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Clause-internal Wh-movement in Archaic Chinese<sup>i</sup>

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Abstract

This paper proposes an analysis of wh-movement in late archaic Chinese as clause-internal focus

fronting to the edge of vP. The paper further shows that archaic Chinese wh-words were

indefinites, as in modern Chinese, and their interpretation was obtained in the c-command

domain of an appropriate trigger, a base-generated operator in [Spec, CP] in the case of wh-

questions. The nonquantificational status of wh-words accords well with the short movement

analysis, since this movement did not serve to place the wh-word in the interrogative scope

position in the left periphery of the clause. In this way, the paper also offers a contribution to the

growing debate concerning the relationship between wh-movement and the status of wh-words as

operators or indefinites. The conclusion here is that movement of wh-indefinites is not

unexpected if the landing site is lower than the interrogative scope position.

Keywords

wh-movement, wh-indefinites, phase theory, unselective binding, EPP, historical syntax

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#### 1. Introduction

Modern Chinese is a *wh*-in-situ language, in which *wh*-words are indefinites or polarity items and have no quantificational force of their own (Cheng 1991; Li 1992; Tsai 1994; Lin 1998, 2004; Aoun & Li 1993, 2003; among many others). (1a) shows that interrogative *wh*-phrases remain in their base positions and do not move overtly to [Spec, CP]. When a *wh*-word is in the scope of a *yes/no* question particle, an existential interpretation obtains, as in (1b). *Wh*-words can further be interpreted as negative polarity items when c-commanded by negation, as in (1c).

- (1) a. Ni mai-le **sheme**?

  you buy-Asp what

  'What did you buy?'
  - b. Ni mai-le sheme ma?you buy-Asp what Q'Did you buy something?'
  - c. Wo *mei*-you mai **sheme**.

    I not-have buy what

    'I did not buy anything.'

In contrast to this, late archaic Chinese of the Warring States period ( $5^{th} - 3^{rd}$  centuries BCE) had a type of *wh*-movement, in which VP-internal *wh*-phrases were required to move to a position between the verb and the subject. The first clause in (2a) and second clause in (2b) additionally show a non-interrogative object in its post-verbal base position.

'If the fathers of the world settled here, where would their sons go?'

Furthermore, archaic Chinese *wh*-words did not typically function as polarity items. Thus, *wh*-words were not generally used in order to express existential and negative polarity interpretations of the type in (1b) and (1c). Rather, existential constructions were employed, in which headless relative clauses were embedded under existential verbs. An existential reading obtains when the relative clause is the complement of a positive existential verb, as in (3a), while a negative polarity interpretation results in a negative context, as in (3b).

(3) a. 力 有 所 不 能 舉。 (Hanfeizi 24) Li you Suo bu neng ju]. strength exist Rel not able lift 'Strength cannot lift some things.' (Lit. 'Strength has some things which it cannot lift.') b. 是 之 木 不材 卅, [Shi bucai zhi mu ye, Dem worthless Gen tree Top 無 所 可 用。 (Zhuangzi 1.4) wu Suo yong]. ke not.exist Rel Pot use

'This worthless tree cannot be used for anything.'

(lit. 'This worthless tree has nothing it can be used for.')

These facts pose interesting questions regarding the nature of wh-questions in archaic Chinese and the changes which have taken place in the historical development of Chinese. At first blush, it might appear that archaic Chinese wh-questions were of a substantively different nature from modern Chinese wh-questions. One might try to claim that archaic Chinese wh-words were quantificational operators and underwent the usual type of wh-movement to the interrogative scope position in the left periphery of the clause. The fact that they follow the subject in surface order would not be a problem if the subject could be analyzed as a topic, as proposed by Watanabe (2002, 2005) for a similar type of wh-movement in old Japanese. Under

this type of analysis, two changes would need to be accounted for: the loss of the strong feature driving *wh*-movement and the lexical change in *wh*-words from operators to indefinites.

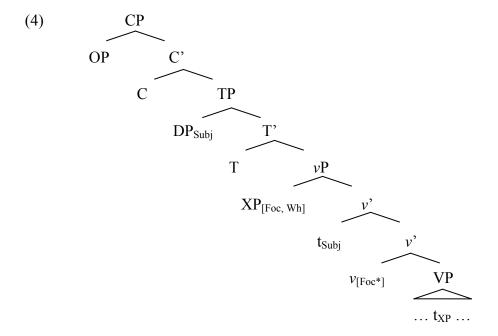
In this paper, however, I show that archaic Chinese *wh*-movement did not target the scope position in the C domain. Rather, this was short movement to a clause-medial position, similar to that proposed by Kiss (1987, 1995), Farkas (1986), Horvath (1995) for Hungarian; Jayaseelan (2001) for Malayalam; Tuller (1992) for Chadic; and Aldridge (2004) for Atayalic languages. Specifically, I propose that the landing site was a focus position in the edge of *v*P.

Furthermore, I argue that archaic Chinese *wh*-words were similar to modern Chinese in that they were also indefinites. This fact is obscured by the movement but can be observed in certain constructions in which *wh*-words remain in the c-command domain of an appropriate trigger. In short, I will show that archaic Chinese *wh*-words were not lexically different modern Chinese. The difference between archaic and later Chinese is merely the presence or absense of movement. Diachronically, the change simply involved the loss of the feature driving that movement.

This paper is organized as follows. Section 2 argues for the TP-internal landing site of archaic Chinese *wh*-movement by showing that this position is crucially located below the [Spec, TP] subject position. In section 3, I discuss how *wh*-words were licensed. Based on locality violations and the use of *wh*-words as polarity items, I propose that this is, like modern Chinese, best analyzed as unselective binding. Section 4 considers the consequences of proposing a clause-internal A'-position. I show that not only *wh*-phrases but also relative operators and focused constituents in general occupied clause-medial position in archaic Chinese. This proposal, then, lends support to Belletti's (2004) proposal that the edge of *v*P can be divided into a split A' domain, along the lines of the split CP advocated by Rizzi (1997).

### 2. The Landing Site of *Wh*-movement

In this section, I present evidence for a clause-internal movement analyst of wh-questions in late archaic Chinese. I propose that the landing site was a position for interrogative and other focus constituents in the edge of vP. The movement was driven by a strong focus feature on v. The interrogative interpretation was obtained via unselective binding by an operator in [Spec, CP].



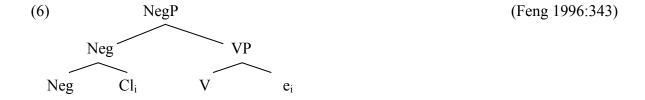
This section focuses on the following two points. First, I show that the movement was syntactic, rather than prosodic, as proposed by Feng (1996). Secondly, I show that the landing site was clause-internal, specifically, below T. This is demonstrated by showing that subject *wh*-words did not occupy this position, which is accounted for by the analysis in (4), since the A-position of the subject is located outside the c-command domain of the probe on *v*.

# 2.1. Against a Prosodic Approach to Wh-movement

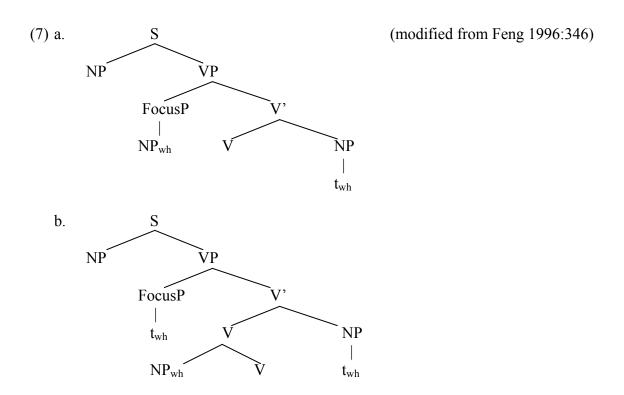
Feng (1996) takes the position that archaic Chinese *wh*-movement, together with pronoun fronting under negation, was the result of cliticization. Looking first at pronoun fronting, object pronouns in archaic Chinese were generally required to raise out of VP to a position right-adjacent to the marker of negation.

己 b. 不 患 之 不 知。 Bu huan ren zhi bu ji zhi others Gen self understand not worry not 'Do not worry that others do not understand you.' (Analects 1)

Feng proposes the following analysis, in which the pronouns right-adjoin to the negator.

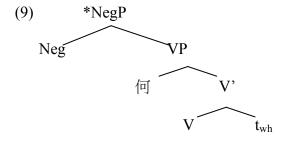


As for *wh*-movement, Feng claims that this is a two-step process. VP-internal *wh*-words first front to a VP-peripheral focus position. Following this, the *wh*-word is lowered onto the verb and cliticized to it.



The crucial shortcoming of Feng's analysis of *wh*-movement is the position of the landing site with respect to negation<sup>ii</sup>. Feng's analysis predicts that *wh*-words follow the negator, since focus movement does not leave the VP and therefore targets a position below negation. This prediction runs counter to fact, since *wh*-phrases actually precede markers of negation.

Feng admits that examples such as these are potential counterexamples. He accounts for the position of the *wh*-word to the left of the negator by claiming that negation blocks cliticization of the *wh*-word to the verb. However, given his analysis of focus fronting in (7), this should not happen, since focus fronting targets a position internal to VP. The negator would always be in a higher position and should not block cliticization of the *wh*-word to the verb.



My proposal in (4) does account for the relative positions of the *wh*-word and negation, since the landing site of *wh*-movement is located above the position of negation.

$$(10) \qquad \begin{array}{c} vP \\ XP_{[Foc, Wh]} \qquad v' \\ \\ t_{Subj} \qquad v' \\ \\ v_{[Foc^*]} \qquad NegP \\ \\ Neg \qquad VP \\ \end{array}$$

Not only is the landing site of pronominal cliticization different from wh-movement, the two types of movement are subject to different locality restrictions. Pronominal cliticization did not cross certain clause boundaries. Pronouns in clauses embedded under yu 'want' did not move into the matrix clause. This was true of embedded object pronouns, as in (11a), as well as embedded subject pronouns, as in (11b).

Wh-movement, on the other hand, was not clause-bound. A wh-word was required to move from object position in a nonfinite complement clause.

A further asymmetry between pronoun cliticization and wh-movment is reflected in (13). We have already seen in (2a), repeated as (13a), that the locative or dative wh-word yan undergoes wh-fronting. This word also had a use as a demonstrative pronoun. However, when used as a

'Who do you want to appoint (as prime minister)?'

demonstrative (13b, c), it did not undergo cliticization to negation.

<sup>&#</sup>x27;If the fathers of the world settled here, where would their sons go?'

妻 屏 子, 終身 不 養 焉。 b. # Chu zi, zhongxhen qi bing bи yang yan. dispatch wife discard child lifelong care.for 3.Dat not '(He) sent his wife away and abandoned his children and did not care for them for the rest of his life.' (Mencius 8)

c. 晉 國 天下 莫 強 焉。 (Mencius 1) Jin Guo Tianxia mo qiang yan. Jin nation world strong 3.Dat none

'The Jin nation, in the world, noone is stronger than them.'

Wang (1958) reconstructs the old Chinese pronunciation of this graph as [ĭan]. It is then natural to conclude that the inability of *yan* to cliticize in (13b, c) is due to the fact that it is tooheavy, since it is a closed syllable. Wang reconstructs the pronouns in (5), which do cliticize to negation, as open syllables. This further shows that *wh*-fronting, which was possible for heavy syllables, was not prosodic cliticization but rather syntactic *wh*-movement.

The asymmetries discussed in this subsection between *wh*-movement and pronoun cliticization show clearly that *wh*-fronting is not cliticization and therefore lend indirect support to the proposal in this paper that *wh*-movement in archaic Chinese is syntactic movement. I have further shown that *wh*-movement targets a higher position than pronoun cliticization, strongly suggesting that the landing site is not internal to VP. The need for a VP-external landing site is further emphasized by the syntactic, as opposed to prosodic, nature of the movement, given standard Minimalist assumptions that syntactic *wh*-movement targets a functional, rather than lexical, projection.

#### 2.2. Landing Site

The preceding subsection concluded that archaic Chinese *wh*-movement was not cliticization and that the landing site was located above VP. In this subsection, I argue that the landing site was no higher than T. The key to demonstrating this claim is showing that the positions for subject and object *wh*-phrases are not the same. Specifically, subjects are located higher in the structure. The fact that subject *wh*-constituents do not occupy the same position as object *wh*-words provides indirect evidence that the probe which attracts object *wh*-words is too low in the structure to attract a subject.

The first indication that this is correct comes from the basic word order pattern in which a referential subject always precedes fronted *wh*-words. The moved *wh*-phrase can be any VP-internal argument or object of a preposition. It must vacate the VP and appear to the left of its selecting verb or preposition. But it will always follow the subject.

'If the fathers of the world settled here, where would their sons go?'

(Mencius 7)

c. 吾 又 誰 與 爭?

Wu you **shei** [ $_{VP}$  [ $_{PP}$  yu  $t_{shei}$ ] zheng]?

I then who with compete

'Then who would we compete with?'

(Zuozhuan, Zhao 4)

This basic descriptive generalization has not escaped the notice of Chinese historical linguists (Ma 1898, Zhou 1959, Wang 1962, Yang & He 1992, among many others). To my knowledge, the most comprehensive treatment of the position of archaic Chinese *wh*-words is by Wei (1999), who provides an exhaustive accounting of the positions of several types of adverbials and compares them with *wh*-words, relative pronouns, focused constituents, and quantifiers. Wei concludes that that there was a position for these 'operators' following the subject or topic.

# (15) <u>Wei (1999)</u>

點題 (主題、主語) > 運符 > 其他 (動詞及其修飾語或補足語)

Topic/subject > Operator > Other (Verb and its modifiers and complements)

The main weakness of Wei's proposal is that it does not distinguish between subjects in [Spec, TP] and those which can be analyzed as having been topicalized to a TP-external topic position. For example, Wei bases his claim regarding *wh*-words primarily on the fact that they follow modal adverbs like *jiang* 'will'. *Jiang*, in turn, typically follows the subject.

(16) can be accounted for on the low movement analysis put forth in this paper, shown in (17a). However, (16) is equally amenable to an alternative account involving a split-CP structure (Rizzi 1997, Beninca' & Poletto 2004, and others), in which the *wh*-word moves to a focus position above TP, and the preceding subject is located in a topic position to its left, with the adverb adjoined between them.

(17) a. 
$$[TP \ Wo \ [vP \ jiang \ [vP \ he \ [v] \ t_{wo} \ [v] \ qiu \ t_{he} \ ]]]]]$$
? (Low  $wh$ -movement)

I will what ask.for

b.  $[TopP \ Wo \ [FocP \ jiang \ [FocP \ he \ [TP \ t_{wo} \ qiu \ t_{he} \ ]]]]$ ? (High  $wh$ -movement)

I will what ask.for

The high movement analysis in (17b) would allow archaic Chinese *wh*-fronting to be given the traditional analysis of *wh*-movement into the C domain<sup>iii</sup>. It therefore cannot be ruled out a priori. What I focus on in this paper is structural evidence for the low movement analysis.

Such evidence is not easy to find, however, since in most cases, both subject and object *wh*-phrases appear in immediate pre-verbal position, which suggests that they might occupy the same position.

(18)能 出 不 由 戶? (Analects 6) a. 誰 Shei neng chu hu? bu you exit who can not from door 'Who can exit other than through the door?' 欺? 欺 天 平? b. 吾 誰 [vp qi tshei]? Qi hu? Wu shei tian I who deceive deceive Heaven Q 'Who do I deceive? Do I deceive Heaven?' (Analects 9)

However, other preverbal material in the clause can serve to distinguish the relative positions of subject wh-phrases. First, as Wei (1999) has argued, object wh-phases are located not only lower than the subject but also lower than certain adverbs, such as the modal jiang. I have found that du 'alone' also patterns this way. Note that the referential subject precedes these adverbs.

(19)將 求? (Zuozhuan, Xi 28) a. 我 何 Wo jiang he qiu? I will what ask:for 'What will I ask for?' b. 先生 乎? 獨 何 以 說 吾 君 (Zhuangzi 2.11) Xiansheng du he yi hu? yue wu jun sir (you) alone what with please my lord Q 'How were you alone able to please my lord?'

Crucially, a subject wh-word also precedes these adverbs.

These examples show that subject and object *wh*-words occupy different positions. This precludes the high movement analysis, because if the *wh*-movement landing site were located above TP, then subjects and objects should both be attracted to this position, predicting that both subject and object *wh*-phrases should be able to precede *du* or *jiang*, counter to fact.

(21) 
$$*[TopP \ Wo \ [FocP \ he \ [TP \ t_{wo} \ jiang \ qiu \ t_{he}]]]?$$
 (High wh-movement)

I what will ask for?

The low movement analysis does account for the asymmetry between subject and object wh-positions. Object wh-phrases move to the focus position in the edge of vP, while subject wh-phrases remain in situ in [Spec, TP].

Note that the exact adjunction site of the adverb is inconsequential to the argument at hand. The position of the adverb merely demonstrates that there is an asymmetry between subject and object *wh*-phrase positioning. The existence of the asymmetry is what shows that the object *wh*-position is internal to TP. To repeat, if the *wh*-position were external to TP, then we would not expect to find an asymmetry between subjects and objects, given that both would be in the c-command domain of a probe on a functional head above TP.

This asymmetry is replicated with adjuncts. Like internal arguments, locative wh-words follow adverbs like jiang 'will' and du 'alone', as in (23a). In contrast to this, high, 'why'-type adjunct wh-words precede these adverbs, as in (23b).

'Where could resources for people's clothing and food be obtained?'

The following example further reinforces the position that *wh*-words preceding high adverbials must be adjuncts and not VP-internal arguments. In addition to meaning 'what', the *wh*-word *he* also was sometimes used to mean 'why', as in (24a). Note that *he* in (24a) precedes the adverb bi 'necessarily'. (24b) shows that bi occupies a high position in the structure, since it preceded du 'alone'. I have found no examples in which *he* functions as an internal argument and precedes an adverb like *bi*.

<sup>&#</sup>x27;Why am I alone not capable of being considered correct?'

b. 昭 侯 必 獨 臥。 (Hanfeizi 34)

Zhao hou **bi** du wo.

Zhao lord necessarily alone sleep

'The lord Zhao necessarily sleeps alone.'

Given that subject and high adverbial wh-words occur in a higher position than wh-words originating in VP, we must conclude that the landing site of object wh-movement is structurally lower than the position of the subject and high adverbs. This fact is easily accounted for on the analysis that the edge of vP contains a position for focused constituents. The proposal that v has a strong focus feature to attract these constituents accounts for the fact that subject wh-words do not occupy this position. Being base merged in a specifier of vP, they are not in the c-command domain of the probe on v.

At this point, we should consider the possibility that the analysis in (4) might allow an in-situ subject wh-word to check the focus feature on v and remain in [Spec, vP] throughout the derivation. This would allow feature-checking in a spec-head relation, a mechanism which is disfavored in current Minimalist research (Chomsky 2000, 2001, 2004; and others). However, I will consider this possibility in the hope that it will bolster the empirical, as well as theoretical, coverage of the proposal.

The possibility that the subject could remain in vP would predict the wrong word order for subject wh-words in cases like (20) and therefore must be ruled out. I propose that subjects are required to move out of vP as a result of the EPP feature on T, which must be checked for the derivation to converge. This proposal rests, however, on demonstrating that archaic Chinese did in fact require subject A-movement to [Spec, TP], rather than simply allowing subjects to move

directly to a topic or focus A'-position. If the latter option were available, then there would be no clear motivation for subject wh-words to leave vP, assuming that their focus feature could be checked in situ.

I begin by showing that referential subjects are not necessarily topicalized. First, if an object is topicalized, it precedes the subject. It is also generally resumed by a pronoun in the clause. In (25), this pronoun has additionally fronted to the right of negation.

'The rites of the feudal lords, I have not yet studied.'

If we were to analyze the object and subject as both occupying topic positions, then we would expect the subject topic to be able to precede the object. This would especially be the prediction if the two constituents occupied multiple specifiers of one topic projection, since locality constraints should result in superiority effects. Specifically, we would expect the object to tuck in (in the sense of Richards 2001) in a lower specifier of the topic projection. But this order is not attested. Therefore, it is reasonable to conclude that the only the object has fronted in (25), while the subject remains in [Spec, TP].

This is not to say that an object can never appear between the subject and VP. This is certainly true of object *wh*-phrases. It is also true of focused internal arguments in general, as I will discuss in section 4. Another context in which internal arguments appear pre-verbally is in the disposal construction. This is the precursor of the modern Chinese disposal construction

using  $ba^{iv}$ . The archaic Chinese equivalent was yi. I gloss it below as 'object marker' for convenience<sup>v</sup>.

'Traders of antiquity traded what they had for what they did not have.'

What is relevant to the discussion at hand is that a topicalized object never follows the subject. Note an additional example of object topicalization. In this example, the subject is indefinite, thus making it semantically incompatible with topicalization.

Following are additional examples of indefinite, nonpresupposed subjects, which are therefore are not candidates for a topic analysis. (28a) shows an indefinite DP; (28b) shows an indefinite quantifier; and (28c) shows a negative quantifier.

Thus, it should be clear that preverbal subject position is not limited to topics. The question then arises as to whether non-topicalized subjects can be analyzed as residing in their base positions in  $\nu$ P. This possibility is nullified by the requirement that subjects in unaccusatives and passives also move to preverbal position. Whereas in modern Chinese, the subject of an unaccusative verb like si 'die' sometimes appears in its VP-internal base position, as in (29a),

'If the ruler is benevolent, then noone is not benevolent.'

this word order is not found in archaic Chinese. (29b) shows that the subject must precede the verb<sup>vi</sup>. (29c) is an example of a passive.

(29) a. Zhuangzi si-le qizi.

Zhuangzi die-Asp wife

'Zhangzi lost his wife.'

b. 莊子 妻 死。 *(Zhuangzi* 2.11)

Zhuangzi qi si.

Zhuangzi wife die

'Zhuangzi's wife died.'

c. 子胥 見 殺。 (Xunzi 25)

Zixu jian sha.

Zixu Pass kill

'Zixu was killed.'

The passive potential marker *ke* also required raising of an internal argument to subject position<sup>vii</sup>. As in other types of passive, the external theta-role was suppressed. (30a) is an example of a passive potential construction. (30b) shows that the causative verb *shi* normally is transitive and takes an agent subject.

之, 不 (30)a. 民 口 使 由 叮 使 知 之。 Min shi  $t_{min}$  you zhi, shi zhi zhi. ke bu ke force follow 3.Obj not force understand 3. Obj people Pot Pot 'People can be made to follow one but cannot be made to understand.' (Analects 8) b. 君 使 慢, 亂 將 矣。 民 作 (Zuozhuan, Zhuang 8) Junshi min man, luan jiang zuo yi. lord force people lazy chaos will ensue Asp 'If my lord forces the people to be lazy, then chaos will surely ensue.'

Note in the following that the subject of a *ke* construction can be a nontopicalized DP, e.g. a negative quantifier.

(31)a. 若 吾 子 之 德, 莫 可 歌 也, Ruo de, zi zhi wu то ke ge ye, if my sir Gen virtue none Pot sing.praise Top 之? 其 誰 來 (Zuozhuan, Wen 7) shei zhi? qi lai then who come 3.Obj

'My good sir, given your virtues, if none could be praised in song, then who would come (because of these virtues)?'

b. 父母、 學、 君 三 者,
Fumu, xue, jun san zhe,
parents scholarship ruler three Det

'Parents, scholarsip, rulers: among these three, none can be taken to be governing laws.'

A *wh*-word, which is inherently nonpresuppositional, can also occupy subject position in a passive potential.

Thus, it should be clear that archaic Chinese must have had an A-position for the subject above vP, which we can reasonably assume to be [Spec, TP]. And since raising was always required, we can further conclude that T obligatorily carried an EPP feature. Having demonstrated that archaic Chinese required subject movement out of vP, we face no difficulty accounting for the high position of subject wh-phrases. They were required to raise to [Spec, TP] in order to check T's EPP feature. Object wh-phrases raised only as far as the outer specifier of

*<sup>&#</sup>x27;Bayi* performed in the home, if this can be borne, then what cannot be borne?'

vP to check the focus feature on v. Hence, object wh-phrases occupied a lower position in the structure than subject wh-phrases. I will remain agnostic as to whether a subject wh-phrase could check a focus feature on v in its base position before moving to [Spec, TP]. What is relevant to the discussion at hand is the demonstration that the object wh-position is located internal to TP, a point which should be even clearer now that it has been established that there was an A-position for subjects which preceded this position.

#### 2.3. Short Wh-movement in Other Languages

Other languages have been claimed to have a clause-medial landing site for *wh*-movement, such as Hungarian (Kiss 1987, 1995; Farkas 1986; Horvath 1995), Malayalam (Jayaseelan 2001), Chadic (Tuller 1992), and Atayalic languages (Aldridge 2004). In Hungarian, this position is also available for focused constituents and certain types of quantifiers. The following Hungarian examples show movement of a focused object and movement of a *wh*-word. (33a) clearly shows that this movement targets a position to the left of the verb but below the subject. (33b) further shows that this position is located to the left of negation.

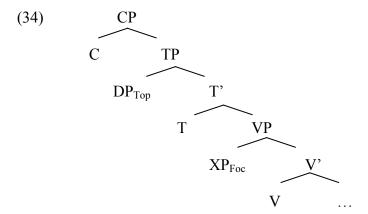
## Hungarian

- (33) a. János **Évát**<sub>i</sub> [ $_{VP}$  várta  $e_i$  a mozi elött].

  John Eve:ACC waited the cinema in:front:of

  'John waited *for Eve* in front of the cinema.' (Kiss 1995:212)
  - b. KIT<sub>i</sub> nem tudsz [hogy MIKOR érkezik e<sub>i</sub>]?
     whom not know:you that when arrives
     'Whom don't you know when will arrive?' (Kiss 1995:224)

Examination of the proposals for Hungarian is particularly revealing for the contrast it provides with archaic Chinese. Earlier approaches (Kiss 1987, 1995; Horvath 1995; Tuller 1992) have proposed a low focus position, just above or at the edge of the verbal domain but below C. This approach is parallel in its basic respects to my TP-internal movement analysis of archaic Chinese. However, more recent approaches to Hungarian favor movement into the C domain. Furthermore, even the earlier approaches concede that there are no A-positions, even TP- or IP-internal ones, preceding the position for *wh*-words. For Kiss, the focus position is the specifier of VP. [Spec, TP] is reserved for topicalized constituents. Although [Spec, TP] is frequently the landing site for subject movement, this position is reserved for presuppositional subjects or other constituents. There is no subject A-position, per se. Nominative subjects can remain and be licensed in VP.



For Horvath, the focus position is [Spec, IP]. Case is assigned under government to the subject in its base position in VP. The verb moves to Infl.

(35) 
$$IP$$

$$XP_{Foc} \qquad I'$$

$$V+I \qquad VP$$

$$DP_{Subj} \qquad V'$$

$$< V> \qquad ...$$

Other approaches to Hungarian (Maracz 1990; Brody 1995; Puskas 2000) place the focus position outside IP or TP. For example, Maracz (1990) analyzes Hungarian focus constructions as a V2 configuation.

(36) 
$$CP$$

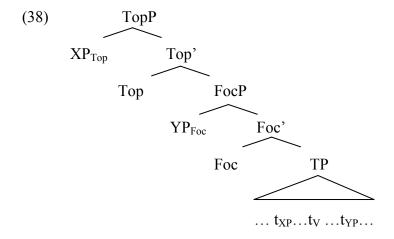
$$XP_{Foc} C'$$

$$V+I+C IP$$

$$...t_{XP}...t_{V+I}...$$

A reworking of the Hungarian facts in a framework consistent with Rizzi's (1997) split-CP is Puskas (2000). In Hungarian, the focused constituents must be followed immediately by the verb, though they can be preceded topics.

Puskas proposes an analysis consistent with Rizzi's (1997) split-CP hypothesis, in which the topicalized and focused constituents move to TP external positions. The verb also moves to the head of the focus projection, accounting for the strict adjacency between the verb and focused constituent.



This analysis allows *wh*-movement in Hungarian to be accounted for in a universal approach in which the *wh*-constituent must occupy its scope position at some point in the derivation. The correct analysis of Hungarian is not the focus of this paper. I will simply assume that a high movement analysis is at least possible for this language. What is relevant to the topic at hand is that Hungarian differs from archaic Chinese in a number of respects. These differences preclude a high movement analysis for Chinese, even if it is possible for Hungarian. First, *wh*-phrases in Hungarian can precede the subject. In (37a), the subject is topicalized and occurs to the left of the *wh*-constituent. In (39), the nontopicalized subject follows both the fronted verb and the *wh*-constituent. The subject is anlayzed as occupying an A-position within TP but above *v*P.

Furthermore, subject and object focus position is the same in Hungarian. All focused constituents, including *wh*-words must occur in immediate pre-verbal position. This can be observed for objects in (37). (40) shows that the same is true of subjects.

'Who constantly ate the bread?'

b. \*Ki állandóan ette meg a kenyeret.

who constantly ate Perf the bread.Acc

'Who constantly ate the bread?'

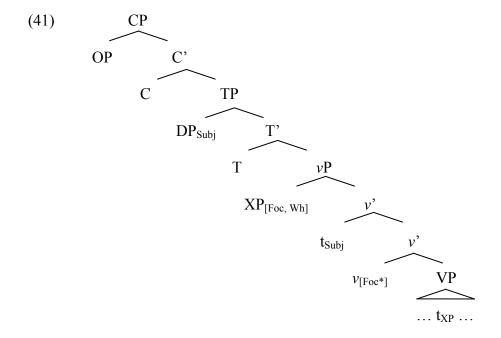
Thus we can conclude that, while a high movement analysis may be possible for Hungarian, it is not capable of accounting for the subject/object asymmetry observed for *wh*-words in archaic Chinese. Archaic Chinese *wh*-movement clearly involves a position internal to TP.

## 3. Licensing

I have shown in the previous section that archaic Chinese *wh*-movement targeted a position below T, which I have anlyze as an outer specifier of *v*P. At this point, the question arises as to how the interrogative interpretation was obtained, since movement did not serve to place the *wh*-word in the interrogative scope position in the C domain. What I will argue here is that *wh*-words in archaic Chinese, as in modern Chinese, should be analyzed as indefinites rather than quantificational operators and therefore received their interpretation through unselective binding by an operator in the CP layer (along the lines of Baker 1970; Pesetsky 1987; Nishigauchi 1986, 1990; Tsai 1994; Cole & Hermon 1998, 2000; among others).

#### *3.1. Interrogative* wh-words

In section 2.2, I proposed that archaic Chinese wh-movement targeted a focus position in the edge of vP and did not place the wh-word in a specifier in the C domain.



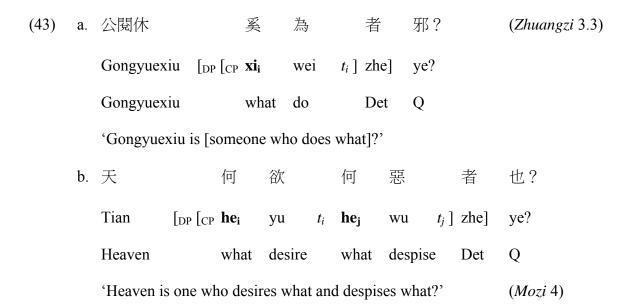
In this subsection, I address the question of how the relationship between the *wh*-word and interrogative C is obtained, arguing that an operator is base merged in [Spec, CP] and unselectively binds the *wh*-word, as proposed for modern Chinese by Tsai (1994) and others. Much of the evidence presented in this subsection shows that *wh*-words could be separated from interrogative C by one or more phase boundaries. This has the effect of excluding an alternative analysis based on in-situ feature-checking, since the Agree relation necessary for feature-checking depends is constrained by locality, specifically, the Phase Impenetrability Condition (PIC).

# (42) <u>Phase Impenetrability Condition</u> (Chomsky 2001:5)

Only the edge of a phase is accessible to operations.

First, I show that *wh*-words could appear inside complex NPs and adjunct islands but still take matrix scope. Interestingly, movement also takes place inside the islands, providing further evidence for the claim made in section 2 that the target of *wh*-movement is not the scope position in the C domain, since these *wh*-words clearly take scope beyond their landing sites.

(43) shows examples of *wh*-words inside relative clauses. Note that movement of the *wh*-word is clearly internal to the relative clause, since movement out of the relative clause would violate the PIC<sup>viii</sup>. The intervening DP and CP phase boundaries also preclude an Agree relation with matrix C.



(44) shows *wh*-words inside adjunct islands. The *wh*-words in both cases have matrix scope, but the embedded CP barrier intervenes between the *wh*-word and matrix C, which should disallow an Agree to be established between matrix C and the *wh*-word. Movement also takes place within the island. Note that this movement cannot be targeting a position in the matrix clause, since this equally would violate locality conditions<sup>ix</sup>.

(44) 恐? 不 (Guoyu, Lu 1) 何 恃 而 a. [CP [TP pro [hei shi  $t_i$  ]]] er kong? bu what depend Conj not fear 'Based on what are (you) not afraid?' 平 b. 寡人 惡 屬 或 可? (Zhuangzi 3.2) 而 [CP [TP Guaren hu  $t_i$  shu guo]] er ke?  $wu_i$ I whom to entrust nation Conj good

'If I entrusted the nation to whom would it be good?'

Next, I examine cases of *wh*-in-situ. One such case involves the verb *wei* 'call/speak of'. *Wei* takes two internal arguments, as can be seen below.

(45) a. 吾 謂 之 學 矣。 (Analects 1) 必 Wu bi wei zhi xue yi. I must call 3.Obj learned Asp 'I must call him learned.' 之 b. 賊 義 者 謂 殘。 (Mencius 2) Zei yi zhe wei zhi can. defile righteousness Det call 3.Obj cruel 'One who defiles righteousness, (we) call him cruel.'

There is an asymmetry between the two complements in terms of *wh*-movement. The first one must front when it is a *wh*-phrase.

A-movement is also possible for the higher argument. (47) is an example of raising in a passive potential construction involving ke.

[Zhou zhe de]<sub>i</sub> ke [wei Zhou Gen virtue Pot call 
$$\Xi$$
 [zhi de]] yi yi. supreme virtue Asp Asp

<sup>&#</sup>x27;The virtue of Zhou can be said to be the supreme virtue.'

But the lower object is not capable of moving and must remain in situ, even when it is a *wh*-phrase.

Xian hou qi [wei wo he]? father mother Mod call me what

'How will my father and mother (lit. the former king and queen) speak of me?'

Since the *wh*-word in (48) remains in its base position in VP, the *v*P phase boundary intervenes between it and interrogative C. An Agree relation is therefore prevented between C and the *wh*-word.

Other verbs which take two internal arguments and also require *wh*-in-situ for the second argument are '*nai/ruo/ru* 'do to/do about'. The difference among the three might be primarily one of dialect (Zhou 1959). Yoshida (1954), Pulleyblank (1988), and Wei (2004) propose that *nai* is the result of fusion between *ruo* and and the object pronoun *zhi* in the sequence *ruo zhi he* 'do what about this' (2004:255). What is of interest here is that the second argument is always a *wh*-word, and this *wh*-word never undergoes fronting.

(49) a. 伯氏 不 出, 奈 吾 君 何? (Guoyu, Jin 2)

Boshi bu chu, [nai [wu jun] he]?

Boshi not come do our lord what

'If you (Boshi) do not come (to his aid), then what will (this) do to our lord?'

b. 子 若 國 何?

Zi [ruo guo **he**]?

You do nation what

'What will you do about the nation?'

(Zuozhuan, Xi 23)

c. 君 使 臣, 臣 事 君, 如 之 何? (Analects 3)

Jun shi chen, chen shi jun, [ru zhi he]?

lord use official official serve lord do 3.Obj what

'A lord using his official and an official serving his lord, what about this?'

As in the case of *wei*, the first argument is able to front. In (50), the first argument of *nai* moves to matrix subject position in a passive potential construction. It appears in genitive case, because it is the subject of the complement clause selected by *zhi* 'know'. In archaic Chinese, embedded clauses of this type tended to be nominalized. Note further that the *wh*-word here is not being used interrogatively but rather has a negative polarity interpretation. I discuss this NPI use of *wh*-words in the next subsection.

(50) 知 其 不 可 奈 何 而 安

Zhi  $[qi_i$  bu **ke** nai  $[t_i$  he]] er an

know 3.Gen not Pot treat what Conj embrace

之 若 命, 德 之 至 也。 zhi ming, de zhi zhi ruo ye. 3.Obj as destiny virtue Gen extreme Decl

'Knowing that *nothing* can be *done* about it and embracing it as your destiny is virtue in the extreme.'

(Zhuangzi 1.4)

Thus far, I have not considered the reason for the lack of *wh*-movement in (48) and (49). Pulleyblank (1995:94) makes a very revealing statement when he suggests that the *wh*-word 'follows when it is the second object of a verb which takes two objects.' Pulleyblank does not give examples of prototypical ditransitives, e.g. verbs of giving. However, if we examine the behavior of *wh*-words functioning as themes and goals of typical ditransitive verbs, we do find an interesting pattern. First, note that archaic Chinese had different ways of packaging arguments in ditransitive constructions. (51a) shows a disposal construction. The goal appears in post-verbal position, while the theme is fronted and appears with the object marker *yi*. The first clause in (51b) shows the two arguments in post-verbal position, the second packaged as a PP. The second clause in (51b) is a double object construction.

(51)a. 天子 以 天下 (Mencius 9) 不 能 與 人。 Tianzi yi bu neng tianxia yu ren. ruler OM world not can give person

'The ruler cannot give the world to someone.'

b. 天子 能 薦 人 於 天, Tianzi neng jian tian ren yu ruler recommend heaven can person to 之 不 能 使 天 與 天下。 (Mencius 9) tianxia bu neng shi tian zhi yu make heaven not can give 3.Obj world

'The ruler can recommend someone to heaven, but (he) cannot make heaven give him the world.'

Now let us look at what happens when the theme argument is a *wh*-phrase. We do not find the double object construction. Rather, in order to extract the theme, it must be fronted with *yi*, or the goal must be packaged as a PP, thereby making the theme the higher of the two internal arguments. I have found no examples in which a theme is extracted over a goal.

'What would you ask of the people?'

Pulleyblank's suggestion, then, seems to hold true of ditransitives generally in the language. A formal account of the generalization begins to emerge as we consider parallel movement asymmetries in some languages with applicative constructions. In Kinyarwanda locative applicative constructions, the applied object can undergo A'-movement but not the theme (Marantz 1993, Nakamura 1997, McGinnis 2001, and others).

# Kinyarwanda (Marantz 1993:134-5)

(53) a. Umugabo y-a-tw-eerets-e ishuuri

man SP-Past-OP-show-Asp school

umwaalimu y-oohere-je-ho igitabo.

teacher SP-send-Asp-Appl book

'The man showed us the school where the teacher sent the book.'

b. \*Y-a-tw-eerets-e igitabo

SP-Past-OP-show-Asp book

umwaalimu y-oohere-je-**ho** ishuuri .

teacher SP-send-Asp-Appl school

'He showed us the book which the teacher sent to the school.'

McGinnis accounts for the asymmetry in examples like (53) by proposing that the low applicative phrases (in the sense of Pylkkanen 2002) in these constructions are not phases. Not being a phase, Appl does not project an extra specifier which would allow movement of the theme argument over the goal. This means that the theme would have to remain in situ, even when it is a *wh*-phrase. The goal argument will always be in a structurally more prominent

position than the theme and serve as an intervener for Agree relations between the theme and probes above ApplP.

What is important for the discussion at hand is the fact that lower objects in double object constructions are unable to front. Fronting of an internal argument of a ditransitive verb is possible if the movement does not take place directly from the domain of the applicative phrase. Strategies like those in (52) serve to place the theme in a more structurally prominent position than the goal, thereby allowing it to dislocate. However, when the verb is wei or rw/ruo/nai no other strategy seems to be available. This results in wh-in-situ when the lower object is a wh-word. Furthermore, the intervening vP phase boundary prevents the relationship between the insitu wh-word and interrogative C from being established via Agree, supporting the proposal here that unselective binding is the mechanism employed to obtain the interrogative interpretation. We will see in the next subsection that wh-in-situ in these cases also allows wh-words to be in the scope of negation and function as negative polarity items.

### 3.2. Wh-indefinites

At first blush, there appears to be little evidence in archaic Chinese for the polarity-type behavior of wh-words observed in the modern Chinese examples in (1b) and (1c). This observation leads initially to the conclusion that wh-words in archaic Chinese were quantificational operators and not indefinites. However, a closer look at archaic Chinese does in fact reveal evidence that archaic Chinese wh-words were also indefinites. I have found twelve examples in archaic period texts of wh-words used as negative polarity items, as in (55). These are all examples of wh-insitu in ru/ruo/nai constructions.

'Their army exhausted and their strength depleted, there was *nothing* the feudal lords could do about (it).'

(Hanfeizi 2)

We have seen in the previous subsection that the wh-word in such constructions was required to remain in-situ for independent reasons. What is important for the present discussion is that remaining in situ keeps the wh-word in the c-command domain of negation, which allows it to be licensed as a negative polarity item. Recall that when wh-fronting takes place, the movement targets a position above negation, thereby placing the wh-word outside of its scope<sup>x</sup>. This fact undoubtably accounts for the relative paucity of negative polarity uses of wh-words.

It should be noted that wh-in-situ, per se, was not a prerequisite for a wh-word to have a non-interrogative interpretation. Furthermore, non-interrogative wh-words were not limited to negative polarity interpretations. Of particular note are the wh-words in conditional clauses in

the wh-word in these examples to be an operator located in the C domain of the embedded clause.

Note that the wh-word has undergone fronting in (57a) and (57b), showing that wh-in-situ is not

(57b), (57c), and (57d). Following Lin (1998, 2004) and others, I take the licensing trigger for

required for the non-interrogative interpretation.

'What city would (you) not conquer?'

(57) 知 我 者 謂 我 何 求。 (Shijing, Shuli) a. 不 Bu zhi zhe wei [wo [qiu  $t_{he}$  ]]. wo he I what seek not know me Det say

'Those who do not know me say that I am looking for something.'

之 如, 可以 (Guoyu, Jin 6) b. 誰 不 求 之。 [ru  $t_{shei}$ ]], keyi [Shei zhi zhi. bu qiu who Gen not compare can follow 3.Obj 'If you don't measure up to someone, you can follow him.'

c. 孰 知 有 無 死 生 之 Shu zhi si sheng zhi you wu existence nonexistence death life who know Gen 體 者, 吾 與 之 為 友。 (*Zhuangzi* 2.15) zhe], ti zhi yi wu yu wei you. body Cond I with 3.Obj be friend one

'Whoever understands that existence, nonexistence, death, and life are parts of the same whole, I will become friends with him.'

死 之。 d. 將 我 則 (Zuozhuan, Xuan13) 以 誰 任, Jiang yi shei ren, wo ze si zhi. [will who then die 3.Obj OM use I

In (58) a fronted *wh*-word has an NPI interpretation, further showing the compatibility of *wh*-movement and a non-interrogative interpretation. The non-interrogative interpretation is

<sup>&#</sup>x27;Whoever you use (for this responsibility), then I will die for him.'

possible because the licenser is a negator in a higher clause, so it c-commands the *wh*-word contained within its complement, regardless of the fact that the *wh*-word has fronted within the embedded domain.

What I have shown in this section is that archaic Chinese *wh*-words, like their counterparts in modern Chinese, were indefinites and not quantificational operators. Therefore, the only diachronic difference between archaic and modern Chinese is the loss of the strong focus feature driving movement of VP-internal *wh*-phrases. It is difficult to determine what, exactly, accounts for the loss of this feature. But I will speculate on one possibility in section 5.

One final point should be made about the analysis I have proposed for archaic Chinese whquestions. The claim that archaic Chinese whqwords were indefinites but were still required to undergo movement seems to be a blatant violation of the Clausal Typing Hypothesis (Cheng 1991), which proposes that a language forms whquestion either through movement or by insertion of an operator in the CP layer, but not by both means simultaneously. Interestingly, the purported correlation between wh-in-situ and the nonquantificational nature of whqwords has been brought into question recently by Haspelmath (1997) and Bruening (2007), who show that there are numerous languages with both whqwovement and whqwhindefinites. The contribution that this paper hopes to make to their debate is to suggest that, at least for archaic Chinese, moved

wh-words are still indefinites if the movement does not reach the interrogative scope position. Therefore, it is not necessary to abandon the Clausal Typing Hypothesis, afterall, since the various interpretations of wh-words were demonstrably obtained by virtue of their being in the c-command domain of the expected triggers.

# 4. A'-positions in the vP Phase Edge

In this paper, I have proposed that archaic Chinese wh-movement targeted a position in the edge of vP. This leads us to conclude that archaic Chinese had a TP-internal position for A'-elements. This may not be so surprising in light of Belletti's (2004) proposal that Italian has an expanded vP edge which mirrors the split CP domain first proposed by Rizzi (1997). In this section, I present evidence that this may also be the case in archaic Chinese. Specifically, I suggest that two other aspects of the A' syntax of archaic Chinese also utilized a position internal to TP: focus constructions and relativization on the operator suo.

First, let us consider focus constructions. Focused objects in Archaic Chinese appeared in clause-medial position, just as did *wh*-words. The focused constituent had to be resumed by a pronoun, typically the 3<sup>rd</sup> person object pronoun *zhi* or the demonstrative *shi*. It could also be preceded by a particle such *wei* 'only, even'. Wei (1999) points out that focus movement targets a position above negation (59a) and can take place across a nonfinite clause boundary (59b), thus paralleling *wh*-movement.

之 (59) a. 吾 斯 未 能 信。 (Analects 5) Wu zhi si wei neng xin. I 3.Obj not.yet can be.confident this 'I can not yet be confident in this.' b. 彼 唯 之 惡 聞。 (Zhuangzi 2.11) 人 言 Bi wei zhi [wen t]. ren yan wu human voice 3.Obj hate it only hear

'It only hates to hear human voices.'

Also as in wh-questions, we find a subject/object asymmetry. When the subject is focused, it is not resumed by a pronoun. The focused subject can also precede adverbs like du. Recall from section 2.2 that subject wh-words can precede du, while object wh-words must follow du.

- (60)唯 仁 者 能 好 惡 (Analects 4) 人, 能 人。 a. Wei ren zhe neng hao ren, neng wu ren. virtuous only Det can like person can dislike person 'Only one who is virtuous is capable of liking someone or disliking someone.'
  - 之 b. 楚 邦 法, 祿 臣 再 世 Chu bang zhi fa. lu chen zai shi Chu Gen state law enfiefed vassal next generation

'According to the laws of the state of Chu, the heir of an enfieled vassal must return the land. Only (that of) Sun Shu-ao remained.'

I have found no examples of focused objects preceding adverbs like du. Therefore, it is difficult to state conclusively that subject and objects occupy different structural positions. However, the difference regarding resumptive pronouns does hint at an asymmetry which might mirror that between subject and object wh-questions.

Another aspect of A' syntax utilizing a clause-medial position in archaic Chinese was the relativization on VP-internal positions using the operator  $suo^{xi}$ . Suo, like object wh-words, is located below the position of the subject in surface order. Furthermore, the fact that it cannot relativize on subject position supports the claim its structural position must be no higher than T. The examples in (61) show that suo can relativize, respectively, on a direct object, a locative, and the object of a preposition.

之 b. 其 北 陵, 文 王 所 澼 風 雨 也。 Qi [Wen Wang zhi bei ling [vp bi feng yu *e* ]] ye. suo Dem north hill king escape wind rain Decl] Wen Gen Rel 'The north hill is [where the (Zhou) king Wen took shelter from the storm].'

(Zuozhuan, Xi 32)

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

*Suo* could not even relativize on the subject of an unaccusative, indicating that this argument has moved from its base positin in VP to subject position above the c-command domain of *suo*.

之 a. 穀食 之 所 生, 舟 所 通 (62)車 [gushi zhi suo sheng],[zhou che zhi suo tong grain Gen Rel grow boat Gen cart Rel pass 'where grain grows and where boats and carts can pass' (Zhuangzi 2.10)

In order to relativize on subject position, a different type of relative clause had to be used.

The determiner *zhe* appeared following the clause in the case of headless relatives.

In subject relative clauses which have an overt head, the head nominal could either follow or precede the modifying clause. The linking element *zhi* appeared between the head and the clause. Therefore, it should be clear that the function of *suo* was to relativize on VP-internal positions only.

十二三 之 者 (64)a. 馬 死 矣。 (Zhuangzi 2.2) zhe]] shi er san [ma zhi [si yi. 10 2 3 horse Gen die Det Asp 'Of the horses, 2 or 3 out of 10 have died.'

b. 豈 若 從 避 世 之 士 哉。 (Analects 18)

escape world Gen

qi ruo cong [bi shi] zhi shi]] zai.

'How could that compare to following a gentleman who escapes from the world?'

gentleman Excl

Comparing the position of *suo* with *wh*-words, we find that *suo* is located higher in the structure than *wh*-words. As we saw in section 2, object *wh*-words follow adverbs like *jiang* and *du*. These adverbs, however, follow *suo*, as in (65).

(65) a. 其 所 將 為 (Zhuangzi 3.3)

qi **suo** *jiang* wei

3.Gen Rel will do

'what they will do'

how

like

follow

b. 聖人 所 獨 見 (*Lushi Chunqiu* 6.4)

shengren **suo** du jian

saint Rel only see

۲

<sup>&#</sup>x27;something which only a saint can see"

This is unsurprising, given that relative operators can occur in higher positions than *wh*-words in other languages as well. Rizzi (1997), for instance, has shown that relative pronouns in Italian occupy a position above topics, while *wh*-words follow topics.

Italian (Rizzi 1997:289)

- (66) a. un uomo **a cui**, il premio Nobel, lo daranno senz'altro
  a man to whom the prize Nobel it they.give undoubtably
  'a man to whom, the Nobel Prize, they will give it undoubtably'
  - b. Mi domando, il premio Nobel, **a chi** lo potrebbero dare.

    I wonder the prize Nobel to whom it they.could give 'I wonder to whom, the Nobel Prize, they could give it.'

The analysis we arrive at is shown in (67). I propose that suo occurs in the lower topic position. It functions as the operator which binds the gap in VP. Wh-words and other focused constituents are located in a lower specifier of vP.

(67) 
$$[_{TP} DP_{Subj} [_{\nu P} SUO [_{\nu'} XP_{wh} [_{\nu'}  V ...]]]]$$

Clause-medial A'-positions have also been claimed to exist in modern Chinese. Ernst and Wang (1995) and Shyu (1995) argue for a clause-medial focus position for preposed contrastive objects and constituents focused with particles such as *lian* 'even'.

Guorong even children also dislike 'Guorong even dislikes children.' he (, kele b. Wo jiu bu he). (Ernst & Wang 1995:251) Ι liquor dring cola drink not 'Liquor, I drink (but I don't drink cola).'

taoyan.

(Ernst & Wang 1995:251)

xiaohaizi ye

(68)

a. Guorong lian

Paul (2005) analyzes cases like (68b) as involving a contrastive topic position at the vP periphery. She further shows that the contrastive topic position is higher than the focus position, again paralleling the left periphery topic and focus position above TP.

- (69)a. Qi-mo koashi, Lisi yingyu [lian liushi-fen] (Paul 2005:126) English 60-point term-end exam Lisi even dou mei nadao. all Neg obtain 'In the final exam, Lisi didn't even obtain 60 points.'
  - b. \*Qi-mo koashi, [lian liushi-fen] Lisi (Paul 2005:126) yingyu term-end 60-point Lisi English exam even dou mei nadao. all Neg obtain

<sup>&#</sup>x27;In the final exam, Lisi didn't even obtain 60 points.'

Given Belletti's (2004) analysis of Italian, as well as evidence from both archaic and modern Chinese, it should not be surprising to find TP-internal A'-positions of the sort I have proposed for archaic Chinese.

## 5. Conclusion and Diachronic Implications

In this paper, I have proposed that late archaic Chinese had a type of *wh*-movement which targeted a focus position in the edge of *vP*. *Wh*-words, therefore, did not raise to the interrogative scope position in the C domain; rather, the interrogative interpretation was dependent on unselective binding by an operator in [Spec, CP]. Unsurprisingly, we have also seen that archaic Chinese *wh*-words were indefinites and not quantificational operators, as is also the case in modern Chinese. In sum, we have seen that the only substantive difference between archaic and modern Chinese *wh*-questions is the presence or absence of movement. The historical change which took place in early middle Chinese, then, was simply the loss of this movement, i.e. the loss of the strong feature driving the movement.

It is difficult to determine the exact cause which led to the loss of this feature. However, one can speculate that the reason is related to interpretation. We have already seen that the motivation for *wh*-movement itself was *not* interpretation, since movement did not place this constituent in its scope position. It is thus entirely conceivable that children acquiring late archaic Chinese were sensitive to this anomaly and ultimately failed to acquire the deviant aspect of the grammar.

There is supporting evidence for this line of thinking. Wh-in situ begins to emerge in Chinese from the Han Dynasty ( $2^{nd}$  century BCE to  $2^{nd}$  century CE). (70a) shows a wh-word following a preposition. In (70b), the object wh-phrase remains in post-verbal position.

天下 (70)a. 陛下 取 乎? (*Shiji* 55) 與 誰 Bixia [yu shei] tianxia hu? qu sire with who conquer world Q 'Sire, with whom will you conquer the world?' 古 平? b. 此 其 理 也, 有 怨 (Shiji 81) 何 Ci qi li ye, [vp you he yuan ] hu? gu this Adv Dem way Decl have what complaint Q "This is the way things are; what complaint could you have?"

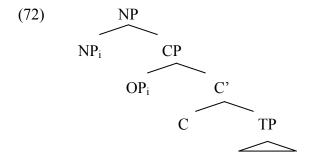
It was also at this time that the *suo* relative clauses began to decrease in frequency. (71) shows examples of relative clauses formed on object position which did not use *suo*. Instead, what we see is generalization of the subject relativizing strategy.

(71) a. 寡人 好 者 音 也。 (Lunheng 64) Guaren yin hao zhe ye. I music Decl like Det 'What I like is music.' b. 我 請 君 塞 兩 耳 Wo qing jun sai liang er Ι ask lord close two ear

'I asked my lord to close his ears and not listen to what was being discussed.'

"I fear that the profit we gain through attack will not equal the cost of our loss."

Relative clause formation is geneally assumed to involve movement or base-generation of an operator in [Spec, CP] of the embedded clause [Spec, CP] (Chomsky 1977, Safir 1986, and others) or binding from C or a determiner at the edge the clause (Basilico 1996, Adger and Ramchand 2005, Williamson 1987, and others). An operator in peripheral position is necessary in order to establish the semantic relationship between an external head and the gap position inside the clause.



Given this, clause-medial *suo* by itself would not suffice to establish the binding relation with the head nominal. Loss of the *suo* relativization strategy could then be viewed in the same light as loss of clause-medial *wh*-movement: loss of movement to the edge of *vP* which has no effect on interpretation. At this point, bear in mind from the discussion of Ernst and Wang (1995) and Paul (2005), that modern Chinese has clause-medial focus and topicalization. These movements, naturally, have an effect on interpretation and their retention is predicted on the analysis under consideration here.

One final clause-medial movement construction is pronoun cliticization under negation, which I discussed in section 2.1. It is commonly known that cliticization, like *wh*-movement, started to be lost in the Han period (Wei, 2004, Wang 1958, Yang & He 1992, among many others). Djamouri (2000) has suggested that pronoun fronting was originally focus fronting. But the association with focus was clearly lost by the late archaic period. Thus, pronoun cliticization was another type of clause-internal movement which did not affect semantic interpretation and therefore was lost together with *suo* relativization and *wh*-fronting.

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<sup>&</sup>lt;sup>ii</sup> Note that the relative positions of negation and *wh*-phrases also cannot be accounted for in a slightly modified implementation of Feng's analysis in which negation is treated as an adverb adjoined to a projection of V. Feng clearly states his position that *wh*-constituents be located inside VP, while negation resides outside VP: "The position of the pronominal object in a negative sentence is canonically outside the core VP on the left periphery of a larger constituent, while a *wh*-object can be located only inside the VP." (Feng 1996:328)

Watanabe (2002, 2005) proposes an analysis along these lines for *wh*-movement in old Japanese. See Aldridge (2009) for arguments against the high movement analysis for old Japanese.

For discussion of the modern Mandarin disposal construction the reader is referred to Li and Thompson (1981), Cheng (1988), Sybesma (1999), Bender (2000), among many others.

<sup>&</sup>lt;sup>v</sup> Note that glossing *yi* as an object marker is not intended as an endorsement of any particular analysis of *yi*. Precise analysis of the disposal construction is immaterial to the discussion at hand which merely offers the empirical observation that nontopicalized objects could appear preverbally in this construction.

<sup>&</sup>lt;sup>vi</sup> Note that (29b) is not a counterexample to the claim that archaic Chinese did not have a topic position for internal arguments between the subject and vP. Either qi 'wife' or Zhuangzi qi 'Zhuangzi's wife' could potentially be analyzed as the grammatical subject. In the latter case, Zhuangzi would a possessor with no genitive marking. The entire possessed DP Zhuangzi qi would be in [Spec, TP]. In the former case, Zhuangzi would be a major subject in a

hanging topic position, while just qi occupied [Spec, TP]. There is no analysis which would require both preverbal nominal constituents to be analyzed as topics.

- vii Pullyblank (1995), Peyraube (1999), Meisterernst (2008), and others analyze *ke* semantically as a type of modal auxiliary. Syntactically, however, it is generally agreed that *ke* involved some type of passivization, i.e. promotion or raising, during the archaic period.
- viii Huang (1982) shows for modern Chinese that *wh*-in situ in a relative clause is grammatical and can receive a matrix interpretation, but overt movement out of a relative clause does invoke a locality violation and results in ungrammaticality.
- <sup>ix</sup> This movement would specifically violate the Condition on Extraction Domain (Huang 1982). See Nunes and Uriagereka (2000), Stepanov (2007), and others for Minimalist approaches to the CED.
- <sup>x</sup> An anonymous reviewer points out that while a moved *wh*-phrase phrase is not in the scope of negation, its trace is still c-commanded by the negator. However, it is still unlikely that this could license a negative polarity interpretation for the *wh*-word. NPIs are generally required to be locally licensed by negation or other approapriate downward entailing operator (Ladusaw 1980). Aoun (1985) and Progovac (1994) have likened NPI licensing to anaphor binding, which suggests the importance of local c-command. Indeed, for English, it seems clear that surface c-command is required. Only the post-verbal NPI is licensed in the following pair of examples. The NPI subject position in (ii) is not licensed, even though its trace is c-commanded by the negator.
  - i. I didn't see anyone.
  - ii. \*Anyone wasn't seen <anyone>.

Further study might perhaps shed additional light on the licensing requirements on NPIs in archaic Chinese. However, the strict understanding of NPI licensing as requiring surface c-command suffices to account for the pattern observed in this paper, i.e. that only *wh*-words overtly c-commanded by negation could be interpreted as NPIs.

xi See Chiu (1995) and Ting (2003) for discussion of the remnant of *suo* in modern Mandarin. The modern *suo* differs from its archaic antecedent in a number respects, so I will not consider it here, where the focus is on archaic Chinese.