyou shui* ‘not.have who’,<sup>99</sup> as in (296d/e).

- (296) a. 何 不 樹 之 於 無 何 有 之 鄉?  
 He bu shu zhi yu [wu [he<sub>i</sub> you t<sub>i</sub>]] zhi xiang?  
 why not plant it in not.exist what exist Gen place  
 ‘Why don’t you plant it in a place where there isn’t anything?’  
 (莊子•逍遙遊; Aldridge 2010a: 26)

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Mandarin. According to Huang (1994), *shenme* can additionally be interpreted as a universal quantifier (xxxxia) or an existential quantifier (xxxxib), depending on the context.

- (xxxx) Zhangsan jia meiyou shenme?  
 Zhangsan home not.have what  
 ‘What is not there at Zhangsan’s home?’  
 (xxxxi) a. wo shenme dou mai.  
 I everything all buy  
 ‘I want to buy everything.’  
 b. ta dagai mai-le shenme le.  
 he probably buy-Perf something-Part  
 ‘He probably bought something.’

(From Huang 1994: 171)

<sup>99</sup> Interestingly, *meiyou shui* cannot adopt an interrogative interpretation (xxxxii), or at least sounds awkward without a contrast or context in some dialects of modern Chinese.

- (xxxxii) ? Zhangsan jia meiyou shui?  
 Zhangsan home not.have who  
 (Intended: ‘Who is not there at Zhangsan’s home?’)

b. Weishenme bu ba ta zhong zai  
 why not BA 3.Obj plant in  
 shenme dou/ye meiyou de difang?  
 what even/also not.have Gen place  
 ‘Why don’t you plant it in a place where there isn’t anything?’

c. Weishenme bu ba ta zhong zai  
 why not BA 3.Obj plant in  
 meiyou shenme de difang?  
 not.have what Gen place  
 ‘Why don’t you plant it in a place where there isn’t anything?’

d. Shui dou/ye kan bu dong na-ben shu.  
 who even/also read not understand that-Cl book  
 ‘No one could understand that book.’

e. Meiyou shui kan de dong na-ben shu.  
 not.have who read DE understand that-Cl book  
 ‘No one could understand that book.’

Contrary to the fact that focus phrases display the Intervention Effect, quantifiers or negation do not show the Intervention Effect in modern Mandarin. Consequently, a quantified structure or a negator can take a position between a Q-operator and an in-situ *wh*-item bound by this Q-operator, as in (297a/b/c), which contain an ordinary quantifier NP, a frequency adverbial and a negator respectively (Kim 2002a). It is notable that the quantifier *dou* ‘all’ (as in (297a)) only quantifies to its left (Cheng 1995).

- (297) a. Meigeren      dou      mai-le      shenme?<sup>100</sup>  
           everyone      all      buy-Asp      what  
           ‘What did everyone buy?’
- b. Zhangsan      changchang      mai      shenme?  
           Zhangsan      often      buy      what  
           ‘What does Zhangsan often buy?’
- c. Zhangsan      bu      xiang      mai      shenme?  
           Zhangsan      not      want      buy      what  
           ‘What doesn’t Zhangsan want to buy?’

(From Kim 2002a: 625)

Although Beck (1996b) states that (256) may not be a universal constraint, as English LF *wh*-movement does not observe it, Pesetsky (2000) suggests that the Intervention Effect is universally observed when (298) is regarded as a constraint on *wh*-feature but not *wh*-phrasal movement. The universal characterisation of the Intervention Effect is in (298).

(298) \* [...X<sub>i</sub>...[Q...[...t<sub>i</sub><sup>LF</sup> ...]]]

(299) A semantic restriction on a quantifier (including *wh*) may not be separated from that quantifier by a scope-bearing element. (Pesetsky 2000:67)

*Wh*-phrases fall into two groups, nominals and adverbials (Tsai 1994, 1999). Different from nominal *wh*-phrases, adverbial *wh*-phrases cannot take scope across an

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<sup>100</sup> This question allows a pair-list answer such as (xxxxiii) (Aoun and Li 1993b).

- (xxxxiii) Zhangsan      mai-le      shu,      Lisi      mai-le      zazhi,  
           Zhangsan      buy-Asp      book      Lisi      buy-Asp      magazine  
           Wangwu      mai-le      baozhi, ...  
           Wangwu      buy-Asp      newspapers  
           ‘Zhangsan bought books, Lisi magazines, Wangwu newspapers ...’

island (Huang 1982a, Tsai 1994, 1999). Although covert *wh*-movement has frequently been proposed for modern Mandarin in which most *wh*-phrases are pronounced in situ, as suggested by Soh (2005), adverbial *wh*-phrases in modern Mandarin undergo covert feature movement, yet nominal *wh*-phrases undergo covert phrasal movement. The Intervention Effect detects *wh*-feature but not *wh*-phrasal movement, in that the former leaves the constraint on *wh*-quantification inside the clause, but the latter pied-pipes the constraint with the *wh*-phrase (Soh 2005).

According to Soh's (2005) generalisation, in modern Mandarin, quantified structures and negation do not display the Intervention Effect on LF movement of nominal *wh*-phrases, but they do have such a blocking effect on LF interpretation of adverbial *wh*-phrases. As illustrated earlier, nominal *wh*-phrases are immune to c-commanding quantifiers and negators for Q-binding (see (297)) between *wh* and its licensing complementiser (Kim 2002a, 2006). With regard to *wh*-adverbials, however, the surface structure of (300-301) suggests the presence of a Quantifier-Induced Barrier and an NIB, supporting Soh's (2005) hypothesis that unlike nominal *wh*-phrases, adverbial *wh*-phrases such as *weishenme* 'reason-why' in modern Mandarin undergo covert feature movement when c-commanded by scope-bearing elements at S-structure. In (300/301), the *wh*-variable 'reason-why' cannot be bound by its Q-operator because of an intervening quantifier/negator, so it has to adopt the repair strategy by raising to a position across the quantifier/negator.

(300) a. Ta weishenme chang ma ta?  
 He why often scold he  
 'What is the reason *x* such that he often scolds/scolded him for *x*?'  
 b. \* Ta chang weishenme ma ta?  
 He often why scold he

(From Soh 2005: 146)

(301) a. Zhangsan weishenme gongzuo?  
 Zhangsan why work  
 'Why does Zhangsan work?'

- b. \* Zhangsan bu weishenme gongzuo? <sup>101</sup>  
 Zhangsan not why work
- c. Zhangsan weishenme bu gongzuo?  
 Zhangsan why not work  
 ‘Why does Zhangsan not work?’

Analogous to *wh*-nominals, the Q-binding of *wh*-adverbials is blocked by focus constructions (302).

- (302) a. \* Zhangsan lian [zhe-ben shu] ye weishenme kan?  
 Zhangsan even this-CL book also why read
- b. Zhangsan weishenme lian [zhe-ben shu] ye kan?  
 Zhangsan why even this-CL book also read  
 ‘Why does Zhangsan even read this book?’

Nevertheless, I notice that Soh’s (2005) generalisation concerning *wh*-adverbials only involves *weishenme* ‘reason-why’ in modern Mandarin, and such a ‘high’ adverbial should be situated in a prominent position anyway. Soh’s generalisation does not apply to non-reason *wh*-adjuncts. When there is a potential quantifier barrier, the temporal adverbials *shenmeshihou* ‘when’ and *jidian* ‘what time’ show the opposite distribution to the reason adverbial: the temporal adverbials have to stay in situ following the quantifier, and fronting to a higher position would generate infelicitous sentences (303-304). I attribute this mismatch to the fact that reason adverbials are always located in a ‘high’ position, yet other adjuncts such as temporal adverbials are generated in a lower position. (305-306) which involve locative adverbials *zai nali* ‘at where’ and *zai najia canting* ‘at which restaurant’ show that locative *wh*-adverbials also have to stay in situ, instead of

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<sup>101</sup> If an emphasis is put on *shenme* within *weishenme*, (300b) and (301b) seem grammatical. However, in that case, *weishenme* would adopt the rendering of ‘purpose-why’ (= *wei-le shenme*) and become a *wh*-nominal, which is distinct from the *wh*-adverbial *weishenme* ‘reason-why’ under discussion.

raising to a position preceding the quantifier. The same observation applies to source adverbials and manner adverbials in (307-308) as well.

- (303) a. Zhangsan changchang shenmeshihou he jiu?  
 Zhangsan often when drink alcohol  
 ‘When does Zhangsan often drink alcohol?’
- b. \* Zhangsan shenmeshihou changchang he jiu?<sup>102</sup>  
 Zhangsan when often drink alcohol
- (304) a. Zhangsan changchang jidian dao?  
 Zhangsan often what.time arrive  
 ‘What time does Zhangsan often arrive?’
- b. \* Zhangsan jidian changchang dao?  
 Zhangsan what.time often arrive
- (305) a. Zhangsan changchang zai nali he jiu?  
 Zhangsan often at where drink alcohol  
 ‘Where does Zhangsan often drink alcohol?’
- b. \* Zhangsan zai nali changchang he jiu?  
 Zhangsan at where often drink alcohol
- (306) a. Zhangsan changchang zai na-jia canting chi fan?  
 Zhangsan often at which-CL restaurant have meal  
 ‘Where does Zhangsan often have meal?’
- b. \* Zhangsan zai na-jia canting changchang chi fan?  
 Zhangsan at which-CL restaurant often have meal
- (307) a. Zhangsan changchang cong nali jie shu?  
 Zhangsan often from where borrow book  
 ‘From where does Zhangsan often borrow books?’

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<sup>102</sup> This sentence itself is not ungrammatical, but it fails to convey the intended interpretation as in (303a). (303b) actually interrogates the time period during which Zhangsan drinks alcohol frequently. The expected answer for (303a) could be ‘after dinner’, whereas that for (303b) could be ‘while he was on the dole’. The contrast between (303a) and (303b) would not be clear if the action is scolding (as in (300)). It is the same for (305) and (306).



- b.\* Zhangsan cong nali changchang jie shu?  
 Zhangsan from where often borrow book
- (308) a. Zhangsan changchang zenme qu xuexiao?  
 Zhangsan often how go.to school  
 ‘How does Zhangsan go to school?’
- b.\* Zhangsan zenme changchang qu xuexiao?  
 Zhangsan how often go.to school

Similarly, when a temporal, locative, source or manner *wh*-adverbial is preceded by an *even*-focus (309a/310a/311a/312a), it has to remain in situ, otherwise ungrammaticality results (309b/310b/311b/312b).

- (309) a. Lian Zhangsan dou jidian dao?  
 even Zhangsan all what.time arrive  
 ‘What time does even Zhangsan arrive?’
- b. \* Jidian lian Zhangsan dou dao?<sup>103</sup>  
 what.time even Zhangsan all arrive
- (310) a. Lian Zhangsan dou zai na-jia canting chi fan?  
 even Zhangsan all at which-CL restaurant have meal  
 ‘At which restaurant does even Zhangsan have meal?’
- b.\* Zai na-jia canting lian Zhangsan dou chi fan?  
 at which-CL restaurant even Zhangsan all have meal
- (311) a. Lian Zhangsan dou cong nali jie shu?  
 even Zhangsan all from where borrow book  
 ‘From where does even Zhangsan borrow books?’

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<sup>103</sup> Again, (309b) is not ungrammatical, but it fails to convey both meanings of (309a). (309a) can show two scenarios, and Zhangsan is an early bird and a latecomer in each scenario respectively. Accordingly, the interrogative time point is when even the early bird/latecomer Zhangsan arrives late/early. However, (309b) only implies that Zhangsan is a latecomer and it questions the time point when even the latecomer Zhangsan arrives; (309b) cannot show the early bird scenario as in (309a).

- b.\* Cong nali lian Zhangsan dou jie shu?  
 from where even Zhangsan all borrow book
- (312) a. Lian Zhangsan dou zenme qu xuexiao?  
 even Zhangsan all how go.to school  
 ‘How does even Zhangsan go to school?’
- b.\* Zenme lian Zhangsan dou qu xuexiao?  
 how even Zhangsan all go.to school

Therefore, quantificational or focus phrases do not impose any intervening effect on reason-adverbials or other *wh*-adjuncts. My conclusion is that neither quantificational nor focus phrases display the Intervention Effect on *wh*-adverbials, parallel to the fact concerning *wh*-nominals.

Interestingly, negation does display the Intervention Effect on temporal *wh*-adverbials, which is unexpected, because negation does not block the LF movement of nominal *wh*-phrases. If the ungrammaticality of (313a/314a) is due to the distribution constraint (for instance, as ‘high’ adverbial, a reason *wh*-PP must occur preceding negation (301)), the position of the temporal adverbial in (313a/314a) should be acceptable, as a temporal adverbial does not need to be situated in a high position. However, (313a/314a) is ungrammatical, and the temporal adverbial has to occupy a position preceding the negator (314b/314b). So there must be a reason other than the distribution constraint, namely, the Intervention Effect of negation.

- (313) a. \* Zhangsan bu shenmeshihou gongzuo?  
 Zhangsan not when work
- b. Zhangsan shenmeshihou bu gongzuo?  
 Zhangsan when not work  
 ‘When does Zhangsan not work?’
- (314) a. \* Zhangsan bu jidian gongzuo?  
 Zhangsan not what.time work
- b. Zhangsan jidian bu gongzuo?  
 Zhangsan what.time not work  
 ‘What time does Zhangsan not work?’

Contrary to temporal *wh*-adverbials, locative *wh*-adverbials are not subject to the blocking effect triggered by intervening negation. As can be seen from (315a/316a), the negator between locative *wh*-adverbials *zai nali* and *zai na-jia canting* and their Q-operators does not block the Q-binding, so *wh*-adverbials do not have to raise to a position c-commanding the negator. Moreover, if the *wh*-adverbials do move to a higher position across negation (315b/316b), although ungrammaticality would not arise, the original interpretation from (315a/316a) might be changed. The same observation applies to source adverbials and manner adverbials (317-318). Note that (318b) is a strong piece of evidence supporting the lack of any intervening effect on non-temporal *wh*-adverbials. Locative and source *wh*-adverbials have the option to stay in situ or move, but manner *wh*-adverbials have to stay in situ and cannot move across negation. If a manner adverbial ‘how’ moved across the negator, although ungrammaticality would not result, the sentence would fail to convey the intended interpretation in (318a) and adopt the meaning ‘reason-why’ (318b).

- (315) a. Zhangsan bu zai nali he jiu?  
 Zhangsan not at where drink alcohol  
 ‘Where does Zhangsan not drink alcohol?’
- b. Zhangsan zai nali bu he jiu?  
 Zhangsan at where not drink alcohol
- (316) a. Zhangsan bu zai na-jia canting chi fan?  
 Zhangsan not at which-CL restaurant have meal  
 ‘At which restaurant does Zhangsan not have meal?’
- b. Zhangsan zai na-jia canting bu chi fan?  
 Zhangsan at which-CL restaurant not have meal
- (317) a. Zhangsan bu cong nali jie shu?  
 Zhangsan not from where borrow book  
 ‘From where does Zhangsan not borrow books?’
- b. Zhangsan cong nali bu jie shu?  
 Zhangsan from where not borrow book

- (318) a. Zhangsan bu zenme qu xuexiao?  
 Zhangsan not how go.to school  
 ‘How does Zhangsan not go to school?’
- b.\* Zhangsan zenme bu qu xuexiao?  
 Zhangsan how not go.to school  
 ‘Why does Zhangsan not go to school?’

This observation on adverbial *wh*-phrases is different from that on nominal *wh*-phrases: focus phrases, but not negation or quantified structures, impose the Intervention Effect on *wh*-nominals; negation, but not focus phrases or quantified structures, imposes the Intervention Effect on temporal *wh*-adverbials. The comparison is as follows:

Table 7: The Intervention Effect on *wh*-phrases in modern Mandarin

	<i>Wh</i> -nominals	<i>Wh</i> -adverbials	
		Temporal	Other
<b>Focus</b>	√	*	*
<b>Negation</b>	*	√	*
<b>Quantifier</b>	*	*	*

As generalised by Pesetsky (2000), there are three kinds of movement relations in total: overt phrasal movement, covert phrasal movement, and feature movement. To answer the question of whether in-situ *wh*-items undergo covert movement or not, Cheng (2009) views the basic arguments for and against covert *wh*-movement, namely, the parallels between overt and covert movement, syntax-semantics arguments as well as asymmetries concerning covert *wh*-movement. Cheng also considers three alternative accounts: movement of a particle/operator/feature, no movement and disguised movement. Through discussing intervention effects explained by both syntactic and non-syntactic treatments, along with multiple *wh*-questions, Cheng concludes that covert *wh*-movement is needed when accounting for in-situ *wh*-items. Although Pesetsky (1987)

suggests that unselective binding takes care of the interpretation of D-linked in-situ expressions, Pesetsky (2000) argues that there is indeed movement.

With respect to the account for the Intervention Effect, there are broadly speaking three approaches: syntactic approaches, semantic approaches and pragmatic approaches.

The syntactic analysis of Pesetsky (2000) discusses the Intervention Effect in English and distinguishes two types of covert movement, i.e. covert phrasal movement and covert feature movement. Within the Minimalist Programme, feature movement is allowed at LF and is sensitive to the Intervention Effect. Contrary to feature movement, phrasal movement is not sensitive to the Intervention Effect. *Wh*-phrases such as ‘what’ and ‘who’ can undergo covert phrasal movement, yet ‘which’ cannot (Beck 2006). *Wh*-phrases that are insensitive to interveners move covertly past the interveners. D-linked *wh*-phrases do not have to move. This analysis accounts for the observation that *which*-phrases in (at least one dialect of) modern Mandarin show an intervening effect, but non-*which*-phrases do not:

- (319) a. % zhiyou    Lili    kan-le    shenme?  
           only        Lili    read-Asp    what
- b. ?\* zhiyou    Lili    kan-le    na-ben    shu?  
           only        Lili    read-Asp    which-Cl    book
- c. na-ben        shu    zhiyou    Lili    kan-le?  
           which-Cl    book    only    Lili    read-Asp
- ‘Which book did only Lili read?’

(From Beck 2006: 27)

It should be mentioned that *which*-phrases and *wh*-phrase like ‘what’ and ‘who’ do not display such a difference in LAC. Both ‘which’ and ‘what’ are represented by the character 何 *he*, and they do not seem to show any distinction (320). So I conjecture that all *wh*-nominals in LAC undergo overt phrasal movement.

- (320) a. 將 何 不 忘 哉! (韓非子•喻老)
- Jiang he<sub>i</sub> bu [VP wang t<sub>i</sub>] zai!
- Fut what not forget Excl
- ‘What will (he) not forget!’
- b. 孰 不 可 忍 也! (論語•八佾)
- shu<sub>i</sub> bu ke [VP ren t<sub>i</sub>] ye!
- which not can endure Decl
- ‘Which cannot (he) endure!’

Extending Pesetsky’s feature movement analysis to cover NPI-licensing, Guerzoni (2006) indicates that one type of LF operation, quantifier raising, involves phrasal movement, yet the other type, *wh*-movement at LF, involves feature movement. Since there is a correlation of general intervention effects and a lack of superiority effects that *wh*-phrases move phrasally, covert phrasal movement must be unavailable in languages displaying intervention effects for *wh*-in-situ (Beck 2006).

The semantic account proposed by Beck (2006) describes the Intervention Effect as the fact that a linguistic structure is ungrammatical if a focus-sensitive operator intervenes between an LF-in-situ *wh* and the complementiser that interprets it. Beck (2006) assumes that a *wh*-phrase has a focus-sensitive value, rather than ordinary semantic value. *Wh*-questions are interpreted by the identical mechanism with focus, but unlike focus, *wh*-phrases only introduce alternatives and make no ordinary semantic contribution. The ordinary semantics of *wh*-phrases is undefined, but *wh*-phrases appear in expressions with well-defined ordinary semantic value. It is the question operator that rescues the structure from undefinedness. When a question contains a focus whose contribution is evaluated within the scope of the Q operator, as [Q ...[Op [<sub>φ</sub>... XP<sub>F</sub> ... *wh* ...]]], the structure becomes unacceptable. The ordinary semantics of  $\phi$  is undefined, in that the *wh*-phrase has no ordinary semantics. Since the focus semantic value is reset to the ordinary semantic value, the sister of the Q-operator does not have either well-defined ordinary or well-defined focus semantic value, so the Q-operator cannot save the structure from undefinedness. Consequently, a *wh*-phrase requires a question operator C that must be the first focus-sensitive operator c-commanding the *wh*-phrase. A *wh*-phrase not c-commanded by a coindexed Q operator would be uninterpretable, as the

expression cannot receive an ordinary interpretation. Other focus-sensitive operators perform on both the ordinary and focus-semantic value, so they would generate an uninterpretable structure if they apply to a *wh*-phrase without ordinary semantic value. As a consequence, the Intervention Effect occurs when other focus-sensitive operators come upon before C. The crucial element of this account is that both focus and *wh* are interpreted through the mechanism of distinguished variables; unlike focus, *wh* is evaluated by the question operator. To circumvent the Intervention Effect, *wh* must be scrambled across the focus-sensitive intervener to get its associated question operator.

The pragmatic approach of Tomioka's (2007b) derives the Intervention Effect from the notion of information structure. In a *wh*-question, the *wh*-word acts as the focus, and the remaining part is 'discourse-old' or GIVEN. A sentence can be divided into a focus and a ground, and a ground can be further divided into a link and a tail. It is difficult to classify interveners into one natural group, but all interveners share one property in common, namely, they cannot be topic-marked, hence called (A)nti-(T)opic (I)tems. An ATI belongs to a tail, but the pre-*wh* position is not suitable for a ground, so the mismatch between the information structure and its grammatical realisation produces the Intervention Effect. Even if an ATI can be the ground part of a sentence, it cannot be the link and has to stay in the tail portion of the ground. The ability of scrambling to void the Intervention Effect is realised through placing an ATI in the tail part of the sentence. The effect of scrambling lies in the fact that the scrambling of a *wh* across an ATI generates a prosodic structure, so that the ATI is confined within the prosodically reduced part and becomes a part of the tail. That is to say, the circumvention of the Intervention Effect is also derived from information structural properties. Tomioka also discusses the root-embedded asymmetry: the Intervention Effect is much weaker in embedded contexts. Tomioka proposes that the weakening is attributed to the fact that 'non-topic subjects go to the ground portion more easily in embedded contexts than in root contexts', assuming that there is no topic-focus articulation in embedded sentences.

According to Tomioka's (2007b) pragmatic approach, non-quantificational DPs display the Intervention Effect in Japanese and Korean. This observation coincides with the data from modern Mandarin (321).

- (321) a. ? Lili ye kan-le na-ben shu? (From Kim 2002a: 626)  
 Lili also read-Asp which-CL book  
 b. Na-ben shu Lili ye kan-le?  
 which-CL book Lili also read-Asp  
 ‘Which book did Lili, too, read?’

As for nominative-marked subjects (as opposed to topic-marked subjects) however, although they are interveners in Japanese and Korean, according to my observation, they do not display the blocking effect in modern Mandarin. As can be seen from (322a), when a *which*-phrase is c-commanded by a nominative-marked subject *Zhangsan* (as opposed to the topic-marked subject *xiaoshuo* ‘novel’ in the left-periphery), it may front to a higher position; but after fronting, this *wh*-phrase is still c-commanded by the nominative-marked subject. Moreover, it is even acceptable to have the *which*-phrase remaining in its postverbal base position (322b). Similarly, the *wh*-phrase *shenme yanse* ‘what colour’ is not affected by the c-commanding nominative-marked subject, so it may undergo short-distance movement to a higher position but still follow the subject (323a) or stay in situ (323b). Of course, if the *wh*-phrases do move to higher positions across the nominative-marked subjects, as in (322c/323c), the sentences do not become ungrammatical. The point is that when c-commanded by nominative-marked subjects, *wh*-phrases can move, but definitely do not have to.

- (322) a. Xiaoshuo<sub>j</sub>, Zhangsan na-ben<sub>i</sub> xiang kan t<sub>i</sub> t<sub>j</sub>?  
 novel Zhangsan which-CL want read  
 b. Xiaoshuo<sub>i</sub>, Zhangsan xiang kan na-ben t<sub>i</sub>?  
 novel Zhangsan want read which-CL  
 c. Xiaoshuo<sub>j</sub>, na-ben<sub>i</sub> Zhangsan xiang kan t<sub>i</sub> t<sub>j</sub>?  
 novel which-CL Zhangsan want read  
 ‘As for novels, which does Zhangsan want to read?’
- (323) a. Lingdai<sub>j</sub>, Zhangsan [shenme yanse-de t<sub>j</sub>]<sub>i</sub> zui xihuan t<sub>i</sub>?  
 tie Zhangsan what colour-Sub most like  
 b. Lingdai<sub>i</sub>, Zhangsan zui xihuan [shenme yanse-de t<sub>i</sub>]?  
 tie Zhangsan most like what colour-Sub



- c. Lingdai<sub>j</sub>, [shenme yanse-de t<sub>j</sub>]<sub>i</sub> Zhangsan zui xihuan t<sub>i</sub>?  
 tie what colour-Sub Zhangsan most like  
 ‘As for ties, what colour does Zhangsan like the most?’

Furthermore, the observation that non-quantificational interveners lose the Intervention Effect in embedded contexts is not borne out in modern Mandarin. As shown in (324a), if a *wh*-phrase stays in its postverbal base position c-commanded by a non-quantificational DP ‘NP also’, it cannot be bound by its operator preceding the non-quantificational DP, even if being embedded. To circumvent the blocking effect triggered by the non-quantificational DP, the *wh*-element has to move across the barrier (324b).

- (324) a. ? Ni renwei Zhangsan ye kan-le na-ben shu?  
 you think Zhangsan also read-Asp which-CL book  
 b. Ni renwei [na-ben shu]<sub>i</sub> Zhangsan ye kan-le t<sub>i</sub>?  
 you think which-CL book Zhangsan also read-Asp  
 ‘Which book do you think that Zhangsan also read?’

Nonetheless, it is difficult to verify the generalisation made by this pragmatic approach in LAC. First, owing to the short movement restriction on *wh*-elements in LAC, *wh*-movement into the CP domain is restricted to a couple of topics anyway. Therefore, the lack of examples involving long distance *wh*-movement in the context of nominative-marked subjects is not necessarily due to the absence of the Intervention Effect triggered by nominative-marked subjects. Second, the weakening of the Intervention Effect in embedded clauses cannot be tested, in that bi-clausal examples are rare in corpora, apart from sentences with cleft constructions which do not simultaneously contain *wh*-elements.

Noh (2011) proposes another pragmatic account, which is a cognitive account focusing on ‘NP-only’ within the relevance-theoretic framework. In a scrambled sentence in Korean (325b), *Minswu-man* ‘Minswu-only’ is interpreted as old information while only the *wh*-word is interpreted as a focus, because the *wh*-word has the priority in the hierarchy of all potential foci. Providing both *Minswu-man* and the *wh*-word are

interpreted as foci, the Intervention Effect would arise. As for the reason why (325b) is preferred to (325a), it may be explained by relevance theory. The hearer follows the relevance-theoretic comprehension strategy: start deriving cognitive effects in order of accessibility; stop when the expected level of relevance is achieved. (325a) makes the hearer interpret *Minswu-man* ‘Minswu-only’ as a focus first and then reanalyse it as a presupposition, so (325a) requires more processing effort but does not produce additional cognitive effect. Similarly, I assume that the reason why (324a) may not sound ungrammatical to some native speakers of Mandarin could be accounted for by this cognitive approach that ‘Zhangsan also’ is treated as part of old information, but not a focus.

- (325) a. \* Minswu-man    mues-ul    po-ass-ni?  
           Minswu-only    what-Acc    see-Pst-Q
- b. Mues-ul    Minswu-man    po-ass-ni?  
           what-Acc    Minswu-only    see-Pst-Q  
           ‘What did only Minswu see?’

(From Noh 2011: 180)

## 8.2. The Intervention Effect of Negation

Negation displays the Intervention Effect in LAC. There are two types of *wh*-items that are subject to the Intervention Effect triggered by negation: 1) *wh*-arguments and adverbials that are supposed to move to the Low focus position, and 2) *wh*-phrases that can, but do not have to, stay in situ.

### 8.2.1. *Wh*-Constituents in the Low Focus Position

Non-D-linked *wh*-complements within *vP* and *wh*-adverbials base-generated either between negation and *vP* or postverbally undergo obligatory movement. Owing to their focal nature, preposed *wh*-phrases should target the Low focus position below negation.

However, these *wh*-arguments and adverbials are subject to the Intervention Effect triggered by negation. As a consequence, whenever there is a negator, a *wh*-constituent must raise to the High focus position c-commanding negation so as to realise Q-binding.

### 8.2.1.1. *Wh*-Arguments

As illustrated previously, *wh*-adverbials may front overtly to one of the preverbal positions in the medial domain triggered by obligatory *wh*-fronting of LAC, and if they are non-D-linked, their landing sites are focused. I suggest in Chapter 5.2.2.3 that non-reason *wh*-adverbials raise to the Low focus position between negation and *vP*, as shown in the template below (326) (=200).

(326) Clausal positions for *wh*- and non-*wh*-fronting:

External topic position > Subject > Internal topic position > High focus position > High *wh* base position > Modal adverbs > Aspectual/temporal adverbs > Focus position > 独 *du* > Negation > Low focus position > Low *wh* base position > Root modal verbs > *vP*

Parallel to non-reason *wh*-adverbials, non-D-linked *wh*-arguments may also front to the Low focus position. Recall the clausal positions for *wh*-fronting and medial elements (327), the aspecto-temporal adverb 將 *jiang* ‘Fut’ intervenes between the High focus position and the Low focus position. In (327), since the fronted *wh*-argument 何 *he* ‘what’ follows the aspecto-temporal adverb *jiang*, this preposed *wh*-nominal must have raised into the Low focus position intervening between negation and *vP*.

(327) 我 將 何 求? (左傳•僖公二十八年; Aldridge 2010a: 11)  
 [TP Wo [vP jiang [vP he [v' t<sub>wo</sub> [v' qiu t<sub>he</sub>]]]]]?  
 I will what ask.for  
 ‘What will I ask for?’

It seems possible that the *wh*-word in (327) may occupy an extra position exclusively

for *wh*-phrases between the aspecto-temporal adverb 將 *jiang* ‘Fut’ and the key diagnostic element 獨 *du* ‘alone’, which is not the Focus position that accommodates non-*wh*-phrases, as discussed in Chapter 5.3. However, as mentioned, there is one and only one instance (i.e. (328)) validating this extra *wh*-position. Furthermore, since (328) is negative, it is likely that the intended landing site of *he* is a focalised position below negation, viz. the Low focus position, but the NIB causes *wh* to raise to this extra position. Therefore, I assume that the *wh*-word in (327) that does not involve negation appears in the Low focus position, rather than the extra position.

(328) 將 何 不 忘 哉! (韓非子•喻老)  
 Jiang he<sub>i</sub> bu [<sub>VP</sub>wang t<sub>i</sub>] zai!  
 Fut what not forget Excl  
 ‘What will (he) not forget!’

The example (327) does not involve negation, and we do not expect negation to make any difference based on data in modern Mandarin. Nevertheless, such a prediction is not borne out for LAC, in that if a negative element is present and c-commands an interrogative *wh*-phrase, the negator will block the LF dependency of the *wh*-constituent, due to the Intervention Effect (Beck 1996a, Beck and Kim 1997, Kim 2002a, 2006). The Intervention Effect of negation is not unexpected, as association with focus applies to negation, and NEG is a focus-sensitive operator undergone an association with focus. To be in a position where it may be interpreted semantically, the focused *wh*-DP has to adopt a repair strategy by fronting to a position across negation, until the blocking effect is circumvented. As a consequence, the surface landing position of a *wh*-constituent is always above negation, corresponding to Aldridge’s (2006, 2007, 2010a) observation that *wh*-words never follow negators.

In order to justify the presence of the Intervention Effect of negation on non-D-linked nominal *wh*-phrases in the Low focus position, I refer to instances like the second clause in (329) where a *wh*-object 何 *he* lands in a position preceding negation. This bare *wh*-word 何 *he* is supposed to raise from its postverbal base position to a preverbal position. As a non-D-linked *wh*-DP, *he* is supposed to land in a focalised position; moreover, its VP-internal base position indicates that it should move to the Low focus

position. However, when the *wh*-word *he* appears in the Low focus position, it is c-commanded by a negator 不 *bu* that is an intervener blocking LF dependency of *he*, so *he* needs to move to a position over negation in order to be bound by a Q-operator. Since *he* is non-D-linked, this position cannot be the external/internal topic position, but rather the High focus position which is supposed to accommodate ‘high’ adverbials exclusively. That is to say, the preposing of *he* should have targeted the Low focus position, motivated by obligatory *wh*-fronting. However, due to a blocking effect of negation, the *wh*-fronting now targets the High focus position, triggered by the Intervention Effect of negation. Therefore, I argue that when c-commanding a non-D-linked *wh*-DP that is supposed to land in the Low focus position, the Intervention Effect of negation applies to the *wh*-nominal and triggers its fronting to the High focus position. Consequently, *he* in two sentences of (329) occupies distinct positions: it occurs in the High focus position in the latter clause, whereas it merely moves to the Low focus position in the former clause. Providing negatives were not barriers for the interpretation (Q-binding) of *wh*-constituents, *he* in the second clause of (329) would end up in the Low focus position, analogous to its counterpart in the first sentence.

- (329) 然则 我 何 爲 乎? 何 不 爲 乎?  
 Ranze wo he<sub>i</sub> [VP wei t<sub>i</sub>] hu? He<sub>j</sub> bu [VP wei t<sub>j</sub>] hu?  
 then I what do Q what not do Q  
 ‘Then what do I do? What (do I) not do?’

(莊子•秋水)

Examples (330a) and (330b) are cited here to reinforce the availability of a focused position below negation. 焉 *yan* ‘where’ in (330a) functions as the complement of the verb 適 *shi* ‘go’, and it raises from its postverbal base position to a preverbal position following the aspecto-temporal adverb 將 *jiang*. Since *jiang* intervenes between the High focus position and the Low focus position, the landing site of *yan* should be the Low focus position that is below negation. (330b) shows the preposing of a *wh*-adjunct from its preverbal base position to a higher position. The key diagnostic element *du* indicates that the landing site of this manner *wh*-PP is below negation.

(330) a. 夫子 將 焉 適? (呂氏春秋•季冬紀)

Fuzi jiang yan<sub>i</sub> [VP shi t<sub>i</sub>]?

sir(you) Fut where go

‘Where will you go?’

b. 先生 獨 何 以 說 吾 君 乎?

Xiansheng du he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP yue wu jun] hu?

sir(you) alone what with please my lord Q

‘How did you alone please my lord?’

(莊子•徐無鬼)

Example (331) is a piece of evidence that rules out the possibility of passivisation, and proves that the *wh*-word *he* ‘what’ is a fronted object, instead of an internal argument moved to the left periphery. The *wh*-DP *he* should not be treated as moving to the subject position, in that *he* is below the aspecto-temporal adverb 將 *jiang* ‘Fut’ which always follows the subject. This argumentation coincides with Aldridge’s (2006, 2007, 2010a) generalisation that the landing site of *wh*-fronting in LAC is always lower than T.

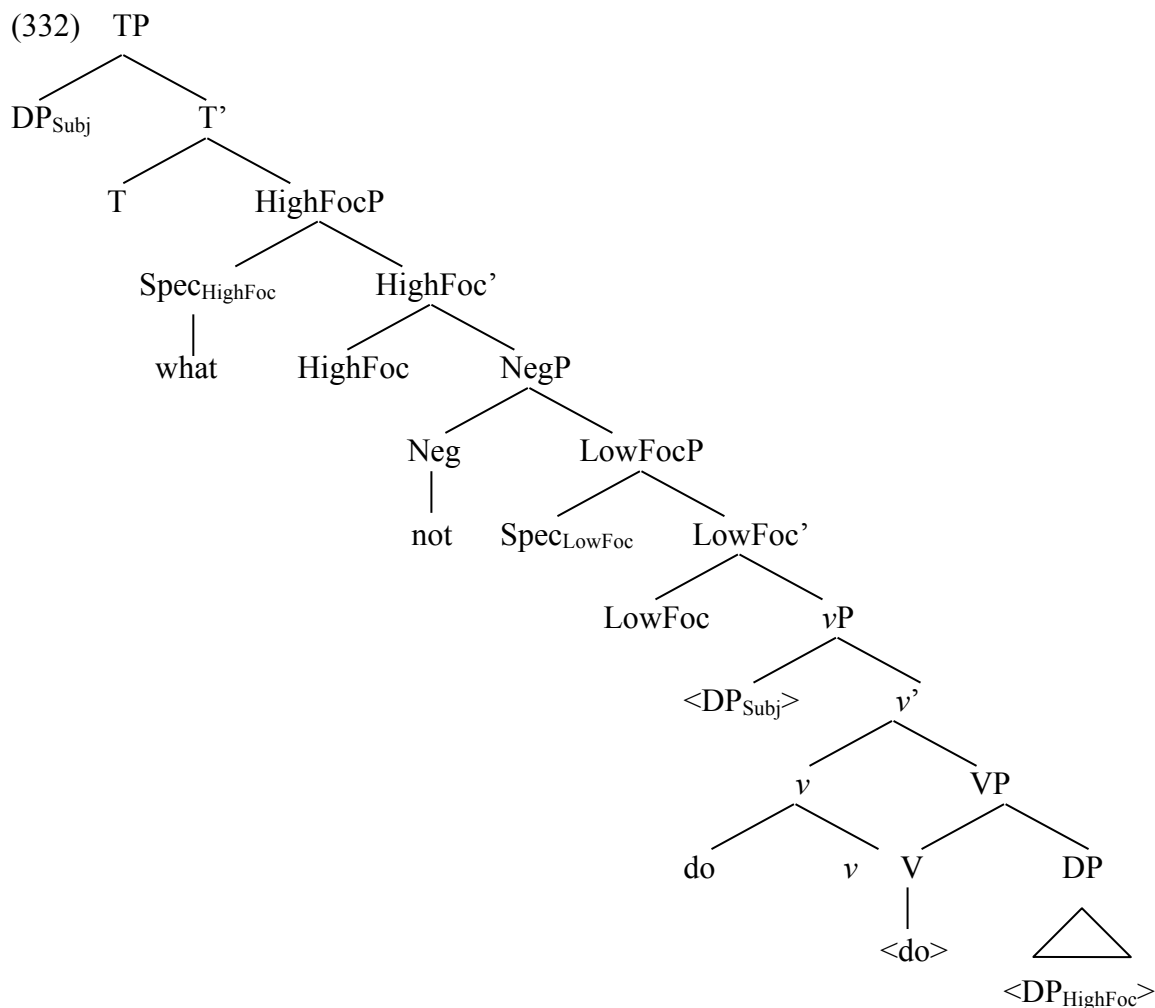
(331) 將 何 不 忘 哉! (韓非子•喻老)

Jiang he<sub>i</sub> bu [VP wang t<sub>i</sub>] zai!

Fut what not forget Excl

‘What will (he) not forget!’

The tree diagram of the second question in (329) is presented in (332).



Apart from being simplex, *wh*-DPs intended to land in the Low focus position but undergo fronting to the High focus position could be complex as well, as shown in (333).

- (333) a. 宋 何 役 之 不 會,  
 Song [he yi]<sub>i</sub> zhi bu [v<sub>P</sub> hui t<sub>i</sub>],  
 Song what battle ZHI not enter  
 而 何 盟 之 不 同? (左傳•昭公二十五年)  
 er [he meng]<sub>j</sub> zhi bu [v<sub>P</sub> tong t<sub>j</sub>]?  
 Conj what alliance ZHI not join  
 ‘What battle does the State of Song not enter, and what alliance (does it) not join?’

b. 國 之 守龜, 其 何 事 不 卜?

Guo zhi shougui, qi [he shi]i bu [vp bu ti]?

state Gen tortoiseshell Mod what thing not divine

‘Speaking of the tortoiseshell of the state, what thing does it not divine?’

(左傳•昭公五年)

It is notable that the High focus position is supposed to allow ‘high’ *wh*-adverbials exclusively, but the Intervention Effect of negation causes non-D-linked *wh*-DPs to move into this position as well, as illustrated by examples (329) and (333).

### 8.2.1.2. *Wh*-Adverbials

Adjunct adverbials are always above negators in the context of negation,<sup>104</sup> and no examples of \*Neg (VP) *wh* (VP) are ever attested. This observation is not surprising for reason *wh*-adverbials whose base position is already above negation. However, for a non-reason *wh*-adverbial base-generated postverbally or preverbally but below negation, it cannot be bound by a Q-operator, owing to the intervening negator that blocks LF movement of *wh*-in-situ to an operator position. Consequently, to be in a position where it can be interpreted semantically, this *wh*-adverbial must adopt a repair strategy by fronting to the High focus position that is not c-commanded by negation at S-structure. Note that analogous to the pre- or post-verbal base position, the Low focus position cannot accommodate *wh*-adverbials either, because it is equally c-commanded by negation. Since adjunct adverbials could be base-generated in two positions, they may either move from the higher base position between negation and *v*P or from the postverbal base position to the High focus position.

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<sup>104</sup> This observation may be supported from a phonological point of view. The *wh*-word 何 *he* and the negator 不 *bu* undergo a process of phonological reduction, generating a fusion form 盍 *he* [*he+bu*] ‘why not’. Within this fusion form, the *wh*-adverbial of reason precedes the negator (Pulleyblank 1995, Feng 1996).



Location, source and instrument *wh*-adverbials are subject to the Intervention Effect of negation.

First, as illustrated earlier, locative adverbials are either base-generated preverbally (334a-b) or postverbally (334c), and their *wh*-complements should move to a position between negation and *vP*. In (334a/c) where negation is absent, the simplex *wh*-word 焉 *yan* ‘where’ and the complex *wh*-phrase 惡許 *wu xu* ‘what place’ land in a position following the aspecto-temporal adverb 將 *jiang* that intervenes between the High focus position and the Low focus position. So the *wh*-adjuncts *yan* and *wu xu* must land in the Low focus position below negation. However, in the context of negation, 安 *an* ‘where’ in the second clause of (334b) and 何所 *he suo* ‘what place’ in (334d) move overtly from their base position between negation and *vP* to the High focus position across the negative. It can be seen that negation functions as a barrier for the Q-binding of *wh*-adverbials base-generated above *vP* and postverbally: they would have targeted the Low focus position if there was no Intervention Effect of negation. However, the Low focus position cannot accommodate the *wh*-PPs, as it is c-commanded by the negator *bu*, parallel to the base positions. So instead of raising to the Low focus position and still being c-commanded by the intervener, *wh*-elements target the High focus position c-commanding the negative intervener.

(334) a. 將 焉 闕 之? (左傳•僖公九年)

Jiang yan<sub>i</sub> [pp t’<sub>i</sub> t<sub>i</sub>] bi zhi?

Fut where avoid 3.Obj

‘Where will (I) avoid it?’

b. 然則 寡人 安 所 太 仁,

Ranze guaren [an suo]<sub>i</sub> [pp t’<sub>i</sub> t<sub>i</sub>] tai ren,

then I what place too benevolent

安 不 忍 人? (韓非子•內儲說上)

anj bu [pp t’<sub>j</sub> t<sub>j</sub>] ren ren?

where not cruel others

‘Then (in) what place am I too benevolent, (and) where (am I) not cruel (to) others?’

c. ‘吾 將 惡 許 用 之?’

Wu jiang [wu xu]<sub>i</sub> yong zhi [pp t'<sub>i</sub> t<sub>i</sub>]?

I Fut what place use 3.Obj

曰: ‘舟 用 之 水...’ (墨子•非樂)

Yue: ‘Zhou yong zhi shui...’

say boat use 3.Obj water

“(In) what place will I use them?” (Mozi) said: ‘Boats, (you) use them (on) the water...’”

d. 子 何 所 不 逞 欲? (左傳•昭公十四年)

Zi [he suo]<sub>i</sub> bu [pp t'<sub>i</sub> t<sub>i</sub>] cheng yu?

you what place not satisfy desire

‘(In) what place do you not satisfy desires?’

Second, source PPs are base-generated preverbally (335a) or postverbally (335b), and their *wh*-complements should target a landing site between negation and *vP*, i.e. the Low focus position. However, with the presence of negation, source PPs always appear in a position preceding the negator (335c). This fact also lends support to the proposal that the intervening negator blocks LF movement of a *wh*-element to an operator position, so the *wh*-element has to raise to a position c-commanding the barrier, which is the High focus position. The tree diagram of (335c) is in (335d).

(335) a. 將 何 所 取? (左傳•襄公二十九年)

Jiang [he suo]<sub>i</sub> [pp t'<sub>i</sub> t<sub>i</sub>] qu?

Fut what place obtain

‘(From) what place will (they) obtain (land)?’

b. 仲尼 焉 學? (論語•子張)

Zhongni yan<sub>i</sub> [vp xue] [pp t'<sub>i</sub> t<sub>i</sub>]?

Zhongni where study

‘(From) where does Zhongni study?’

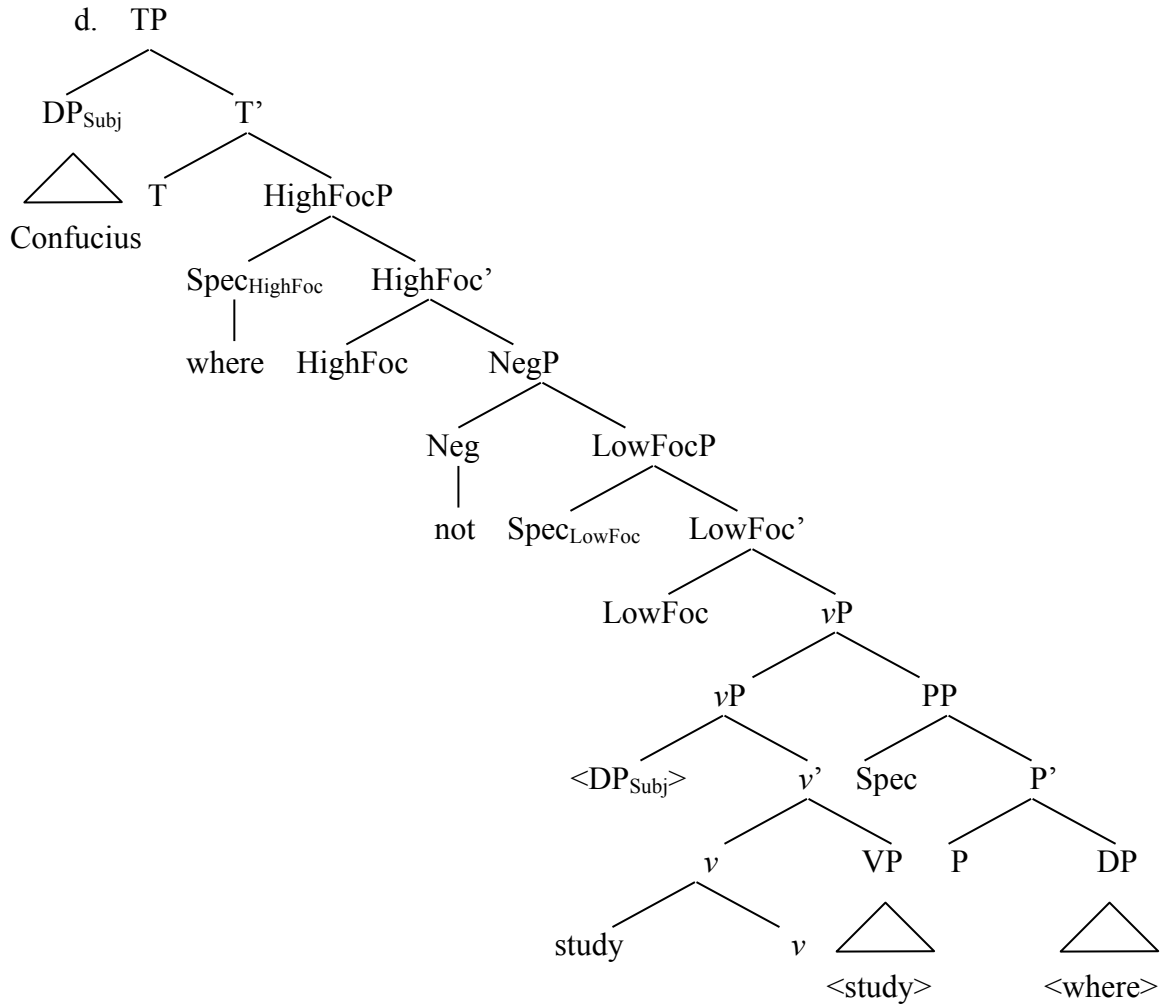
c. 夫子 焉 不 學?

(*ibid*)

Fuzi yan<sub>i</sub> bu [v<sub>P</sub> xue] [p<sub>P</sub> t'<sub>i</sub> t<sub>i</sub>]?

Confucius where not study

'(From) where does Confucius not study?'



Third, *wh*-phrases functioning as adverbials of instrument are also subject to the Intervention Effect of negation. As analysed in Chapter 5.2.2.3, adverbials of instrument headed by the obligatory preposition 以 *yi* ‘with’ are base-generated lower than negation, because they follow the adverb 獨 *du* which always immediately precedes the negator 不 *bu*. So despite the absence of negation in instances involving instrumental PPs, the *wh*-complements are predicted to target the specifier node of the Low Focus projection below NegP, triggered by obligatory *wh*-preposing, and the preposition 以 *yi* ‘with’ raises to the head of LowFocP.

(336) 先生 獨 何 以 說 吾 君 乎?  
 Xiansheng du he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>]] [VP yue wu jun] hu?  
 sir(you) alone what with please my lord Q  
 'How did you alone please my lord?'

(莊子•徐無鬼)

Nevertheless, the configuration of \*Neg what *yi* (with) is never attested,<sup>105</sup> which validates the Intervention Effect of negation. Providing a negative precedes an adverbial of instrument, this *wh-yi* adjunct has to move past negation in order to be bound by its Q-operator, because the negator blocks the Q-binding. There is no denying the fact that the prediction concerning movement of *wh* along with P 'with' is not borne out, and all what-P-Neg patterns involve adverbials of reason. This phenomenon is understandable: if a *wh*-P further moved to the High focus position preceding negation which is expected to accommodate adverbials of reason exclusively, it would appear to be identical with *wh*-P 'why' in the surface structure. As can be seen from (334d) and (335c), those adverbials that can front to the High focus position do not adopt the *wh*-P pattern but are in the form of simplex or complex *wh*, so their fronting would not cause confusion between reason adverbials and non-reason adverbials raised to the High focus option; that is why the prediction concerning frontings of *wh* and *yi* to the High focus position is not borne out.

### 8.2.2. *Wh*-in-Situ

Manner adverbials may either be base-generated preverbally (337a) or postverbally and stay in situ (337b). Nevertheless, in the context of negation, the *wh*-adverbial of manner 奈何 *nai he* must appear in a position c-commanding the NIB, namely, the High focus position (337c).

<sup>105</sup> It is not possible to find positive evidence for this claim, but there are no counterexamples to the generalisation in the databases.

- (337) a. 奈 何 察 之 也? (韓非子•內儲說下)  
 [Nai he] cha zhi ye?  
 treat what investigate 3.Obj Decl  
 ‘How to investigate it?’
- b. 佞人 之 事 君 如 何? (晏子春秋•內篇問上)  
 Ningren zhi shi jun [ru he]?  
 sycophant ZHI wait.upon monarch treat what  
 ‘How do sycophants wait upon the monarch?’
- c. 奈 何 不 謹 稟 也? (韓非子•外儲說右上)  
 [Nai he]<sub>i</sub> bu t<sub>i</sub> jin lin ye?  
 treat what not cautious.about granary Decl  
 ‘How (can one) not cautious about the granary?’

I assume that the base position of 奈何 *nai he* is above *vP* simply because the same expression is base-generated preverbally in (337a). Of course, it is equally tenable that *nai he* could be base-generated in a postverbal position and this manner adverbial could move all the way from a postverbal position to the High focus position.

Now we can conclude that the High focus position is expected to permit reason *wh*-adverbials exclusively, but due to the Intervention Effect of negation, the following four types of *wh*-phrases must raise to the High focus position too in the context of negation: 1) VP-internal *wh*-nominals that are expected to front to the Low focus position, 2) *wh*-adverbials base-generated between negation and *vP*, which are expected to front to the Low focus position, 3) *wh*-adverbials base-generated postverbally, which are expected to front to the Low focus position, and 4) *wh*-adverbials base-generated postverbally, which are expected to stay in situ. In these situations, these *wh*-nominals and adverbials may also target the High focus position. The distribution of interrogative *wh*-nominals and *wh*-adverbials with and without negation is demonstrated in the following table:

Table 8: Distribution of *wh*-items with and without negation

<i>Wh</i> -item			Landing site	
			No Neg	Neg
<i>Wh</i> -nominal	In-situ		In situ	In situ
	Moved		Low Focus	High Focus
<i>Wh</i> -adverbial	In situ	Preverbal	In situ	High Focus
		Postverbal	In situ	High Focus
	Moved	Preverbal	Low Focus	High Focus
		Postverbal	Low Focus	High Focus

Since there is no data with in-situ *wh*-items preceded by negation, it is reasonable to state that LAC did not allow covert phrasal movement of a *wh*-phrase. A fronted indeterminate phrase can sometimes appear in a position following negation, but then it is always as an NPI, as in (338), as negation is the closest licenser. In LAC, whenever negation c-commands a potential *wh*-phrase, the latter is always interpreted as an NPI. So the *wh* is actually an indefinite. The NPI construction is irrelevant to interrogative *wh*-phrases but it does show that negation cannot c-command a *wh*-phrase which is interpreted as interrogative. Therefore, I suggest that there is no covert phrasal movement of *wh*-phrases in LAC.

- (338) 何 不 樹 之 於 無 何 有 之 鄉?  
 He bu shu zhi yu [wu [he<sub>i</sub> you t<sub>i</sub>]] zhi xiang?  
 why not plant it in not.exist what exist Gen place  
 ‘Why don’t you plant it in a place where there isn’t anything?’

(莊子•逍遙遊; Aldridge 2010a: 26)

If a ‘*wh*-phrase’ is c-commanded by negation, it is always interpreted as an indefinite, rather than an interrogative. Therefore, in order to get a true *wh*-interpretation, the *wh*-phrase must undergo overt phrasal movement across negation. This is the Intervention Effect of negation. The landing site for fronted *wh*-phrases, i.e. the High

focus position, is still in the c-command domain of a Q-operator but not negation.

### 8.3. The Intervention Effect of Focus

Interestingly, the Intervention Effect of focus phrases does not seem to exist in LAC, which is unexpected, because focus constructions almost never fail to exhibit such a blocking effect on *wh*-nominals in modern Mandarin, as in (292-295), repeated as (339-342).

(339) a. ? Lili ye kan-le na-ben shu?

Lili also read-Asp which-CL book

b. Na-ben shu Lili ye kan-le?

which-CL book Lili also read-Asp

‘Which book did Lili, too, read?’

(340) a. ?? *Lian* Lili ye kan de dong na-ben shu?

even Lili also read DE understand which-CL book

b. Na-ben shu *lian* Lili ye kan de dong?

which-CL book even Lili also read DE understand

‘Which book could even Lili understand?’

(341) a. ?\* *Zhiyou* Lili kan-le na-ben shu?

only Lili read-Asp which-CL book

b. Na-ben shu *zhiyou* Lili kan-le?

which-CL book only Lili read-Asp

‘Which book did only Lili read?’

(342) a. \* *Shui* ye kan bu dong na-ben shu?

Who also read not understand which-Cl book

b. Na-ben shu *shui* ye kan bu dong?

Which-Cl book who also read not understand

‘Which book could no one understand?’

(From Kim 2002a: 626)

The lack of the Intervention Effect from focus can be supported by focalised subjects that are not barriers.

First, in the second question of (343a), LF dependency of a *wh*-object bound by a Q-operator crosses a c-commanding subject DP that is licensed by a focus particle 亦 *yi* ‘also’.<sup>106</sup> I postulate that both clauses in (343a) involve an empty verb 有 *you* ‘have’, and the complete counterparts of (343a) are instances such as (343b) and (343c) with a derived SOV order and a fronting marker. In a canonical sentence, the verb *you* is presumed to be situated between the subject and the direct *wh*-object 何罪 *he zui* ‘what sin’. As a VP-internal constituent, the *wh*-object undergoes obligatory preposing and lands in a preverbal position in the sentence-internal domain, generating the surface structure. I posit that the *wh*-DP 何罪 *he zui* in both questions of (343a) lands in the Low focus position. Similar to (343a), (343d) involves a *wh*-word 何 *he* ‘what’ that has fronted to a position preceding the verb, but the focus particle 亦 *yi* in front of *wh* fails to create any blocking effect for Q-binding. Despite the insertion of the focus particle 亦 *yi* on the subject in the second question in (343a) and (343d), the *wh*-argument still targets the Low focus position below the focus construction, instead of moving past focus to a higher position. As can be seen from (343d), the *wh*-DP can move, so it will front to the High focus position if it needs to. Besides, the *wh*-DP in (343a/d) is not a *wh*-P construction whose fronting to the High focus position could cause confusion between it and a reason adverbial. Therefore, it is not the case that the *wh*-DP cannot move, but rather it does not need to, because focus is not a barrier for Q-binding.

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<sup>106</sup> The counterpart of 亦 *yi* ‘also’ in modern Mandarin is 也 *ye* ‘also’, as in (340). Both *also*-phrases follow and license focus constructions.



- (343) a. 先 君 何 罪?  
 [Xian jun] [he zui]<sub>i</sub> [VP t<sub>i</sub>?]  
 former lord what sin  
 其 嗣 亦 何 罪? (左傳•文公七年)  
 [Qi si] yi [he zui]<sub>j</sub> [VP t<sub>j</sub>?]  
 3.Gen crown.prince also what sin  
 ‘What sin did the former lord (have)? What sin does his crown prince, too, (have)?’
- b. 其 父 有 罪 (國語•晉語五)  
 Qi fu [VP you zui]  
 Gen father have sin  
 ‘his father has sin’
- c. 宋 何 罪 之 有? (墨子•公輸)  
 Song [he zui]<sub>i</sub> zhi [VP you t<sub>i</sub>?]  
 Song what sin ZHI have  
 ‘What sin does the State of Song have?’
- d. 太子 亦 何 如? (韓非子•內儲說下)  
 Taizi yi he<sub>i</sub> [VP ru t<sub>i</sub>?]  
 crown.prince also what be.like  
 ‘What is the crown prince, too, like?’

Second, the sentence-initial WEI, along with SUO,<sup>107</sup> may be interpreted as a subject

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<sup>107</sup> It is pointed out by Aldridge (2009a, 2013b) that 所 *suo* can be employed to relativise on a VP-internal element by means of binding a gap inside VP as a verbal functional head, and to nominalise an embedded clause, generating a reduced relative clause with a genitive subject. I hypothesise that in addition to these two functions, SUO can also form a subject focus-type cleft with 唯 WEI, as in (344) and (xxxxiv).



- (345) 子 惡 乎 求 之 哉?...  
 Zi wu<sub>i</sub> hu<sub>j</sub> [VP qiu zhi] [pp t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] zai?  
 you where from seek 3.Obj Q  
 子 又 惡 乎 求 之 哉? (莊子•天運)  
 Zi you wu<sub>k</sub> hu<sub>l</sub> [VP qiu zhi] [pp t'<sub>k</sub> t<sub>l</sub> t<sub>k</sub>] zai?  
 you also where from seek 3.Obj Q  
 'From where did you seek it? ... From where did you also seek it?'

Fourth, 尚 *shang* 'even' in (346) focalises on the object 何 *he* 'what' which fronts from a postverbal position to the medial domain. The preposed *wh*-object lands in a position c-commanded by the 'even'-focus, instead of moving across the focus.

- (346) 夫子 弗 受, 慳 尚 何 敢 言。  
 Fuzi fu shou, Li shang he<sub>i</sub> gan [VP yan t<sub>i</sub>].  
 sir(you) not accept Li(I) even what dare say  
 'You do not accept (it), then what dare Li (I) even say?'  
 (莊子•說劍)

Even if (344) may be invalidated by the locality constraint, namely, *wh*-movement cannot pass a focus phrase in the subject position hence target CP, the latter two pieces of evidence undeniably justify the absence of the Intervention Effect caused by focus expressions. Examples (343d) and (345) show that the *wh*<sub>Foc</sub>\*(Neg) Foc configuration is unattested, but they cannot rule out the possibility for focus constructions between TP and *v*P to block the LF movement of nominal and adverbial *wh*-phrases. The preposing of the focalised *wh*-words *wu* in (345) and *he* in (343d) and (346) shows that there is a domain between the subject and *v*P for the moved *wh*-items, so *wh* has the alternatives to either precede or follow the focus-phrase 'also'/'even'. However, the *wh* lands in a position following the focus, which means focus is not a barrier. I posit that it is impossible for a VP-internal *wh*-DP or a *wh*-adverbial/predicate base-generated postverbally to move to the High focus position when c-commanded by a preposed non-*wh*-constituent in the Low focus position, or for a postverbal *wh*-adverbial/predicate to raise to the High or Low focus position when c-commanded by a focus phrase

remaining in its postverbal base position.<sup>108</sup>

As can be seen from (343a/d), (344), (345) and (346), despite the presence of focus or association with focus constructions, all *wh*-elements are c-commanded by focalised subjects: the nominal *wh*-arguments 何 *he*, 何罪 *he zui* and 惡 *wu* appear in the Low focus position and the predicative *wh*-phrase 何 *he* remains in situ. So it is reasonable to claim that a focus structure does not function as a barrier for Q-binding between a

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<sup>108</sup> Focus constructions in LAC do not necessarily front to a preverbal position. In (xxxxv), objects are focalised by the *only*-phrase, and the foci remain in their base positions within *vP*. SUO in this structure is sometimes preceded by ZHI that is a marker for explicit subordination (xxxxva).

(xxxxv) a. 君 之 所 未嘗 食 唯 人 肉 耳  
jun zhi suo weichang shi wei ren rou er  
Your.Majesty ZHI SUO not.yet eat WEI human flesh Decl  
'it is only human flesh that Your Majesty has not eaten yet'

(韓非子•十過)

b. 神 弗 臨 也, 所 臨 唯 信。 (左傳•襄公九年)  
Shen fu lin ye, suo lin wei xin.  
god not manifest Decl, SUO manifest WEI integrity  
'Gods do not manifest; it is only on integrity that (gods) manifest.'

c. 司射 所 作 唯 上 耦。 (儀禮•鄉射禮)  
Sishe suo zuo wei shang ou  
sishe SUO command WEI senior pair  
'It is only the senior pair whom the sishe (official name) commands.'

This configuration is preserved in modern Mandarin, with SUO being optional, as exemplified in (xxxxvi).

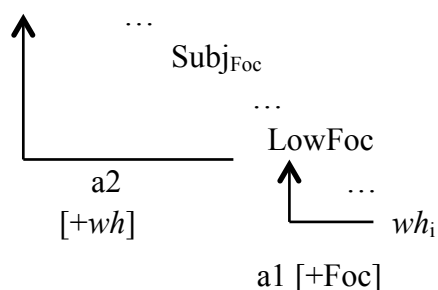
(xxxxvi) Women (suo) tingshuo de zhi shi bufen zhenxiang.  
IPL (SUO) hear DE only be part truth  
'What we heard about is only part of the truth.'

Q-operator and a function variable, as there are felicitous data concerning Foc ... [+wh]. Therefore, an interesting observation is that in modern Mandarin, focus structures display the Intervention Effect, yet in LAC, they fail to induce the Intervention Effect.

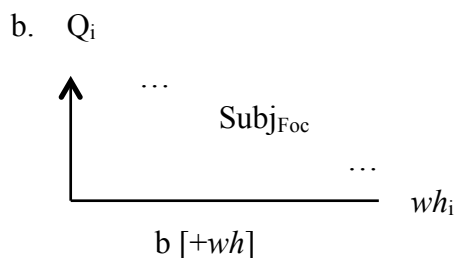
This asymmetry seems to violate the Uniformitarian Principle that the same principles applicable to a synchronic grammar are also suitable for previous stages of that language (Labov 1972, Hale 1998, 2007). Nonetheless, I hypothesise that the reason why focus does not impose the Intervention Effect in LAC is attributed to the fact that focus and negation have different features.

In the context of focus, if an XP [+wh] fronts (to a position below focus), the fronting is introduced by clause-internal overt movement. Next, the [+wh] feature is interpreted by feature movement. If an XP [+wh] does not front, it is interpreted by feature movement. In LAC, feature movement is subject to the Intervention Effect (see Chapter 8.5.2 for detailed discussion). If due to obligatory *wh*-preposing, a *wh*-phrase moves to a focus position below the focus phrase (as in (343d/345/346)) driven by [+Foc] feature and stops there, then it is interpreted via feature movement that is subject to the Intervention Effect, as in (347a). Based on available data, it is always the subject that is focalised, and the landing site for the preposed *wh*-phrase is the Low focus position. I hypothesise that Q is around CP and the focalised subject intervenes between Q and *wh*-XP. When a *wh*-phrase stays in situ, its [+wh] feature is interpreted by feature movement, as in (347b).

(347) a. Q<sub>i</sub>



a1: overt phrasal movement; a2: feature movement



b: feature movement

As suggested by Rizzi (2001), Relativised Minimality only holds within classes of features, but not across them. Both *wh* and Neg are quantificational features occupying an A'-specifier position, but Foc displays a focus feature that is distinct from 'modifier features'. Both quantificational and modifier features are specifier-licensing features in the A'-system, but these two classes of features contain different elements (348/349). So it is plausible that focus does not belong to the class of quantificational features, but to another subclass of discourse-related or pragmatic A'-features. Therefore, focus cannot determine a Minimality effect on the *wh*-chain, but negation can.

(348) Quantificational: *wh*, Neg, amount/frequency, ...

(349) Modifier: evaluative, epistemic, amount/frequency, manner, ...

(From Rizzi 2001: 104)

The Intervention Effect occurs because the dependency between X and Y is blocked by an intervening barrier Z which bears the same feature [ $\alpha$ ] as X and Y (Yang 2007).

(350) \*[[... X<sub>[ $\alpha$ ]</sub> ... [... Z<sub>[ $\alpha$ ]</sub> ... [... Y<sub>[ $\alpha$ ]</sub> ...]]]

(From Yang 2007: 104)

If the schema (350) is used to indicate the Intervention Effect of negation in LAC, Y is a function variable *wh*-phrase (either a DP or an AdvP), and X is its Q-operator. Since the Q-binding between X and Y is blocked by negation (Z) which bears the same quantificational feature [Quant], ungrammaticality results in the construction Neg ... [+*wh*] (351).

(351) \*[Q-Op<sub>i</sub> [C<sub>[Quant]</sub> [... Neg<sub>[Quant]</sub> ... [... *wh*-XP<sub>[Quant]</sub> ...]]]]

Focus phrases in LAC however, do not impose the Intervention Effect on *wh*-interrogatives. Both the function variable *wh*-phrase (Y) and its Q-operator (X) bear the quantificational feature [Quant], yet the intervening focus bears the modifier feature [Mod]. The dependency between the function variable *wh*-phrase (Y) and its Q-operator (X) is not blocked by a focus phrase (Z) which bears a different, modifier feature. Therefore, the structure Foc ... [+*wh*] is felicitous. Schema (352) shows the lack of the Intervention Effect of focus in LAC.

(352) [Q-Op<sub>i</sub> [C<sub>[Quant]</sub> [... Foc<sub>[Mod]</sub> ... [... *wh*-XP<sub>[Quant]</sub> ...]]]]

Therefore, I state that the reason why focus does not impose the Intervention Effect in LAC is attributed to the fact that focus and negation have different features. Both *wh* and Neg are quantificational features, so Neg can block the Q-binding between *wh* and its operator. Focus, however, bears a different modifier feature from *wh*, so focus cannot block the Q-binding of *wh*.

#### 8.4. The Intervention Effect of Quantifiers

Parallel to their counterparts in modern Mandarin, quantificational expressions in LAC do not seem to be barriers for Q-binding, in that *wh*-constituents can appear under quantifiers and do not have to undergo overt movement in order to get bound by a Q-operator. Examples (353a) and (353b) contain an ordinary quantifier 皆 *jie* ‘all’ and a frequency adverbial 常 *chang* ‘often’ respectively; the counterparts of *jie* ‘all’ and *chang* ‘often’ in modern Mandarin are *dou* and *chang(chang)* in (297a/b). (296a) involves raising of a prepositional complement 何 *he* out of an *v*P-internal PP to the Low focus position, triggered by obligatory *wh*-fronting. Likewise, the same *wh*-word *he* in (353b) fronts out of the ‘high’ adverbial ‘why’ to the High focus position; (353b) additionally involves VP-fronting to the internal topic position between TP and the High

focus position and the tree diagram of the embedded clause is in (353c).<sup>109</sup> The *wh*-word in both examples is still c-commanded by a quantifier at S-structure after fronting, which means quantificational elements do not create any blocking effect on LF movement of *wh*-phrases.

(353) a. 皆 何 以 稱 人? (公羊傳•桓公十五年)

Jie he<sub>i</sub> yi<sub>j</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] cheng ren]?

all what with address person

‘With what do (we) all address those people?’

b. 原 聞 古 之 明 主

Yuan wen [gu zhi ming zhu]

want hear ancient Gen wise lord

得 國 失 國 常 何 以? (韓非子•十過)

[<sub>VP</sub> de guo shi guo]<sub>k</sub> chang he<sub>i</sub> yi<sub>j</sub> [<sub>PP</sub> t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] t<sub>k</sub>?

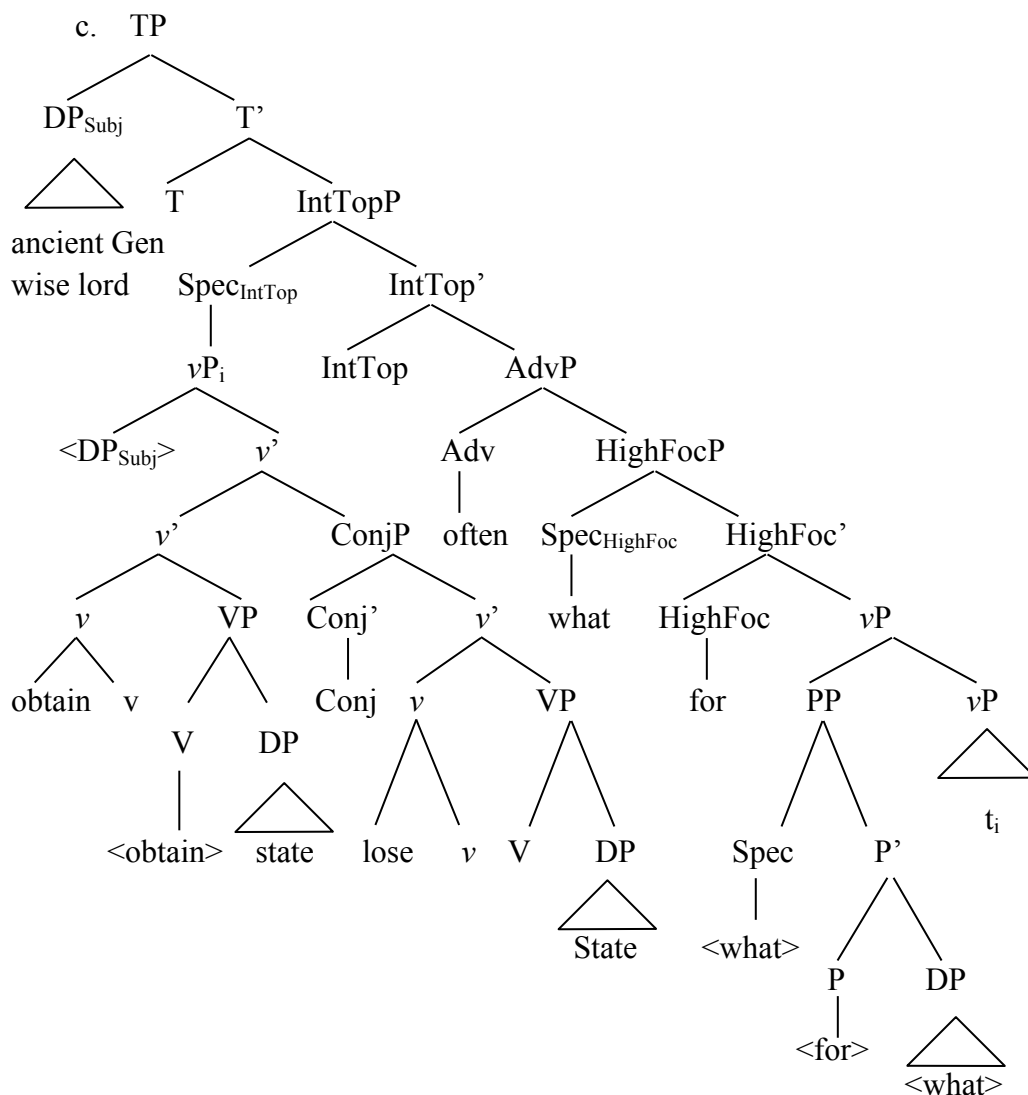
obtain state lose state often what for

‘(I) want to know often for what did wise lords of ancient times obtain and lose states.’

---

<sup>109</sup> In the embedded clause, *he yi* ‘what for’ is a reason adverbial, so it fronts to the High focus position. Since VP-fronting targets a position between the subject and the High focus position, it can only be the Internal topic position according to the clausal positions suggested in the template in (326), although the Internal topic position is usually occupied by a *wh*-constituent, instead of a non-*wh* one.





The *wh*-indefinite 何 *he* ‘what’ in 無何有 *wu he you* (354) has no quantificational force; as a variable, it has to be bound by an operator (Pesetsky 1987). Since *he* ‘what’ in *wu he you* is an NPI whose licensing is feature movement (Guerzoni 2006), it is supposed to be sensitive to the Intervention Effect. As argued by Linebarger (1987), an operator intervening between an NPI and its licenser gives rise to ungrammaticality, as in (354).

(354) a. Mary didn’t wear any earrings to every party.

b. \* NOT >> every >> any

NPI-licensing is in a close relation with intervention in *wh*-questions, and NPI ‘blocking expressions’ largely overlap with interveners identified in *wh*-questions. Two types of the Intervention Effect, LF Intervention Effect on *wh*-in-situ and NPI licensing, can be

analysed by a unified approach: both the licensing of *wh*-in-situ and that of NPIs are focus-sensitive and an intervening element with the [+Focus] feature blocks the licensing (Kim 2002b, Guerzoni 2006). Like in *wh*-questions, an intervention effect concerning NPIs only arises in feature movement, but never in covert phrasal movement. The explanation is natural: feature movement is the syntactic correlate of focus interpretations; a focus interpretation is involved in NPI-licensing (Beck 2006). The verb *you* ‘exist, have’ intervening between the licensor and the licensee (the NPI) in the underlying structure does not carry the matching feature [+Foc], so it does not trigger any special licensing or blocking issue. As for the raising of the *wh*-word *he*, it is caused by obligatory *wh*-preposing in LAC. Despite the presence of a nominal quantifier 無 *wu* ‘not exist; no’ and the prediction that the licensing of the NPI *he* should be sensitive to the Intervention Effect, NPI licensing is still realised. Similarly, in 無何 *wu he* ‘no what’ (‘nothing’) (355b) and 無幾何 *wu jihe* ‘no how many’ (‘not long’) (355c), the binding between the NPI *he/jihe* and their operators should have been blocked by the quantifier *wu* ‘no’, but the Intervention Effect does not arise. Therefore, it can be concluded that quantificational expressions do not introduce the Intervention Effect.

(355) a. 何 不 樹 之 於 無 何 有 之 鄉?  
 He bu shu zhi yu [wu [he<sub>i</sub> you t<sub>i</sub>]] zhi xiang?  
 why not plant it in not.exist what exist Gen place  
 ‘Why don’t you plant it in a place where there isn’t anything?’

(莊子•逍遙遊; Aldridge 2010a: 26)

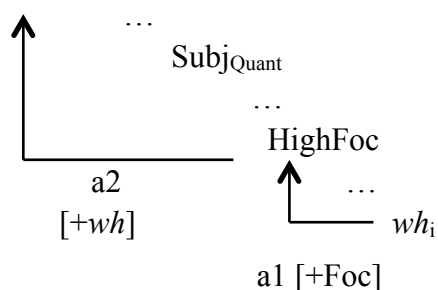
b. 曰: 是 何 也? 曰: 無 何 也! (荀子•天論)  
 Yue: Shi he ye? Yue: Wu he ye!  
 say this what Q say no what Decl  
 ‘(People) asked: “What is this?” I said: “Nothing!”’

c. 無 幾何, 疾 乃 止。 (呂氏春秋•季夏紀)  
 Wu jihe, ji rai zhi.  
 no how.many disease just cease  
 ‘(He) recovered from the disease soon.’ (Lit. ‘Not long, the disease just ceased.’)

In the context of quantificational expressions, if an XP [+*wh*] fronts to a position

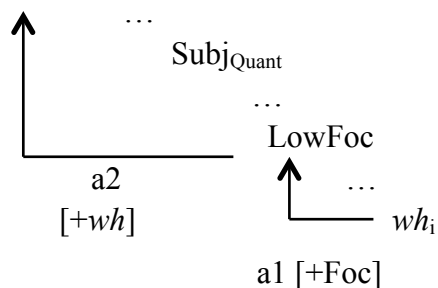
below the quantifier via clause-internal overt movement, the [+wh] feature is then interpreted by feature movement that is subject to the Intervention Effect. For instance, in example (353) due to obligatory *wh*-preposing, a *wh*-phrase moves to a focus position below the quantificational phrase driven by [+Foc] feature and stops there. In available data, it is always the subject that is quantified, and the landing site for the preposed *wh*-phrase is the High or Low focus position (356a/b). I hypothesise that Q is around CP and the quantificational subject intervenes between Q and the *wh*-XP. The fronted *wh* is interpreted via feature movement that is subject to the Intervention Effect. If an XP [+wh] does not front, it is directly interpreted by feature movement, as in (356c).

(356) a.  $Q_i$



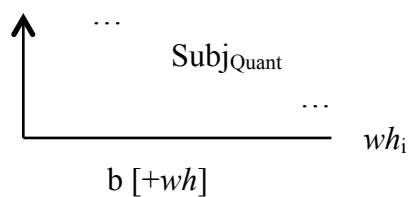
a1: overt phrasal movement; a2: feature movement

b.  $Q_i$



b1: overt phrasal movement; b2: feature movement

c.  $Q_i$



c: feature movement

I postulate that quantificational expressions do not share the same feature with Neg or

*wh*, so different from negation that triggers the Intervention Effect by blocking the Q-binding between *wh* and its operator, quantifiers do not have the Intervention Effect on *wh*-phrases. Since the Q-binding between the *wh*-variable and its Q-operator is not blocked by a quantifier which bears the different feature from *wh*, ungrammaticality does not result in a construction with a quantifier preceding an XP [+*wh*], as in (353).

Alternatively, it is possible that quantifiers do share the same quantificational feature with negation and *wh*, so quantifiers should trigger the Intervention Effect as well, parallel to negation. The reason why quantifiers fail to display the Intervention Effect is that when quantifiers are involved, there is always covert phrasal movement which is not subject to the Intervention Effect. If an XP [+*wh*] is c-commanded by a quantifier and the XP fronts to a higher position (but is still lower than the quantifier), the XP undergoes overt phrasal movement and then covert phrasal movement. If an XP [+*wh*] is c-commanded by a quantifier and the XP stays in situ, the XP only undergoes covert phrasal movement. Since covert phrasal movement is not subject to the Intervention Effect, despite the fact that quantifiers and *wh* share the same feature, quantifiers can intervene between *wh* and Q without triggering ungrammaticality. However, I do not take this option because it is difficult to explain why *wh* feature movement applies to constructions with negation and focus phases, but constructions with quantifiers have to adopt covert phrasal movement.

For the sake of consistency, I state that *wh* in the context of quantifiers undergoes feature movement, similar to its counterpart in the context of negation and foci. Quantifiers fail to trigger the Intervention Effect on *wh* because quantifiers do not have the same feature as *wh*.

## **8.5. Conditions of the Intervention Effect**

In this subchapter I account for the presence/absence of the Intervention Effect in LAC as well as the diachronic asymmetry between LAC and modern Mandarin. I propose three requirements for the Intervention Effect: 1) interrogativity of *wh*-items, 2) the possibility of feature *wh*-movement and 3) a hierarchy of clausal positions. If and only if all three conditions are satisfied, the Intervention Effect can take place, and this applies to both

### 8.5.1. Interrogativity of *Wh*-Constituents

The first condition of the Intervention Effect in LAC is that *wh*-constituents have to be interrogative. In examples (357a-d), *wh*-indefinites follow the negator 無 *wu* ‘not have’ without moving to a preceding position, thus they consequently become NPIs. However, these instances involve obligatory *wh*-in-situ, namely *wh*-constituents acting as the second complement of ditransitive verbs 奈/若/如 *nai/ruo/ru* ‘treat’, so it is difficult to judge which factor circumvents the Intervention Effect: the non-interrogative interpretation, or obligatory *wh*-in-situ, or both. 末 *mo* in (357d) is a negative particle mostly found in the Analects (Pulleyblank 1995). As can be seen from (357e), in an NPI structure, the first complement of the ditransitive verb can move to a higher position preceding negation, so it could be the obligatory *wh*-in-situ of the second argument that prevents the *wh* from fronting.

- (357) a. 孤 無 奈 越 之 先 君 何  
 Gu wu nai [yue zhi xian jun] he  
 I not.have treat Yue Gen former lord what  
 ‘There was nothing I could do about the former lord of Yue.’

(國語•吳語; Aldridge 2010a: 25)

- b. 無 若 政 何。  
 Wu ruo zheng he.  
 not.have treat ordinance what

‘There is nothing (the ruler) can do about the ordinances.’

- c. 亦 無 如 之 何 矣。  
 Yi wu ru zhi he yi.  
 also not.have treat 3.Obj what Perf

‘There is nothing (they) can do about it anymore.’

d. 吾 未 如 之 何 也 已 矣。<sup>110</sup> (論語•衛靈公)

Wu mo [VP ru zhi he] yeyiyi.

I Neg treat 3.Obj what SFP

‘I do not (know) how to treat him then.’

e. 知 其 不 可 奈 何

zhi qi<sub>i</sub> bu ke [VP nai t<sub>i</sub> he]

know 3.Obj not can treat what

而 安 之 若 命 (莊子•人間世)

er an zhi ruo ming

Conj embrace 3.Obj as destiny

‘(they) know there is nothing (they) can do about it, so (they) embrace it as the destiny’

The effect of non-interrogativeness is more self-evident if we take a look at (358a). In this example, an NPI *wh*-word 何 *he* has fronted within an embedded clause, but the licenser is in a higher domain (Aldridge 2010a), so the focalised *wh*-element is still below negation; in other words, the blocking effect does not apply to this *wh*-indefinite. There is no denying the fact that another *wh*-indefinite 誰 *shui* in (358b) does front to a position preceding negation, yet this example is a conditional clause, the properties of which need further investigation. There must be other independent reason(s) that trigger the *wh*-fronting.

(358) a. 何 不 樹 之 於 無 何 有 之 鄉?

He bu shu zhi yu [wu [he<sub>i</sub> you t<sub>i</sub>]] zhi xiang?

why not plant it in not.exist what exist Gen place

‘Why don’t you plant it in a place where there isn’t anything?’

(莊子•逍遙遊; Aldridge 2010a: 26)

<sup>110</sup> This sentence final particle 已 *yi* originated from a verb ‘stop, finish’ (as in (357d)) and later developed into a perfect aspect marker (Pulleyblank 1995: 115). The sentence final particle 也已 矣 *ye yi yi* conveys a sense of resignation, and is used to express the speaker’s subjective mood, i.e. new realisation of a (changed) situation (Yap et al 2010).

- b. 誰 之 不 如, 可以 求 之。  
 Shui<sub>i</sub> zhi bu [<sub>VP</sub> ru ti], keyi qiu zhi.  
 who ZHI not compare can follow 3.Obj  
 ‘If you don’t measure up to someone, you can follow him.’

(國語•晉語六; Aldridge 2010a: 26)

The fact that the Intervention Effect of negation does not apply to *wh*-indefinites is not surprising: the blocking effect in the sense of Beck (1996a) and Beck and Kim (1997) requires a Q-operator and a function variable bound by that Q-operator. When functioning as a polarity item, a *wh*-constituent does not involve Q-binding, so it may occupy a position lower than negation (which is a barrier for an interrogative *wh*-phrase as a function variable), without undergoing further fronting. This explanation also applies to the observation that negation in LAC does not affect a non-*wh*-constituent: a pronominal object may raise to a focalised position below negation, or stay in its VP-internal base position, as in (359a) and (359b) respectively.

- (359) a. 余 不 女 忍 殺 (左傳•昭公元年)  
 yu bu ru<sub>i</sub> ren [<sub>VP</sub> sha ti]  
 I not you bear kill  
 ‘I cannot bear to kill you’
- b. 吾 不 可以 僭 之。 (左傳•哀公五年)  
 Wu bu keyi jian zhi.  
 I not can arrogate 3.Obj  
 ‘I must not arrogate it.’ (Lit. ‘I cannot arrogate it.’)

### 8.5.2. Feature Movement

The second condition of the Intervention Effect is that *wh*-constituents should be permitted to undergo feature movement, instead of being restricted to covert phrasal movement.

Following Beck (2006), I conjecture that *wh*-phrases that are insensitive to interveners undergo covert phrasal movement at LF, past the interveners. In a multiple question (360a), the *wh*-phrase is sensitive to superiority. In the LF for this question (361b), the in situ *wh* moves covertly. As a consequence, inserting a focus intervener does not cause infelicity (360) (Pesetsky 2000, Beck 2006).

(360) a. Who did John introduce to whom?

b.  $[Q_{1,2} [\text{who}_1 [4[\text{whom}_2 [5[\text{did} [\text{John introduce } t_4 \text{ to } t_5]]]]]]]$

(361) a. Who did only John introduce to whom?

b.  $[_Z Q_{1,2} [\text{who}_1 [4[\text{whom}_2 [5[\text{did} [_X \text{ only } _C [\sim C [\text{John}_{F3} \text{ introduce } t_4 \text{ to } t_5]]]]]]]]]$

c.  $[[X]]^g = [[X]]^{g,h} = [[\text{only}]](g(C))(\lambda w. \text{John intro. } g(4) \text{ to } g(5))$

$[[Z]]^g = \{\text{that only john introduced } x \text{ to } y \mid x, y \text{ individuals}\}$

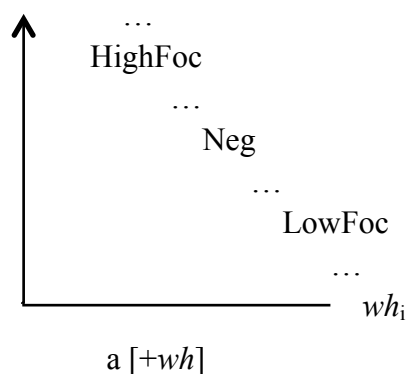
In LAC, if an XP [+*wh*] can front, the fronting is either introduced by clause-internal overt movement, or the [+*wh*] feature is interpreted by feature movement. The latter is subject to the Intervention Effect, yet the former is not subject to the Intervention Effect. If an XP [+*wh*] cannot front, namely, under the situation of obligatory *wh*-in situ, it is interpreted by feature movement.

I hypothesise that Q is around CP and negation intervenes between Q and a *wh*-XP (as in (362)), and there are *wh*-interpretation and focus movement. For feature movement, if a *wh*-XP could move but failed to move, ungrammaticality would arise. The reason is that when feature movement applies, the interpretation of the *wh*-XP is blocked by the Intervention Effect. So a *wh*-phrase that has the option to front will front to a focus position driven by [+Foc] feature, within which *wh* undergoes feature movement to Q, as in (362a). In terms of overt phrasal movement, if a *wh*-phrase moves to a focus position above Neg due to focus feature and stops there, then it is interpreted via feature movement that is subject to the Intervention Effect. In this situation, no ungrammaticality results, as in (362b). However, if a *wh*-XP undergoes overt phrasal movement to a position lower than negation, the example should be bad due to the negation-induced barrier (362c). Consequently, *wh* has to move again to a position above negation and get the interpretation via feature movement (362d). Alternatively, the *wh*-phrase moves directly to a focus position above negation, as in the previously described derivation



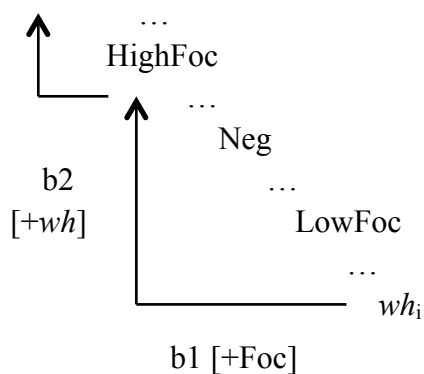
(362d). With respect to examples employing the repair strategy (Kim 2002a, 2006), a *wh*-XP first fronts overtly to a focus position below negation driven by [+Foc] feature. Since in this position the Q-binding is blocked by the intervening negation, the *wh*-XP has to raise overtly again to another focus position above negation, also driven by [+Foc] feature, and this is the repair strategy. After landing in its final position which is the focus position above negation, the *wh*-XP is interpreted by feature movement (362d).

(362) a.  $Q_i$



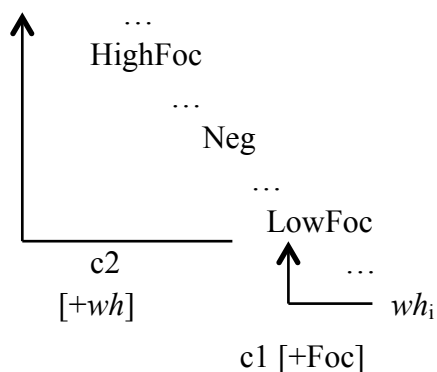
a: feature movement

b.  $Q_i$



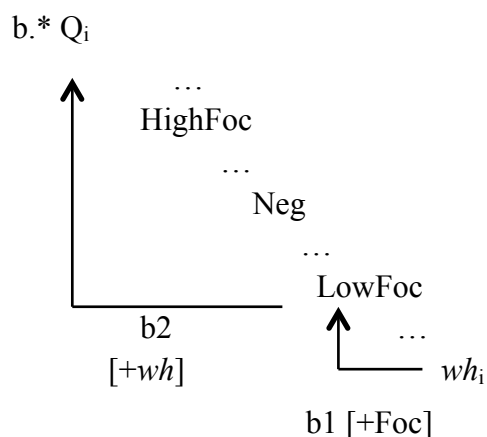
b1: overt phrasal movement; b2: feature movement

c.\*  $Q_i$



c1: overt phrasal movement; c2: feature movement





b1: overt phrasal movement; b2: covert phrasal movement

Although (364) seems to be a counterexample, it involves an NPI construction that is irrelevant to a *wh*-interrogative. Therefore, it is safe to conclude that LAC does not allow \*Neg ... [+wh] structure, hence there is no covert phrasal movement.

(364) 何 不 樹 之 於 無 何 有 之 鄉?  
 He bu shu zhi yu [wu [he<sub>i</sub> you t<sub>i</sub>]] zhi xiang?  
 why not plant it in not.exist what exist Gen place  
 ‘Why don’t you plant it in a place where there isn’t anything?’

(莊子•逍遙遊; Aldridge 2010a: 26)

Following this analysis, I suppose that only a certain type of in-situ *wh*-phrases in LAC, i.e. the second complement of ditransitive verbs, undergo covert phrasal movement at LF, so they are insensitive to the Intervention Effect that is supposed to be triggered by negation. Since these in-situ *wh*-items cannot move, they do not have any focus feature. Other *wh*-phrases however, though being supposed to stay in-situ, undergo overt movement to a position c-commanding negation triggered by blocking negators, so as to circumvent the Intervention Effect.

*Wh*-items that are supposed to stay in-situ yet have undergone obligatory or optional movement in LAC undergo feature movement, thus being sensitive to the Intervention Effect. As discussed previously, LF dependency of *wh*-nominals and *wh*-adverbials cannot cross NIBs, so *wh*-elements move to a position c-commanding the interveners, as in the second clause of (365a) and (365b) respectively. The first clause in (365a)

demonstrates that the *wh*-DP *can* move overtly (and actually, it has to, because of obligatory *wh*-fronting), which is a precondition for its movement past negation in the second clause. This is also the case for *wh*-adverbials that are base-generated under negation. For *wh*-adverbials base-generated preverbally (365b) and postverbally (365c), they can undergo overt movement, and the diagnostic element 獨 *du* ‘alone’ indicates that the landing site is the Low focus position that is below negation. However, if the Q-binding is blocked by a c-commanding negative, the *wh*-adverbial has to raise to a higher landing site above negation, i.e. the High focus position (365d). That is to say, adverbial *wh*-phrases are subject to the blocking effect, analogous to *wh*-nominals. (365e-f) are cited as canonical examples, showing the base position of source adverbials, which is postverbal.

- (365) a. 然則 我 何 爲 乎? 何 不 爲 乎?  
 Ranze wo he<sub>i</sub> [VP wei t<sub>i</sub>] hu? He<sub>j</sub> bu [VP wei t<sub>j</sub>] hu?  
 then I what do Q what not do Q  
 ‘Then what do (I) do? What do (I) not do?’

(莊子•秋水)

- b. 先生 獨 何 以 說 吾 君 乎?  
 Xiansheng du he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP yue wu jun] hu?  
 sir(you) alone what with please my lord Q  
 ‘How did you alone please my lord?’

(莊子•徐無鬼)

- c. 惡 乎 用 之? 用 之 社 也。  
 Wu<sub>i</sub> hu<sub>j</sub> [VP yong zhi] [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>?] [VP Yong zhi] [PP she] ye.  
 where in use 3.Obj use 3.Obj shrine Decl  
 ‘In where (did he) use him? (He) used him in the shrine.’

(公羊傳•僖公十九年)

- d. 夫子 焉 不 學?  
 Fuzi yan<sub>i</sub> bu [VP xue] [PP t'<sub>i</sub> t<sub>i</sub>?]  
 Confucius where not study  
 ‘(From) where does Confucius not study?’

e. 孔子 學 於 老聃、 孟蘇夔、 靖叔。  
 Kongzi [VP xue] [PP yu [Laodan, Meng Sukui, Jingshu]].  
 Confucius study from Laodan Meng Sukui Jingshu  
 ‘Confucius studied from Laodan, Meng Sukui and Jingshu.’

(呂氏春秋•仲春紀)

f. 柏矩 學 于 老聃 (莊子•則陽)  
 Boju [VP xue] [PP yu Laodan]  
 Boju study from Laodan  
 ‘Boju studied from Laodan’

By contrast, as the second complement of ditransitive verbs *nai/ruo/ru*, *wh*-DPs are only allowed to undergo covert phrasal movement, so even if negation is present as a potential barrier for their Q-binding, these *wh*-DPs can (and have to) stay in situ (366a-d) (=357a-d)). As a consequence, the negator, which is supposed to be an intervener, fails to create any blocking effect on its c-commanding in-situ *wh*-items, and these *wh*-DPs do not move across negation in (366). That is to say, the ban of feature movement determines that the configuration \**wh*-Neg-V-DP (derived from Neg-V-DP-*wh*) is never attested.

(366) a. 孤 無 奈 越 之 先 君 何  
 Gu wu nai [yue zhi xian jun] he  
 I not.have treat Yue Gen former lord what  
 ‘There was nothing I could do about the former lord of Yue.’

(國語•吳語; Aldridge 2010a: 25)

b. 無 若 政 何。 (國語•晉語四)  
 Wu ruo zheng he.  
 not.have treat ordinance what  
 ‘There is nothing (the ruler) can do about the ordinances.’

c. 亦 無 如 之 何 矣。 (禮記•大學)  
 Yi wu ru zhi he yi.  
 also not.have treat 3.Obj what Perf  
 ‘There is nothing (they) can do about it anymore.’

d. 吾 未 如 之 何 也 已 矣。 (論語•衛靈公)

Wu mo [VP ru zhi he] yeyiyi.

I Neg treat 3.Obj what SFP

‘I do not (know) how to treat him then.’

Since the obligatory *wh*-in-situ undergone covert phrasal movement circumvents the Intervention Effect of negation in LAC, it seems feasible that *wh*-phrases in (366a-d) could have an interrogative meaning. However, this prediction is not borne out, because the *wh*-items are licensed as NPIs.

In modern Mandarin, there are *wh*-phrases that always stay in-situ and are never subject to the Intervention Effect. I state that such in-situ *wh*-items undergo covert phrasal movement. The counterpart of the ditransitive verb 謂 *wei* ‘call; speak of’ in modern Mandarin is 叫 *jiao* ‘call’. As mentioned earlier, when an interrogative *wh*-phrase functions as the second complement of 謂 *wei* in LAC, it either moves or remains in-situ, depending on whether the first complement moves and whether the second complement is simplex. In (367a-b) the *wh*-word 何 *he* moves to a preverbal position as the second complement, as it is simplex and the first complement has fronted to a preverbal position. In (367c-e) however, the second complement does not move. In (367c-d), although the second complement is a simplex *wh*-phrase *he*, the first complement does not move to a preverbal position, so the second complement cannot move either. In (367e), although the first complement has fronted to a preverbal position, the second complement is a complex *wh*-phrase, so it cannot move. As for *jiao* (the counterpart of *wei* in modern Mandarin), however, its second argument, i.e. the interrogative *wh*-DP, always moves covertly, regardless of whether the first complement moves or not (368b/a), otherwise an infelicitous sentence would be produced (368c).

(367) a. 是 何 謂 也? (左傳•昭公二十九年)

Shi<sub>i</sub> he<sub>j</sub> [VP wei t<sub>i</sub> t<sub>j</sub>] ye?

this what call Decl

‘How (do we) understand these?’ (Lit. ‘What (do we) call these?’)

b. 此 言 何 謂 也? (孟子•滕文公上)

[Ci yan]<sub>i</sub> he<sub>j</sub> [VP wei t<sub>i</sub> t<sub>j</sub>] ye?  
this sentence what call Decl

‘How (do we) understand this sentence?’ (Lit. ‘What (do we) call this sentence?’)

c. 國 謂 君 何? (左傳•僖公十五年)

Guo wei jun he?  
state call lord what

‘How does the state speak of the lord?’ (Lit. ‘What does the state call the lord?’)

d. 吾 獨 謂 先 王 何 乎? (呂氏春秋•季秋紀)

Wu du wei [xian wang] he hu?  
I alone tell former lord what Q

‘What do I alone tell the former lord?’

e. 此 所 謂 何 聲 也? (韓非子•十過)

Ci<sub>i</sub> suo [VP wei t<sub>i</sub> [he sheng]] ye?  
this SUO call what sound Decl

‘What sound (do we) call this?’

(368) a. Zhangsan [VP jiao Lisi shenme]?

Zhangsan call Lisi what

‘What does Zhangsan call Lisi?’

b. Zhangsan Lisi<sub>i</sub> [VP jiao t<sub>i</sub> shenme]?<sup>111</sup>

Zhangsan Lisi call what

‘What does Zhangsan call Lisi?’

c. \* Zhangsan shenme<sub>i</sub> [VP jiao Lisi t<sub>i</sub>]?

Zhangsan what call Lisi

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<sup>111</sup> (368b) sounds more natural with a contrast:

(xxxxvii) Zhangsan Lisi<sub>i</sub> [VP jiao t<sub>i</sub> shenme]? Wangwu<sub>j</sub> [VP jiao t<sub>j</sub> shenme]?

Zhangsan Lisi call what Wangwu call what

‘What does Zhangsan call Lisi? What (does Zhangsan) call Wangwu?’

However, there is no way we can rescue the infelicity of (368c).

Since in modern Mandarin, it is impossible for a *wh*-DP to move overtly as the second object of the ditransitive verb *jiao*, there should not be any intervening effect. This prediction is borne out. As illustrated in (369a-b/c), an interrogative *wh*-in-situ may follow a focus construction or negator, which are expected to be interveners in modern Mandarin and LAC respectively, but neither element produces the blocking effect. In (369a) the subject *Zhangsan* is focalised and in (369b) the object *Lisi* is focalised, but neither focus construction blocks the Q-binding of the second argument *shenme* ‘what’.

(369) a. Lian      Zhangsan      dou      [<sub>VP</sub> jiao      Lisi      shenme]?  
           even      Zhangsan      also      call      Lisi      what  
           ‘What does even Zhangsan call Lisi?’

b. Zhangsan      lian      Lisi<sub>i</sub>      dou      [<sub>VP</sub> jiao      t<sub>i</sub>      shenme]?  
           Zhangsan      even      Lisi      also      call      what  
           ‘What does Zhangsan call even Lisi?’

c. Zhangsan      bu      [<sub>VP</sub> jiao      Lisi      shenme]?  
           Zhangsan      not      call      Lisi      what  
           ‘What does Zhangsan not call Lisi?’

Similarly, in-situ *wh*-phrases in ordinary multiple questions in modern Mandarin also undergo covert phrasal movement at LF, hence being insensitive to focus interveners.

(370) a. Zhangsan      zhidao      shui      zai      nali      mai-le      shenme      ma?  
           Zhangsan      know      who      at      where      buy-Asp      what      Q  
           ‘Does Zhangsan know who bought what (at) where?’

b. Zhangsan      ye      zhidao      shui      zai      nali      mai-le      shenme      ma?  
           Zhangsan      also      know      who      at      where      buy-Asp      what      Q  
           ‘Does Zhangsan, too, know who bought what (at) where?’

c. Lian      Zhangsan      dou      zhidao      shui      zai      nali      mai-le      shenme      ma?  
           even      Zhangsan      also      know      who      at      where      buy-Asp      what      Q  
           ‘Does even Zhangsan know who bought what (at) where?’



- d. Zhiyou Zhangsan zhidao shui zai nali mai-le shenme ma?  
 only Zhangsan know who at where buy-Asp what Q  
 ‘Does only Zhangsan know who bought what (at) where?’

By contrast, another ditransitive verb *gei* ‘give’ in modern Mandarin does not require obligatory *wh*-in-situ and its *wh*-complement may stay in situ or front to a preverbal position (371a/b). So the second argument, an interrogative *wh*-phrase *na-ben shu* ‘which book’, does not undergo covert phrasal movement and is subject to the Intervention Effect of focus. If the first complement of the ditransitive verb is focalised and fronts to a preverbal position, the Q-binding of the second complement, the *which*-phrase, is blocked by the focus construction (371c). Therefore, the *wh*-element has to move to a higher position preceding the focus-induced barrier, either in the ‘low IP area’ or in the CP domain (371d/e).

- (371) a. Zhangsan [<sub>VP</sub> gei Lisi [na-ben shu]],  
 Zhangsan give Lisi which-CL book  
 [<sub>VP</sub> gei Wangwu [na-ben shu]]?  
 give Wangwu which-CL book  
 ‘Which book does Zhangsan give Lisi, and which book (does Zhangsan) give Wangwu?’
- b. Zhangsan [na-ben shu]<sub>i</sub> [<sub>VP</sub> gei Lisi t<sub>i</sub>],  
 Zhangsan which-CL book give Lisi  
 [na-ben shu]<sub>i</sub> [<sub>VP</sub> gei Wangwu t<sub>j</sub>]?  
 which-CL book give Wangwu
- c. \* Zhangsan lian Lisi<sub>i</sub> dou [<sub>VP</sub> gei t<sub>i</sub> [na-ben shu]]?  
 Zhangsan even Lisi also give which-CL book
- d. Zhangsan [na-ben shu]<sub>i</sub> lian Lisi dou [<sub>VP</sub> gei t<sub>i</sub>]?  
 Zhangsan which-CL book even Lisi also give  
 ‘Which book does Zhangsan give even Lisi?’
- e. [Na-ben shu]<sub>i</sub> Zhangsan lian Lisi dou [<sub>VP</sub> gei t<sub>i</sub>]?  
 which-CL book Zhangsan even Lisi also give

In terms of moved *wh*-items in LAC, they undergo covert phrasal movement, so they are immune from the Intervention Effect triggered by negation. In (372), despite the presence of a nominal quantifier 無 *wu* ‘not exist; no’ and the prediction that the licensing of the NPI 何 *he* should be sensitive to the Intervention Effect, the moved *wh*-word *he* appears in a position c-commanded by negation. Although *he* has fronted within an embedded clause, the licenser is still in a higher domain and the focalised *wh*-word is still below negation, which means the intervening effect does not apply to this *wh*-item.

(372) 何 不 樹 之 於 無 何 有 之 鄉?  
 He bu shu zhi yu [wu [he; you t<sub>i</sub>]] zhi xiang]?  
 why not plant it in not.exist what exist Gen place  
 ‘Why don’t you plant it in a place where there isn’t anything?’

(莊子•逍遙遊; Aldridge 2010a:26)

To summarise, in LAC, *wh*-phrases that always stay in-situ, i.e. the second complements of ditransitive verbs *nai/ruo/ru* and *wei*, undergo covert phrasal movement, so they are insensitive to the Intervention Effect. Other *wh*-phrases that are supposed to stay in-situ undergo feature movement, thus being subject to the Intervention Effect. Moved *wh*-phrases are parallel to the second argument of *nai/ruo/ru* and *wei*: they undergo covert phrasal movement, hence are not subject to the Intervention Effect.

There is no denying the fact that the absence of the Intervention Effect in (366) may be caused by the non-interrogative interpretation of NPIs that lacks Q-binding; that is to say, there is an overlap between the condition of compatibility with feature movement and that of interrogativity. Furthermore, the value of requiring a possibility of feature movement is doubtful if (372) is taken into consideration. In (372), the NPI *wh*-word obviously undergoes covert phrasal movement, so it has landed in a position c-commanded by the negative barrier. However, the absence of the blocking effect may be alternatively due to the non-interrogativeness of this NPI that does not create Q-binding, so the moved *wh*-word stays below negation without further raising.

To justify the requirement of feature movement without being affected by the condition of interrogativity, I refer to modern Mandarin. A negative preceding a *wh*-DP

in LAC is only permitted to function as a negative operator licensing an NPI, which inevitably involves a non-interrogative interpretation. However, apart from licensing NPIs (373a), a negator in modern Mandarin may alternatively intervene between an interrogative in-situ *wh*-item and its licenser (373b), as negation is not necessarily a barrier for Q-binding in modern Mandarin. So I use the Neg ... XP [+*wh*] configuration (373b) in modern Mandarin to validate the condition of feature movement, excluding the influence of non-interrogativeness. In (373c), *shenme* ‘what’ is c-commanded by a negator *bu*, but it is still interrogative, not licensed as an NPI. At the same time, as the second argument of the ditransitive verb *jiao*, *shenme* must remain in-situ, even if being preceded by a focus expression, otherwise an ungrammatical sentence would be generated (373d). The grammaticality of Focus ... XP [+*wh*] in (373c) indicates that the determining condition of this example is covert phrasal movement, rather than interrogativity.

- (373) a. Zhangsan    bu    jiao    Lisi    shenme.  
           Zhangsan    not    call    Lisi    what  
           ‘Zhangsan does not call Lisi anything.’
- b. Zhangsan    bu    jiao    Lisi    shenme?  
           Zhangsan    not    call    Lisi    what  
           ‘What does Zhangsan not call Lisi?’
- c. Lian    Zhangsan    dou    bu    jiao    Lisi    shenme?  
           even    Zhangsan    also    not    call    Lisi    what  
           ‘What does not even Zhangsan call Lisi?’
- d. \* Shenme<sub>i</sub>    lian    Zhangsan    dou    bu    jiao    Lisi    t<sub>i</sub>?  
           what    even    Zhangsan    also    not    call    Lisi

In LAC, since the obligatory *wh*-in situ prohibits the *wh*-items from moving across negation yet negation is unarguably a barrier, we would expect ungrammaticality in a Neg-V-DP-*wh* construction. Nonetheless, the prediction is not borne out, and Neg-V-DP-*wh* is grammatical (366). Similarly, we would not expect a Foc-V-DP-*wh* structure in modern Mandarin, but it does exist, as in (373a-b).

As can be seen that there are two types of *wh*-in-situ in both LAC and modern

Mandarin: obligatory *wh*-in-situ and optional *wh*-in-situ. The obligatory *wh*-in-situ is strong enough to circumvent the Intervention Effect, yet the optional *wh*-in-situ is not. In LAC, the obligatory *wh*-in-situ, the second complement of ditransitive verbs *nai/ruo/ru* and *wei*, can circumvent the blocking effect of negation, allowing a *wh*-variable to be bound even remaining in situ. In modern Mandarin, likewise, the obligatory *wh*-in-situ, the second complement of the ditransitive verb *jiao*, also blocks the Intervention Effect, so a *wh*-variable does not have to and must not front to an operator position. In contrast to this, the optional *wh*-in-situ is not strong enough to circumvent the blocking effect in LAC or modern Mandarin, as it is only an option, not a requirement. Consequently, the possibility of *wh* staying in situ is suppressed by the presence of negation in LAC (367), and the *wh*-variable should move to the operator position. Likewise, in modern Mandarin, the option of *wh*-in-situ is not able to stop the Intervention Effect of focus, thus an infelicitous sentence is generated in (371c), with a focus barrier intervening between a *wh*-variable and its Q-operator. The hierarchy of these two kinds of *wh*-in-situ and the Intervention Effect in both LAC and modern Mandarin is schematised as follows:

(374) Obligatory *wh*-in-situ > The Intervention Effect > Optional *wh*-in-situ

Stepanov's (2001, 2007) theory not only provides the reason why the second complement of ditransitive verbs must stay in situ, but also accounts for the fact that the second argument of ditransitive verbs is not subject to the Intervention Effect. As discussed in Chapter 7.1.1, the second complement in ditransitive constructions receiving dative inherent Case is not a structural argument, so it is inert. Additionally, since this inherently Case marked DP does not have an uninterpretable feature in its label that enables it to enter the structure by substitution, this *wh*-DP with dative Case has to enter the structure postcyclically by adjunction, hence being subject to the Late Adjunction Hypothesis. That is to say, the inherently Case marked *wh* is transparent and it misses out the cyclic part of the derivation. Due to the transparency of the *wh*-DP, overt movement, as a cyclic dependency, cannot apply to the *wh*-DP. The fact that the *wh*-DP is introduced too late when the dependency begins explains two derivational properties of an inherently Case marked DP, which are always connected with each other: transparency and inertness (Stepanov 2002). Since the second argument of a ditransitive verb is

transparent for syntactic dependencies extending across it and it does not undergo overt movement, it is not subject to the Intervention Effect.

### 8.5.3. Hierarchy of Clausal Positions

The third condition for the Intervention Effect is that the landing sites of overt *wh*-movement fit into a hierarchy of clausal positions, and even an application of the repair strategy never scrambles the relative ordering between topics and foci. *Wh*-fronting targets positions of different features, namely, topic positions and focus positions. Since these positions form a hierarchy in terms of their relative order, it appears that *wh*-fronting always fits into a certain hierarchy. Of course, the fact that *wh*-fronting targets positions with different features is independent of the fact that positions with Topic feature are located higher than those with Focus feature.

I suggest that topic positions are structurally more prominent than focus positions in LAC. First, this assumption can be supported by the comparison of the properties of constituents in these positions, as in Chapter 3. Second, following Hsu's (2008) analysis on object preposing in modern Mandarin, I assume that the relative order between internal topics and (internal) foci applies to LAC as well. Third, there is cross-linguistic evidence that topics are generally higher than foci.

The absence of the Intervention Effect from focus structures has been mentioned previously: focus expressions in LAC do not display the blocking effect. The lack of the Intervention Effect caused by focus coincides with the prediction made by the locality restriction. In (375a-c), the focused constituents are subjects, so in order to circumvent the blocking effect, the *wh*-nominal and *wh*-adverbial have to raise from their base positions to a position preceding the focalised subjects, viz. some position in the clause-external left periphery. Since *wh*-movement in LAC is clause-internal (Aldridge 2006, 2007, 2010a), preposing a *wh*-element to a position above TP is expected to be infeasible. Such a prediction is indeed borne out: the configuration of  $*wh_{\text{Foc}}\text{-[TP...]}$  is never attested in LAC, and the only exception I found is when a predicative *wh*-phrase functions as an external topic (375d-e). Since the complex *wh*-phrase *he zui/he* 'what sin'/'what' (375a/b) and the simplex *wh*-DP *he* 'what' in a predicate with a null

preposition (375c) are all non-D-linked foci, they cannot front to the external topic position in (375d-e). The focus constructions in (375a-c) fail to function as barriers, and they permit *wh*-variables to be bound even remaining in c-commanded positions. The prediction made by the locality restriction is that a *wh*-phrase with [+Focus] feature cannot front to a position preceding a focalised subject; the surface order Foc-*wh* coincides with this prediction.

(375) a. 先 君 何 罪? 其 嗣 亦 何 罪?  
 [Xian jun] [he zui]? [Qi si] yi [he zui]?  
 former lord what sin 3.Gen crown.prince also what sin  
 ‘What sin did the former lord (have)? What sin does his crown prince, too, (have)?’

(左傳•文公七年)

b. 太子 亦 何 如?  
 Taizi yi he<sub>i</sub> [VP ru ti]?  
 crown.prince also what be.like

(韓非子•內儲說下)

‘What is the crown prince, too, like?’

c. 唯 君 所 病 之 何 也?  
 [Wei jun] [suo bing zhi] [PP he] ye  
 WEI Your.Majesty SUO have.disease.of 3.Obj what Decl

‘(For) what is it only Your Majesty who has this disease?’

(莊子•徐無鬼)

d. 何 哉 君 所 謂 逾 者?  
 He<sub>i</sub> zai jun suo wei [yu zhe] ti?  
 what Q Your.Majesty SUO call arrogate ZHE

‘What is the arrogation that Your Majesty meant?’

(孟子•梁惠王下)

e. 何 哉, 爾 所 謂 達 者?  
 He<sub>i</sub> zai, er suo wei [da zhe] ti?  
 what Q you SUO call eminent ZHE

‘What is the eminency that you meant?’

This proposal of locality restriction also coincides with the lack of any blocking effect from quantificational elements. Taking (376a) as an example, the quantifier 皆 *jie* ‘all’ c-commands a *wh*-variable *he* that is raised from its VP-internal base position to a focused position triggered by obligatory *wh*-fronting. If LF *wh*-movement cannot cross this quantifier and the repair strategy needs to be employed, *he* should front to a position structurally even more prominent than this quantified element. Parallel to its counterpart *dou* in modern Mandarin, the quantifier 皆 *jie* ‘all’ in LAC only quantifies an NP to its left (Cheng 1995; Aldridge 2013b).<sup>112</sup> In (376a), the quantifier *jie* is supposed to be subject-oriented, so it immediately follows and quantifies over the (empty) subject, hence situated higher than any focus position. To circumvent the Intervention Effect, *he* has to front to a position preceding *jie* (so neither the higher nor the lower focus position is qualified), but *he* cannot intervene between the subject and the adjoined *jie*, so that means *he* has to target some position above TP. Given the restriction of mere clause-internal movement on non-topical *wh*-constituents, the focused *wh*-word *he* cannot front to the left periphery, so no further *wh*-fronting has happened. As a consequence, this quantificational expression fails to induce any intervening effect. As for in (376b), the focalised position between the subject 古之明主 *gu zhi ming zhu* ‘wise lords of ancient times’ and the quantified structure 常 *chang* ‘often’ is occupied by the fronted VP, so there is no space for the *wh*-word *he*. Consequently, the quantificational expression fails to trigger any blocking effect, and the *wh*-item can stay in a position c-commanded by the quantifier. The proposal of locality restriction predicts that a *wh*-phrase cannot front cross a quantified subject, and this prediction is indeed borne out.

- (376) a. 皆 何 以 稱 人? (公羊傳•桓公十五年)  
 Jie he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] [VP cheng ren]?  
 all what with address person  
 ‘With what do (we) all address those people?’

<sup>112</sup> When and only when the object is a resumptive pronoun linked to a topic, 皆 *jie* quantifies to its right (Harbsmeier 1981).

b. 原 聞 古 之 明 主  
 Yuan wen [gu zhi ming zhu]  
 want hear ancient Gen wise lord  
 得 國 失 國 常 何 以? (韓非子•十過)  
 [VP de guo shi guo]<sub>k</sub> chang he<sub>i</sub> yi<sub>j</sub> [PP t'<sub>i</sub> t<sub>j</sub> t<sub>i</sub>] t<sub>k</sub>?  
 obtain state lose state often what for  
 ‘(I) want to know often for what did wise lords of ancient times obtain and lose states.’

This condition concerning the clausal hierarchy applies to the data in modern Mandarin as well. The presence of the Intervention Effect of focus can be demonstrated by three kinds of focused constituents: arguments, adjuncts and verb doubling constructions.

First, when subjects and goal arguments are focused, the c-commanded *wh*-DPs can move overtly to an operator position. The application of such a repair strategy does not scramble the relative order between positions in the clause-external left periphery or that in the ‘low IP area’. As discussed earlier, LAC normally does not permit *wh*-preposing to the CP area, unless the *wh*-phrases are predicates. Unlike LAC, modern Mandarin allows *wh*-movement to target the CP domain. That is to say, the grammaticality of *wh*<sub>Top</sub>-[TP...] ensures that a *wh*-argument can raise to a position preceding the focused subject. As shown in (377-380) where the subject is focalised by an *also*-phrase, *even*-phrase, *only*-phrase and NPI respectively, the c-commanded *which*-phrase variable raises to an external topic position above TP, preceding the focused subject.

(377) a. ? Lili ye kan-le na-ben shu?

Lili also read-Asp which-CL book

b. Na-ben shu Lili ye kan-le?

which-CL book Lili also read-Asp

‘Which book did Lili, too, read?’

(378) a. ?? Lian Lili ye kan de dong na-ben shu?

even Lili also read DE understand which-CL book



b. Na-ben        shu        *lian*        Lili        *ye*        kan        de        dong?  
 which-CL    book        even        Lili        also        read        DE        understand  
 ‘Which book could even Lili understand?’

(379) a. ?\* *Zhiyou*        Lili        kan-le        na-ben        shu?  
           only        Lili        read-Asp        which-CL        book

b. Na-ben        shu        *zhiyou*        Lili        kan-le?  
 which-CL    book        only        Lili        read-Asp  
 ‘Which book did only Lili read?’

(380) a. \* *Shui*        *ye*        kan        bu        dong        na-ben        shu?  
           Who        also        read        not        understand        which-Cl        book

b. Na-ben        shu        *shui*        *ye*        kan        bu        dong?  
 Which-Cl    book        who        also        read        not        understand  
 ‘Which book could no one understand?’

(From Kim 2002a: 626)

If the *wh*-phrases are not *which*-phrases, hence being non-D-linked foci, they can target either the internal or external position. Unlike LAC, modern Mandarin allows the structure *wh*<sub>Foc</sub>-[TP...]. When the focus *wh*-phrase *shenme* ‘what’ is c-commanded by a focalised subject, *shenme* has to raise to the CP domain and occupy the external focus position (381-384).

(381) a. ? Lili        *ye*        chi-le        shenme?  
           Lili        also        eat-Asp        what

b. Shenme        Lili        *ye*        chi-le?  
           what        Lili        also        eat-Asp  
 ‘What did Lili, too, eat?’

(382) a. ?? *Lian*        Lili        *ye*        chi-le        sheme?  
           even        Lili        also        eat-Asp        what

b. Shenme        *lian*        Lili        *ye*        chi-le?  
           what        even        Lili        also        eat-Asp  
 ‘What did even Lili eat?’

- (383) a. ?\* *Zhiyou* Lili chi-le shenme?  
 only Lili eat-Asp what
- b. Shenme *zhiyou* Lili eat-le?  
 what only Lili read-Asp  
 ‘What did only Lili eat?’
- (384) a. \* *Shui* *ye* bu chi shenme?  
 who also not eat what
- b. Shenme *shui* *ye* bu chi?  
 what who also not eat  
 ‘What did no one eat?’

Beck (2006) reports that *which*-phrases and *wh*-phrases like ‘what’ and ‘who’ do not behave uniformly in the presence of an intervener in modern Mandarin. According to judgements reported to Beck, there is a disagreement on whether examples like (381a) is acceptable. Beck supposes that there is a dialect in modern Chinese in which *which*-phrases are sensitive to the Intervention Effect but *wh*-phrases such as ‘what’ and ‘who’ are not (385) (=319)). In terms of the account for this phenomenon, it is correlated with the fact that *wh*-phrases such as ‘what’ and ‘who’ can undergo covert phrasal movement, yet *which*-phrases cannot. This phenomenon is similar to superiority effects in English that ‘which’ in English cannot move.

- (385) a. % *zhiyou* Lili kan-le shenme?  
 only Lili read-Asp what
- b. ?\* *zhiyou* Lili kan-le na-ben shu?  
 only Lili read-Asp which-Cl book
- c. na-ben shu *zhiyou* Lili kan-le?  
 which-Cl book only Lili read-Asp  
 ‘Which book did only Lili read?’

(From Beck 2006: 27)

According to native speakers' judgements I collected and my own intuition,<sup>113</sup> *wh*-phrases such as 'what' and 'who' are indeed less sensitive to the Intervention Effect compared to *which*-phrases. This observation is particularly obvious in data concerning *ye* 'also': there is no much preferential distinction between '*also ... what*' (381a) and '*what ... also*' (381b), though the latter is slightly preferred by some native speakers. Nonetheless, as can be seen from (380a/379a/378a/377a), the Intervention Effect on *which*-phrases weakens from an NPI/*only*-phrase/*even*-phrase to an *also*-phrase, which causes the consequence that the preferential difference between (377a) and (377b) is expected to be trivial anyway. On the other hand, the judgmental preference between (378a/379a/380a) involving an 'even'-Focus, 'only'-Focus and NPI is more salient. Parallel to data involving *which*-phrases, examples concerning 'what' also display the impact of the Intervention Effect in a more prominent way when the interveners are an 'even'-phrase, 'only'-phrase and NPI (382/383/384). Therefore, I conclude that *wh*-phrases like 'what' are indeed subject to the Intervention Effect of focus, in at least some northern dialects of modern Chinese, including standard Mandarin. Nevertheless, the influence of the Intervention Effect on 'what' might not (always) be as strong as that on *which*-phrases.

In addition, focalised goal arguments also help to prove the importance of the clausal hierarchy. Example (386a) is ungrammatical, as expected, because the Q-binding of the *which*-phrase 'which book' is blocked by a goal argument licensed by a *lian* 'even'-Focus. The D-linked *which*-phrase may front to a preverbal position within the 'low IP area' as an internal topic (386b), or into the CP domain as an external topic (386c); both movements produce felicitous sentences, because both types of topics are located higher than foci.

- (386) a. \* Zhangsan    lian    Lisi<sub>i</sub>    dou    [<sub>VP</sub> gei    t<sub>i</sub>    [na-ben    shu]]?  
           Zhangsan    even    Lisi    also    give    which-CL    book

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<sup>113</sup> There are twenty-seven native speakers of Chinese, including myself, from Beijing and three other provinces in north China.

- b. Zhangsan [na-ben shu]<sub>j</sub> lian Lisi<sub>i</sub> dou [VP gei t<sub>i</sub> t<sub>j</sub>]?  
 Zhangsan which-CL book even Lisi also give  
 ‘Which book does Zhangsan give even to Lisi?’
- c. [Na-ben shu]<sub>j</sub> Zhangsan lian Lisi<sub>i</sub> dou [VP gei t<sub>i</sub> t<sub>j</sub>]?  
 which-CL book Zhangsan even Lisi also give  
 ‘Which book does Zhangsan give even to Lisi?’

When the *wh*-phrase that is c-commanded by a focalised goal argument is a non-D-linked focus, the *wh*-focus should move to an internal (387b) or external focus position (387c), otherwise ungrammaticality results (387a). As can be seen from (387b), when the information focus *shenme* ‘what’ fronts to a position in the clause-internal domain, the sentence with an information focus preceding an ‘even’-focus is felicitous, so I postulate that the position accommodating information foci is structurally more prominent than that for ‘even’ foci.

- (387) a. \* Zhangsan lian Lisi<sub>i</sub> dou [VP gei t<sub>i</sub> shenme]?  
 Zhangsan even Lisi also give what
- b. Zhangsan shenme<sub>j</sub> lian Lisi<sub>i</sub> dou [VP gei t<sub>i</sub> t<sub>j</sub>]?  
 Zhangsan what even Lisi also give  
 ‘What does Zhangsan give even to Lisi?’
- c. Shenme<sub>j</sub> Zhangsan lian Lisi<sub>i</sub> dou [VP gei t<sub>i</sub> t<sub>j</sub>]?  
 what Zhangsan even Lisi also give  
 ‘What does Zhangsan give even to Lisi?’

Second, adjuncts focalised by a cleft *shi ... de* exhibit the intervening effect (388a), and *which*-phrases can move overtly from their base position to the internal/external topic position (388b/c), parallel to those in (388b/c). It is grammatical for a *which*-phrase to occupy a position preceding the focus, in that internal or external topics are located higher than foci.

- (388) a. \* Zhangsan shi zuotian kan de [na-ben shu]?  
 Zhangsan be yesterday read DE which-CL book
- b. Zhangsan [na-ben shu]<sub>i</sub> shi zuotian kan de t<sub>i</sub>?  
 Zhangsan which-CL book be yesterday read DE  
 ‘Which book did Zhangsan read yesterday?’
- c. [Na-ben shu]<sub>i</sub> Zhangsan shi zuotian kan de t<sub>i</sub>?  
 which-CL book Zhangsan be yesterday read DE  
 ‘Which book did Zhangsan read yesterday?’

When the *wh*-phrase is a non-D-linked focus phrase like *shenme* ‘what’, similar to a *which*-phrase, it cannot stay in its base position (389a), but has to raise to the internal/external topic position (389b/c). The grammaticality of (389b) indicates that the information focus ‘what’ is situated in a position higher than the cleft *shi ... de* focus.

- (389) a. \* Zhangsan shi zuotian kan de shenme?  
 Zhangsan be yesterday read DE what
- b. Zhangsan shenme<sub>i</sub> shi zuotian kan de t<sub>i</sub>?  
 Zhangsan what be yesterday read DE  
 ‘What did Zhangsan read yesterday?’
- c. Shenme<sub>i</sub> Zhangsan shi zuotian kan de t<sub>i</sub>?  
 what Zhangsan be yesterday read DE  
 ‘What did Zhangsan read yesterday?’

Third, verb doubling constructions indicate that the application of the repair strategy does not scramble the relative order between foci or that between topics. The structures with verbal foci in (390) and (391) (see below) are referred to as verb doubling *lian ... dou* and verb doubling cleft, which have the same internal syntax as regular *lian ... dou* (semantically equivalent to *even*) and cleft constructions respectively (Cheng and Vicente 2013).

Instances involving the verb doubling *lian ... dou* ‘even’-Focus structure demonstrate that there is a relative order between internal foci, and this order is never scrambled. LF movement of the information focus ‘what’ in (390a) is blocked by the verb doubling

*lian ... dou* construction, so the information focus raises to a higher position (390b/c). The possibility of fronting of the information focus over the ‘even’-Focus in (390b) indicates that in modern Mandarin, an information focus occupies a more prominent position than a verb doubling ‘even’-Focus construction.

- (390) a. \* Zhangsan    *lian*    *kan<sub>Foc</sub>*    *dou*    *bu*    *kan*    *shenme?*  
           Zhangsan    even    read    also    not    read    what
- b. Zhangsan    *shenme<sub>i</sub>*    *lian*    *kan<sub>Foc</sub>*    *dou*    *bu*    *kan*    *t<sub>i</sub>?*  
           Zhangsan    what    even    read    also    not    read
- c. *Shenme<sub>i</sub>*    Zhangsan    *lian*    *kan<sub>Foc</sub>*    *dou*    *bu*    *kan*    *t<sub>i</sub>?*  
           what    Zhangsan    even    read    also    not    read
- ‘As for reading, what does Zhangsan not even read?’

As for verb doubling clefts, they illustrate that external topics in the CP domain observe the clausal hierarchy as well. Verb doubling clefts also act as barriers for LF *wh*-movement, so in-situ *wh*-items cannot stay in their base position (391a). However, although the *which*-phrase moves overtly to the left periphery in both (391c) and (391b), the grammatical/ungrammatical asymmetry between these two examples implies that there is an ordering restriction: a discourse topic (the *which*-phrase) must precede a verbal (contrastive) topic (Cheng and Vicente 2013). This locality constraint accounts for the ungrammaticality of (391b) even if with the *wh*-variable located higher than the intervener.

- (391) a. \* *Kan<sub>Top</sub>*,    Zhangsan    *shi*    *kan-guo<sub>Foc</sub>*    [*na-ben*    *shu*],  
           read    Zhangsan    be    read-Exp    which-CL    book  
           *keshi*<sup>114</sup>    *kan*    *bu*    *dong?*  
           but    read    not    understand

<sup>114</sup> The appending *keshi* (= *danshi*, *buguo* or *raner*) ‘but’ conveys an adversative implicature triggered by verb doubling clefts in modern Mandarin (Cheng and Vicente 2013).

b. \* Kan<sub>Top</sub>, [na-ben shu]<sub>i</sub> Zhangsan shi kan-guo<sub>Foc</sub> t<sub>i</sub>,  
 read which-CL book Zhangsan be read-Exp  
 keshi kan bu dong?  
 but read not understand

c. [Na-ben shu]<sub>i</sub> kan<sub>Top</sub>, Zhangsan shi kan-guo<sub>Foc</sub> t<sub>i</sub>,  
 which-CL book read Zhangsan be read-Exp  
 keshi kan bu dong?  
 but read not understand

‘As for reading, which book did Zhangsan (indeed) read, but not understand?’

Additionally, *wh*-adverbials are also subject to the Intervention Effect of focus in modern Mandarin.

First, *wh*-adverbials are subject to the Intervention Effect triggered by focused direct objects. As an information focus, *weishenme* ‘reason-why’ intervenes between the subject and *vP* in the default order (392a). However, if the direct object of the verb is focalised by a *lian ... dou* ‘even’-Focus that is a barrier for Q-binding and appears in a position preceding *weishenme* (392b), this *wh*-element has to move to an operator position c-commanding the ‘even’-Focus (392c). The grammaticality of (392c) also justifies the relative order as in (386b/389b) that an information focus precedes an ‘even’-Focus.

(392) a. Zhangsan weishenme chi huluobo?  
 Zhangsan why eat carrot  
 ‘Why does Zhangsan eat carrots?’

b. \* Zhangsan lian huluobo<sub>i</sub> dou weishenme [<sub>VP</sub> chi t<sub>i</sub>]?  
 Zhangsa even carrot also why eat

c. Zhangsan weishenme<sub>i</sub> lian huluobo<sub>j</sub> dou t<sub>i</sub> [<sub>VP</sub> chi t<sub>j</sub>]?  
 Zhangsan why even carrot also eat  
 ‘Why does Zhangsan even eat carrots?’

Second, if a goal argument is focused by the *lian ... dou* ‘even’-Focus, the Q-binding between the *wh*-adverbial *weishenme* ‘reason-why’ and its Q-operator is blocked by the

‘even’-Focus. In the canonical order, *weishenme* intervenes between the subject and the ditransitive verb *gei* ‘give’ (393a). If the goal argument is focalised, leaving *weishenme* in its base position following the focus phrase gives rise to an ungrammatical sentence as in (393b). To circumvent the blocking effect, the *wh*-adverbial has to land in a position preceding the focus construction (393c).

- (393) a. Zhangsan weishenme [<sub>VP</sub> gei Lisi [yi-ben shu]]?  
 Zhangsan why give Lisi 1-CL book  
 ‘Why does Zhangsan give Lisi a book?’
- b. \* Zhangsan lian Lisi<sub>i</sub> dou weishenme [<sub>VP</sub> gei t<sub>i</sub> [yi-ben shu]]?  
 Zhangsan even Lisi also why give 1-CL book
- c. Zhangsan weishenme<sub>j</sub> lian Lisi<sub>i</sub> dou t<sub>j</sub> [<sub>VP</sub> gei t<sub>i</sub> [yi-ben shu]]?  
 Zhangsan why even Lisi also give 1-CL book  
 ‘Why does Zhangsan give a book even to Lisi?’

Third, a focused theme argument in a ditransitive construction can impose the Intervention Effect on a *wh*-adverbial. In a canonical sentence (394a), the *wh*-adverbial *weishenme* ‘reason-why’ intervenes between the subject and the negator *bu*. When the theme argument *shu* is focalised by the ‘even’-Focus thus fronting to a position preceding the *wh*-adverbial, the sentence becomes bad (394b). To realise Q-binding between the *wh*-adverbial and its Q-operator, which is blocked by the focus theme argument, the *wh*-adverbial has to move across the focus-induced barrier, as in (394c).

- (394) a. Zhangsan weishenme bu [<sub>VP</sub> gei Lisi shu]?  
 Zhangsan why not give Lisi book  
 ‘Why does Zhangsan not give Lisi books?’
- b. \* Zhangsan lian shu<sub>i</sub> dou weishenme bu [<sub>VP</sub> gei Lisi t<sub>i</sub>]?  
 Zhangsan even book also why not give Lisi
- c. Zhangsan weishenme<sub>j</sub> lian shu<sub>i</sub> dou t<sub>j</sub> bu [<sub>VP</sub> gei Lisi t<sub>i</sub>]?  
 Zhangsan why even book also not give Lisi  
 ‘Why does Zhangsan give not even books to Lisi?’



Therefore, the seemingly paradoxical observation that focus constructions display the Intervention Effect in modern Mandarin but not in LAC may be correlated to locality constraints for *wh*-constituents. In modern Mandarin, *wh*-DPs and *wh*-adverbials moving overtly to higher positions can fit into the hierarchy of clausal positions, whereas those in LAC would scramble the relative order among topics and foci if they raised to a position preceding the focused elements.

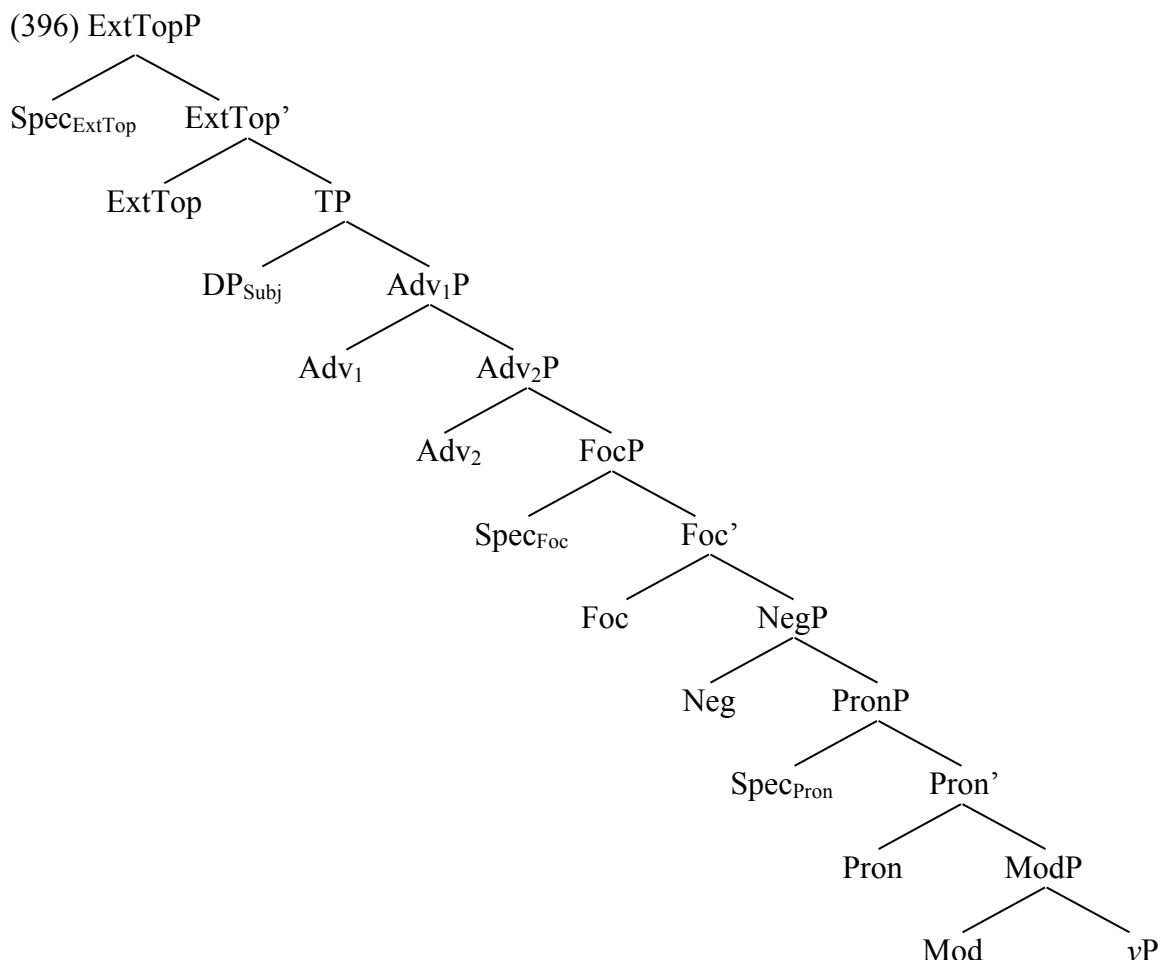
## 9. Conclusion and Remaining Issues

### 9.1. Conclusion

In this thesis I explore the preverbal positioning of *wh*- and non-*wh*-phrases in the left periphery and the medial domain in LAC. Based on the relative ordering of the subject, preposed phrases and negation, I propose a High position, a Low position and a Pronoun position for non-*wh*-fronting. The High focus is located in the CP domain, preceding the subject. The Low position is situated in the ‘low IP area’, intervening between the subject and negation. Fronted non-*wh*-objects in the High position are consistent with a topical interpretation, whereas constituents in the Low position are consistent with a focal interpretation. Therefore, I refer to the High position as the External topic position, and refer to the Low position as the Focus position. Nominal and pronominal objects in LAC appear in both positions, and each position is the specifier of a functional category, optionally followed by a topic/focus marker in the head of the relevant projection. As for the Pronoun position, it exclusively accommodates pronouns fronted to negation. I analyse pronoun fronting in the context of negation, showing the distribution and nature of preposed pronouns. I also demonstrate head-like elements intervening in the medial domain between the subject and *v*P. The clausal positions for non-*wh*-fronting are in (395), and the tree diagram is in (396).

(395) Clausal positions for non-*wh*-fronting

External topic position > Subject > Modal adverbs > Aspectual/temporal adverbs >  
Focus position > Negation > Pronoun position > Root modal verbs > *v*P

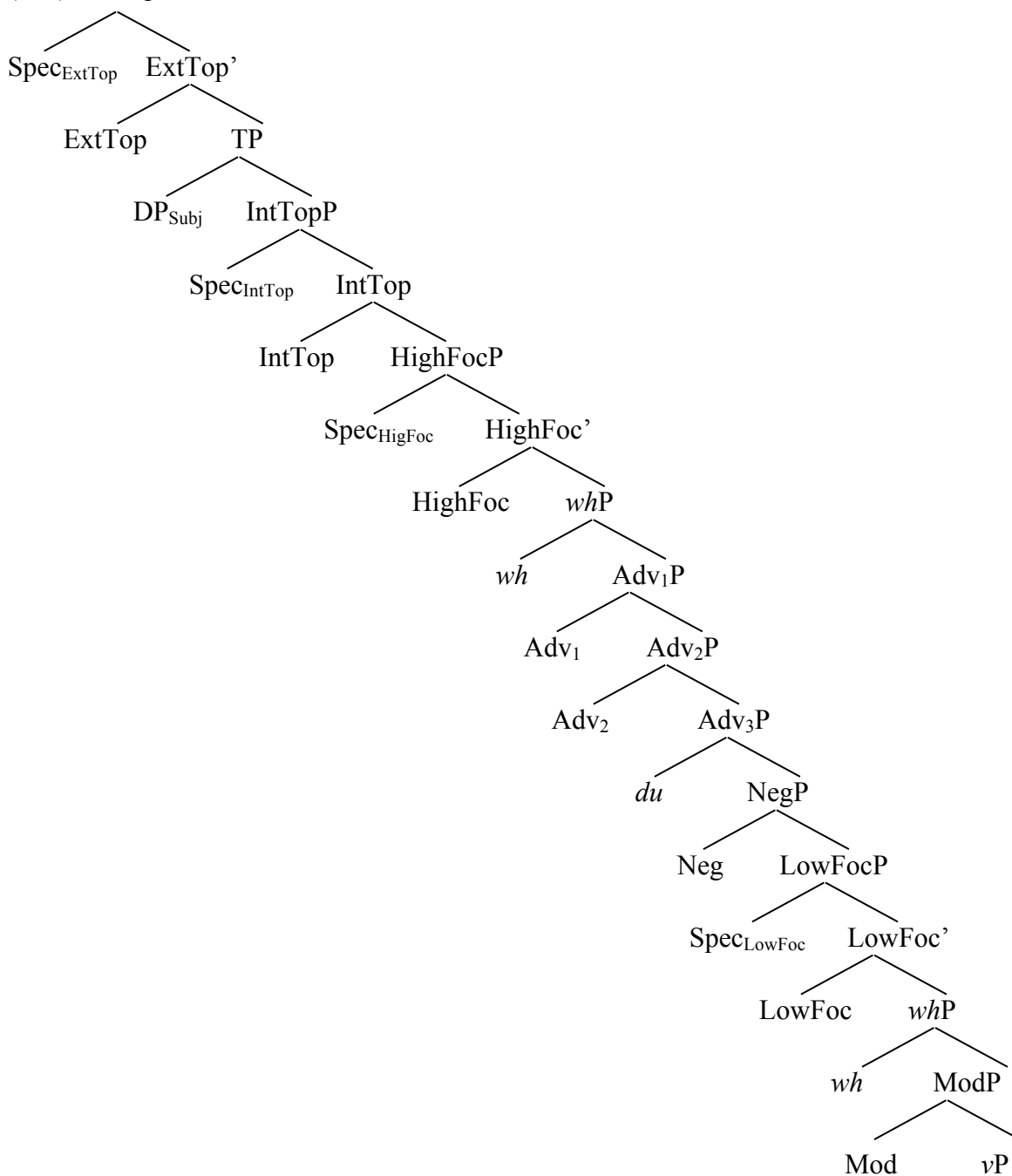


I then discuss *wh*-fronting in LAC. There are altogether four landing sites for *wh*-fronting: the External topic position, the Internal topic position, the High focus position and the Low focus position. The External position is in the left periphery, and other landing sites are in the ‘low IP area’. The Internal topic position precedes the High focus position, and both of them intervene between subject and negation. The Low focus position is below negation and above *v*P. There are two types of *wh*-constituents: VP-internal *wh*-DPs and *wh*-complements of adverbials, which may target an Internal or External topic position or one of the two focalised positions. Clausal positions for *wh*-fronting are in (397-398), including four landing sites, *wh* base positions, medial elements and the key diagnostic element 獨 *du* which always immediately precedes negation.

(397) Clausal positions for *wh*-fronting:

External topic position > Subject > Internal topic position > High focus position > High *wh* base position > Modal adverbs > Aspectual/temporal adverbs > 独 *du* > Negation > Low focus position > Low *wh* base position > Root modal verbs > *vP*

(398) ExtTopP



D-linked *which*-phrases in LAC are topical, therefore they occur in the Internal topic position. With respect to non-D-linked *wh*-DPs, they either land in the High focus

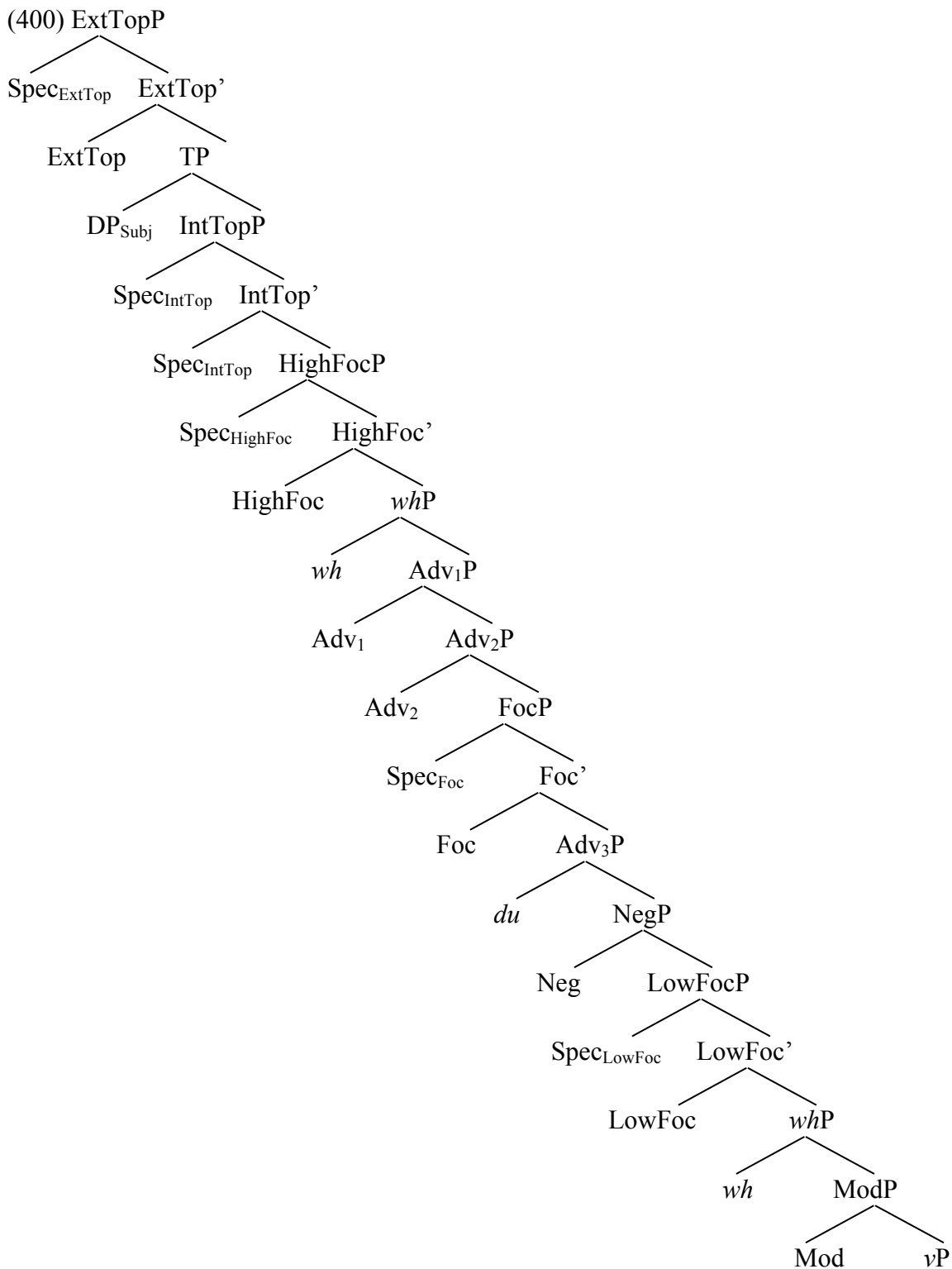
position between the Internal topic position and negation, or the Low focus position between negation and *vP*. The High focus position above negation is expected to exclusively permit *wh*-phrases base-generated in the High base position above negation, viz. *wh*-complements of reason PPs, and the Low focus position below negation accommodates *wh*-adverbials base-generated in the Low base position between negation and *vP*, namely, instrumental PPs and other adjunct PPs. Parallel to those of non-*wh*-phrases, the landing sites of *wh*-items are also the specifier positions of functional projections.

I also analyse the inverted structure of *wh*-P and illustrate that such inverse ordering is generated via PP inversion followed by separate movement of *wh* and P. There are three steps in total. First, *wh* raises to a specifier position within PP. Second, *wh* further moves to the specifier position of a functional projection. Third, the head preposition moves to the head position of the functional projection. If the *wh*-PP is base-generated postverbally and moves to a preverbal position, the preposition has to first incorporate to a  $V^0$ , and then moves to the head of the functional projection through excorporation.

The clausal positions for both *wh*- and non-*wh*-fronting are in (399-400). I posit that the Low focus position for preposed *wh*-phrases and the Pronoun position exclusively for fronted pronouns could be one landing site.

(399) Clausal positions for *wh*- and non-*wh*-fronting:

External topic position > Subject > Internal topic position > High focus position > High *wh* base position > Modal adverbs > Aspectual/temporal adverbs > Focus position > 独 *du* > Negation > Low focus position (=Pronoun position) > Low *wh* base position > Root modal verbs > *vP*



I finally investigate the Intervention Effect. Negation triggers the Intervention Effect in LAC. This observation is different from that on modern Mandarin in which the Intervention Effect is caused by focus expressions. In LAC, both fronted *wh*-phrases, including arguments and adverbials, as well as *wh*-items that have the option to stay in-situ, are subject to the Intervention Effect triggered by negation. As a consequence, these *wh*-phrases have to land in the High focus position above negation which is

expected to accommodate ‘high’ reason adverbials exclusively. I propose that the Intervention Effect in LAC is a consequence of Q-binding as feature movement of [wh], interacting with fronting into the hierarchy of clause-internal positions driven by [Topic] or [Focus] features. Nonetheless, focus or quantificational expressions fail to impose any blocking effect.

## 9.2. Remaining Issues

Of course, there are still remaining issues concerning pronoun fronting in the context of negation: the nature and motivation for pronoun fronting to negation, the fact that a pronoun in an identical environment sometimes undergoes fronting, but sometimes does not, etc.

According to my observation, a pronoun may or may not front in the same environment, and the positional mismatch happens in accusative and dative environments.

First, the same pronoun may or may not front in an accusative environment. As a demonstrative pronoun, 此 *ci* ‘this’ with accusative Case moves to a preverbal position in (401a), whereas it stays in its base position in (401b-c), although also licensed with accusative Case.

(401) a. 此 之 謂 大 惑。 (呂氏春秋·重己)

$Ci_i$  zhi [<sub>VP</sub> wei  $t_i$  [da huó]].

this ZHI call great confusion

‘(People) call this great confusion.’

b. 未 有 此 也。 (國語·晉語一)

Wei you ci ye.

not.yet have this Nmlz

‘There has not been this.’

- c. 臧孫 之 罪 皆 不 及 此。 (左傳•襄公二十三年)  
 Zangsun zhi zui jie bu ji ci.  
 Zangsun Gen sin all not reach this  
 ‘Zangsun’s sin was not even this.’ (Lit. ‘Zangsun’s sin did not all reach this.’)

It is also the case for personal pronouns. In (402a/b), the same animate personal pronoun appearing in an accusative environment may either front or remain in situ. The third person accusative pronoun 之 *zhi* with accusative Case in (402a) is base-generated postverbally and it fronts to a preverbal position. The same pronoun *zhi* in (401b), however, remains in its postverbal base position. Similarly, the mismatch between (402c) and (402d) indicates that an identical inanimate personal pronoun in the same accusative environment shows positional discrepancy. The graph 之 *zhi* in (402a-b) is animate, yet it acts as an inanimate person personal pronoun in (402c-d). *Zhi* in both (402c) and (402d) is base-generated after a verb, but it undergoes fronting in the former yet stays in situ in the latter.

- (402) a. 越 王 未 之 聽。 (呂氏春秋•季秋紀)  
 Yue wang wei zhi<sub>i</sub> [VP ting t<sub>i</sub>].  
 Yue emperor not.yet 3.Obj listen.to  
 ‘The Emperor of Yue did not listen to him.’
- b. 歸 之, 未 絕 之 也。 (左傳•僖公三年)  
 Gui zhi, wei jue zhi ye.  
 send.home 3.Obj not.yet break.up.with 3.Obj Nmlz  
 ‘(The emperor) sent her home, (but) has not broken up with her.’
- c. 則 必 不 之 賴。 (呂氏春秋•離俗覽)  
 Ze bi bu zhi<sub>i</sub> [VP lai t<sub>i</sub>].  
 then must not 3.Obj rely.on  
 ‘Then (they) must not reply on it.’
- d. 猶 未 知 之 也 (國語•晉語四)  
 you wei zhi zhi ye  
 still not.yet know 3.Obj Nmlz  
 ‘(you) still have not known it’



Second, the same pronoun may or may not front in a dative environment. A pronominal DP complement of a preposition may either move or remain in situ despite the same dative environment. In (403a-c), the pronoun 之 *zhi* is selected by a head preposition ‘with’. *Zhi* stays in its base position in (403a-b), but fronts to a position preceding the preposition in (403c). (403d) involving another preposition 與 *yu* ‘than’ also shows that when the pronoun *zhi* functions as a prepositional complement, it does not necessarily stay in situ, as in (403a-b).

- (403) a. 以 之 事 主 則 不 忠 (管子•形勢)  
 [PP Yi zhi] shi zhu ze bu zhong  
 with 3.Obj serve lord Conj not loyal  
 ‘Serving the lord with it, then (it is) disloyal’
- b. 而 不 與 之 言 (論語•衛靈公)  
 er bu [PP yu zhi] yan  
 Conj not with 3.Obj converse  
 ‘but (you) do not converse with him’
- c. 未 之 能 以 服 ...  
 wei zhi<sub>i</sub> neng [VP [PP t’<sub>i</sub> yi t<sub>i</sub>] fu] ...  
 not.yet 3.Obj can with dress.up  
 未 之 能 以 出 (公羊傳•昭公二十五年)  
 wei zhi<sub>j</sub> neng [VP [PP t’<sub>j</sub> yi t<sub>j</sub>] chu]  
 not.yet 3.Obj can with present  
 ‘(I) have not been able to dress up with it ... (I) have not been able to present (sacrifices) with it’
- d. 八 世 之 後, 莫 之 與 京。  
 Ba shi zhi hou, mo [PP zhi<sub>i</sub> yu t<sub>i</sub>] jing.  
 8 generation Gen after none 3.Obj than great  
 ‘After eight generations, there will be no one greater than him.’  
 (左傳•莊公二十二年)

Similarly, when a pronoun is licensed with dative Case, it may front to a higher position preceding the preposition or stay in situ. (404a-c) involve a first person singular pronoun

我 *wo/吾 wu* receiving dative Case. Even in the same dative environment, the first person pronoun stays in its base position following a preposition or a ditransitive verb 予 *yu* ‘give’ in (404a/b), but raises to a higher position preceding the same ditransitive verb *yu* in (404c).

(404) a. 制 不 在 我。 (國語•晉語二)

Zhi bu zai wo.

control not be.in me

‘The control is not within me.’

b. 必 不 予 我 矣。 (國語•齊語)

Bi bu yu wo yi.

must not give me Perf

‘(He) must not give (him) to me anymore.’

c. 彼 知 吾 將 用 之，

Bi zhi wu jiang yong zhi,

3.Subj know I will employ 3.Obj

必 不 吾 予 也。

(管子•小匡)

bi bu wu<sub>i</sub> [VP yu [PP t<sub>i</sub> t’<sub>i</sub>]] ye.

must not me give Decl

‘(If) he knows I will employ him, (he) must not give (him to) me.’

Furthermore, there are remaining issues concerning *wh*-elements for future research such as: limited possibilities of *wh*-in-situ, the motivation for *wh*-fronting/in-situ, the presence of the Intervention Effect triggered by foci on nominal but not adverbial *wh*-phrases in modern Mandarin, the presence of the Intervention Effect triggered by negation on temporal but not locative *wh*-adverbials in modern Mandarin, and the presence/absence of the Intervention Effect of negation in LAC compared to modern Mandarin. These issues should be investigated in future research.

## Appendix

### Primary Sources

*CCL Corpus* [Electronic Corpus of Chinese Texts]

[http://ccl.pku.edu.cn:8080/ccl\\_corpus/](http://ccl.pku.edu.cn:8080/ccl_corpus/)

Center for Chinese Linguistics, Peking University, Beijing, China

*Hanji Dianzi Wenxian* [Electronic Corpus of Chinese Texts]

<http://hanji.sinica.edu.tw>

Institute of Linguistics, Academic Sinica, Taipei, Taiwan

*The Sheffield Corpus of Chinese* [Electronic Corpus of Chinese Texts]

<http://www.hrionline.ac.uk/scc/db/scc/index.jsp>

The University of Sheffield, Sheffield, UK

## **Abbreviations**

ATI: Anti-Topic Item

CED: Condition on Extraction Domain

ECM: exceptional case marking

ECP: Empty Category Principle

FM: fronting marker

Foc: focus

HMC: Head Movement Constraint

IdentF: identificational focus

LAC: Late Archaic Chinese

LCA: Linear Correspondence Axiom

LF: Logical Form

Neg: negation

NIB: Negation Induced Barrier

NPI: negative polarity item

Quant: quantificational

Top: topic

## References

- Aissen, Judith. 1996. Pied-Piping, Abstract Agreement, and Functional Projections in Tzotzil. *Natural Language and Linguistic Theory* 14: 447–491.
- Aldridge, Edith. 2006. VP-internal Quantification in Old Chinese. In *Chinese Linguistics in Budapest*, ed. R. Djamouri and R. Sybesma, 1–15. Paris: Ecole des Hautes Etudes en Sciences Sociales, Centre de Recherches Linguistiques sur l'Asie Orientale.
- Aldridge, Edith. 2007. *Wh*-indefinites and their Relation to *Wh*-in-Situ. In *Proceedings of the 43rd Meeting of the Chicago Linguistics Society*, vol. 2, ed. M. Elliott, J. Kirby, O. Sawada, E. Staraki and S. Yoon, 139–153.
- Aldridge, Edith. 2009. The Old Chinese Determiner *zhe*. In *Historical Syntax and Linguistic Theory*, ed. P. Crisma and G. Longobardi, 233–248. New York: Oxford University Press.
- Aldridge, Edith. 2010a. Clause-internal *Wh*-movement in Archaic Chinese. *Journal of East Asian Linguistics* 19: 1–36.
- Aldridge, Edith. 2010b. Clitic Climbing in Archaic Chinese: Evidence for the Movement Analysis of Control. In *Movement Theory of Control*, eds. N. Hornstein and M. Polinsky, 149–181. Amsterdam: John Benjamins Publishing Company.
- Aldridge, Edith. 2011a. Neg-to-Q: The Historical origin and development of question particles in Chinese. In *The Linguistic Review* 28.4, ed. T. Biberauer and G. Newton, 411–447.
- Aldridge, Edith. 2011b. Relativization and DP Structure in Old Chinese. Unpublished manuscript.
- Aldridge, Edith. 2011c. ECM and Control in Archaic Chinese. Unpublished manuscript.
- Aldridge, Edith. 2012a. Focus and Archaic Chinese Word Order. In *The Proceedings of the 22nd North American Conference of Chinese Linguistics (NACCL-22) and the 18<sup>th</sup> Annual Meeting of the International Association of Chinese Linguistics (IACL-18)*, vol. 2, ed. L. E. Clemens and C-M. L. Liu, 84–101.
- Aldridge, Edith. 2012b. PPs and Applicatives in Late Archaic Chinese. *Studies in Chinese Linguistics* 33: 139–164.

- Aldridge, Edith. 2013a. Survey of Chinese Historical Syntax: Pre-Archaic and Archaic Chinese. *Language and Linguistics Compass* 7: 58–77.
- Aldridge, Edith. 2013b. Object Relative Clauses in Archaic Chinese. *Canadian Journal of Linguistics* 58.2: 239-265 (Special issue on relative clauses, ed. M. McGinnis).
- Aldridge, Edith. 2015a. *Wh*-questions, premodern. *Encyclopedia of Chinese Language and Linguistics*, ed. Rint Sybesma. Brill Online.
- Aldridge, Edith. 2015b. Pronominal Object Shift in Archaic Chinese. In *Syntax over Time: Lexical, morphological and information-structural interactions*, eds. Theresa Biberauer and George Walkden, 350–370. Oxford University Press.
- Aoun, Joseph, and Y.-H. Audrey Li. 1993a. *Wh*-elements in situ: Syntax or LF?. *Linguistic Inquiry* 24: 199–238.
- Aoun, Joseph, and Y.-H. Audrey Li. 1993b. *Syntax of scope*. Cambridge, MA: MIT Press.
- Aoun, Joseph, and Y.-H. Audrey Li. 2003. *Essays on the representational and derivational nature of grammar: The diversity of wh-constructions*. Cambridge, MA: MIT Press.
- Bach, Emmon. 1979. Control in Montague Grammar. *Linguistic Inquiry* 10, 515–531.
- Baker, Mark C. 1988. *Incorporation: a theory of grammatical function changing*. Chicago: University of Chicago Press.
- Baxter, William H. 1992. *A Handbook of Old Chinese Phonology*. Berlin: Mouton de Gruyter.
- Beck, Sigrid. 1996a. Quantified structures as barriers for LF movement. *Natural Language Semantics* 4: 1–56.
- Beck, Sigrid. 1996b. *Wh*-constructions and transparent Logical Form. Ph.D. dissertation, Universität Tübingen.
- Beck, Sigrid, and Shin-Sook Kim. 1997. On *wh*- and Operator Scope in Korean. *Journal of East Asian Linguistics* 6: 339–384.
- Beck, Sigrid. 2006. Intervention effects follow from focus interpretation. *Natural Language Semantics* 14: 1–56.
- Benincà, Paola, and Cecilia Poletto. 2004. Topic, Focus, and V2. In *The Structure of CP and IP. The Cartography of Syntactic Structures, Vol.2*, ed. Luigi Rizzi, 52–75. Oxford: Oxford University Press.

- Chafe, Wallace. 1976. Givenness, Contrastiveness, Definiteness, Subjects, Topics, and Point of View. In *Subject and Topic*, ed. Charles N. Li, 25–55. New York: Academic Press.
- Chang, Jung-hsing. 2006. The Chinese copula *shi* and its origin: a cognitive-based approach. *Taiwan Journal of Linguistics* 4.1: 131–56.
- Chao, Yuen Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.
- Chappell, Hilary and Alain Peyraube. 2007. The diachronic syntax of ditransitive constructions from Archaic Chinese to early Southern Min (Sinitic). Paper presented at the Conference on Ditransitive Constructions, Max Planck Institute for Evolutionary Anthropology, Leipzig (Germany), 23–25 November 2007.
- Cheng, Lisa Lai-Shen. 1991. *On the typology of wh-questions*. Ph.D. dissertation, MIT.
- Cheng, Lisa Lai-Shen. 2009. *Wh-in-situ, from the 1980s to Now*. *Language and Linguistics Compass* 3/3: 767–791.
- Cheng, Lisa Lai-Shen and C. T. James Huang. 1996. Two types of donkey sentences. *Natural Language Semantics*, Volume 4, Issue 2: 121–163.
- Cheung, Candice Chi-Hang. 2013. *Wh-fronting and the left periphery in Mandarin*. *Journal of East Asian Linguistics*. doi: 10.1007/s10831-013-9112-4
- Chomsky, Noam. 1986. *Barriers*. Cambridge, Ms.: MIT.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, eds. R. Martin, D. Michaels, and J. Uriagereka, 89–155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001a. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2001b. *Beyond explanatory adequacy*. Ms.: MIT.
- Chomsky, Noam and Howard Lasnik. 1991. Principles and Parameters Theory. In *Syntax: An International Handbook of Contemporary Research*, eds. J. Jacobs, A. van Stechow, W. Sternefeld, and T. Vennemann, Berlin: Walter de Gruyter.
- Djamouri, Redouane. 2000. Preverbal Position of the Pronominal Object in Archaic Chinese. Paper presented at the 9<sup>th</sup> International Conference on Chinese Linguistics, The National University of Singapore.
- Djamouri, Redouane. 2001. Markers of predication in Shang bone inscriptions. In

*Synchronic and Diachronic Perspectives of the Grammar of Sinitic Languages*, ed. H. Chappell, 143–171. Oxford: Oxford University Press.

Djamouri, Redouane. 2009. Cong jiagu, jinwen kan ‘yi’ yufahua de guocheng [Development of ‘yi’ in the oracle bones and bronze inscriptions]. *Zhongguo Yuwen* [Studies of the Chinese Language], 328 (1): 3–9.

Djamouri, Redouane, and Waltraud Paul. 2009. Verb-to-preposition reanalysis in Chinese. In *Historical syntax and linguistic theory*, ed. P. Crisma and G. Longobardi, 194–211. Oxford: Oxford University Press.

Djamouri, Redouane, Waltraud Paul, and John Whitman. 2012. Syntactic change in Chinese and the argument-adjunct asymmetry. In *Breaking down the barriers: Interdisciplinary studies in Chinese linguistics and beyond*, ed. G. Cao, H. Chappell, R. Djamouri and T. Wiebusch, 577–594. Taipei: Academia Sinica.

É. Kiss, Katalin. 1998. Identificational focus versus information focus. *Language* 74 (2): 245–273.

Feng, Shengli. 1996. Prosodically constrained syntactic changes in Early Archaic Chinese. *Journal of East Asian Linguistics* 5: 323–371.

Feng, Shengli. 2015. Prosodically Constrained Localizers in Classical and Modern Chinese. In *Space and Quantification in Languages of China*, ed. D. Xu and J. Fu, 17–35. DOI: 10.1007/978-3-319-10040-1.

Fu, Jingqi. 1994. *SOV word order in Chinese and IP specifier*. Dissertation presented at NACCL-6. University of South California.

Fuller, Michael A. 1999. *An Introduction to Literary Chinese*. Cambridge: Harvard University Press.

Guerzoni, Elena. 2006. Intervention effects on NPIs and feature movement: towards a unified account of intervention. *Natural Language Semantics* 14: 359–398.

Guo, Xiliang. 1998. Jieci ‘yi’ de qiyuan he fazhan [Origin and development of ‘yi’]. *Guhanyu Yanjiu* [Research in Ancient Chinese] 38(1): 1–5.

Hagstrom, Paul. 1998. *Decomposing Questions*. Ph.D. dissertation, Massachusetts Institute of Technology.

Hale, Mark. 1998. Diachronic syntax. *Syntax* 1,1: 1–18.

Hale, Mark. 2007. *Historical linguistics: Theory and method*. Oxford: Blackwell.



- Hamblin, Charles Leonard. 1973. Questions in Montague English. *Foundations of Language* 10: 41–53.
- He, Leshi. 1989. *Zuozhuan Xuci Yanjiu* [Functional Categories in the *Zuozhuan*]. Beijing: Commercial Press.
- He, Leshi. 1992. *Shiji yufa tedian yanjiu* [Grammatical characteristics in the *Shiji*]. In *Liang Han Hanyu Yanjiu* [Chinese of the Two Han Periods], ed. Xiangqing Cheng, 1–261. Jinan: Shandong Education Press.
- Herforth, Derek. 2008. Working out basic patterns in Classical Chinese syntax: Further data on the benefactive ditransitive in Late Zhou. In *Proceedings of the 20th North American Conference on Chinese Linguistics (NACCL-20)*, Volume 1, eds. Marjorie K.M. Chan and Hana Kang, 455–471. Columbus, Ohio: The Ohio State University.
- Hou, John. Y.-Y. 1979. Grammatical Relations in Chinese. Ph.D. dissertation, University of Southern California.
- Hsu, Yu-Yin. 2008. The Sentence-Internal Topic and Focus in Chinese. In *Proceedings of the 20th North American Conference on Chinese Linguistics (NACCL-20)*, ed. M. K. M. Chan and H. Kang, 635–652. Columbus: Ohio State University.
- Huang, C.-T. James. 1982a. *Logical Relations in Chinese and the Theory of Grammar*. Ph.D. dissertation, MIT.
- Huang, C.-T. James. 1982b. Move *wh* in a language without *wh*-movement. *Linguistic Review* 1: 369-416.
- Huang, C.-T. James. 1988. *Wo pao de kuai* and Chinese phrase structure. *Language* 64: 274–311.
- Huang, C.-T. James. 1992. Complex predicates in control. In *Control and grammar*, ed. Richard Larson, Utpal Lahiri, Sabine Iatridou, and James Higginbotham, 109–147. Dordrecht: Kluwer Academic Publishers.
- Huang, C.-T. James. 1994. Logical Form. In *Government and Binding Theory and the Minimalist Program*, ed. G. Webelhuth, 127–175. Oxford: Blackwell.
- Huang, C.-T. James. 2009a. *Between Syntax and Semantics*. New York: Taylor and Francis.
- Huang, C.-T. James. 2009b. Lexical Decomposition, Silent Categories, and the Localizer Phrase. *Yuyanxue Luncong* 39: 86–122.

- Huang, C.-T. James, Y.-H. Audrey Li and Yafei Li. 2009. *The Syntax of Chinese*. New York: Cambridge University Press.
- Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge, MA: MIT Press.
- Karlgren, Bernhard. 1923. *Analytic Dictionary of Chinese and Sino-Japanese*. Paris: Geuthner.
- Kayne, Richard. 1983. Connectedness. *Linguistic Inquiry* 14: 223–249.
- Kayne, Richard. 1994. *The antisymmetry of syntax*. Cambridge, MA: MIT Press.
- Kim, Shin-Sook. 2002a. Intervention Effects Are Focus Effects. In *Japanese/Korean Linguistics* 10, ed. N. Akatsuka and S. Strauss, 615–628. Stanford: Center for the Study of Language and Information.
- Kim, Shin-Sook. 2002b. Focus Matters: Two Types of Intervention Effect. Paper presented at *WCCFL 21*, Santa Cruz.
- Kim, Shin-Sook. 2006. Intervention Effects in Questions. Ph.D. dissertation, University of Frankfurt.
- Labov, William. 1972. *Sociolinguistic patterns*. Philadelphia: University of Pennsylvania Press.
- LaPolla, Randy. 1993. On the Change to Verb-Medial Word Order in Proto-Chinese: Evidence from Tibeto-Burman. In *Current Issues in Sino-Tibetan Linguistics*, ed. H. Kitamura, T. Nishida and Y. Nagano, 98–104. Osaka: National Museum of Ethnology.
- Lema, José and Maria-Luisa Rivero. 1989. Inverted Conjugations and Verb-second Effects in Romance. In *Theoretical Analyses in Contemporary Romance Linguistics*, eds. C. Laeufer and T. Morgan, 311–328. Amsterdam: John Benjamins.
- Lema, José and Maria-Luisa Rivero. 1990. Long head-movement: ECP vs. HMC. *Proceedings of NELS 20*, 333–347.
- Lema, José and Maria-Luisa Rivero. 1991. Types of verbal movement in Old Spanish: modals, futures and perfects. *Probus* 3: 237–278.
- Li, Charles N. and Sandra A. Thompson. 1974. Co-verbs in Mandarin Chinese: Verbs or Prepositions?. *Journal of Chinese Linguistics* 2.3: 257–278.
- Li, Y.-H. Audrey. 1992. Indefinite *wh* in Mandarin Chinese. *Journal of East Asia*

- Linguistics* 1: 125–156.
- Light, Timothy. 1979. Word order and word order change in Mandarin Chinese. *Journal of Chinese Linguistics* 7: 149–180.
- Lin, Tzong-Hong Jonah. 2001. *Light verb syntax and the theory of phrase structure*. Ph.D. Dissertation, University of California.
- Lin, Tzong-Hong Jonah. 2009. Parameterizing complementation. *UST Working Papers in Linguistics* 5: 89–105.
- Lin, Tzong-Hong Jonah. 2011. Finiteness of Clauses and Raising of Arguments in Mandarin Chinese. *Syntax* 14:1: 48–73.
- Lin, Jo-Wang and Tang, Jane. 1995. Modals as verbs in Chinese: A GB perspective. *Bulletin of the Institute of History and Philology Academia Sinica* 66:53–105.
- Linebarger, Marcia. 1987. Negative polarity and grammatical representation. *Linguistics and Philosophy* 10: 325–387.
- Longobardi, Giuseppe. 1985. Connectedness and island constraints. In *Grammatical representation*, eds. J. Gueron, H.-G. Obenauer and J.-Y. Pollock, 169–185. Dordrecht: Foris.
- Matushansky, Ora. 2006. Head Movement in Linguistic Theory. *Linguistic Inquiry* 37. 1: 69–109.
- McGinnis, Martha. 1998. Locality in A-movement. Ph.D. Dissertation, MIT.
- Meisterernst, Barbara. 2006. Negation and the causative verb shi in Han period Chinese. *Bulletin of the School of Oriental and African Studies, University of London* 69. 3: 433–455.
- Meisterernst, Barbara. 2008a. Modal verbs in Han period Chinese Part I: The syntax and semantics of kě 可 and kě yǐ 可以. *Cahiers de Linguistique–Asie Orientale* 37(1): 85–120.
- Meisterernst, Barbara. 2008b. Modal verbs in Han period Chinese Part II: Negative Markers in combination with the modal auxiliary verbs kě 可 and kěyǐ 可以. *Cahiers de Linguistique–Asie Orientale* 37(2): 197–222.
- Meisterernst, Barbara. 2010. Object Preposing in Classical and pre-Medieval Chinese. *Journal of East Asian Linguistics* 19: 75–102.
- Meisterernst, Barbara. 2011. From obligation to future? A diachronic sketch of the syntax

and the semantics of the auxiliary verb *dāng* 當. *Cahiers de Linguistique Asie Orientale* 40. 2: 137–188.

Meisterernst, Barbara. 2013. A Syntactic Analysis of Modal *bi* 必: Auxiliary Verb or Adverb? In *Breaking Down the Barriers: Interdisciplinary Studies in Chinese Linguistics and Beyond*, ed. G. Cao, H. Chappell, R. Djamouri and T. Wiebusch, 425–449. Taipei: Academia Sinica.

Neeleman, Ad, Elena Titov, Hans Van de Koot, and Reiko Vermeulen. 2009. A Syntactic Typology of Topic, Focus and Contrast. *Alternatives to Cartography*, ed. Jeroen van Craenenbroeck: 15–52. Berlin: Mouton de Gruyter.

Noh, Eun-Ju. 2011. A Pragmatic Approach to Intervention Effect Sentences in Korean: Focus, Presupposition, and Metarepresentation. *Linguistic Research* 28(1), 179–197.

Nunes, Jairo, and Juan Uriagereka. 2000. Cyclicity and extraction domains. *Syntax* 3: 20–43.

Paul, Waltraud. 2002. Sentence-internal topics in Mandarin Chinese: the case of object preposing. *Language and Linguistics* 3.4: 695–714. Taipei: Academia Sinica.

Paul, Waltraud. 2005. Low IP area and left periphery in Mandarin Chinese. *Recherches linguistiques de Vincennes* 33: 111–134.

Paul, Waltraud. 2009. Consistent disharmony: Sentence-final particles in Chinese. Unpublished manuscript.

Paul, Waltraud, and John Whitman. 2008. *Shi* ... *de* focus clefts in Mandarin Chinese. *The Linguistic Review* 25, 3/4: 413–451.

Pesetsky, David. 1982. *Paths and categories*. Ph.D. Dissertation, MIT.

Pesetsky, David. 1987. *Wh*-in-situ: movement and unselective binding. In *The representation of (in)definiteness*, ed. E. Reuland and A. Meulen, 98–129. Cambridge: MIT Press.

Pesetsky, David. 1995. *Zero syntax*. Cambridge, Mass.: MIT Press.

Pesetsky, David. 2000. *Phrasal Movement and Its Kin*. Cambridge: MIT Press.

Peyraube, Alain. 1989. History of the passive construction in Chinese until the 10<sup>th</sup> century. *Journal of Chinese Linguistics* 17-2, 1989. 335–372.

Peyraube, Alain. 1994. On the history of Chinese locative prepositions. *Zhongguo jing nei yuyuan ji yuyanxue* 2, 361–387.

- Peyraube, Alain. 1996. Recent Issues in Chinese Historical Syntax. In *New Horizons in Chinese Linguistics*, ed. C.-T. J. Huang and Y-H. A. Li, 161–214. Dordrecht: Kluwer.
- Peyraube, Alain. 1997. On word order in Archaic Chinese. *Cahiers de linguistique Asie Orientale*, 26 (1), 3–20.
- Peyraube, Alain. 1999. The modal auxiliaries of possibility in classical Chinese. In *Selected dissertations from the Fifth International Conference on Chinese Linguistics*, ed. F. Tsao, S. Wang, and C. Lien, 27–52. Taipei: The Crane Publishing Co.
- Peyraube, Alain. 2003. On Moving Constituents in Chinese Historical Syntax. *Historical Development of Chinese Language*, 141–156.
- Peyraube, Alain, and Fuxiang Wu. 2000. Shanggu hanyu yiwen daici de fazhan yu yanbian. *Zhongguo yuwen* 4, 311–326.
- Peyraube, Alain, and Fuxiang Wu. 2005. Origin and evolution of question-words in Archaic Chinese: A cognitive approach. *Cahiers de linguistique–Asie Orientale* 34.1, 3–24.
- Peyraube, Alain and Thekla Wiebusch. 1994. Problems relating to the history of different copulas in Ancient Chinese. In *In Honor of William S.-Y. Wang: Interdisciplinary Studies on Language and Language Change*, eds. Matthew Y. Chen and Ovid J. L. Tseng, 383–404. Taipei: Pyramid Press.
- Phua, Chiew-Pheng. 2008. Direct and Indirect Objects in Archaic Chinese: A Cognitive Linguistics Perspective. *Language and Linguistics* 9.3: 547–584.
- Pulleyblank, Edwin, G. 1995. *Outline of Classical Chinese Grammar*. Vancouver: University of British Columbia Press.
- Reinhart, Tanya. 1981. Pragmatics and Linguistics: An analysis of sentence topics. *Philosophica* 27: 53–94.
- Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In *Elements of Grammar*, ed. L. Haegeman, 281–337. Dordrecht: Kluwer.
- Rizzi, Luigi. 2001. Relativized Minimality Effects. In *The Handbook of Contemporary Syntactic Theory*, eds. Mark. Baltin and Chris Collins, 89–110. Oxford: Blackwell.
- Roberts, Ian. 1991. Excorporation and Minimality. *Linguistic Inquiry* 22: 209–218.
- Roberts, Ian. 1994. Two types of head movement in Romance. In *Verb Movement*, eds.

- David Lightfoot and Norbert Hornstein, 207–242. Cambridge: Cambridge University Press.
- Roberts, Ian. 2001. Head Movement. In *The Handbook of Contemporary Syntactic Theory*, eds. Mark Baltin and Chris Collins, 113–147. Blackwell Publishing.
- Roberts, Ian. 2010. Head Movement and the Theory of Movement. In *Agreement and Head Movement: Clitics, Incorporation, and Defective Goals*, 193–212. Cambridge, MA: The MIT Press.
- Roberts, Ian. 2011. Head movement and the Minimalist Program. In *The Oxford handbook of linguistic minimalism*, ed. Cedric Boeckx, 195–219. Oxford: Oxford University Press.
- Rooth, Mats. 1996. Focus. In *The handbook of contemporary semantic theory*, ed. S. Lappin, 271–297. Oxford: Blackwell.
- Rosenbaum, Peter S. 1970. A principle governing deletion in English sentential complementation. In *Readings in English Transformational Grammar*, ed. R. Jacobs and P. S. Rosenbau, 20–29. Waltham, Massachusetts: Ginn and Company.
- Ross, John Robert. 1967. Constraints on variables in syntax. Ph.D. Dissertation, MIT.
- Sagart, Laurent. 1999. *The Roots of Old Chinese*. Amsterdam: John Benjamins.
- Siewierska, Anna. 1984. *The Passive: A Comparative Linguistic Analysis*. Sidney, Australia: Croom Helm Ltd.
- Shen, Li. 2004. Aspect agreement and light verbs in Chinese: A comparison with Japanese. *Journal of East Asian Linguistics* 13:141–179.
- Soh, Hooi Ling. 2005. *Wh*-in-situ in Mandarin Chinese. *Linguistic Inquiry* 36(1): 143–155.
- Stepanov, Arthur. 2001. Late Adjunction and Minimalist Phrase Structure. *Syntax* 4, 94–125.
- Stepanov, Arthur. 2007. The End of CED? Minimalism and Extraction Domains. *Syntax* 10:1, 80–126.
- Sun, Chaofen. 1991. The Adposition *yi* and Word Order in Classical Chinese. *Journal of Chinese Linguistics* 19, 202–219.
- Sun, Chaofen, and Talmy Givón. 1985. On the so called SOV word order in Mandarin Chinese: A quantified text study and its implications. *Language* 61: 329–351.

- Sun, Chaofen. 1991. The adposition *yi* and word order in Classical Chinese. *Journal of Chinese Linguistics* 19: 202–219.
- Tai, James H-Y. 1975. On the two functions of place adverbials in Mandarin Chinese. *Journal of Chinese Linguistics* 3: 154–179.
- Takahashi, Daiko. 1994. *Minimality of movement*. Ph.D. Dissertation, University of Connecticut.
- Ting, Jen. 2008. The Nature of the Particle *Suo* in the Passive Constructions in Classical Chinese. *Journal of Chinese Linguistics* 36. 1: 30–72.
- Tomioka, Satoshi. 2007a. *Contrastive topics operate on speech acts*. Ms. University of Delaware.
- Tomioka, Satoshi. 2007b. Pragmatics of LF Intervention Effects: Japanese and Korean *Wh*-interrogatives. *Journal of Pragmatics* 39, 1570–1590.
- Travis, Lisa DeMena. 1984. *Parameters and Effects of Word Order Variation*. Ph.D. Dissertation, MIT.
- Tsai, Wei-Tien Dylan. 1994. *On economizing the theory of A-bar dependencies*. Ph.D. dissertation, MIT.
- Tsai, Wei-Tien Dylan. 1999. On lexical courtesy. *Journal of East Asian Linguistics* 8: 39–73.
- Tsai, Wei-Tien Dylan. 2003. Three Types of Existential Quantification in Chinese. In *Functional Structure(s), Form and Interpretation: Perspectives from Asian Languages*, eds. Audrey Li and Andrew Simpson, 161–179. London: RoutledgeCurzon.
- Visser, Fredericus Theodoricus. 1973. *A historical syntax of the English language*. Leiden: Brill.
- Wang, Aiqing. 2013. Object Preposing in Late Archaic Chinese. *York Papers in Linguistics* 13: 70–98.
- Wang, Aiqing. 2015. The Intervention Effect of Negation on *Wh*-Adverbials in Late Archaic Chinese. *Proceedings of the Second Asian and European Linguistic Conference (AE-Link 2)*: 160–172.
- Wang, Li. 1958b. *Hanyu shigao* [History of Chinese]. Reprinted in 2004. Beijing: Zhonghua Shuju.
- Wang, Li. 1958b. *Hanyu shi lunwen ji* [Collected essays on Historical Chinese]. Beijing:

Kexue Chubanshe.

- Wang, Li. 1962. *Gudai hanyu*. Reprinted in 2001. Beijing: Zhonghua Shuju.
- Watanabe, Akira. 2001. *Wh-in-situ Languages*. In *The Handbook of Contemporary Syntactic Theory*, eds. Mark Baltin and Chris Collins, 8203–225. Oxford: Blackwell.
- Wei, Pei-chuan. 2003. Shanggu hanyu dao zhonggu hanyu yufa de zhongyao fazhan [Important grammatical developments from Archaic to Medieval Chinese]. In *Gujin tong se: hanyu de lishi yu fazhan* [The history and development of Chinese language], ed. Dan He, 75–106. Taipei: Academia Sinica.
- Wu, Fuxi. 1980. *Gudai hanyu* [Classical Chinese]. Reprinted in 1982. Lanzhou: Gansu Renmu Chubanshe.
- Wu, Fuxiang. 2003. Zai lun chuzhishi de lai yuan [More on the origin of the disposal construction]. *Yuyan Yanjiu* [Studies in Language and Linguistics] 3:1–14.
- Xu, Dan. 2006. *Typological Change in Chinese Syntax*. Oxford: Oxford University Press.
- Yang, Bojun, and Leshi He. 1992. *Gu Hanyu Yufa ji qi Fazhan* [Archaic Chinese Grammar and its Development]. Beijing: Language and Culture Press.
- Yang, Barry C.-Y. 2007. Intervention Effect, Wh-movement, and Focus. *USTWPL* 3: 95–108.
- Yap, Foong Ha, Jiao Wang and Charles Tsz-Kwan Lam. 2010. Clausal integration and the emergence of mitigative and adhoratative sentence-final particles in Chinese. Special Issue on Stance Phenomena in Chinese: Diachronic, Discourse and Processing Perspectives. *Taiwan Journal of Linguistics* 8.2: 63–86.
- Yue, Anne O. 1999. The so-called pivotal construction in pre-Qin Chinese. In *Honor of Mei Tsulin: Studies on Chinese Historical Syntax and Morphology*, eds. A. Peyraube & C. Sun, 327–360. Paris: Ecole des Hautes Etudes en Sciences Sociales, Centre de Recherches Linguistiques sur l'Asie Orientale.
- Zhou, Fagao. 1959. *Zhongguo Gudai Yufa* [Historical Grammar of Ancient Chinese]. Taipei: Academia Sinica Institute of History and Philology.
- Zhou, Fagao. 1963. Stages in the development of the Chinese Language. In *Zhongguo yuwen luncong*, ed. F. Zhou, 432–438. Taipei: Zhengzhong Shuju.