

FEATURE ATTRACTION OF WH-QUESTIONS IN THE BAMBOO SLIPS OF *TAO TE CHING*

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ABSTRACT

There are 12 interrogative sentences in the bamboo slips of *Tao Te Ching*, and all of them are wh-questions. Different from the traditional ancient classic version, the silk manuscript version of *Tao Te Ching*, these wh-questions do not carry wh-question particles at the end of the sentences. The LF movement hypothesis and unselective binding cannot hold in wh-interpretation of archaic Chinese wh-questions. Thus the Interrogative Feature Attraction Hypothesis may be applied to the interpretation of wh-questions. The wh-feature of the wh-word is attracted to the spec CP position to check the weak wh-feature of the head. Similar to wh-questions in modern Chinese, when there is no wh-particle at the end of the interrogative sentence, there must be a rising intonation Q at the end of the sentence. The Interrogative Feature Attraction Hypothesis is therefore revised, and the wh-feature in the wh-questions will be appropriately checked, and thus it is of great theoretical significance to the study of linguistic universality.

KEYWORDS: *Tao Te Ching*; Wh-Question; Feature Movement

INTRODUCTION

Tao Te Ching, also called *Laozi*, a philosophical classic before Qin Dynasty in ancient China written by Li Er, is the basis of Taoist philosophy. There are too many versions of *Tao Te Ching*, among which the handed-down ancient classic, the silk manuscripts and the bamboo slips are three of the well-claimed versions. The bamboo slips of *Tao Te Ching*, as the earliest ever existed version whose academic value, has been very popular, whereas the traditional ancient classic version is the most influential one with widespread popularity and the most numerous translated versions (Chen & Xuan, 2002: 465). The bamboo slips of *Tao Te Ching* found in the Chu Dynastic Tomb at Guodian are compiled in three books of Book A, Book B and Book C. The most popular versions of *Tao Te Ching* in Chinese history are the Heshanggong version in Han Dynasty and the Wangbi version in Cao Wei Dynasty. Before Qing Dynasty, there had been more than 103 versions of *Tao Te Ching*, but the most valued versions in the academic circle are the Wangbi version and the two copies of silk manuscripts of Book A and Book B unearthed from Mawangdui, Changsha. In the bamboo slips of *Tao Te Ching*, there are only 12 interrogative sentences, all of which are wh-questions (Ma, 2016b).

Wh-Questions in *Tao Te Ching*

The bamboo slips of *Tao Te Ching* unearthed from the tomb in Guodian, Jingmen, Hubei Province, is the earliest version that we have ever been able to read in Chinese history. In that version of *Tao Te Ching* we can find altogether 12 interrogative sentences, none of which is a yes-no question, and none of which carries any question particle at the end of the sentence.

(1) gu da dao fei, an you ren yi? (Bamboo Slips of *Tao Te Ching* Book C)

Ancient great law abandoned how exists benevolence

“How can benevolence exist when the ancient great law is abandoned?”

(2) liuqin bu he, an you xiaoci? (Bamboo Slips of *Tao Te Ching* Book C)

Kinship not harmonious how exist filial-peity

“How can the filial piety exist without harmonious kinships?”

(3) bang jia hunluan, and you zheng chen? (Bamboo Slips of *Tao Te Ching* Book C)

State family dizzy how exist upright official

“How can upright officials exist if the state and the family is dizzy?”

(4) wei yu e, xiangqu ji he? (Bamboo Slips of *Tao Te Ching* Book B)

Respect and pertermission difference much what

“What is the difference between respect and pertermission?”

(5) mei e, xiangqu he ruo? (Bamboo Slips of *Tao Te Ching* Book B)

Beauty ugliness diference what like

“What is the diference between beauty and ugliness?”

(6) he wei chong rui? (Bamboo Slips of *Tao Te Ching* Book B)

What call favor humilation

“What is favor or humilation?”

(7) he wei gui da huan ruo shen? (Bamboo Slips of *Tao Te Ching* Book B)

What mean treasure great illness like body

“What does it mean by treasuring great illness as you do your body?”

(8) ji wu wu shen, huo he huan? (Bamboo Slips of *Tao Te Ching* Book B)

And I no body or what illness

“If I have no boly, what illness do I have?”

(9) wu he yi zhi tianxia zhi ran? (Bamboo Slips of *Tao Te Ching* Book B)

I what with known universe of this

“How do I know that the universe is like this?”

(10)-(12) are quoted from the *Bamboo Slips of Tao Te Ching* Book A:

(10) ming yu shen shu qin?

Fame and body who dear

“Which is dearer, fame or body?”

(11) shen yu huo shu duo?

Body and goods who more

“Which is more, body or goods?”

(12) de yu wang shu bing?

Gain and loss who harmful

“Which is more harmful, gain or loss?”

LF Movement

Huang (1982a, 1982b) proposes that in Chinese Wh-questions, when wh-words co-occur with other quantifiers, the wh-word always takes wide scope.

(13) meigeren kandao le shenme?

Everyone saw what

“What did everyone see?”

(14) [shenme_j [meigeren_i [x_i kandaole x_j]]]

(15) [what_j did[everyone_i [x_i see x_j]]]

According to Huang (1982a, 1982b), (14), similar to the English counterpart in (15), is the logical form of the Chinese sentence in (13). Like the English wh-question in (15), the wh-word “shenme”(“what” in English) and the quantifier “meigeren”(“everyone” in English) can both occupy the wide scope position. The answer to this question can be either “Meigeren dou kandaole qian” (Everyone saw money) or “Zhagnsan kandaole qian, Lisi kandaole zeren, Wangwu kandaole lixiang” (John saw money, Bill saw duty and Smith saw ideal”. The ambiguity of the sentence in (13) shows that in Chinese Wh-questions there is LF-movement of the quantifiers and the wh-words.

In the examples of the wh-questions in (6) and (7), when the Chinese wh-word “he” is used as an object of the verb “wei”, the object will be shifted to the front position of the verb. This phenomenon is called object shift in archaic Chinese. Rewritten as (16) and (17) for convenience.

(16) he wei chong rui? (Bamboo Slips of *Tao Te Ching* Book B)

What call favor humiliation

“What is favor or humiliation?”

(17) he wei gui da huan ruo shen? (Bamboo Slips of *Tao Te Ching* Book B)

What mean treasure great illness like body

“What does it mean by treasuring great illness as you do your body?”

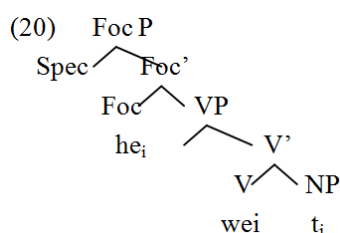
If the LF-movement hypothesis is on the right track, then sentences (16) and (17) should be explained as follows:

(18) [he_i wei t_i chong rui?]

(19) [he_i wei t_i gui dahuan ruo shen?]

The wh-word in the sentences thus takes wide scope. But this is not the true story. Then a problem arises. The wh-words in (16-17) are not cases of covert LF-movement, but rather overt movement. This overt movement is not necessarily similar to the wh-movement in English wh-questions. In English wh-movement is triggered by the strong [+Q] feature in the head of CP position. In Chinese, however, the [+Q] feature in the head of CP position is weak; the weak head [+Q] feature cannot trigger overt wh-movement. The overt movement in (16-17) is not necessarily triggered by wh-feature checking requirement. In fact, object shift in archaic Chinese might be due to focus feature checking requirement. Object shift is caused by emphasis of the object, which is raised to the front position of the verb. Thus object becomes the focus of the sentence.

In (18-19), the wh-word “he” (“what” in English) moves overtly to the front position of the verb, triggered by the strong focus feature in the head of the Focus phrase. The wh-words in archaic Chinese carries [+F] focus feature, and when these words are located in the object position, they usually must move to the front of the verb or preposition (Xu & Li, 1993:161). This movement is triggered by the strong focus feature of Foc head. And the object wh-word has to move to the head position to check the strong [+F] head feature. As is what we can see, the focus phrase is located in the head position of the left periphery structure in the Chinese sentence, as illustrated in the tree diagram of (20).



This strong focus feature also triggers the object shift in sentences (1-2), illustrated as in the following semantic representations:

(21) [gu da dao fei, an_i you ren_i t_i ?]

(22) [liuqin bu he, an_i an you xiaoci t_i ?]

The overt movement of the object wh-word in the Bamboo Slips of *Tao Te Ching* is strongly against the LF movement hypothesis of Huang (1982a, 1982b). LF movement of Chinese wh-words in wh-questions does not hold in archaic Chinese.

Unselective Binding

Since LF movement doesn't work in Chinese wh-questions, it is proposed that a null operator can be generated at the spec of CP which unselectively binds the wh-word (Tsai, 1994; Shi, 1994; Wu, 2005 etc.).

(23) a. [_{CP} Op_i [_{IP} Zhangsan [_{VP} xihuan shei_i]]]

Zhangsan like whom

b. [_{CP} Op_i [_{IP} shei_i [_{VP} xihuan Zhangsan]]]

who like Zhangsan

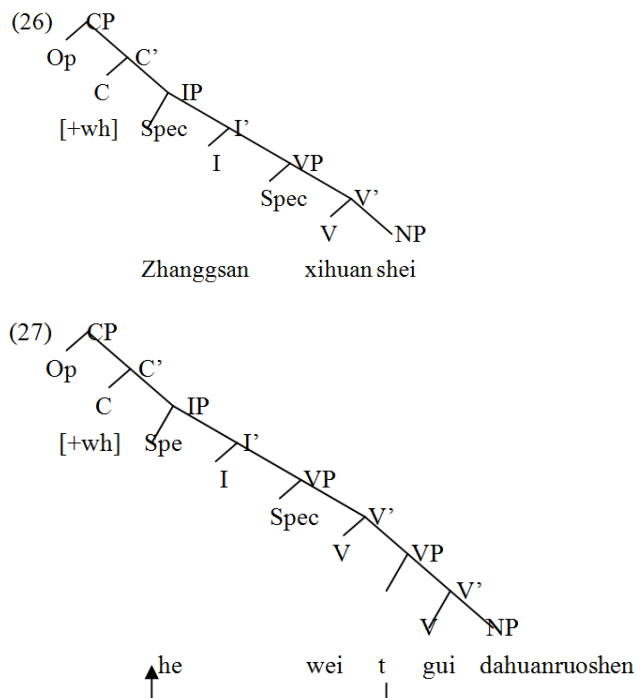
In the above example, the null operator base-generated in [Spec, CP] unselectively binds the wh-word “shei” (who). The wh-word in (23a) is a complement of the VP and in (23b) a subject. The null operator binds the wh-word and thus the sentence is interpreted as a wh-question. In the following we shall see if the unselective binding policy works in archaic Chinese.

In archaic Chinese wh-questions, as it is shown in the above examples in *Tao Te Ching*, let's suppose that at the spec of CP a base generated Q operator binds the wh-word as it is shown in (24-25).

(24) [_{CP} Op_i [_{IP} he_i [_{VP} wei t_i chong rui?]]]

(25) [_{CP} Op_i [_{IP} he_i [_{VP} wei t_i gui dahuan ruo shen?]]]

Let's write the tree diagram of (23) and (25) respectively as (26) and (27) in the following:



In (26) and (27), the null operator unselectively binds the wh-word and the sentence gets interpreted as a wh-question. According to checking theory, the interrogative feature in the head position of C should be checked against the weak interrogative feature of the null operator in the spec of CP. If the wh-feature of the null operator in the spec of CP agrees with the interrogative feature in the head position of C, then the sentence can be interpreted as a wh-question. If the null wh-operator is base-generated in the spec of CP, and the wh-feature agrees with the wh-feature of the head, then the sentence converges. It seems that even if there is no wh-word in the sentence, the sentence can be still interpreted as a wh-question. Obviously this is on the wrong track. And it seems to be a cycling proof that if the sentence is a wh-question, then in Chinese there must be a null wh-operator in spec of CP, and if a null wh-operator is base-generated in spec of CP, the sentence must be a wh-question. So unselective binding does not really work in the interpretation of Chinese wh-questions.

Aoun & Li (1993a, 1993b) proposes that in modern Chinese wh-questions, the interrogative force of the wh-word as an indefinite is licensed by the interrogative operator. The question particle “ne” at the end of the sentence as a wh-operator binds the wh-word and forms an operator variable relationship.

This approach does not apply to the wh-interpretation in archaic Chinese, as it is noted in the above examples, wh-questions in the bamboo slips of *Tao Te Ching* unearthed from the tomb in Guodian, Jingmen, Hubei Province do not carry any question particles. If Aoun & Li’s solution (1993a, 1993b) is on the right track, as there is no question particle in the wh-question in the bamboo slips of *Tao Te Ching*, there will be no wh-operator in the sentence, and therefore the sentence cannot be understood as wh-question. This approach fails to account for the wh-questions in the bamboo slips of *Tao Te Ching*.

In the following section, we will apply Interrogative Feature Attraction Hypothesis (Ma, 2004, 2006: 108; 2014: 19; 2015, 2016a, 2016b) to the explanation of wh-questions in the bamboo slips of *Tao Te Ching*.

Interrogative Feature Attraction Hypothesis

According to Chomsky (1995), Frampton (1997) put forward the Attraction Principle; syntactic movement is operated only for the sake of satisfying the feature requirement of the head X (qtd, in Stroik, 2009:34). The syntactic movement is done to satisfy the need of the head instead of the need of itself. In light of the Attraction Principle, as a candidate to be attracted to the head X, the feature of this phrase can move to the checking domain of the head X via movement operation to meet with the feature requirement of the head X. This movement operation can only occur based on the following two conditions: (1) There is no other candidate closer to the head X. (2) The formal features of the candidate match with those of the head X.

Cheng (2000) claims that the wh-feature moves to the CP position of the matrix clause, and then the wh-phrase partially pied-piped to the CP position in the embedded clause. This wh-feature movement occurs in German wh-questions. In German partial wh-movement constructions, the Spec position of CP in the matrix clause is always occupied by an interrogative domain marker, and the real wh-word is located in the specifier position of the embedded clause.

From the above analysis, the wh-feature first moves to the CP position of the embedded clause, and this triggers the pied-piping of the wh-phrase. And then the wh-feature moves to the CP position of the matrix clause, and this movement leaves the wh-phrase in the CP position of the embedded clause behind it.

Based on the above hypothesis, with Chomsky’s feature attraction theory (1995, chapter 4) in mind, Interrogative Feature Attraction Hypothesis (Ma, 2004, 2006: 108; 2014: 19; 2015, 2016) might be applied to the checking analysis of the syntactic features of interrogative sentences in *Tao Te Ching* in light of economy principle.

(28) Interrogative Feature Attraction Hypothesis

In null specifier type of languages (Ma, 2001), the interrogative head with weak interrogative feature, located at the end of the interrogative sentence, which is represented as the functional question particle “ne”/ “ma” or the rising tone Q in modern Chinese, attracts the interrogative feature of the wh-word or the interrogative construction to move to spec CP position so that the interrogative feature is checked and thus the sentences can be interpreted as interrogative sentences.

As the interrogative sentences in archaic Chinese are marked with question particles of “ye”, “zai” and “hu” at the end of the sentences, and these question particles in archaic Chinese behave much similar with the question particle “ne” in modern Chinese, the just mentioned Interrogative Feature Attraction Hypothesis (28) can be revised as follows:

(29) Interrogative Feature Attraction Hypothesis

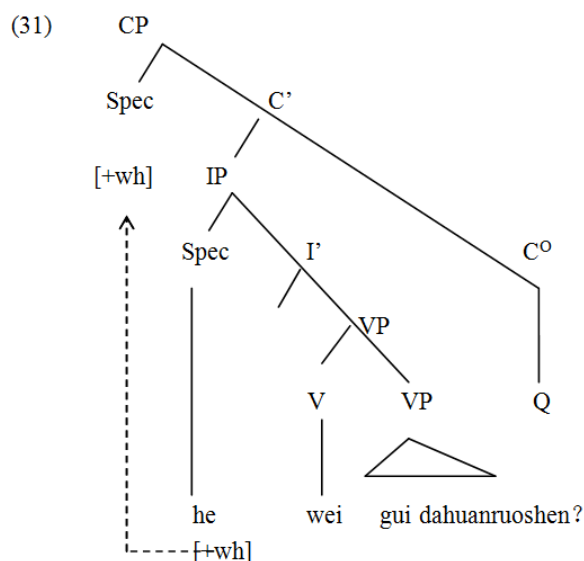
In null specifier type of languages (Ma, 2001), the interrogative head with weak interrogative feature, located at the end of the interrogative sentence, which is represented as the functional question particle “ne”/ “ma” or the rising tone Q in modern Chinese, and “ye” / “zai” / “hu”, attracts the interrogative feature of the wh-word or the ininterrogative construction to move to spec CP position so that the interrogative feature is checked and thus the sentences can be interpreted as interrogative sentences.

As the 12 wh-questions in the bamboo slips of *Tao Te Ching* unearthed from the tomb in Guodian, Jingmen, Hubei Province do not carry any question particles, (29) cannot be applied to the interpretation of the wh-questions. Let us suppose that at the end of the wh-questions in the bamboo slips of *Tao Te Ching* when there is no wh-particle, there must be a rising tone of the sentence to indicate the interrogativeness of the sentences. If this is the case, then (29) could be revised as (30):

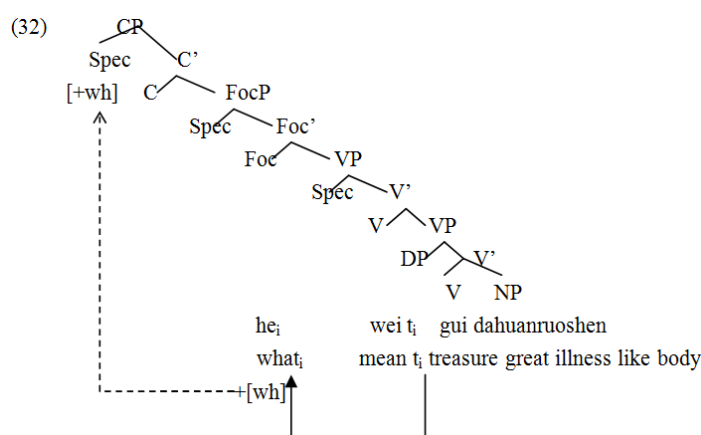
(30) Interrogative Feature Attraction Hypothesis

In null specifier type of languages (Ma, 2001), the interrogative head with weak interrogative feature, located at the end of the interrogative sentence, which is represented as the functional question particle “ne”/ “ma” or the rising tone Q in modern Chinese, and “ye” / “zai” / “hu” or the rising tone Q, attracts the interrogative feature of the wh-word or the ininterrogative construction to move to spec CP position so that the interrogative feature is checked and thus the sentences can be interpreted as interrogative sentences.

We can apply (30) to the interpretation of the wh-questions in the bamboo slips of *Tao Te Ching*. Let us suppose that Chinese interrogative head is at the end of the sentence marked as the questions particle or the rising tone, and then the wh-questions in the bamboo slips of *Tao Te Ching* can be accounted for. Let us take sentence (6) as an example. (31) is the tree diagram for (6):



It seems that (31) is not the whole story of wh-feature movement. First, the wh-word moves for checking of the strong focus feature. As it is shown in (20), focus movement is triggered by the strong focus feature of the head Foc in FocP. When the wh-words are located in the object position, these words must move to the front of the verb because of the [+F] feature they carry and the need of feature agreement in the head position of Foc. The strong head Foc position must be filled in and thus the wh-words with [+F] feature naturally moves to the head position to check off the strong [+F] feature of the head Foc. Thus the sentence can be grammatical. After the focus movement, the weak wh-feature in the C head of CP should also be checked, it requires the spec of CP to be filled by the [+wh] feature. Thus the wh-feature of the wh-word “he” is attracted to the spec CP position to check the weak [+wh] feature carried by the head C of CP, leaving the wh-word behind in the head Foc position in-situ. When the weak [+wh] feature of the head C is checked, the sentence can be interpreted as a wh-question. This operation can be illustrated as in (32):



More on Feature Attraction

Based on feature attraction, Chomsky (1995: 311) proposed the Minimal Link Condition that the target attracts the closest relevant feature.

(33) Minimal Link Condition

K attracts α only if there is no β , β closer to K than α , such that K attracts β .

According to this condition, the following example could be accounted for.

(34) Did you know Bill bought what?

In (34), from the viewpoint of the target C (the matrix interrogative C in the example), the [+wh] feature of *what* is the only closest relevant formal feature, thus the target C attracts the formal feature of *what* as there is no other [+wh] feature in the sentence which is closer than the formal feature of *what*. The sentence is grammatical in light of (33).

(34) can also be turned into (35), when the whole category of the wh-word *what* moves to the target C. In this case, two chains are created. When the relevant feature of the wh-word moves to the target C, the whole set of the formal features of the wh-word is carried along, forming the chain CH_{FF} in (36a). The whole category of the wh-word moves because the phonological component cannot be dealt with a lexical item with scattered features and thus pied-piping is required as shown in (36b).

(35) What_i did you know Bill bought t_i?

(36) a. CH_{FF} = (FF[F], t_{ff})

b. CH_{cat} = (α, t_α)

(qtd in Ochi, 2001: 273)

(37) is ungrammatical, because the closest relevant feature for the target matrix C is not that of *what*, but that of *who*. There is another wh-word *who* closer to the target than *what*, such that the target K attracts *who*. The target attracts the closest feature of *whom* instead of *what*. In (38), When the relevant feature of the wh-word moves to the target C, the whole set of the formal features of the wh-word is carried along. The whole category of the wh-word *who* moves because the phonological component cannot be dealt with a lexical item with scattered features and thus pied-piping is required.

(37) *What_i did you know who bought t_i?

(38) Who_i did you know t_i bought what?

In archaic Chinese, when the wh-word is an interrogative pronoun used as the object in the sentence, the wh-word is invariably shifted to the front of the verb or the preposition.

(39) jin er he_i jian t_i? (Lv Penalty, The Book of History)

Today you what overlook

“What do you overlook today?”

And in the negative sentences in archaic Chinese, when the pronoun is used as the object of the sentence, the pronoun is often put in front of the verb.

(40) bu wo_i neng ji t_i. (Dinggua, Book of Change)

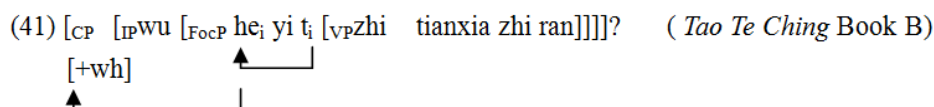
Not I can approach

“They can’t approach me.”

Object shift occurs within the projection of negation, and object shift occurs inside the scope of IP. Let’s suppose that object shift is caused by the requirement that the focus movement occurs when the object is focused. The head feature [+F] of the focus phrase is strong in archaic Chinese, and thus attracts the [+F] feature of the object to move to the target head. When the [+F] feature of the object moves to the head position of the focus phrase, in PF the object is not focused and thus requires the category movement of the whole category of the object to the head position in PF, and so the whole category of the object pied-pipes with the [+F] feature of the object to the [+F] head position.

Object shift does not only occur in interrogative sentences, and sometimes it occurs in negative sentences. Thus object shift, as an operation of focus movement, cannot account for the interrogativeness of the sentence. As the head C of the wh-questions in Chinese is weak, the weak [+wh] feature of the head target can only attract the [+wh] feature of the focused wh-word to move to the spec position of CP in order to check off the weak feature of the head. Thus in example (9), restated as (41) below, the [+wh] feature of the moved focus “he” functioning as the preposed object in the sentence, is attracted and moved to the spec position of CP and the weak [+wh] feature of the head C is checked off, and therefore the

sentence can be interpreted as a wh-question.



In (41), the wh-word “he” (“what” in English) as a focus should be moved to the front of the preposition “yi” (“with” in English) in order to check off the strong focus feature of the head in FocP. After overt focus movement, the wh-word stays in the head position of FocP. According to the Interrogative Feature Attraction Hypothesis in (30), the weak [+wh] feature in head C position of CP attracts the [+wh] feature of the wh-word to move to the spec position of CP, and thus the weak [+wh] feature in head C position of CP agrees with the [+wh] feature of spec CP and therefore is checked. The sentence, as a result, can be interpreted as a wh-question.

CONCLUSIONS

In the bamboo slips version of *Tao Te Ching*, there are altogether 12 interrogative sentences of which no yes-no questions are found. In these wh-questions, the wh-words used as indefinite pronouns undergo object shift when they serve as objects in the sentences. The object shift phenomenon is triggered by the requirement of the strong focus head feature checking. The whole category of the objects of the verbs or prepositions must be moved pied-piped to the head focus position of FocP in order to check the strong focus feature. However, object shift cannot account for why the sentences can be interpreted as wh-questions. In light of the Interrogative Feature Attraction Hypothesis, the weak [+wh] feature of the head in CP attracts the [+wh] feature of the wh-word to move to the spec of CP to check off the relevant [+wh] feature of the head and the sentence can be interpreted as a wh-question. This solution follows Chomsky’s Attract F theory, and account for the universality of the wh-feature attraction hypothesis in natural languages.

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