On Two Types of Existential Subjects in Chinese A-not-A Questions

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This paper examines why an existential polarity wh-subject or a you-NP subject is not allowed in Chinese A-not-A questions. Two kinds of syntactic approaches proposed in the literature that deal with unacceptable existential polarity wh-subjects in A-not-A questions are reviewed. The definiteness approach (Cheng 1991, 1994) only partially explains relevant facts but raises a question which does not arise under the c-command approach (C.-T. Huang 1982, Li 1992, Lin 1998, R.-H. Huang 2009): Why are A-not-A sentences which involve an existentially quantified you-wh-subject without violating the definiteness constraint on Chinese NP subjects still ungrammatical? As for why A-not-A questions cannot involve a you-NP subject, this paper proposes a syntactic solution based on feature intervention effects, while arguing against a pragmatic solution based on subject identity (Lin 1998). It is concluded that the unacceptability of existential polarity wh-subjects and you-NP subjects in Chinese A-not-A questions is closely tied to two syntactic properties of the A-not-A operator: the lower-than-the-subject position and LF movement, respectively.

Key words: A-not-A question, c-command, existential, intervention effect, polarity

1. Introduction

This paper investigates the reasons why two types of existential NP subjects cannot appear in Chinese A-not-A questions: existential polarity wh-subjects and indefinite NP subjects quantified by the existential quantifier you ‘have’ (henceforth you-NP subjects). It is well known that nominal wh-phrases in Mandarin Chinese, in addition to representing questions, can also be interpreted as non-questions. The examples in (1)-(4) are taken

(1) Ta **bu** xiang chi **shenme**. (Negation)
   s/he not want eat what
   ‘S/he did not want to eat anything.’

(2) **Ruguo** ta xiang chi **shenme**, ta hui gen ni shuo. (Conditional)
   if s/he want eat what s/he will with you say
   ‘If s/he wants to eat anything, s/he will let you know.’

(3) Ni xiang chi **shenme ma**? (Yes-No Question)
   you want eat what **QYN**
   ‘Would you like to eat anything?’

(4) Ni **xiang-bu-xiang** chi **shenme**? (A-not-A Question)
   you want-not-want eat what
   ‘Would you like or not like to eat anything?’

(5) Wo **yiwei** ni kandao **shenme**. (Non-Factive Verb)
   I think you see what
   ‘I thought you saw something.’

(6) Ta **keneng** xihuan **shenme**. (Modal)
   s/he probably like what
   ‘S/he probably likes something.’

(7) Ta kandao (**le**) **shenme** **le**. (Inference **le**)
   s/he see ASP what ASP
   ‘S/he saw something.’

several points in this paper. Furthermore, I am grateful to Feng-fan Hsieh and Hui-chi Lee for their unfailing encouragement during various stages of preparing this paper. Finally, I would like to express my gratitude to the three anonymous reviewers for their constructive comments and suggestions, which have led to significant improvement of this paper. Any remaining errors or inadequacies are my own responsibility.

1 The abbreviations used in this paper are glossed as follows: ASP: aspect marker; CL: classifier; DE: prenominal modifier marker; FP: final particle **de**; PASS: passive marker; POSS: possessive marker; Q**WH**: wh-question particle; Q**YN**: yes-no question particle; SUFX: suffix.
(8) Wo xiang chi *(dian) shenme dongxi.*
   (Deterner dian)
   I want eat CL what thing
   ‘I want to eat something.’

(9) (Nimen) shei qu bang wo na ge diezi lai. (Imperative)
    you who go help me take CL plate come
    ‘Somebody go to get a plate for me.’

In the above sentences, wh-phrases receive a non-interrogative, indefinite interpretation (i.e. ‘some’ or ‘any’) under “affective contexts” (cf. Klima 1964), such as negation, conditionals, yes-no questions, etc. It has been noted in the Chinese literature (cf. C.-T. Huang 1982, Cheng 1991, 1994, Li 1992, Lin 1998) that indefinite wh-phrases behave like (negative) polarity items. They are similar in that both must be licensed by polarity triggers/licensors which make affective contexts possible. For examples of overt polarity triggers/licensors, see the bold-faced elements in (1)-(8).

Non-interrogative readings of Chinese wh-phrases fall into two types: existential and universal. The ones we have seen in (1)-(9) are referred to as existential polarity wh-phrases, and they are distinguished from those which receive a universal interpretation as exemplified below.

(10) Ta shenme dou chi.
    s/he what all eat
    ‘S/he eats everything.’

The non-interrogative wh-phrase in the above example is licensed by the universal quantifier dou ‘all’. Since this paper focuses on existential wh-phrases, universal ones as in (10) will not be concerned.

In particular, this paper proposes syntactic solutions to account for the subject-object asymmetry associated with existential polarity wh-phrases observed in (11), taken from Li (1992:128).3

2 According to Tsai (2010:216), dian is a determiner with quantificational force of existentiality. It may existentially quantify over its following wh-word via a binding relation.

3 An anonymous reviewer brought (i) to my attention and asked why the wh-subject in this case is allowed whereas the wh-subject in (11a) is not.

(i) Shei/shenme ren xi-bu-xihuan ta he wo wu-guan.
    who/what person like-not-like him/her with me no-relation
    ‘Whether anyone likes or does not like him/her is none of my business.’

I speculate that the wh-phrase in the above kind of sentence might receive an interrogative interpretation. Cheng & Huang (1996:147) point out that a subordinating conjunction such as
As shown above, an existential polarity wh-phrase like shenme ‘what’ in an A-not-A question is possible in object position, but not in subject position. To the best of my knowledge, at least two kinds of syntactic approaches have been proposed in the literature to deal with the above asymmetry. One of them concerns a definiteness constraint on Chinese NP subjects (Cheng 1991, 1994), while the other has to do with the c-command condition (C.-T. Huang 1982, Li 1992, Lin 1998, R.-H. Huang 2009). In this paper, I reconsider these two kinds of approaches and show that the definiteness approach only partially explains relevant facts and raises a question which does not arise under the c-command approach. The question concerns why an A-not-A sentence which involves an existentially quantified you-wh-subject without violating the definiteness constraint on Chinese NP subjects is still ungrammatical.

Regarding the other type of existential subjects, you-NP subjects, they have been found to be able to occur in yes-no questions, but not in A-not-A questions, as exemplified below.

\[
\text{(11) a. *Shei/*Shenme ren xi-bu-xihuan ta?} \\
\quad \text{who what person like-not-like him/her} \\
\quad \text{‘Does anyone like or not like him/her?’} \\
\text{b. Ta xi-bu-xihuan shenme?} \\
\quad \text{s/he like-not-like what} \\
\quad \text{‘Does s/he like or not like anything?’}
\]

\[
\text{As shown above, an existential polarity wh-phrase like shenme ‘what’ in an A-not-A question is possible in object position, but not in subject position. To the best of my knowledge, at least two kinds of syntactic approaches have been proposed in the literature to deal with the above asymmetry. One of them concerns a definiteness constraint on Chinese NP subjects (Cheng 1991, 1994), while the other has to do with the c-command condition (C.-T. Huang 1982, Li 1992, Lin 1998, R.-H. Huang 2009). In this paper, I reconsider these two kinds of approaches and show that the definiteness approach only partially explains relevant facts and raises a question which does not arise under the c-command approach. The question concerns why an A-not-A sentence which involves an existentially quantified you-wh-subject without violating the definiteness constraint on Chinese NP subjects is still ungrammatical.}
\]

\[
\text{Regarding the other type of existential subjects, you-NP subjects, they have been found to be able to occur in yes-no questions, but not in A-not-A questions, as exemplified below.}
\]

\[
\text{(12) a. You ren hui lai ma?} \quad \text{(Lin 1998:252)} \\
\quad \text{have person will come QYN} \\
\quad \text{‘Is anybody coming?’} \\
\text{b. *You yi-ge ren xi-bu-xihuan Lisi?} \quad \text{(Lin 1998:233)} \\
\quad \text{have one-CL person like-not-like Lisi} \\
\quad \text{‘Does a person like or not like Lisi?’}
\]

\[
\text{bulun ‘regardless of’ s-selects an interrogative proposition as its complement. As demonstrated in (ii), the subordinating conjunction bulun ‘regardless of’ and the universal quantifier dou ‘all’ can be optionally added to the sentence in (i). This fact suggests that my speculation is reasonable, and I conclude accordingly that the wh-phrase in (i) is actually interrogative and irrelevant to the present discussion on existential wh-phrases.}
\]

\[
\text{(ii) (Bulun) shei/shenme ren xi-bu-xihuan ta (dou) he wo wu-guan.} \\
\quad \text{regardless.of who/what person like-not-like him/her all with me no-relation} \\
\quad \text{‘Regardless of who, s/he is, whether pro, likes or does not like him/her is none of my business.’}
\]

The remainder of this paper is organized as follows. Section 2 is a critical review of the two kinds of syntactic approaches to existential polarity wh-subjects in A-not-A questions outlined above. Section 3 proposes a Relativized-Minimality-based (Rizzi 1990, 2004) approach to you-NP subjects in A-not-A questions and argues against the pragmatic approach based on subject identity (Lin 1998). Section 4 concludes the paper.

2. Existential polarity wh-subjects

2.1 Definiteness approach

In this subsection, I first introduce Cheng’s (1991, 1994) analysis with regard to a definiteness constraint on Chinese NP subjects. I then point out a question that arises under her analysis. I finally illustrate some controversial data that do not conform to the definiteness constraint.

2.1.1 Cheng’s analysis

Cheng (1991, 1994) ascribes the ungrammaticality of sentences like (11a) to the violation of a constraint which requires that NP subjects in Mandarin Chinese be definite. She provides the following sentences to exemplify the constraint.

(13) a. Nei-ge ren lai le. (Cheng 1991:129)
   that-CL person come ASP
   ‘That person came.’

b. * Yi-ge ren lai le.
   one-CL person come ASP
   ‘A person came.’

c. You yi-ge ren lai le.
   have one-CL person come ASP
   ‘A person came./There came a person.’

Cheng proposes that indefinites in Mandarin Chinese are not quantificational and thus should be quantified. Following Diesing (1990) (see also Diesing 1992), she assumes
that $\exists$-closure may serve to introduce an existential quantifier for quantifying over indefinite NPs as variables, and that $\exists$-closure applies only in the domain of VP, as schematized below.


\[
\begin{array}{c}
\text{AspP} \\
\downarrow \\
\text{Asp'} \\
\downarrow \\
\text{Asp} \\
\downarrow \\
\exists \\
\downarrow \\
\text{VP} \\
\downarrow \\
\text{t}_i \\
\downarrow \\
\text{V'} \\
\downarrow \\
\text{V} \\
\text{lai le} \\
\text{‘came’}
\end{array}
\]

In accordance with the VP-internal subject hypothesis (Fukui & Speas 1986, Kitagawa 1986, Kuroda 1988), Cheng assumes that the subject is overtly raised from within VP. She also proposes that in Chinese, the lowering of the subject at LF for existential quantification by $\exists$-closure is ruled out by the Principle of Economy of Derivation (Chomsky 1989), in the sense that the merging of the existential quantifier you ‘have’ is less costly than the lowering of the subject as a movement process. Under the above assumptions and the no-lowering-of-the-subject proposal, the ungrammaticality of (13b) follows, since the indefinite NP subject yi-ge ren ‘a person’ is outside VP and cannot be bound by $\exists$-closure within VP. To make (13b) grammatical, we may merge the existential quantifier you ‘have’ to quantify over the indefinite NP subject, as shown in (13c). This amounts to saying that the definiteness constraint can be relaxed by the addition of you ‘have’ to an indefinite subject.

Given that indefinite NP subjects are not permissible in Chinese, it follows that indefinite wh-subjects in the same language are not likely to occur. This is exactly what we see in (11a) above and (15a-b) below.


who want eat apple QYN

‘Does anyone want to eat apples?’
b. *Shei xiang-bu-xiang chi pingguo?
   who want-not-want eat apple
   ‘Does anyone want or not want to eat apples?’

On the other hand, in a sentence like (11b), the wh-phrase in object position can be bound by existential closure in the VP domain and thus given the existential interpretation. In brief, under Cheng’s analysis, the asymmetry in (11) results from the fact that in Mandarin Chinese, the subject cannot be indefinite while the object can.

It should be noted that, as pointed out by C.-T. Huang (1982, 1998), in sentences like (1) and (2), the polarity wh-phrase appears within the c-commanding scope of the affective element (i.e. polarity licensor), while in sentences like (15a-b), the wh-phrase in subject position is not under the domain of the affective element. Given this contrast, one may infer that sentences like (15a-b) are ruled out just because the wh-subject fails to be c-commanded by the affective element. However, Cheng does not attribute the ungrammaticality of sentences like (11a)/(15a-b) to the problem with the affective scope. She assumes that a question particle like ma is merged in C0 (Lee 1986, Tang 1989, Lin 1992, Cheng, Huang & Tang 1996), and that the A-not-A operator undergoes LF movement to the CP domain (C.-T. Huang 1982, 1991, Huang, Li & Li 2009). Under these assumptions, the affective element in current cases is either merged (in the case of the Q-particle ma) or LF-moved (in the case of the A-not-A operator) to CP, where it should be able to c-command and thus license the lower wh-subject. I will pursue this c-command issue in greater detail in §2.2.

2.1.2 A question under the definiteness analysis

Following Cheng’s definiteness analysis, we predict that an ungrammatical yes-no question like (15a) can become grammatical if we add the existential quantifier you ‘have’ to quantify over the indefinite subject, just on a par with (13c). This prediction is borne out, as shown below.

(16) You shei xiang chi pingguo ma?
    have who want eat apple QYN
    ‘Does anyone want to eat apples?’

The contrast between (15a) and (16) indicates that the definiteness property of Chinese subjects is indeed crucial. Although I concur with Cheng’s definiteness analysis of the ungrammaticality of a yes-no question like (15a), I argue that the definiteness analysis is only partially true for the ungrammaticality of an A-not-A question like (15b). As
evidenced by (17), the addition of the existential quantifier *you* ‘have’ to quantify over the indefinite *wh*-subject still fails to rescue the ungrammatical sentence. This result is unexpected under the definiteness analysis.

(17) *You shei xiang-bu-xiang chi pingguo?*

have who want-not-want eat apple

‘Does anyone want or not want to eat apples?’

In brief, under the definiteness analysis, a question arises as to why an A-not-A sentence like (17), which involves an existentially quantified NP subject without violating the definiteness constraint, is still ungrammatical. This implies not only that some factor other than (in)definiteness must also be responsible for the ungrammaticality of an A-not-A sentence like (17), but also that this factor equally applies to the ungrammaticality of an A-not-A sentence like (15b). Given this, I conclude that a case like (15b) is not simply ruled out by the violation of the definiteness constraint, but by the violation of some other constraint as well. I will show in §2.2 that the constraint in question is the c-command condition.

### 2.1.3 A note on judgment

Although Chinese indefinite *wh*-subjects which are not quantified by *you* ‘have’ under affective contexts are not allowed by Cheng (1991, 1994), they are acceptable to some other Chinese linguists, as illustrated below.\(^5\)

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4 An anonymous reviewer pointed out that the “ambivalent” sentence in (17) has empirical problems, and that the sentence in (i) with the optional *de* in the final position is acceptable to some native speakers of Mandarin Chinese. It seems that the reviewer does not agree with my judgment on (17).

(i) ??*You shei xiang-bu-xiang chi pingguo (de)?*

have who want-not-want eat apple FP

‘Is there anyone who wants or does not want to eat apples?’

However, given (i) and (ii), my informants consistently reported that (ii) sounds natural while (i) does not.

(ii) *You-mei-you shei xiang chi pingguo (de)?*

have-not-have who want eat apple FP

‘Is there anyone who wants to eat apples?’

Also, (17) does not sound natural to my informants either. Based on their intuition and my own, I thus consider (17) and (i) unacceptable in this study.

5 The sentences in (18a-i) are also acceptable to the majority of my informants, whose intuition I share with. Despite this, Cheng’s definiteness analysis is still effective in explaining the intuition of her and those who do not accept sentences like (18a-i).
On Two Types of Existential Subjects in Chinese A-not-A Questions

(18) a. **Shei** xihuan ta ma?  
   who like him/her Q YN  
   ‘Does anyone like him/her?’

b. **Shei** zai jiao wo ma?  
   who ASP call me Q YN  
   ‘Is somebody calling me?’

c. Yaoshi **shei** xihuan ta, …  
   if who like him/her  
   ‘If anyone likes him/her, …’

d. Ruguo **shei** mai-le chezi, …  
   if who buy-ASP car  
   ‘If someone buys a car, …’

e. Ruguo **shei** zhong-le caipiao, …  
   if who win-ASP lottery  
   ‘If someone wins a lottery, …’

f. Haoxiang⁶ **shei** chuan-cuo-le xiezi.  
   seem who wear-wrong-ASP shoes  
   ‘It seems that someone has put on wrong shoes.’

g. Shi-bu-shi **shei** diao-le qian le?  
   be-not-be who drop-ASP money ASP  
   ‘Is it the case or not that someone lost his/her money?’

h. Wo zong juede **shenme** defang bu-duijin.  
   I always feel what place not-right  
   ‘I just feel that something is wrong.’

i. **Shei** yao lai ma?  
   who will come Q YN  
   ‘Will anyone come?’

Here I leave the controversial judgment aside. What appears uncontroversial is the judgment on A-not-A sentences with an indefinite wh-phrase in subject position, such as

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⁶ Lin (2004) treats *haoxiang* ‘seem’ as an adverb rather than a verb. His reason is that generally a Chinese verb can have the A-not-A form, while *haoxiang* ‘seem’ cannot. Given this, the sentence in (18f) should be mono-clausal rather than bi-clausal, and the wh-phrase *shei* ‘who’ should be the subject of the sentence.


Neither the linguistic literature nor my informants can be found to accept such A-not-A cases. The reason why they are unacceptable then becomes one of the concerns in this paper.

Before proceeding to the c-command approach, I would like to make a remark on the application domain of $\exists$-closure in affective sentences with an indefinite $wh$-subject. As mentioned above, $\exists$-closure is assumed by Cheng to apply in the VP domain only. It follows that $\exists$-closure is unable to quantify over an indefinite subject outside VP. This explains the intuition of a speaker like Cheng, who does not accept affective sentences as illustrated above in (18). However, for those who accept such sentences, one might ask how their intuition can be accounted for. To answer this question, I appeal to Tsai (1994), who points out that the scope of $\exists$-closure for polarity items does not always stick to VP; rather, it is determined by the structural position of the polarity trigger/licensor. Consider the following configurations taken from Tsai (1994:62-63).

(19) a. Akiu $bu \; \exists_x \; [VP \; yao \; shenme(x)]$.  
Akiu not want what  
‘Akiu does not want anything.’

b. Akiu $dagai/keneng \; \exists_x \; [VP \; yao \; shenme(x)]$.  
Akiu probably/possibly want what  
‘Akiu probably/possibly wants something.’

c. Ruguo $\exists_x \; [IP \; shei(x) \; mai-le \; chezi], \; Akiu \; yiding \; hui \; lai \; gaosu \; wo$.  
if who buy-ASP car Akiu surely will come tell me  
‘If someone bought a car, Akiu surely will come to tell me.’

The example in (19c) particularly deserves our attention. According to Tsai’s analysis, in this case, $\exists$-closure is over the IP node, introducing an unselective binder from CP which binds the $wh$-subject $shei$ ‘who’ as a variable within IP. If we, instead, adopt Cheng’s assumption that $\exists$-closure applies in the domain of VP only, the acceptability of (19c) will be unexpected and cannot be accounted for.

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9 An anonymous reviewer gave the sentence in (i) and pointed out that the licensing of the polarity $wh$-phrase can cross an island.

(i) Ruguo ni kan-le $[shei \; xie \; you-guan \; ta-de \; baogao], \; jiu \; gaosu \; wo$.

if you read-ASP who write have-relation s/he-POSS report then tell me  
‘If you happen to read [a report someone writes about him/her], then tell me.’

As seen in (19), existential polarity $wh$-phrases are licensed via (unselective) binding. And binding, as opposed to movement, is known not to induce island effects. Therefore, the absence of island effects in (i) naturally follows. The same reviewer also asked whether the object $wh$-phrase in (ii-a) and the island-internal subject $wh$-phrase in (ii-b) can be licensed by the A-not-
2.2 C-command approach

Three alternative accounts based on the c-command condition are first reviewed in this subsection, before I argue for the version of c-command in covert syntax. Note also that those who employ the c-command approach all accept the sentences we saw earlier in (18a-i), where Chinese indefinite wh-subjects which are not existentially quantified by you ‘have’ under affective contexts are acceptable. This means that for those speakers, the ungrammaticality of A-not-A sentences like (11a) and (15b) has nothing to do with indefiniteness of the polarity wh-subject. Therefore, in the following discussion, the (in)definiteness property will not be considered.

2.2.1 C-command at SS

Without reference to (in)definiteness, Li (1992) proposes another kind of syntactic account for the ungrammaticality of A-not-A sentences like (11a) and (15b), to the effect that a polarity wh-phrase must be c-commanded by its polarity licensor at S-Structure (see S. Huang 1981, C.-T. Huang 1982, and Lee 1986 for the similar view that scope in Chinese is subject to c-command relations at SS). The account based on c-command at SS may straightforwardly explain ill-formed A-not-A sentences like (11a) and (15b), since the A-not-A licensor is not high enough to c-command the higher polarity wh-subject at SS. To support her c-command analysis, Li (1992:138) provides the following example.

(20) **Shi-bu-shi** shenme ren xihuan ta?
    be-not-be what person like him/her
    ‘Is it the case or not that someone likes him/her?’

In the above sentence, the polarity wh-phrase can be c-commanded by the A-not-A licensor at SS, and the sentence is grammatical as expected. The similar state of affairs is also seen in an A-not-A sentence like (11b).

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A operator for the existential interpretation.

    I want know who buy-not-buy what
    ‘I wonder who buys or does not buy anything.’

b. *Wo xiang zhidao shei mai-bu-mai [shei xie de shu].*
    I want know who buy-not-buy who write DE book
    ‘I wonder who buys or does not buy [books someone writes].’

In my view, the answer is positive. However, the sentences are still ungrammatical as they display competition effects. See fn.24 for relevant discussion. I do not repeat details here.
Following Li’s analysis of c-command at SS, we may explain the sentences in (1), (2), (4), (5), (6), and (8), where the polarity licensors can be obviously seen to c-command the polarity wh-phrases at SS. Furthermore, if we assume with Lee (1986), Tang (1989), Lin (1992), and Cheng, Huang & Tang (1996) in treating the yes-no question particle ma in (3) as being merged in C0, and also assume with Zhang (1997) in treating the sentence-final particle le in (7) as being merged in I0, these two polarity licensors will then have no problem to c-command the polarity wh-phrases at SS and thus license them.

Regarding the imperative sentence in (9), which is not mentioned by Li, I suggest that the polarity wh-phrase can also be accounted for under her system if it is analyzed as being licensed at SS by some implicit licensor in CP. Along the lines of Rizzi (1997), one of the split-CP projections serves to specify the ‘force’ of a sentence among a declarative, an exclamative, an imperative, an interrogative, etc. Based on this, we may assume that there is an implicit imperative operator (cf. Han 1998) in CP at SS, as depicted below.

\[(\text{Force})\text{CP Op.} \exists_x [\text{TP/IP shei}(x) \text{ qu bang wo na ge diezi lai}]\]

\['\text{Somebody go help me take CL plate come}\'

As shown above, the wh-phrase shei ‘who’ is existentially quantified by existential closure introduced by the null imperative operator. Specifically, it could be the negative-like [irrealis] feature of the null imperative operator, as proposed by Han (1998), that licenses the polarity wh-phrase.

According to Han’s analysis, the [irrealis] feature exists not only in imperatives, but also in infinitivals. For example, in (8), although the determiner dian plays a role in the licensing of the polarity wh-phrase, tense or aspect is crucial too. To verify this point, consider the following data.

\[(22)\]

a. Wo qu zhao ge shenme ren lai bang ni. (Lin 1998:227)
   I go find CL what person come help you
   ‘I will go find someone to help you.’

   I go find what person come help you
   ‘I will go find someone to help you.’

c. *Wo zhao-le ge shenme ren lai bang ni.
   I find-ASP CL what person come help you
   ‘I found someone to help you.’
The ungrammaticality of (22b) and (22c) suggests that both the determiner *ge* and the irrealis property are indispensable for the licensing of the polarity *wh*-phrase. Adopting Han’s (1998:120) proposal which merges the [irrealis] feature in C^0, I give the following representation for (22a).

\[
\begin{align*}
\text{(23) } & \text{Wo}_i \text{ qu } [\text{CP } [C \text { irrealis }] [\text{IP } \text{PRO}_i \text{ zha } \text{ shenme ren lai bang ni] } ] \\
& \text{I go find CL what person come help you}
\end{align*}
\]

The above line of thinking is in concord with Lin’s (1998) observation that existential polarity *wh*-phrases in Mandarin Chinese may appear under some sort of “future” environment. In §2.2.4 below, I list the semantic contexts where polarity licensors occur.

### 2.2.2 C-Command at LF

As opposed to Li (1992), Lin (1998) argues that the c-command requirement should apply to LF rather than SS.\(^\text{10}\) Consider the following examples offered by Lin in support of his LF version of c-command.

\[
\begin{align*}
\text{(24) a. } & \text{Ni yaoshi bu ting wo-de hua, you if not listen I-POSS word} \\
& \text{wo jiu bu gei ni tang chi. (Lin 1998:245)} \\
& \text{I then not give you candy eat} \\
& \text{‘If you do not listen to what I say, I will not give you candy to eat.’}
\end{align*}
\]

\[
\begin{align*}
\text{(24) b. } & \text{Shei yaoshi bu ting wo-de hua, wo jiu bu gei ta tang chi.} \\
& \text{who if not listen I-POSS word I then not give him/her candy eat} \\
& \text{‘If somebody does not listen to what I say, I will not give him/her candy to eat.’}
\end{align*}
\]

The sentence in (24a) shows that a non-*wh*-subject may appear in front of a conditional marker. This is also true for a *wh*-subject, as in (24b). Lin remarks that a case like (24b) poses a problem for Li’s proposal of c-command at SS because the polarity licensor *yaoshi* ‘if’ in such a case is not able to c-command the *wh*-phrase at SS. To solve this problem, Lin (1998), following Lin (1996), assumes that such a case may involve “some kind of reordering” at LF. This reordering process can be construed as akin to raising as

\[\text{In Lin’s (1998) view, the c-command requirement itself is not an independent condition. He takes it as being derived from a semantic condition called the NEEC (Non-Entailment-Existence Condition on existential polarity *wh*-phrases).}\]
illustrated below.\(^{11}\)

\[
\begin{align*}
(25) \quad & \begin{align*}
\text{a. shei yaoshi} & \ldots \quad \text{(SS)} \\
\quad \text{who if} & \\
\text{b. yaoshi} & \text{shei} \ t_i \ldots \quad \text{(LF)} \\
\quad \text{if who}
\end{align*}
\end{align*}
\]

Through reordering, the polarity wh-phrase can thus be licensed by the conditional marker and the licensing takes place at LF.

One thing that has to be mentioned about Lin’s analysis is his assumption of the following scope principle, which stems from C.-T. Huang (1982).

\[
(26) \quad \text{The Isomorphic Principle} \\
\quad \text{“If a scope-bearing element c-commands another scope-bearing element at S-structure, then the former has scope over the latter at LF.” (Lin 1998:232)}
\]

Given the above principle, we are now able to account for the ungrammaticality of A-not-A sentences such as (11a), (15b), and the following.

\[
(27) \quad \text{*Shei mai-bu-mai zhe-ben shu?} \quad \text{(Lin 1998:232)}
\]

\[
\text{who buy-not-buy this-CL book} \\
\text{‘Does somebody buy or not buy this book?’}
\]

In the above sentence, the A-not-A licensor does not c-command the wh-subject at SS. It follows from the Isomorphic Principle that the A-not-A licensor does not have scope over the wh-subject at LF.\(^{12}\) Beyond the c-commanding scope of the A-not-A licensor, the wh-subject in the above case thus cannot be licensed for its existential interpretation. In contrast, the availability of the existential interpretation for the wh-object in an

\(^{11}\) I do not consider the possibility of lowering the wh-phrase because lowering has a controversial status in formal syntax.

\(^{12}\) To spell out the precise structure for (27) under Lin’s analysis, I suggest that we may follow C.-T. Huang’s (1982, 1991) proposal of LF movement for the A-not-A operator, and Rizzi’s (2004:242) proposal of the split-CP hypothesis as illustrated in (i). Based on these two assumptions, (27) will be derived as in (ii).

(i) \text{Force Top* Int Top* Focus Mod* Top* Fin IP} \\
\quad \text{wh}_t \quad \text{[IntP A-not-A}_j \ldots \text{[FinP wh}_t \ldots]_j \ldots]) \quad \text{(LFI)}

The LF representation in (ii) clearly shows that the A-not-A constituent is lower than the wh-phrase and thus unable to license it for the existential interpretation.
A-not-A sentence like (11b) is not surprising, since the wh-phrase falls under the c-commanding scope of the A-not-A licensor at both SS and LF.

Given the Isomorphic Principle, I argue that Lin’s reordering analysis runs into a problem. Comparing (25a) with (25b), we may find that while the wh-phrase has scope over the conditional marker at SS, it does not at LF. This is obviously in direct contradiction to the Isomorphic Principle.

Here I bring up two alternative accounts for a sentence like (24b). The first one is to assume the m-command analysis rather than the c-command analysis (see Lin 1998:253, note 21). Under this assumption, a case like (24b) can be accounted for, since the conditional marker in C^0 is able to m-command and thus license the wh-phrase in [Spec, CP]. However, as pointed out by Lin, the consequences of the m-command analysis are not entirely clear, and I therefore leave it aside.

The second account I would like to explore is to reconsider the interpretation of the wh-phrase in a case like (24b). Consider the following Chinese quotation (well known among Christians) translated from its corresponding English passage in the Bible.

(28) Wulun shei, yaoshi bu yong jing-qian-de xin regardless.of who if not use respect-pious-DE heart chi zhu-de bing, he zhu-de bei, ta jiu maofan-le eat Lord-POSS cake drink Lord-POSS cup s/he then offend-ASP zhu-de shenti he xie. Lord-POSS body and blood ‘Whosoever shall eat this bread, and drink this cup of the Lord, unworthily, shall be guilty of the body and blood of the Lord (I Corinthians 11:27).’

As pointed out by Cheng & Huang (1996:147), subordinating conjunctions such as bulun/ wulun/buguan ‘regardless of’ s-select an interrogative proposition as the complement (see also fn.3). Accordingly, the wh-phrase in (28) actually receives the interrogative interpretation.\(^\text{13}\) Note also that the subordinating conjunction wulun ‘regardless of’ in

\(^\text{13}\) An anonymous reviewer pointed out that a wh-phrase in a wulun sentence does not always receive an interrogative interpretation. The example in (i), given by the reviewer, shows that the wh-phrase receives a universal interpretation.

(i) Ta wulun shenme dou chi. s/he regardless.of what all eat ‘S/he eats whatever things.’

Although the reviewer’s observation is correct, there is evidence that we should distinguish a wulun sentence like (28) from a wulun sentence like (i). Notice that the universal interpretation of the wh-phrase in (i) is contributed by a following universal quantifier: dou ‘all’. Without this universal quantifier, the sentence will be ungrammatical, as demonstrated below.
(28) is optional. If it is omitted, the sentence is still acceptable. In view of this, I suggest that the same state of affairs occurs in (24b), reproduced below.

(29) (Wulun) shei yaoshi bu ting wo-de hua, regardless.of who if not listen I-POSS word wo jiu bu gei ta tang chi. I then not give him/her candy eat ‘Regardless of who s/he is, if pro; does not listen to what I say, I will not give him/her candy to eat.’

Under the above analysis, it turns out that the *wh*-phrase in (24b) is actually interrogative, but not existential. If this analysis holds, a sentence like (24b) should be ignored as it is irrelevant to our present concern with existential *wh*-phrases.

Another piece of supporting evidence for c-command at LF comes from sentences with a particular type of compound verb, as demonstrated below.

(30) a. Zhe suan-bu-liao shenme. this count-not-SUFX what ‘It is not a big deal. (This does not count for anything.)’
   b. Zhe-jian shi, guai-bu-de shei. this-CL matter blame-not-SUFX who ‘As for this matter, you cannot blame anyone.’

Lin points out that the polarity licensor *bu* ‘not’ in the above sentences is an infix embedded in a compound verb and unable to c-command the *wh*-phrase at SS. Instead of maintaining that the c-command requirement applies at SS, Lin proposes that compound verbs of the kind in (30a-b) are likely to undergo an LF “decomposing” process, resulting in a configuration where the negator *bu* ‘not’ takes a clausal complement. I interpret Lin’s decomposing process as involving the following kind of derivation.

(31) \[\text{NegP} \ [\text{Neg \ bu}_i] \ [\text{VP \ V-t}_i \ -X \ \text{wh}] \] (LF)

Under this proposal, the polarity licensor *bu* ‘not’ is hierarchically high enough at LF to

\[ (ii) \ *Ta \ wulun \ shenme \ chi. \ \text{S/he regardless.of what eat} \ \text{‘S/he eats whatever things.’} \]

In contrast, the *wh*-phrase in (28) does not require a following universal quantifier. This difference suggests that a wulun sentence like (28) and a wulun sentence like (i) cannot be treated on a par.
c-command and thus license the lower *wh*-phrase for the existential reading. In §2.2.3 below, I review an alternative analysis based on “feature percolation” (cf. Nishigauchi 1986, Cole, Hermon & Sung 1993, Tsai 1997, López 2001), and in §2.2.4, I examine more data and argue that the feature percolation analysis is more desirable than Lin’s decomposing analysis.

While Lin does not spell out the details of the decomposing process, an alternative analysis of *V-not-X* compound verbs as in (30a-b) is proposed by Hsiao (2002), who appeals to feature movement at LF. Consider the sentence in (32a) and its hierarchical structure in (32b), both of which are given by Hsiao (2002:41).

\[(32)\]
\[a.\] Zhangsan wang-bu-liao chu-lian qing-ren.
\[\text{Zhangsan cannot forget his first lover.}\]
\[b.\]
\[
\begin{array}{c}
\text{TP} \\
\text{DP} \\
\text{Zhangsan} \\
\text{T} \\
\text{NegP} \\
\text{Op} \\
\text{Neg'} \\
\text{Neg} \\
\text{AspP} \\
\text{[+NEG]} \\
\text{Asp} \\
\text{ModP} \\
\text{Mod} \\
\text{vP} \\
\text{...wang-bu-liao...} \\
\text{[t₁, +ability]} \\
\end{array}
\]

As shown above, the [+NEG] feature undergoes successive movements at LF from within vP to Neg. As a consequence, if there is a negative polarity item within vP, the [+NEG] feature will be able to c-command and thus license it at LF.

I finally return to sentences (1)-(9) and account for them under Lin’s proposal of c-command at LF. As already discussed in §2.2.1, all these sentences have a polarity licensor, either explicit or implicit, which c-commands a *wh*-phrase at SS. It follows from the Isomorphic Principle that the polarity licensor also c-commands the *wh*-phrase at LF. Since the *wh*-phrase falls under the c-commanding scope of the polarity licensor at
LF, it can thus be licensed for the existential reading.

### 2.2.3 Licensing in overt syntax

R.-H. Huang (2009) explores another possibility whereby the licensing of polarity _wh_-phrases takes place in overt syntax, the computational stage before Spell-Out under the framework of the Minimalist Program (Chomsky 1995). In what follows, I show how R.-H. Huang revisits the examples in (24b) and (30a-b) under his proposal.

Regarding R.-H. Huang’s analysis of (24b), consider the following examples.

(33) a. Yaoshi shei bu ting wo-de hua, if who not listen I-POSS word wo jiu bu gei ta tang chi. (R.-H. Huang 2009:517)
   I then not give him/her candy eat
   ‘If somebody does not listen to what I say, I will not give him/her candy to eat.’

   b. Shei, yaoshi ei bu ting wo-de hua, who if not listen I-POSS word wo jiu bu gei ta tang chi. I then not give him/her candy eat
   ‘If somebody does not listen to what I say, I will not give him/her candy to eat.’

Assuming that (33b) is derived from (33a), R.-H. Huang suggests that the polarity _wh_-phrase in (33b) is likely to be licensed in overt syntax via an A′-chain with its copy which is c-commanded by the polarity licensor _yaoshi_ ‘if’. This chaining analysis, however, will be shown in the next subsection to encounter empirical problems.

When it comes to the LF decomposing device proposed by Lin (1998) to explain data like (30a-b), R.-H. Huang suggests that it is not the only way out. He proposes to treat a V-not-X compound like _guai-bu-de_ ‘cannot blame’ as a verbal negator. It is possible that such a compound verb has undergone some process of “feature percolation” (cf. Nishigauchi 1986, Cole, Hermon & Sung 1993, Tsai 1997, López 2001), so that the whole V-not-X compound now has the [+NEG] feature contributed by the infix _bu_ ‘not’ and behaves on a par with a negator.14 Being a negator, the compound verb is thus able

---

14 Notice that not all V-not-X compounds in Mandarin Chinese have the [+NEG] feature. Consider the following contrast.

(i) a. Wo guai-bu-de shei.
   I blame-not-SUFIX who
   ‘I cannot blame anyone.’
Arguably, the verbal-negator analysis is not ad hoc. R.-H. Huang points out that another potential candidate which is qualified as a verbal negator is the verb *wushi* ‘disregard’ (lit. without-look-at). The contrast in (34) demonstrates that all things being equal, the polarity phrase *renhe ren* ‘anybody’ can be licensed by the verb *wushi* ‘disregard’, as in (34a), but cannot be licensed by the verb *hushi* ‘ignore’, as in (34b).

(34)  

a. **Akiu wushi renhe ren de cunzai.**
   Akiu disregard any person of existence
   ‘Akiu disregards the existence of anybody.’

b. * **Akiu hushi renhe ren de cunzai.**
   Akiu ignore any person of existence
   ‘Akiu ignores the existence of anybody.’

As shown in (i-b), the V-not-X compound *dui-bu-qi* ‘sorry’ is not able to license its following *wh*-phrase for the existential reading. This suggests that such a compound has nothing to do with typical negation in semantics, even though it involves the negator *bu* ‘not’ in its morphological makeup.

Shi-Zhe Huang (p.c.) pointed out to me that (34b) is acceptable to her. In fact, when the sentence is considered acceptable, the reading should be free choice ‘any’ rather than polarity ‘any’. According to Carlson (1980, 1981) and Ladusaw (1980), free choice ‘any’ is universal while polarity ‘any’ is existential. Consider the following empirical contrast in Mandarin Chinese, taken from Lin (1998:251).

(i)  

a. **Bu keneng renhe ren dou de jiang.** (universal, free choice ‘any’)
   not possible any person all get prize
   ‘It is not possible that anybody will get a prize.’

b. **Bu keneng you renhe ren de jiang.** (existential, polarity ‘any’)
   not possible have any person get prize
   ‘It is not possible that there will be anybody who gets a prize.’

As Lin suggests, only free choice ‘any’ must be accompanied by the universal quantifier *dou* ‘all’. If we passivize (34a) and (34b), the latter will co-occur with *dou* ‘all’ more naturally than the former (this intuition is confirmed by the majority of my informants), suggesting that (34b) has no problem to express free choice ‘any’.

(ii)  

a. ?? **Renhe ren de cunzai dou bei Akiu wushi.**
   any person of existence all PASS Akiu disregard.
   ‘The existence of anybody is all disregarded by Akiu.’

b. **Renhe ren de cunzai dou bei Akiu hushi.**
   any person of existence all PASS Akiu ignore
   ‘The existence of anybody is all ignored by Akiu.’

Hence, when (34b) is taken as being acceptable, it does not count as a counterexample to R.-H. Huang’s analysis, since the reading yielded is universal, which is not our current concern.
The verb *wushi* ‘disregard’ is (near-)synonymous with the verb *hushi* ‘ignore’, but only the former can license a polarity phrase, suggesting that it should be a polarity licensor. The same state of affairs can also be observed with polarity *wh*-phrases, as displayed below.

(35) a. Akiu hen zida, genben wushi shei de cunzai.
    Akiu very arrogant at.all disregard who of existence
    ‘Akiu is arrogant, disregarding the existence of anyone at all.’

b. * Akiu hen zida, genben hushi shei de cunzai.
    Akiu very arrogant at.all ignore who of existence
    ‘Akiu is arrogant, ignoring the existence of anyone at all.’

The acceptability of (35a) again verifies the working hypothesis that the verb *wushi* ‘disregard’ patterns with a negator, being able to license a polarity *wh*-phrase.\(^\text{16}\)

Under the proposal that the licensing of polarity *wh*-phrases takes place in overt syntax, the subject-object asymmetry in (11) follows straightforwardly, since the A-not-A licensor may c-command the *wh*-object in overt syntax, but may not c-command the *wh*-subject in overt syntax. Furthermore, all the sentences in (1)-(9) can be accommodated as well, since the polarity *wh*-phrases in these cases all fall under the c-commanding scope of the polarity licensors in overt syntax.

### 2.2.4 Overt licensing vs. covert licensing: a comparison

Both Lin’s (1998) proposal and R.-H. Huang’s (2009) fit in with the more recent development of syntactic theory under generative grammar, i.e. the Minimalist Program (Chomsky 1995), in which representations like DS and SS are eliminated. The licensing

\(^{16}\) An anonymous reviewer pointed out that the negator *wu*, which itself is an independent unit, does not need any support from the following verb stem, while the negator *bu*, which is a real affix, needs a verb stem. Given this morphological difference, R.-H. Huang’s argument based on *wu* will be weakened. However, as R.-H. Huang (2009:519) suggests, *wu* seldom occurs independently in Modern Chinese; rather, it usually appears with an accompanying morpheme, e.g. *wu-qing* ‘merciless,’ *wu-guan* ‘irrelevant,’ *wu-fang* ‘just fine,’ *wu-ju* ‘fearless,’ *wu-di* ‘invincible,’ *wu-li* ‘unreasonable,’ *wu-xian* ‘unlimited/wireless,’ *wu-ming* ‘unknown,’ *wu-chi* ‘shameless,’ *wu-zhu* ‘helpless,’ *wu-neng* ‘incompetent,’ etc. In view of these data, I thus doubt if *wu* is really an independent, free morpheme in terms of its modern usage. Despite the morphological status of *wu*, what concerns us is the negative feature owned by *wu*. In fact, it should be the negative feature, rather than the affixational property, which serves to license polarity *wh*-phrases. Since *bu* has the same negative feature as *wu* does, a parallel can thus be drawn between *bu* and *wu*. Given this parallel, R.-H. Huang’s argument based on *wu* is actually not weakened, but strengthened.
in covert syntax under Lin’s proposal operates at the stage after Spell-Out, while the licensing in overt syntax under R.-H. Huang’s proposal operates at the stage before Spell-Out. In fact, these two proposals do not differ crucially in accounting for the data in (1)-(9), since the c-command condition is met in both overt and covert syntax. Their explanations for the sentences in (24b) and (30a-b) are what differentiate them. In the following, I examine more data and argue for Lin’s proposal, though I also show that R.-H. Huang’s feature percolation analysis is a better solution for sentences like (30a-b) than Lin’s decomposing percolation analysis or Hsiao’s feature movement analysis.

The first piece of evidence in support of the LF c-command analysis concerns the following contrast.

(36)  a. Wo bu xiangxin shenme ren.
     I not believe what person
     ‘I do not believe anyone.’

     b. * Shenme ren, wo bu xiangxin \textit{t}_i.\footnote{I thank an anonymous reviewer for bringing examples such as (36b) and (i) to my attention and for raising the question as to whether the licensing condition for the existential type of indefinite \textit{wh}-phrases also applies to the universal type of indefinite \textit{wh}-phrases. Given the grammaticality contrast between (36b) and (i), I suggest that the answer is negative. Since the licensing of universal indefinite \textit{wh}-phrases is beyond the scope of this study, I do not pursue the issue here.}
     what person I not believe
     ‘Anyone, I do not believe \textit{t}_i.’

Although R.-H. Huang’s chaining analysis may work for (24b) as illustrated in (33b), it will falsely predict (36b) to be grammatical. On the other hand, the LF c-command analysis correctly predicts the ungrammaticality of (36b), since the \textit{wh}-phrase \textit{shenme ren} ‘what person’ is not c-commanded by the polarity licensor \textit{bu} ‘not’ at SS, and according to the Isomorphic Principle, not at LF either. Without satisfying the c-command requirement, the sentence is thus ruled out.\footnote{Given that the fronting of the polarity \textit{wh}-phrase in (36b) is not possible, one might wonder why the fronting of the interrogative \textit{wh}-phrase in the following sentence, due to one of the anonymous reviewers, is possible.}

17

18
The following contrast, taken from Li (1992:129), is another piece of evidence in support of the licensing condition in covert syntax.

(37)  
\begin{itemize}
  \item a. Wo yiwei ni xihuan shenme (dongxi).
    I think you like what thing
    ‘I thought that you like something.’
  \item b. *Wo zhidao ni xihuan shenme (dongxi).
    I know you like what thing
    ‘I know that you like something.’
\end{itemize}

As pointed out by Li, what makes the above contrast has to do with the type of verbs. The non-factive type of verbs such as yiwei ‘thought’ in (37a) can license existential polarity \(wh\)-phrases, while the factive type of verbs such as zhidao ‘know’ in (37b) cannot.\(^{19}\) This factive vs. non-factive contrast is semantics-oriented. A semantic

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\(^{19}\) Given that factive verbs fail to license existential polarity \(wh\)-phrases, it thus comes as no surprise that in the following sentence involving the factive verb gaosu ‘tell’, offered by an anonymous reviewer, the existential interpretation of the \(wh\)-phrase is not possible, as shown in (i-c).

(i) Zhangsan ying-bu-yinggai gaosu Lisi [shei hui lai]?
  Zhangsan should-not-should tell Lisi who will come
  \begin{itemize}
    \item a. ‘Should Zhangsan tell Lisi [who will come]?’
    \item b. * ‘Who, should or should not Zhangsan tell Lisi \([t]\) will come?’ (multiple matrix Qs)
    \item c. * ‘Should Zhangsan tell Lisi [someone will come]?’
  \end{itemize}

I have also observed that factive verbs pose some kind of opaque, blocking domain for the licensing between a polarity licensor in the matrix clause and a polarity \(wh\)-phrase in the embedded clause. Thus, the A-not-A licensor in (i) under the matrix scope is not able to license the polarity \(wh\)-phrase shei ‘who’ under the embedded scope. My observation is supported by the following contrast.

(ii)  
\begin{itemize}
  \item a. Wo bu renwei [Zhangsan xihuan shei]. (non-factive verb)
    I not think Zhangsan like who
    ‘I do not think Zhangsan likes anyone.’
  \item b. Wo bu zhidao [Zhangsan xihuan shei]. (factive verb)
    I not know Zhangsan like who
    ‘I do not know who Zhangsan likes.’
    * ‘I do not know Zhangsan likes anyone.’
\end{itemize}
generalization drawn by Li for the licensing of existential polarity *wh*-phrases in Mandarin Chinese is that they can only occur under negative or negative-like contexts as demonstrated in (38), and the use of non-factive verbs falls under one of such contexts (see also Progovac 1988 for a similar view).

(38) a. contexts where the truth value is negated: negation
   b. contexts where the truth value is not fixed: questions, conditionals, non-factive verb complements, irrealis
   c. contexts where the truth value is not asserted directly: *seem, probably contexts, circumstantial le*  

Given that semantics plays a significant role in the licensing of existential polarity *wh*-phrases, I conclude that the licensing takes places in the component of grammar which deals with interpretation, that is, covert syntax (i.e. LF). Without taking semantics into consideration, an analysis such as R.-H. Huang’s (2009) will have difficulty in explaining contrasts like (37).21

One might wonder how Li’s (1992) proposal based on c-command at SS would account for the contrast between (37a) and (37b). In fact, her theory is a non-unified one, under which the licensing of existential polarity *wh*-phrases in Mandarin Chinese is subject to syntactic as well as semantic constraints. For example, an A-not-A sentence like (11a) is ruled out by violating the c-command requirement, while a sentence like (37b) is ruled out by not falling under the negative(-like) contexts as illustrated in (38). This non-unified analysis, in my view, is not as economical as Lin’s (1998); the latter explains all the facts under a unified treatment in covert syntax. Thus, in consideration of economy, I concur with Lin’s unified analysis.

I next turn to argue for R.-H. Huang’s (2009) feature percolation analysis of V-not-X compounds as in (30a-b). To justify the percolation mechanism, consider the English sentence in (39a) and part of its structure in (40).

As shown in (ii-b), the licensing between the polarity licensor *bu ‘not’* and the polarity *wh*-phrase *shei ‘who’* is not possible due to the intervention of the factive verb *zhidao ‘know’. The irrealis context is my addition to Li’s paradigm. See §2.2.1 for relevant discussion. An anonymous reviewer suggested an alternative analysis of the contrast in (37). That is, one may postulate a counterfactual operator in the left periphery of the complement clause of *yiwei ‘thought’* in (37a). This operator c-commands the polarity *wh*-phrase and thus licenses it. The reviewer claimed that this move has the advantage of providing a coherent analysis of all the polarity licensing of indefinite *wh’s* without resorting to pure semantic solutions. However, this alternative analysis still begs the question why the postulated counterfactual operator may occur in (37a), but not in (37b). The answer to this question, as I see it, still has to do with semantics. Specifically, it is semantics of verbs that is crucial here.
The contrast between (39a) and (39b) implies that the [+Q] feature must have been percolated from which to the NP which immediately dominates it. As a result, it is the NP which car, rather than which alone, that undergoes wh-movement to form a question. Given this, I propose that we may apply the same percolation mechanism to Chinese V-not-X compounds in question, as schematized below.

As shown above, \( V^0 \) has obtained the [+NEG] feature percolated from the infix ‘not’. As a result, \( V^0 \), whose nature is now negative, is able to c-command and thus license the polarity wh-phrase.

The feature percolation analysis can be extended to the English sentence in (42b).

The subject nobody in (42b) can be analyzed as receiving the [+NEG] feature percolated from the prefix no-, and therefore this negative subject is able to c-command and license the polarity item ever. On the other hand, if we adopt Lin’s (1998) decomposing analysis or Hsiao’s (2002) feature movement analysis, we will be forced to propose either that the negative morpheme no- of nobody should be decomposed down to Neg\(^0\) at LF to license ever (under Lin’s analysis), or that the [+NEG] feature of nobody
should be moved down to Neg$^0$ at LF to license ever (under Hsiao’s analysis), as illustrated below.

(43) TP
    /   \
   /     \
Nobody -----> NegP
     \     \      \n       Neg'     Neg$^0$
             \     \    \X(P)
                 \  ever

I argue, however, that the above lowering analysis is less desirable in two ways. First, while raising is a well-assumed mechanism in formal syntax, lowering is not. This is because lowering would cause the deviation from the ECP (Chomsky 1981), which requires a trace to be governed either by a lexical category or by the moved category. Second, in the Minimalist Program (Chomsky 1995), movement is regarded as a last resort; it should only take place when necessary. In this light, the feature percolation analysis (which I assume is motivated by inheritance) without involving movement should be less costly and more economical than the movement-based analysis such as Lin’s or Hsiao’s.

2.3 Summary

To recapitulate, the question arising from the definiteness analysis concerns why a yes-no question with an existentially quantified wh-subject is grammatical, as shown in (44a), whereas an A-not-A question with the same kind of wh-subject turns out to be ungrammatical, as shown in (44b). In either case, the definiteness constraint is not violated because it is relaxed by merging you ‘have’ to quantify over the wh-subject.

(44) a. [Subj. you-wh-indefinite] + VP + Q$_{YN}$
b. *[Subj. you-wh-indefinite] + VP-not-VP

The question does not arise under the c-command analysis, however. The licensing condition based on c-command is that a polarity wh-subject, whether quantified by you ‘have’ or not, must fall under the c-commanding scope of a polarity licensor for the
licensing of the existential interpretation. This is evidenced by the following example, adapted from (20).

(45) Shi-bu-shi (you) shenme ren xihuan ta?
    be-not-be have what person like him/her
‘Is it the case or not that someone likes him/her?’

In (44a), the polarity *wh*-subject is c-commanded by the polarity licensor QYN from CP, whereas in (44b), the polarity *wh*-subject fails to be c-commanded by the A-not-A licensor from VP. Under the c-command analysis, the contrast naturally follows.

Note, by the way, that one might wonder if the polarity *wh*-phrase in (44a) can be licensed by the existential quantifier *you* ‘have’. In my view, the answer is negative. If *you* ‘have’ was a polarity licensor, it should be able to license its following polarity *wh*-phrase in a sentence like (46), and the reading in (46b) should be available. However, this is contrary to fact, suggesting that *you* ‘have’ is not a polarity licensor.

(46) You shei xiang chi pingguo?
    have who want eat apple
a. ‘Who wants to eat apples?’
    b. * ‘Does anyone want to eat apples?’

Hence, the polarity *wh*-subject in (44a) is indisputably licensed by the yes-no question particle, but not by *you* ‘have’.

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22 I suggest that the Chinese sentence which corresponds to the interpretation in (46b) is (16) or the following.

   (i) You-mei-you shei xiang chi pingguo?
        have-not-have who want eat apple
   ‘Is there anyone who wants to eat apples?’

23 By giving the sentence in (i) from Taiwan Southern Min, an anonymous reviewer raised doubts as to whether an existential quantifier really cannot play the licensor role as I claim. The reviewer seemed to suggest that the polarity *wh*-phrase in (i) can be licensed by the existential quantifier *u* ‘have’ for the existential interpretation.

   (i) [U sang/siang e lai] bo tiongiau.
        have who will come not important
   ‘Who will come is not important.’

   (ii) (M-kuan) [u sang/siang e lai] (long) bo tiongiau.
        no-regard have who will come all not important
   ‘Regardless of who will come, it is not important at all.’
2.4 A residual problem

The discussion thus far has focused on the definiteness constraint and the c-command requirement. However, a question still remains as to why neither of these two requirements may rule out an A-not-A sentence of the following kind, reproduced from (12b).

(47) *You yi-ge ren xi-bu-xihuan Lisi?
    have one-CL person like-not-like Lisi
   ‘Does a person like or not like Lisi?’

In the above sentence, the subject is not a polarity wh-phrase so that the c-command requirement is irrelevant here. Moreover, the definiteness constraint is relaxed by merging the existential quantifier you ‘have’ to quantify over the indefinite subject yi-ge ren ‘a person’. Without violating either requirement, the ungrammaticality of such a sentence comes as a surprise and thus calls for an explanation. I discuss this issue immediately below in §3.

3. You-NP subjects

In this section, I seek an explanation for why an A-not-A question is ungrammatical when it involves a you-NP subject. The answer to this question is suggested by Lin (1998) on pragmatic grounds. Contrary to Lin, I argue for a solution on syntactic grounds.

3.1 Pragmatic account: subject identity

A pragmatic account based on subject identity for the ungrammaticality of an A-not-A sentence like (47) is suggested by Lin (1998). His rationale goes like this: the use of the existential quantifier you ‘have’ which precedes an indefinite NP only asserts the existence of that NP but does not specify the identity of that NP. Thus, when a hearer is given a question like (47), s/he certainly does not know which person is referred to by the indefinite NP subject. Without knowing who the subject is, the hearer will then have trouble answering the question associated with the unidentified subject.

As aforementioned in fn.3, the wh-phrase in a sentence like (ii) receives an interrogative interpretation. Given that (i) can be reduced from (ii), it follows that the wh-phrase in (i) also receives the interrogative, non-polarity interpretation. Since the wh-phrase in (i) does not involve the polarity reading, it is thus not possible for the existential quantifier you ‘have’ in (i) to be a polarity licensor.
Now, compare (47) with (48); the latter is reproduced from (12a).

(48) You ren hui lai ma?  
    have person will come QYN  
    ‘Is anybody coming?’

Lin points out that the hearer given the above yes-no question is expected to answer whether the proposition (i.e. you ren hui lai ‘someone is coming’) is true or not, but not to answer a question which is predicative of the subject. In this sense, the pragmatic constraint on subject identity as observed in (47) does not apply to (48).

Appealing as it may appear, the pragmatic account based on subject identity faces a challenge which comes from the contrast between (49a) and (49b). As consistently reported by my informants, (49b) sounds odd to them while (49a) does not.

(49) a. Zhangsan shuo you yi-ge ren ai chi shenme?  
    Zhangsan say have one-CL person love eat what  
    ‘What did Zhangsan say a person loves to eat?’

b. * Zhangsan shuo you yi-ge ren ai-bu-ai chi dangao?  
    Zhangsan say have one-CL person love-not-love eat cake  
    ‘Did Zhangsan say a person loves or does not love to eat cakes?’

The A-not-A question in (49b) can be ruled out by the pragmatic constraint on subject identity, just on a par with (47). Following this line of thought, I wonder why the same pragmatic constraint does not rule out the question in (49a), which has the same unidentified subject as (49b).

More counterexamples against the pragmatic account are illustrated below.

(50) a. Shei mai-le shenme?\textsuperscript{24}  
    who buy-ASP what  
    ‘Who bought what?’

\textsuperscript{24} An anonymous reviewer asked if the sentence in (i) can be interpreted as a multiple question, just on a par with (50).

(i) Zhangsan chi-bu-chi shenme (dongxi)?  
    Zhangsan eat-not-eat what thing  
    a. * ‘What will Zhangsan eat or not eat?’
    b. ‘Will Zhangsan eat anything?’
On Two Types of Existential Subjects in Chinese A-not-A Questions

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characterization comes very close to feature-based minimality effects as depicted below.

\[(52)\] Relativized Minimality (Rizzi 2004:233)

\[
\begin{array}{ccc}
X & Z & Y \\
[+f] & [+f] & [+f] \\
\end{array}
\]

Since it is generally assumed that \(wh\)-phrases consist of \([+wh]\) features, we thus have reason to incorporate (51) into (52) under a unified analysis of feature intervention (cf. Starke 2001, Yang 2008).

Given the above intervention scenario, one might wonder what kind of feature is involved in ungrammatical A-not-A sentences like (47) and (49b). In my view, a potential answer is “operator feature” (the term adopted from Zhang 1997:150, who treats \([\text{Neg}]\) and \([\text{Q}]\) as operator features; see also Roberts 2007:72 for the use of this term). Specifically, I suggest that the modal \(you\) ‘have’ bears the operator feature (henceforth \([+\text{Op.}]\)). The operatorhood of \(you\) ‘have’ can be more clearly witnessed through a logical representation as drawn below by Tsai (2004).

\[(53)\] a. You ren lai le.
   have person come ASP
   ‘Someone (nonspecific) came.’

   b. You, (le E (lai (ren(\(\alpha\)), E)))

As shown in (53b), \(you\) ‘have’ and \(ren\) ‘person’ fall into an operator-variable relation. In addition to the modal \(you\) ‘have’, other kinds of modals, negation, quantifiers, and conditionals are also operators, à la Heim (1982) and Kadmon & Landman (1993).

Following Tsai (1994, 1999), I distinguish Chinese nominal \(wh\)-phrases from Chinese adverbial \(wh\)-phrases and A-not-A operators, assuming that they are licensed for the question reading in different ways. In Tsai’s analysis, the former are licensed in situ via unselective binding, while the latter are licensed via LF movement.\(^{26}\) Given this assumption, we may predict that Chinese adverbial \(wh\)-phrases and A-not-A operators, both of which bear \([+\text{Op.}]\),\(^{27}\) will induce intervention effects if they move across modals (including \(you\) ‘have’), negation, quantifiers, and conditionals, all of which bear \([+\text{Op.}]\) as well. This prediction is borne out, as evidenced below (the bold-faced forms represent interveners).

\(^{26}\) See C.-T. Huang (1982, 1991), among others, for the observation that Chinese A-not-A constituents and adverbial \(wh\)-phrases may induce island effects.

\(^{27}\) Notice that A-not-A constituents involve a negative element. Since negation has the operator feature, it follows that A-not-A constituents also have the operator feature.
(54) **Existential you ‘have’**
   a. *You yi-ge ren xi-bu-xihuan Lisi?
      have one-CL person like-not-like Lisi
      ‘Does a person like or not like Lisi?’
   b. *You yi-ge ren weishenme quexi?
      have one-CL person why absent
      ‘Why is a person absent?’

(55) **Perfective you ‘have’**
   a. *Zhangsan you na-mei-na-dao liwu?
      Zhangsan have take-not-take-reach gift
      ‘Did Zhangsan get or not get a gift?’
   b. *Zhangsan you weishenme na-dao liwu?
      Zhangsan have why take-reach gift
      ‘Why did Zhangsan get a gift?’

(56) **Modal**
   a. *Ni hui li-bu-likai Taiwan?
      you will leave-not-leave Taiwan
      ‘Will you leave or not leave Taiwan?’
   b. *Ni hui weishenme likai Taiwan?
      you will why leave Taiwan
      ‘Why would you leave Taiwan?’

(57) **Negation**
      s/he not eat-not-eat fish
      ‘Does s/he not eat or not eat fish?’
   b. *Ta bu weishenme chi yu?
      s/he not why eat fish
      ‘Why does s/he not eat fish?’

(58) **Quantifier**
   a. *Suoyou de xuesheng dou hui-bu-hui jian Lisi?
      all DE student all will-not-will meet Lisi
      ‘Will or won’t all the students meet Lisi?’
      all DE student all why beat Lisi
      ‘Why did all the students beat Lisi?’
For the current purpose, I schematize the intervention effect detected with an ungrammatical A-not-A sentence like (54a) as below.

(59) Conditional
   a. *Ø Zhangsan lai-bu-lai, Lisi jiu liuxialai ne?\textsuperscript{28}
      \hspace{1cm} Zhangsan come-not-come Lisi then stay \textsubscript{Q\textsc{wh}}
      ‘Is it the case that if Zhangsan comes, or is it the case that if Zhangsan does not come, then Lisi will stay?’
   b. *Ø Zhangsan weishenme lai, Lisi jiu liuxialai ne?
      \hspace{1cm} Zhangsan why come Lisi then stay \textsubscript{Q\textsc{wh}}
      ‘Why, is it such that if Zhangsan comes \textsc{t}_i, then Lisi will stay?’

\textsuperscript{28} Conditional sentences in Mandarin Chinese do not always require an overt leading element such as \textit{ruguo} ‘if’. Consider the following alternate pair, taken from Cheng & Huang (1996:150).

(i) a. Ruguo Hufei lai, wo jiu liuxialai.
      \hspace{1cm} if Hufei come I then stay
      ‘If Hufei comes, then I will stay.’
   b. Hufei lai, wo jiu liuxialai.
      Hufei come I then stay
      ‘If Hufei comes, then I will stay.’

The above two sentences are in free variation, without a semantic contrast. Given this, we may thus assume that the bare conditional sentence in (i-b) is reduced from the \textit{ruguo}-conditional sentence in (i-a). Along parallel lines, I also assume that the sentences in (59a-b) involve a null conditional marker.

\textsuperscript{29} I follow C.-T. Huang (1988:57) in treating the existential marker \textit{you} ‘have’ as an auxiliary verb which is merged in I\textsuperscript{0} and takes an IP (rather than VP) complement.
Given that the modal *you* ‘have’ has [+Op.], covert movement of another constituent with [+Op.] across *you* ‘have’ will be ruled out as a violation of the minimality constraint. This intervention analysis also applies to an ungrammatical A-not-A sentence like (17), whose *wh*-subject is quantified by *you* ‘have’.

A piece of evidence in support of the intervention analysis concerns the reverse order of the intervener and the A-not-A operator/the adverbial *wh*-phrase in the above ill-formed sentences. The reverse results are displayed below.

(61) **Existential you ‘have’**
   a. Shi-bu-shi **you** yi-ge ren xihuan Lisi?
      be-not-be have one-CL person like Lisi
      ‘Is it the case or not that a person likes Lisi?’
   b. **Weishenme you** yi-ge ren quexi?
      why have one-CL person absent
      ‘Why is a person absent?’

(62) **Perfective you ‘have’**
   a. Zhangsan shi-bu-shi **you** na-dao liwu?
      Zhangsan be-not-be have take-reach gift
      ‘Is it the case or not that Zhangsan got a gift?’
   b. Zhangsan **weishenme you** na-dao liwu?
      Zhangsan why have take-reach gift
      ‘Why did Zhangsan get a gift?’

(63) **Modal**
   a. Ni **you-mei-you** keneng hui likai Taiwan?
      you have-not-have likely will leave Taiwan
      ‘Is it likely or not that you will leave Taiwan?’
   b. Ni **weishenme hui** likai Taiwan?
      you why will leave Taiwan
      ‘Why would you leave Taiwan?’

(64) **Negation**
   a. Ta hui-bu-hui **bu** chi yu?
      s/he will-not-will not eat fish
      ‘Will it be the case or not that s/he does not eat fish?’
   b. Ta **weishenme bu** chi yu?
      s/he why not eat fish
      ‘Why does s/he not eat fish?’
(65) Quantifier
a. **Shi-bu-shi** suoyou de xuesheng **dou** hui jian Lisi?
   be-not-be all DE student all will meet Lisi
   ‘Is it the case or not that all the students will meet Lisi?’
   
b. **Weishenme** suoyou de xuesheng **dou** da Lisi?
   why all DE student all beat Lisi
   ‘Why did all the students beat Lisi?’

(66) Conditional
a. **Shi-bu-shi** Ø Zhangsan lai, Lisi jiu liuxialai ne?
   be-not-be Zhangsan come Lisi then stay Q\_WH
   ‘Is it the case or not that if Zhangsan comes, then Lisi will stay?’
   
b. **Weishenme** Ø Zhangsan lai, Lisi jiu liuxialai ne?
   why Zhangsan come Lisi then stay Q\_WH
   ‘Why is it the case that if Zhangsan comes, then Lisi will stay?’

As shown above, once the A-not-A operator or the adverbial *wh*-phrase is merged in a higher position, its covert movement will not cross another operator as marked in bold face. Without inducing intervention effects, the sentences are thus grammatical. Since the grammaticality of all the above sentences is correctly predicted under the intervention analysis, I conclude that the intervention analysis should be on the right track.

Given the intervention analysis, I now revisit some sentences mentioned in the previous subsection. They are reproduced below.

(67) You ren hui lai ma? = (48)
   have person will come Q\_YN
   ‘Is anybody coming?’

(68) Zhangsan shuo you yi-ge ren ai chi shenme? = (49a)
   Zhangsan say have one-CL person love eat what
   ‘What did Zhangsan say a person loves to eat?’

(69) Shei mai-le shenme? = (50a)
   who buy-ASP what
   ‘Who bought what?’

(70) Shenme dongxi, you ren bu chi t\_i ne? = (50b)
   what thing have person not eat Q\_WH
   ‘What (things) does someone not eat?’
In (67), the yes-no question operator is merged in CP, and since nothing moves across the modal you 'have', an intervention effect does not occur. In (68) and (69), the nominal wh-phrases are not licensed by movement, and we naturally expect no intervention effects. In (70), the movement is overt, and overt movement is not able to induce intervention effects, according to (51). Here I have shown that the sentences in (68), (69) and (70), which pose problems for the pragmatic analysis based on subject identity, can be well accommodated under my proposed intervention analysis.

4. Conclusion

I have examined two types of existential subjects which cannot occur in Chinese A-not-A questions: existential polarity wh-subjects and you-NP subjects. Regarding the ungrammaticality of A-not-A questions which involve an existential polarity wh-subject, I have owed this fact to the inability of the lower A-not-A licensor to c-command the higher wh-subject in covert syntax. While I have also reviewed the definiteness approach proposed by Cheng (1991, 1994), under which an existential indefinite wh-subject is ruled out by violating the requirement that subjects in Chinese should be definite, I have pointed out that this definiteness approach raises a question as to why the definiteness constraint can be relaxed by merging the existential quantifier you 'have' to quantify over a wh-subject in yes-no questions, but not in A-not-A questions. This question, however, does not arise under the c-command approach.

As for ungrammatical A-not-A questions with a you-NP subject, I have argued, contrary to Lin (1998), that the ungrammaticality is not due to the pragmatic problem with the unidentified subject. To support my argument, I have illustrated several counterexamples which are acceptable questions with an unidentified subject. Against the pragmatic approach, I have proposed a syntactic approach under which LF movement of the A-not-A operator across another operator like you 'have' induces an intervention effect and thus makes the sentence ungrammatical.

It is concluded that the unacceptability of existential polarity wh-subjects and you-NP subjects in Chinese A-not-A questions is bound up with two syntactic properties of the A-not-A operator: the lower-than-the-subject position and LF movement, respectively.

30 An alternative analysis of (70) is to merge the wh-phrase shenme dongxi 'what thing' to the topic position in CP. This topic phrase A'-binds an object pro. Under this analysis, no movement occurs and an intervention effect is absent as expected.
References


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論漢語正反問句裡的兩種存在性主語

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關鍵詞：正反問句，統制，存在性，干涉效應，極項