OBJECT SHIFT IN MANDARIN CHINESE

Ning Zhang

ZAS - Research Centre for General Linguistics, Typology and Universals, Berlin

ABSTRACT

Based on an investigation of Chinese object shift, this research claims that the strength of a feature can be triggered to be strong. This claim implies that languages differ in default strength of a formal feature, rather than in terms of absolute strong/weak parameters. Empirically, this paper provides a unified analysis of three types of object shift in Mandarin Chinese. They are all triggered in the same way and have the same locality constraints. The paper also describes the syntactic properties of various focus markers. Furthermore, it explores the specificity issue, claiming that the differences in specificity with respect to object raising between Chinese and German are the result of the different interaction patterns between two kinds of economy principles, governing the syntactically motivated movement, and the semantically motivated movement respectively.

1. INTRODUCTION

The main goal of this research is to account for the syntactic motivation and the properties of Chinese object shift, as in (1b), which has been taken to be an optional movement in the current literature (Qu 1994, among others).

(1) a. wo kan-le zheiben shu.
    I read-ASP this book

    'I have read this book.'
b. wo zheiben shu kan-le.
   I this book read-ASP
   'I have read THIS BOOK.'
   (capitalized part is semantically focused.)

Adopting the Minimalist approach (Chomsky 1995), I will propose that all types of object shift in modern Chinese check a strong nominal feature of η triggered by the focus marker of the object. Thus there is no arbitrary optionality in object shift.

The Trigger Hypothesis proposed in this paper claims that languages differ in the default strength of a formal feature, rather than the absolute strong/weak parameters, as assumed in the present linguistic theories. The default strength can be changed under certain conditions. Exploring such conditions enables us to explain the variations between covert checking and overt checking of the same formal feature in a single language.

In the following discussion, I introduce three types of focusing: contrastive, additive and restrictive types (the latter two terms are from König 1991: 33). An example of the contrastive focusing is (2). The unstressed word shi is a contrastive focus marker:²

(2) ta shi xingqisan kan-le nei chang diying.
    he be Wednesday see-ASP that movie
    'He watched that movie on the WEDNESDAY.' (not other
day's)

The additive or inclusive focusing highlights that some alternative is included as a variable of the sentence meaning. The restrictive or exclusive focusing, on the contrary, highlights that none of the alternatives under consideration satisfies the relevant meaning of the sentence. For example, the subject of (3a) is additively focused, while the subject of (3b) is exclusively focused.

(3) a. Even John has come
(3a) implies that there are several persons who have come, and John, who was not expected to come, is included. In contrast, (3b) implies that no one else except John has come.

Section 2 poses the issues of order variations between SVO and SOV and the absence of focus markers with an in situ object. Section 3 discusses the syntactic status of various focus markers and their interactions with question elements. Section 4 proposes the Trigger Hypothesis and discusses the locality constraint on triggering and the nature of the triggered strong feature. The last section, section 5, summarizes and concludes the paper.

2. THE ISSUES
2.1. Three Types of Preverbal Objects

Chinese has been assumed to be an SVO language. However, a direct object of a transitive verb can occur between the subject and the verb in certain contexts. I will present three types of preverbal objects in Mandarin Chinese. They share many properties. One is that they all occur to the left of a sentence negation word, if there is one (see Zhang 1999b for an analysis). In this paper I will discuss another common property of these three types of preverbal objects: all of them are focused. They are the contrastive, additive, and restrictive types, as in (4) to (6).\(^2\) The words in bold face are focus markers. All (b) sentences have the same meaning as the first reading of (a).\(^4\) In other words, when an object occurs to the left of a transitive verb, it is semantically focused.

\[
\begin{align*}
\text{CONTRASTIVE (4):} & \quad \text{ta shi kan-le nei ben shu.,} \\
& \quad \text{he be read-ASP that book} \\
& \quad \text{i. 'He has read THAT BOOK,'} \\
& \quad \text{ii. 'He has READ that book.' (kan is stressed)} \\
& \quad \text{iii. 'He has READ THAT BOOK.'} \\
\text{(b):} & \quad \text{ta nei ben shu kan-le.}
\end{align*}
\]
ADDITIVE (5) a. ta shenzhi hai-guo zheipian sanwen.
   he even memorize-ASP this prose
   i. 'He even memorized THIS PROSE.'
   ii. 'He even MEMORIZED this prose.'
   iii. 'He even MEMORIZED THIS PROSE.'

b. ta (lian) zheipian sanwen dou hai-guo.
   he (even) this prose all memorize-ASP
   'He even memorized THIS PROSE.'

RESTRICTIVE (6) a. ta zhi he hong-cha.
   he only drink red-tea.
   i. 'He only drinks BLACK-TEA.'
   ii. 'He only DRINKS black-tea.'
   iii. 'He only DRINKS BLACK-TEA.'

b. ta zhiyou hong-cha cai he.
   'He only drinks BLACK-TEA.'

I investigate the syntactic properties of the focus markers shi, shenzhi, zhi, lian, dou, zhiyou, and cai in section 3. The analysis sheds light on the cause of the ambiguity of the (a) sentences above (section 3.5). I then turn, in section 4, to the syntactic motivation for the SVO/VOV variation shown above. Before I discuss these two issues, I describe an important distribution constraint on focus markers in the next subsection.

2.2. The Absence of Focus Markers With O in VO Order

One important observation with respect to focus markers and a focused element is that if a focused element which is not an object occurs in its canonical position, it can be preceded by a focus marker. However, a postverbal object cannot be preceded by a focus marker. The occurrence constraint of the contrastive focus marker shi is shown in (7).
The above observation about focalization is also true of the restrictive and additive focalizations. I will start with the additive focalization. The additive focus marker in Chinese is *shenzi* or *tan* 'even'. If *shenzi* is used, the XP following *shenzi* can be any categories except CP; and if *tan* is used, the XP following *tan* must be a nominal or a CP. Thus, if *tan* is used before a nominal, it is changeable with *shenzi*. Henceforth, I will use *tan* rather than *shenzi*/*tan*, whenever the following phrase is nominal. The focus marker *tan* always co-occurs with another focus marker *dou* or *ye*. In all example sentences in this paper, *dou* is interchangeable with *ye* (For more discussion of *dou* and *ye* see Zhang 1997b). Therefore I simply use *dou* instead of *dou*/*ye*. 
If a focused element which is not an object occurs in its canonical position, the focus marker *shenzi/lan* appears to its left. However, postverbal object cannot be preceded by *shenzi/lan*.

(8) a. lāo wáng dōu kàn-guó zhebēn shū.
   Even Lāowāng all read-ASP this book.
   ‘Even Lāowāng has read this book.’

b. lāo wáng lān xīngqītān dōu shāngbān.
   Lāowāng even Sunday also work
   ‘Lāowāng works even on SUNDAYS.’

c. tā shenzi bei-guó zhépían sānwén.
   He even memorize-ASP this prose
   ‘He even MEMORIZED this prose.’
   ‘He even memorized THIS PROSE.’
   ‘He even MEMORIZED THIS PROSE.’

d. lāo wáng shenzi yòng guó-guó zhū miāntiáo.
   Lāowāng even with pressure-cooker cook noodle
   ‘Lāowāng cooks noodles even IN A PRESSURE COOKER.’
   ‘Lāowāng even COOKS NOODLES IN A PRESSURE COOKER.’

e. tāmén shenzi zài bānggōngshí-lì tiānzuò
   They even at office-in dance
   ‘They even dance IN THE OFFICE.’
   ‘They even DANCE IN THE OFFICE.’

f. wǒ lān (‘shenzi’) [cr tā qù-le Běijīng] dōu bù zhīdào
   I even he go-ASP Beijing all not know
   ‘I even do not know HE HAS GONE TO BÉIJÍNG.’

g. *lāo wáng kàn-guó lān zhebēn shū (dōu).
   Lāowāng read-ASP even this book (all)
   ‘Lāowāng has read even THIS BOOK.’
As with the contrastive focus marker *shī*, when the additive focus marker *shènzhī* occurs before a verb, the sentence is ambiguous in that the focused element can be the verb if it is phonologically stressed, the postverbal object, or the whole VP, as given in (8c, d, e) compared to (7c, d, e).

Two kinds of focus markers are used in restrictive focus constructions: *zhī* you can only be used before nominal elements, while *zhī* is usually used before non-nominal elements. As with *shī* and *hàn*, *zhī* you cannot occur to the left of an object when it occurs in its canonical position.

(9) a. *zhī* you Zhou Hong mai-le *zhēibèn* shū.
   only Zhou Hong buy-ASP this book
   'Only ZHOU HONG bought this book.'

b. Zhou Hong *zhī* you wanshàng zài jiā.
   Zhou Hong only evening at home
   'Zhou Hong is at home only IN EVENINGS.'

c. Zhou Hong *zhī* mai-le *zhēibèn* shū.
   'Zhou Hong only BOUGHT this book.'
   'Zhou Hong only bought THIS BOOK.'
   'Zhou Hong only BOUGHT THIS BOOK.'

d. Zhou Hong *zhī* yòng *kūnzi* chī fàn.
   Zhou Hong only with *chōupi* eats meal
   'Zhou Hong eats meals only WITH CHOPSTICKS.'
   'Zhou Hong only EATS MEALS WITH CHOPSTICKS.'

e. Zhou Hong zhī zài gōngyuán-荔 jiāng-yu guǒ xiōngmào.
   Zhou Hong only at park-in see-ASP panda
   'Zhou Hong has seen pandas only IN PARKS.'

f. *zhī* you Zhou mai-le zhī you zhēibèn shū.
   Zhou Hong buy-ASP only this book
   'Zhou Hong has bought only THIS BOOK.'
One might explain the absence of focus markers with O in VO order by a constraint relating to the adjacency between a verb and its object. However, I will show in section 3.2.2 that a prenominal focus marker can adjoin to the nominal and form a constituent. If a focus marker and a nominal can form a constituent, the adjacency constraint between a verb and its object cannot be used to account for the absence of a focus marker before an in situ object.

3. STRUCTURAL PROPERTIES OF VARIOUS FOCUS MARKERS

The semantic function of various focus markers is to mark the focus type: *shi* for the contrastive type, *shenzhi/tian* ... *dou/ye* for the additive type and *zhi/you* ... *cai* for the restrictive type. The focus features of these words are interpretable, and no checking is therefore required according to the Minimalist Program. These words are base-generated (merged) at their positions with respect to the element they focalize. In this section, I discuss the internal relationship of these focus markers, their syntactic categories, and their interactions with question elements.

3.1. Archi-forms of Focus Markers

In this subsection, I will show that all syntactically focalized sentences require a focus marker and various focus markers of the same type can be analyzed as context sensitive realizations of the same archi-form.

In the additive type of focalization, there are four focus markers: *liou*, *shenzhi*, *dou* and *ye*. *Lian* occurs only to the left of a nominal or clause, *shenzhi* occurs to the left of various categories except a clause, and *dou* and *ye* occur only to the left of non-nominal/clausal categories, such as a verb or a preposition.

My first observation regarding to the additive focusing is that the focus marker *dou* can exchange with another focus marker *shenzhi* in some cases, if the focalized element is to its right, and can exchange with another focus marker *ye* if the focalized element is to its left. Reading (ii) of the following sentences is from a syntactic analytic dictionary (Lu et al. 1988: 154).
(10) a. wo dou bu zhidaon ni hui lai.
   i. all not know you will come
   i. 'Even I did not know you would come.'
   ii. 'I even DID NOT KNOW YOU WOULD COME.'

b. zhen baoqian, wo dou wang-le ni de mingzi le.
   really sorry I all forget-ASP you DE name ASP?
   i. 'I am sorry, even I forget your name.'
   ii. 'I am sorry, I even FORGET YOUR NAME.'

If the *dou* in (10) is changed into *shenzi*, reading (i) of both (a) and (b) is lost, while reading (ii) is still kept, though the *dou*-form is more casual than the *shenzi*-form in style. If the *dou* in (10) is changed into *ye*, reading (ii) of both (a) and (b) is lost, while reading (i) is still kept if the subject can be preceded by the focus marker *lian*. Thus *dou*, *shenzi* and *ye* in a focus sentence might be semantically grouped into a more general archi-form. This archi-form is obligatory in a focus sentence. It provides the focus interpretation of the sentence. The realization of this archi-form depends on the position of the focused element as well as the style.

My second observation regarding the additive focusing is that if the focalized element is to the left of this archi-form of the focus marker, another focus marker *lian* or *shenzi* or *shenzi lian*, can precede the focalized element.

(11) a. (shenzi/lian/shenzi lian) ta xingqitian dou ye gongzu. the Sunday all also work
    'Even HE works on Sundays.'

b. ta (shenzi/lian/shenzi lian) xingqitian dou ye gongzu.
    he even Sunday all also work
    'He even works ON SUNDAYS.'

The focus markers *lian*, *shenzi*, or *shenzi lian* in the above sentences do not need to show up. When they are absent, a contrastive stress must be present on the focused element. This deletion of the words in the compensation of the obligatory
prosodic feature (stress) is a PF process, since no semantic nor syntactic property is related to this deletion.

Notice that in the above sentences, shenzhi or and lian occurs to the left of the nominal, while dou or ye, occurs to the left of a VP. It is well established that dou and ye are adverbs (Lü 1980, among others). I will discuss the categorial status and functions of prenominal lian and shenzhi in the next subsection.

Thus a syntactically focalized sentence requires a focus marker and various focus markers can be seen as context sensitive realizations of the same archiform. These facts can also be seen in the restrictive focus markers. In the restrictive type of focalization, there are three focus markers: zhiyou, zhi and cai. Zhi and cai are interchangeable, if the focalized element is a post-verbal quantified element. The following sentences are from the syntactic analytic dictionary (Lü et al. 1980: 87) mentioned before.

(12) a. wo cai kan-le yi bian. hai yao zai kan yi bian.
   I only read-ASP one time, yet want again read one time
   'I only read it ONCE. I want to read it again.'

   b. ta cai bi wo zao dao yi tian.
   He only than I early come one day
   'He came only ONE DAY earlier than I did.'

The cai in (12) can be changed into zhi without any change in meaning. Thus cai and zhi in focus sentences can be semantically grouped into a more general archi-form.

In a restricted focalized sentence, either zhi/zhiyou, or cai, or both, must show up. When the focalized element occurs to the left of cai, zhi or zhiyou occurs to the left of the focused element, while cai occurs to the left of a VP. Cai is an adverb. I will discuss the categorial status and functions of prenominal zhi and zhiyou in the next subsection.

Unlike the additive focus markers, the occurrence of the restrictive focus markers is constrained by aspeccial factors. For example, cai usually occurs in the
absence of an aspect marker, as indicated by the contrast between (13b) and other sentences of (13). Zhiyou, but not usually zhi, can co-occur with cai, as shown in (13a, c). If cai does not show up, zhiyou must be present to show the focus meaning (13d). Sometimes both zhiyou and cai are required, as in (13e).

(13) a. zhiyou*/zhi Xiao Wang (cai) zai jia  gongzuo.
   only       Xiao Wang only at home work
   'Only Xiao Wang works at home.'

b. zhiyou*/zhi Xiao Wang (xige ren) (cai) lai le.
   only     Xiao Wang one person only come AST
   'Only Xiao Wang (one person) came.'

c. Xiao Wang zhiyou*/zhi xingqitian (cai) gongzuo.
   Xiao Wang only Sunday only work
   'Xiao Wang works only on Sundays.'

d. Xiao Wang xingqitian *(cai) gongzuo.
   Xiao Wang Sunday only work
   Intended: 'Xiao Wang works only on Sundays.'

e. ta zhiyou hong-cha *(cai) he.
   he only red-tea only drink
   'He only drinks black tea.'

The above discussion shows that various restrictive or additive focus markers can be seen as context sensitive realizations of the same archi-form. Although each focus marker is listed in the lexicon as a single entry, it has a closer relationship to the other focus markers of the same type than to the focus markers of another type, and an abstract archi-form can be abstracted from the focus markers of the same type.
3.2. The Syntactic Status of Focus Markers

3.2.1 Against Modal Status of Focus Markers

Shi (1994) claims that focus marker *shi* can be analyzed as a modal verb, since it shares two properties with the latter: first, both can have A-not-A form; and second, both can occur in sentence initial position, i.e. pro-subject position. However, as mentioned by Shi himself, not only verbs but also predicate adjectives can have A-not-A form.

(14)  tā zhang de gāo-bu-gāo?
     he grow DE tall-not-tall
     ‘Is he tall?’

In fact, prepositions such as *cong* ‘from’ can also have A-not-A form:

(15)  a.  tā *cong-mei-cong* ìbiāng lài?
     he from-not-from Beijing come
     ‘Did he come from Beijing?’

   b.  tā *shi-bu-shí* cong ìbiāng lài?
     he FM-not-FM from Beijing come
     ‘Is he FROM BEIJING?’

The two sentences in (15) differ as to their meaning. (15a) inquires about the starting place of a journey, while (15b) inquires about the origin of the person. The former has a stage level predicate, while the latter has an individual level predicate. What is relevant here is that if an element can have A-not-A form it is not necessarily a verb or a modal verb.

The fact that a modal verb can occur in sentence initial position as shown below may be explained in terms of a pro subject before the modal verb, or the raising of the modal verb, or some other hypotheses.
(16)  yinggai Yaoqi qu.
    should Yaoqi go
    'It should be the case that Yaoqi goes (there).'

One important property of Chinese modal verbs is that they cannot occur
to the right of a VP-adjectives such as yizhi 'all the time'. Shi and other focus markers
do not have this constraint (more examples will be shown in section 3.4).

(17) a.  ta keyi/neng/bixu yizhi zhan-zhe bu-dong.
      he can/can/must all-the-time stand-ASP not-move
      'He can/must stand there all the time without moving.'
      he all-the-time can/can/must stand-ASP not-move

(18) a.  ta shi yizhi chuan gao-gen-xie.
      she be all-the-time wear high-heel-shoe
      'She wears high-heel shoes ALL THE TIME.'
      'She WEARS HIGH-HEEL SHOES ALL THE TIME.'
  b.  ta yizhi shi chuan gao-gen-xie.
      she all-the-time is wear high-heel-shoe
      'She WEARS HIGH-HEEL SHOES all the time.'

Thus, syntactically, focus markers do not behave like a modal verb.
Semantically, a modal verb expresses modality meaning, either epistemic or deontic,
however, a focus marker does not have modality meaning. I therefore claim that
focus markers are not modal verbs.

3.2.2 Against Adjective Status of Prenominal Focus Markers

The categorial status of focus markers has been taken to be adverb
generally. Adverbs have been assumed to be licensed by the head of a verbal
projection (the term verbal projection is from Grimshaw 1991 and 1993) such as C,
I, and V, since they adjoin to these projections (Travis 1988). Accordingly, the
scope of an adverb is the complete XP to which it adjoins (Tang 1990). No adverb should have a scope exclusive to the Spec of XP which it adjoins to. For example, when an adverb adjoins to IP, its scope is the IP, rather than the Spec of IP, say, the subject. However, when a Chinese focus marker, which is claimed to be an adverb generally, occurs to the left of a subject, the scope of the focus marker can either be the whole IP, i.e., the whole sentence, or the subject only. There is no problem in the former situation: the adverb adjoins to IP and has scope over IP. However, in the latter situation, if the focus marker adjoins to IP, it should not have the Spec of IP as its exclusive scope. It seems that a presubject focus marker adjoins to Spec of IP, i.e., the subject DP, when the subject is focused, while it adjoins to IP when the whole IP is focused.

Similarly, if a focus marker precedes an adverbial nominal such as *picture* ‘yesterday’ in (7c), its scope can be either the adverbial nominal exclusively or the whole verbal projection to which the adverbial nominal adjoins. In the former case, a focus marker seems to adjoin to the nominal rather than to the verbal projection to which the nominal adjoins.

Furthermore, if a focus marker precedes a preverbal object, as in (5b) and (6b), its scope is the preverbal object only. Thus, again a focus marker seems to adjoin to a nominal rather than to a verbal projection.

Shyu (1995) assumes that a prenominal focus marker is an adjective and a focus marker elsewhere is an adverb. Sybesma (1996: 13) comments on Shyu's treatment of a focus marker, stating that “calling it an adjective is unfortunate, but the idea that it is adjoined to the phrase it forms a constituent with is correct.” Sybesma does not explain why the adjective treatment of a prenominal focus marker is unfortunate.

It is true that focus markers which focalize a nominal are different from adjectives. The difference is shown in its position with respect to a demonstrative and a pronoun.
(19) a. 
shi zhewei lao xiansheng mai-le nei\-ben shu.
FM this old gentleman buy-ASP that book
'THIS OLD GENTLEMAN bought that book.'

b. 
shi ta mai-le nei\-ben shu.
FM he buy-ASP that book
'HE bought that book.'

b'. 
gao\-gao\-gao ta
tall he

(20) a. 
*shi zhe\-wei shi xiansheng mai-le nei\-ben shu.
this FM gentle\-man buy-ASP that book

b. 
*shi zhe\-wei lao shi xiansheng mai-le nei\-ben shu.
this old gentle\-man buy-ASP that book

b'. 
gao\-gao\-gao lao xiansheng mai-le nei\-ben shu.
tall old gentle\-man buy-ASP that book

(19) shows that adjectives do not occur to the left of a demonstrative or a pronoun, while focus markers do. (20) shows that focus markers do not occur to the right of a demonstrative or an adjective, while adjectives do.

Thus, although both an AP and a focus marker can adjoin to a nominal phrase, they have different structural positions. The former is lower than the latter. In this way, calling focus markers adjectives is indeed "unfortunate".

The syntactic positions of Chinese demonstratives and functional projections of Chinese nominal expressions are controversial in the literature (Tang 1990, Cheng and Sybesma 1996, Li 1997). It remains undetermined within the analysis so far provided whether a prenominal focus marker occurs in Spec of DP,
adjoins to DP, or occurs in some other position of a nominal expression. However, it
is clear that it cannot be an adjective.

If a focus marker can be merged to a nominal projection, it can be part of a
nominal constituent. Thus a presubject focus marker can be part of the subject; a
focus marker preceding an adverbial nominal can be part of the adverbial nominal;
and finally, a focus marker preceding a preverbal object is part of the object. In
section 4, I will discuss why a focus marker cannot occur with an in situ object.

3.3. The Interactions of Focus Markers with Question Elements in a Simple
Sentence

A well-known property of the focus marker *shi is that it cannot occur in
direct WH questions unless the WH element is the focused element (cf. Huang
1982):

(21) a. *shei shi mai-le neiben shu?
who be buy-ASP that book
b. shi shei mai-le neiben shu?
be who buy-ASP that book
'WHO bought that book?'

Examining other focus markers, I found that if a focus marker occurs to the
left of a WH element, the sentence is always unacceptable, however, if a focus
marker occurs to the right of a WH element, the sentence is acceptable in some
cases:

(22) a. *lian ta dou mai-le shenme?
even he all buy-ASP what
b. *ta zhishou zai Xingqitian caig chi shenme?
he only at Sunday only eat what
c. *lian ta dou zai ner tiaowu?
even he all at where dance
(23) a. shei lian Xingqitian dou shangban?  
who even Sunday all work  
‘Who works even ON SUNDAYS?’

b. shei zhiyou Xingqitian cai shangban?  
who only Sunday only work  
‘Who works only ON SUNDAYS?’

c. ta shenme shihou lian zhen-xian dou sui-sen dai?  
he what time even needle-thread all with-body bring  
‘When does he even bring THREAD AND NEEDLE with him?’

Another often discussed property of focus marker shi is that it cannot co-occur with an A-not-A word, although shi itself can be in A-not-A form (cf. Shi 1994):

(24) a. *ni shi zai Xi’an chi-mei-chi jiaozi?  
you be at Xi’an eat-not-eat dumpling  

b. *ni shi-bu-shi zai Xi’an chi-le jiaozi?  
you be-not-be at Xi’an eat-ASP dumpling  
‘Did you eat dumplings AT XI’AN?’

When we observe other focus markers, we can see that if a focus marker occurs to the left of an A-not-A word, the sentence is always unacceptable; however, if a focus marker occurs to the right of an A-not-A word, which can be a focus marker in A-not-A form, the sentence is acceptable in some cases:

(25) a. *tian ta dou chi-bu-chi nailao?  
even he all eat-not-eat cheese  

b. *zhiyou ta cai chi-bu-chi nailao?  
only he only eat-not-eat cheese
The above observations can be unified into such a generalization: the licensing relation between the [Q] of C and a question word, which is either a WH word or an A-not-A word, can be blocked by a non-interrogative focus marker which has a shorter distance to C than the question word, regardless whether the licensing relation is covert checking (for A-not-A, see Zhang 1997b) or unselective binding (for WH nominals, see Tsai 1994).

The mystery here is why a focus marker can interfere with the licensing relation between C and a question word only when it occurs to the left of the question word. Two assumptions can be made based on the above generalization. First, the focus feature of a focus marker does not need to have a checking relation with C, while the [Q] feature of a question word does have a checking or binding relation with C. Second, a focus marker and a question word share some syntactic feature [X], which interacts with C. For instance, a focus marker has [F, X] while a question word has [Q, X]. Whenever C attracts [Q], it also attracts [X], and the nearest element which has [X] is always attracted. If the element has both [Q] and [X], i.e., a question word or a focus marker in A-not-A form, the derivation converges. If the element has [F, X] without [Q], i.e., a focus marker which is not in A-not-A form, the derivation clashes, since the required [Q] feature is missing, and it is impossible to skip the nearest element which has [X] to attract another element which may have [Q, X].

A similar case is found in the Head Movement Constraint (HMC, Travis 1984). A head movement can be blocked by another element which shares a certain
morphological feature with the moving element and is nearer to the target, but does not have the relevant feature for checking. Thus both HMC and the interactions of focus with WH and A-not-A questions can be accounted for in the similar way by a complex feature attraction assumption: attraction of feature y is blocked by a feature cluster which contains feature x but not y, if both the target and the attracted element also have x.

3.4. M-command of *Dou/Cai* on Focused Elements

Recall that when an focused element occurs to the left of the focus marker *dou* or *cai*, another focus marker such as *lian* or *zhiyu* may occur in a sentence and adjoin to the focused element. *Dou* and *cai* are adverbs and occur to the left of a VP. This was shown in section 3.1. For example, in the following (27a), *lian* adjoins to the focused nominal *zhei ben shu* 'this book', while *dou* occurs to the left of the verb *lian* 'read'. In (27b) *zhiyu* adjoins to the focused nominal *xing qitian* 'Sunday', while *cai* occurs to the left of the verb *xiuxi* 'rest'.

(27) a. wǒ lián zhei ben shu *dou* kān le.
   I FM this book FM read ASP
   'I have even read THIS BOOK.'

b. wǒ zhīyú xīng qītiān *cai* xiūxī.
   I only Sunday only REST
   'I rest only ON SUNDAYS.'

In this section, I show that the adverbs *dou* and *cai* must M-command the focused elements. Specifically, when *lian*, *shenzi* or *shenzi lian* adjoins to an element, *dou* must M-command the element; while when *zhi*, or *zhuyu* adjoins to an element, *cai*, if it shows up, must M-command the element.

If an additive or restrictive focus marker adjoins to a subject, which is at Spec of IP, *dou* or *cai* cannot be in VP. In the following sentences, the adjuncts *gei Xiao Wang* 'for Xiao Wang' and *yizhi* 'all the time' are VP or VP adjuncts, rather than IP adjuncts (Tang 1990, among others). Thus if *dou* or *cai* occurs to the left of
these adjuncts, it is possible that dou adjoins to a projection of Infl. and M-commands the focused nominal which is adjoined by the focus marker lian or zhiyou, as in the (a) and (b) sentences below. However, if dou or cai occurs to the right of these adjuncts, it adjoins to a projection of y. and cannot M-command the focused nominal, which is at the Spec of Infl, as shown in the (a') and (b') sentences below. 

   even Lao Wu all for Xiao Wang make-ASP evening-meal  
   ‘Even LAO WU made a supper for Xiao Wang.’

a'. *lian Lao Wu [gei Xiao Wang] dou zuo-le wan-fan.  
   even Lao Wu all for Xiao Wang all make-ASP evening-meal  
   ‘Even LAO WU always made a supper for Xiao Wang.’

   even Lao Wu all always keep-ASP phone-bill  
   ‘Even LAO WU always keeps the phone bills.’

b'. *lian Lao Wu [yizhi] dou baocun-zhe dianhua-dan.  
   even Lao Wu all always all keep-ASP phone-bill  

   only Lao Wu only for Xiao Wang make-ASP evening-meal  
   ‘Only LAO WU makes supper for Xiao Wang.’

a'. *zhiyou Lao Wu [gei Xiao Wang] cai zuo wan-fan.  
   only Lao Wu all for Xiao Wang only keep-ASP evening-meal  
   ‘Only LAO WU only keeps the evening meal.’

b. zhiyou Lao Wu cai [yizhi] baocun-zhe dianhua-dan.  
   only Lao Wu all always keep-ASP phone-bill  
   ‘Only LAO WU always keeps the phone bills.’

b'. *zhiyou Lao Wu [yizhi] cai baocun-zhe dianhua-dan.  
   only Lao Wu always only keep-ASP phone-bill  

(30) a. The structure of (28a,b) and (29a,b): dou ca i M-commands lian/zhiyou

   [IP lian/zhiyou-XP dou cai [IP vP-adjunct]
b. The structure of (28a',b') and (29a',b') : *dow/cai does not M-command lian/zhiyou

\*\[p_{lianzhiyou-XP} \quad \text{VP-adjunct} \quad \text{dow/cai}\]

However, if the focused nominal adjoined by the focus marker lian or zhiyou is a preverbal shifted object, which will be argued to be at Spec of VP in section 4, dow or cat is also in VP. Thus the M-commanding requirement is satisfied.

Lao Wu even evening-meal all for Xiao Wang make-ASP
‘Lao Wu even made A SUPPER for Xiao Wang.’

a'. Lao Wu [gei Xiao Wang] lian wan-fan dou zuo-le.
Lao Wu for Xiao Wang even evening-meal all make-ASP
‘Lao Wu even made A SUPPER for Xiao Wang.’

Lao Wu even phone-bill all always keep-ASP
‘Lao Wu even always keeps THE PHONE BILLS.’

b'. Lao Wu [yizhi] lian dianhui-dan dou baozun-zhe.
Lao Wu always even phone-bill all keep-ASP
‘Lao Wu even always keeps THE PHONE BILLS.’

(32) a. The structure of (31a, b): dow/cai M-commands lian/zhiyou
\[\[p_{lianzhiyou-XP} \quad \text{dow/cai} \quad \text{VP-adjunct}\]

b. The structure of (31a', b'): dow/cai M-commands lian/zhiyou
\[\[p_{\text{VP-adjunct} \quad \text{lianzhiyou-XP} \quad \text{dow/cai}}\]

In addition, if the focused nominal is a subject, which is at Spec of IP, dow or cat can be either to the left or the right of an IP-adjunct, since in either case dow/cai M-commands the focused nominal. Adverb jianjiantou ‘gradually’ has been argued to be an IP adjunct by Tang (1990: 146). (33) shows that dow can occur either to the left or the right of jianjiantou ‘gradually’.
(33) a. [jianjianede] lian Lao Wu dou bu chi rou le.
   'Gradually even Lao Wu all not eat meat.'
   ASp
b. lian Lao Wu [jianjianede] dou bu chi rou le.
   'Gradually even Lao Wu does not eat meat.'
   ASp
c. lian Lao Wu dou [jianjianede] bu chi rou le.
   'Gradually even Lao Wu all not eat meat.'
   ASp

(34) a. The structure of (33a): dou M-commands lian
   [IP IP-adjunct lian dou [I_p]

b. The structure of (33b): dou M-commands lian
   [IP lian-XP IP-adjunct dou [I_p]

c. The structure of (33c): dou M-commands lian
   [IP lian-XP dou IP-adjunct [I_p]

This M-command condition suggests that when dou or cai adjoins to a
verbal projection, the focused element cannot occur in the checking domain of
higher head. It seems that when dou or cai adjoins to a projection of a head, a strong
feature of the head is checked by the focused element. If the focused element adjoins
to a higher projection of a head, the strong feature will not be checked and the
derivation will be cancelled. Since the focus markers dou and cai can occur either to
the right of a VP-adjunct, showing that it is below VP, or to the left of an IP-adjunct,
showing that it is higher than VP, it is unlikely to head a functional projection, which
should have a stable position with respect to VP and IP. I thus simply assume that
dou and cai are floating adverbs and are able to specify the locality of a strong
feature triggering (see section 4).

3.5. Principle of Lexical Association

In section 2.1, we have seen the ambiguity of sentences of the pattern S--
focus-marker--VO order. The possible focused element here can be the verb, the
direct object or the whole predicate VP. Sentences of the pattern S-focus-marker-O-V, in contrast, do not show ambiguity. For example,

(35) a. ta shenzhi bei-guo shiopian sanwen.
he even memorize-ASP this prose
i. 'He even memorized THIS PROSE.'
ii. 'He even MEMORIZED this prose.'
iii. 'He even MEMORIZED THIS PROSE.'
b. ta (lian) shiopian sanwen dou bei-guo.
'He even memorized THIS PROSE.'

This phenomenon can be accounted for by Tancredi's (1990) Principle of Lexical Association, which states that an operator like only must be associated with a lexical constituent in its c-command domain [i.e. not with the trace of an element]. The relevant English examples are:

(36) a. He only likes Mary.
b. Mary; he only likes t;
c. Who; does Mary only like t?

The word only associates with the lexical elements likes and Mary in (36a), with the lexical element likes in (36b), and with the lexical element like in (36c). Thus (36a) is ambiguous, but not (36b) and (36c). Similarly, in the above Chinese data, the focus marker shenzhi C-commands the verb, the object and the whole predicate verb phrase in (35a), so any one of them can be focused. In (35b), however, the focus marker lian, which adjoins to the preverbal object DP, C-commands the object only; thus only the object is focused. The focus marker dou in this sentence M-commands the focused preverbal nominal, as discussed in the previous subsection.
4. OPTIONALITY AND TRIGGERED STRONG FEATURES

4.1. Triggering Hypothesis

The SOV order introduced in section 2.1 above brings us two questions: whether this order is base-generated or arises from movement, and if it arises from movement, what is the syntactic motivation for the movement.10

Modern Chinese is generally taken to be an SVO language. Contrary to Travis (1984) among others, many present generative syntacticians adopt a hypothesis argued by Kayne (1994) that all languages are base-generated as SVO. Mulikes and Sybesna's research (1992) particularly concludes that Chinese is a VO language. A theory-independent view for the SVO order of Chinese can be found in Sun and Givon (1985). Their work shows that text distribution of VO and OV orders indicates that Mandarin Chinese is synchronically a typical VO language, regardless the object is definite or indefinite. Argument for the moved rather than base-generated status of preverbal objects in the contrastive and the additive types of focusing can be found in Qu (1994) and Shyu (1995). Their arguments can also be applied to the restrictive type of focusing. Based on the default status of SVO order and the studies made by Qu (1994) and Shyu (1995), among others, I adopt the movement analysis for SOV order in Chinese.

An assumption of the Minimalist Program is that all overt syntactic movement is driven by strong feature checking (See section 4.4 for more discussion on this issue). Accordingly, I propose that the preverbal object is moved from a postverbal position to check a strong feature. In other words, the syntactic motivation of object shift in Chinese is strong feature checking.

However, if the formal feature checked by the shifted object were strong in all cases in Chinese, we would expect that a Chinese object should always occur to the left of a verb, contrary to fact. With respect to object raising, Chomsky (1995: 352) claims that “the choice is arbitrary. forced, or unavailable as the language has optional, obligatory, or no overt object raising, respectively.” Obviously, the latter two choices are not applicable in Chinese. Object shift is neither obligatory nor absent in Chinese. Thus object shift in Chinese has been taken to be optional or arbitrary. In fact, this is not true. We have seen that a prenominal focus marker can
adjoin to a shifted object, as in (31), but never to an in situ object (section 2.2). This fact implies that whenever a focus marker attaches to an object, the object must shift to a preverbal position. Thus, if movement of object in Chinese is driven by a strong formal feature, the strong value of the feature strength should be triggered by a focus marker which adjoins to the object DP. In other words, only when a focus marker is present with the object DP will the formal feature in the relevant functional head be strong. So there is a triggering relationship: a focus marker adjoined to the object DP triggers a strong feature in a functional head, and the object moves to the checking domain of the functional head to check the strong feature. This is different from the strong feature checking in the current literature. My Triggering Hypothesis on formal feature strength is as follows:

\[(37) \text{ a. The default strength of a feature varies across languages.} \]
\[\text{b. The default state can be changed under certain conditions.}
\text{For instance, the presence of a certain feature in the complement domain of x can trigger a weak feature of x to be strong.} \]

An example of a default strong feature is the strong [Q] of English interrogative C, satisfied by the movement of a WH phrase to Spec of CP, as in (38a) below, or by the merging of whether or if in CP, as in (38b). The strength of this feature is not triggered by anything.

\[(38) \text{a. (guess) } [cP \text{ which book } [cP \text{ John gave to Mary}]] \]
\[\text{b. I wonder } [cP \text{ whether } [cP \text{ he left yet}]] \]

The idea of triggering is inspired by Marantz's (1991) 'Dependent Case'. His basic idea is that in some languages such as Icelandic the occurrence of a certain Case feature on one argument is dependent on the Case feature of another argument. My Triggering Hypothesis can further be exemplified by WH movement in Iraqi Arabic (data from Wahba 1991 and Simpson 1997). In this language, a WH phrase
can remain in situ if it does not merge in a tensed embedded clause. If a WH phrase merges in a tensed embedded clause, it must either move to the Spec of matrix CP or co-occur with a sentence initial question particle (QP).

(39) a. Mona shaafat meno?
   Mona saw whom
   'Who did Mona see?'

b. Mona raadat [tijbir | Su'ad [isa'ad meno]]?
   Mona wanted to-force Su'ad to-help who
   'Who did Mona want to force Su'ad to help?'

c. *Mona tsawwarat [cp Ali istara sheno]?
   Mona thought Ali bought what
   Intended: What did Mona think Ali bought?

d. Sheno, Mona tsawwarat [cp Ali istara i]?
   what Mona thought Ali bought
   'What did Mona think Ali bought?'

e. sh-tsawwarit Mona [Ali raah weyn]?
   QP-thought Mona Ali went where
   'Where did Mona think Ali went?'

f. (sh-)raadat Mona Ali ygaabat meno?
   (QP)wanted Mona Ali to-meet whom
   'Whom did Mona want Ali to meet?'

I thus assume that in languages such as Iraqi Arabic, in the default case, C does not have a strong formal feature for a WH movement. However, the strong feature of C can be triggered by a tense feature of its embedded INFL. This triggered strong feature must be checked by either a movement of a WH phrase or merging of a question particle. This example shows that a strong feature of a functional head can be triggered by a certain feature in the complement domain of the functional head.
Thus, it seems that language parameters are stated in terms of default strength of formal features, rather than in terms of absolute strength of formal features.

Let us return to Chinese object shift. Since there are both SVC and SOV orders in Chinese, it has been assumed that object shift in Chinese is optional (Qu 1994: 161, among others). The advantage of my Triggering Hypothesis is that it has more explanatory power than other optionality theories do. For example, to deal with verb and object movement in English and French Branigan (1992: 47) proposes the arbitrary selection theory. In the view proposed here, an apparent optional movement is in fact explicitly rather than arbitrarily conditioned in the Triggering Hypothesis. If there is no focus marker adjoined to the object, no strong feature is triggered and thus no object shift is allowed.

Notice that the focus marker of a preverbal object is phonologically null in the case of the contrastive type of focusing and sometimes deletable in the cases of the additive and the restrictive types of focusing. In section 3.1, I discussed this deletion of a prenominal focus marker and claimed that it is a PF process.

\[(40)\]
\[
a. \text{Lao Wu (lian) wan-fan} \quad \text{dou zuo le.}
\]
Lao Wu even evening-meal all make ASP
'Lao Wu even made the supper.'

\[
b. \text{Lao Wu (zhiyou) wan-fan} \quad \text{cai zuo.}
\]
Lao Wu only evening-meal only make
'Lao Wu only made the supper.'

\[
c. \text{Lao Wu (*shi) wan-fan zuo le.}
\]
Lao Wu 'only evening-meal make ASP'
'Lao Wu made the supper.'

Triggering is a kind of syntactic dependency. It occurs in the computation system rather than in the numeration. It needs certain structural conditions. For example, only when a focus marker adjoins to an object, not other structural categories, will a feature of a certain functional head be strong. The triggering
hypothesis departs from the current assumption that in the course of computation nothing is changed apart from rearrangements of lexical properties.

This triggering relation is the motivation of the three types of object shift in Chinese: objects move to check a strong feature of \( y \). The question why the strong feature is in \( y \) is the topic of our next subsection.

4.2. Locality Constraint on Triggering?

According to Chomsky (1995: 232), only functional heads, such as \( C \) or \( y \) (light verb, see Chomsky 1995), have strong formal features. Universally, he claims, a transitive verb has the following projections:

\[
(41) \quad \text{subject} \rightarrow \text{\( y \)} \rightarrow \text{VP} \\
\]

In this tree, Spec of \( y \) is the base-position of a subject. The Case feature of the functional head \( I \) or \( T \) is always compatible with that of a nominative argument, since \( I \) or \( T \) has the feature [assign nominative Case] (Chomsky 1995: 277). If an argument, regardless of a subject or an object, has a structural accusative Case feature, it is not compatible with the [assign nominative Case] feature of \( I \). Thus an element with an unchecked accusative Case cannot check any feature of \( I \). If it did, whatever feature it intended to check (e.g., [D] of \( I \), the Case features would clash.\textsuperscript{12}

Chinese does not have any morphological case marking. In Chinese, the subject of a transitive verb has a structural nominative Case feature, while the direct object of a transitive verb has a structural accusative Case feature.
If an element moves overtly, it checks some strong feature of another element. Since only functional categories such as $\iota$, I, and C can have strong features, the landing site of an overtly moving element must be within the checking domain of a functional head. Since an accusative object is not compatible with I, object shift cannot land in the checking domain of I. However, since a shifted object must land in the checking domain of a functional head, it is assumed that a strong feature of $\iota$ is responsible for object shift (Chomsky 1995: 352). Preposing of an object means moving of the object to the checking domain of $\iota$.

Notice that one Spec of $\iota$ is filled by the trace of the subject. A shifted object must move to a different Spec of $\iota$. The relative order of these two Specs of $\iota$, according to Chomsky (1995: 358), is that the shifted object is at the inner Spec and the subject is at the outer Spec. This order is also compatible with Travis's (1993) and Koizumi's (1995: 102) Split VP hypothesis, which claims that the base position of a subject is higher than both of the base position and the derived position of an object (AgrOP).

If a focus marker which adjoins to an object in Chinese triggers a strong feature, this strong feature can only be in $\iota$. This locality restriction on the triggering is imposed by the feature compatibility requirement. We have just discussed why Infl cannot be the host of the strong feature responsible for accusative object shift. Thus, the landing site of a shifted accusative object cannot be a Spec of I. In addition, if a strong feature, say [D], were triggered in I, the subject, rather than the object, would be the closer checker.

If, on the other hand, there is no potential feature clash between the moved element and the features of the functional head, long distance triggering is possible. In the Iraqi Arabic data shown above, the tense feature of an embedded I triggers a strong [Q] of the matrix C, so a WH phrase moves from an embedded clause to the matrix CP. There is thus no special locality constraint on triggering and the Triggering Hypothesis does not add any stipulations to the computation system.

Theoretically, a focus marker which adjoins to an object can also trigger a strong feature in C. We have assumed that Chinese subjects are at Spec of I at PF. Thus if the triggered strong feature is in C, the shifted object should land at the
checking domain of C, which is to the left of IP, and the word order would be OSV, not SOV. Chinese does have OSV order. However, other possible derivations for OSV order are topicalization movement and base-generated dislocation. In this paper I do not discuss OSV order and its derivations.

4.3. Accusative Case and Clause Bound Conditions of Object Shift

Chinese object shift is an Accusative Case related movement. Chinese CPs can have abstract Case according to Tsai (1995). When a CP functions as the direct object of a transitive verb, it has the Accusative Case and is able to be raised, as shown in (46). Elements which do not bear structural [Accusative Case] feature cannot shift.⁴ In the following (b) sentences, an element which does not have Accusative Case is shifted and thus the sentences are unacceptable. The first pair is from Qu (1994:68):

(42) a. ta daozi-le di-shang.
    he fall-ASP floor-on
    ‘He fell onto the floor.’

b. *ta di-shang daozi-le.
    he floor-on fall-ASP

(43) a. ta shenzi song-le LaoLi yiben shu.
    he even send-ASP LaoLi one book
    ‘He even sent a book to LaoLi.’

b. *ta lian LaoLi dou song-le yiben shu.
    he even LaoLi all send-ASP one book

c. ta lian neiben shu dou song-le LaoLi.
    he even that book all send-ASP LaoLi
    ‘He even sent THAT BOOK to LaoLi.’

(44) a. ta shenzi jiao wo sanzi.
    he even call I sister-in-law
    ‘He even called me sister-in-law.’
b. *ta lian sezi dou jiao wo.
    he even sister-in-law all call [  

According to the Minimalist program, languages vary with respect to which movements are overt and which ones covert, but all languages are assumed to have subject and object raising at some level (Epstein, Thiraissone and Zwart 1996: 40). The Accusative Case requirement of Chinese object shift indicates that Case checking is involved. According to Chomsky's (1995: 265) free-rider assumption, when a strong feature of a functional head is checked, all the uninterpretable formal features involved are checked as free-riders. In the case of object shift here, Accusative Case feature is checked along with the triggered strong feature. Thus, we do not need to take object shift to be a movement of an object to Spec of Agr, solely for the sake of checking Accusative Case feature, as assumed by Qu (1994).

Object shift in Chinese is also sensitive to the clause bound locality condition (Qu 1994, among others). Compare (b) and (c) of the following.

(45) a. LaoWu renwei [cp LaoLi hen xihuan neiben shu]
    LaoWu think LaoLi very like that book
    'LaoWu thinks that LaoLi likes that book very much,'

b. LaoWu renwei [cp LaoLi neiben shu, hen xihuan ti]
    LaoWu think LaoLi that book very like
    'LaoWu thinks that LaoLi likes that book very much.'

c. *LaoWu neiben shu renwei [cp LaoLi hen xihuan ti]
    LaoWu that book think LaoLi very like

(46) a. LaoWu renwei [cp LaoLi shenzhi hen xihuan neiben shu]
    LaoWu think LaoLi even very like that book
    'LaoWu thinks that LaoLi even likes that book very much.'

b. LaoWu renwei [cp LaoLi lian neiben shu, dou hen xihuan ti]
    LaoWu think LaoLi even that book all very like
    'LaoWu thinks that LaoLi even likes that book very much.'
c. *Lao Wu lian nei ben shu, dou renwei [cp Lao Li ben xihuan t]
   Lao Wu even that book all think Lao Li very like

(47) a. Lao Wu renwei [cp Lao Li zhi xihuan nei ben shu]
   Lao Wu think Lao Li only like that book
   ‘Lao Wu thinks that Lao Li only likes that book.’

b. Lao Wu renwei [cp Lao Li zhiyou nei ben shu, cai xihuan t]
   Lao Wu think Lao Li only that book only like
   ‘Lao Wu thinks that Lao Li only likes that book.’

c. *Lao Wu zhiyou nei ben shu, cai renwei [cp Lao Li xihuan t]
   Lao Wu only that book only think Lao Li like

However, restructuring can unify the domains of the embedded nonfinite
verb and the matrix control verb into one complex, thus licensing long distance
object shift, shown in the following. The embedded object appears to the left of the
matrix verb.

(48) a. Lao Li dasuan [pro fanyi pengtiao de shu]
   Lao Li plan pro translate book DE book
   ‘Lao Li has planned to translate cookbooks.’

b. Lao Li pengtiao de shu, dasuan [pro fanyi t]
   Lao Li cook DE book plan translate
   ‘Lao Li plans to translate COOKBOOKS.’

c. Lao Li lian pengtiao de shu, dou dasuan [pro (*dou) fanyi t]
   Lao Li even cook DE book all plan (all) translate
   ‘Lao Li even plans to translate COOKBOOKS.’

d. Lao Li zhiyou pengtiao de shu, cai dasuan [pro (*cai) fanyi t]
   Lao Li only cook DE book only plan (only) translate
   ‘Lao Li plans to translate COOKBOOKS only.’
The assumption that restructuring has taken place is supported by the position of the focus markers dou and cai, which must adjoin to the matrix verbal projection, not the embedded one, as shown in (48c) and (48d).

4.4. Triggered [D] and the Trigger's [Specificity]

What kind of strong feature is checked in Chinese object shift? We have seen that the three types of object shift are focus-related. One might think that the triggered strong feature is [Focus], an uninterpretable feature, and that the focused object moves to the checking domain of y to check the strong [Focus] feature of y, as in the case that a WH phrase in English moves and checks the strong [Q] of C°. Alternatively, one can assume that the triggered strong feature on y is a categorial feature [D]. It seems that there is no empirical difference between a [Focus] and a categorial feature hypotheses. I choose the categorial one unless it is proved to be wrong.

The specificity requirement on the contrastive type of object shift has been pointed out by Tsao (1990) and Qu (1994), among others. The following (49b) and (51b) show that contrastive focused and restrictively focused non-specific objects cannot shift. However, nonspecific objects do raise in the additive type of object shift, as shown in (50b).

(49) a. ta pinchang zong baozun vixie jiu xinfeng,
     he usually always keep some old envelope
     'He usually keeps some old envelopes.'
     b. *ta vixie jiu xinfeng pinchang zong baozun,
        he some old envelope usually always keep

(50) a. ta shenzhibaozun-zhe vixie jiu xinfeng
     he even keep-ASP some old envelope
     'He even keeps SOME OLD ENVELOPES.'
     b. ta pingshang lian vixie jiu xinfeng dou baozun.
        he usually even some old envelope all keep-ASP
        'He usually even keeps SOME OLD ENVELOPES.'
(51) a. ta meitian zaoshang zhi chi xie shuigu.  
he everyday morning only eat some fruit  
"He eats SOME FRUIT only every morning."

b. *ta meitian zaoshang zhi you xie shuigu (cai) chi.  
he every morning only some fruit only eat

In (50b), when ‘keeping some old envelopes’ occurs as a habitual eventuality, as indicated by the adverb pingcháng ‘usually’, the object ‘some old envelopes’ cannot be specific.

Classifier-Noun phrases can express nonspecific meaning in Chinese. Cheng & Sybesma (1997) claim that Classifier-Noun phrases are not just the phonological reduction of yi-Classifier-Noun (yi ‘one’). First, Classifier-Noun phrases cannot occur as the object of bounded predicates:

(52) a. wo ba yi wan tang he-wan-le.  
I BA one bowl soup drink-finished-ASP  
'I finished a (particular) bowl of soup'

b. *wo ba wan tang he-wang-le.  
I BA bowl soup drink-finished-ASP

Second, Classifier-Noun phrases cannot occur as the subject of secondary predication, which must be specific (Huang 1987, Tsai 1994).

(53) a. wo jiao-guo yi ge xuesheng hen congming.  
I teach-ASP one CL student very intelligent  
'I once taught a student who is very intelligent.'

b. *wo jiao-guo ge xuesheng hen congming  
I teach-ASP CL student very intelligent

(54) a. ta xie-guo yi ben shu hen you-yisi.  
he write-ASP one CL book very interesting  
'He once wrote a book which was very interesting.'
b. *ta xie-guo ben shu hen you-qi.
   he write-ASP CL book very interesting

If Cheng & Sybesma (1997) are right, the shifted object in the form of Classifier-Noun in the following negative additive focus sentence can be nonspecific.

(55) a. ta shenzi bu xie xin.
   he even not write letter
   'He even did not write a letter.'

b. ta lian feng xin dou mei xie.
   he even CL letter all not write
   'He even did not write a letter.'

It has been claimed that nonspecific objects cannot be raised in Hindi, Persian, Turkish, Korean, Hungarian, and German (Karimi 1995). However, as shown above, Chinese does allow nonspecific and additively focused objects to shift. Since the present research is on object shift in general, and nonspecific objects can raise in some cases, I claim that the trigger feature is not necessarily [specificity] in Chinese.

Notice that this contrast between Chinese and some other languages in the movability of an indefinite object is accompanied with another contrast in the markedness of a raised definite object. As pointed out by Diesing (1997: 378), definite objects are quite awkward in VP-internal positions in German. Supported by Waerman’s (1989) examples from Dutch and Buring (1993), she claims that German sentences such as the following (a), compared to (b), where the position of the sentential adverb 

'seldom' indicates that the object is raised out of VP, are marked in the sense that some contrastive context is required for felicity. In other words, there is pressure for definite NP objects to raise in neutral (noncontrastive) contexts.
(56) a. ... weil ich selten die Katze streichle.
    since I seldom the cat pet
b. ... weil ich die Katze selten streichle.
    since I the cat seldom pet
   'since I seldom pet the cat.'

Diesing's explanation is that such a definite NP receives a referential interpretation which is incompatible with existential binding, which is assumed to be within VP. However, an in situ definite object in Chinese has a neutral or noncontrastive reading while a raised one must have a contrastive focus reading. The fact that a raised object requires a contrastive focus reading is also mentioned by Ernst and Wang (1995). In the following data, (b) is marked, compared to (a).

(57) a. ta du-guo zhei ben shu.
    he read-ASP this CL book.
   'He has read this book.'
b. ta zhei ben shu du-guo.
    he this CL book read-ASP
   'He has read this book.'

To give a unified account for these two contrasts, I firstly adopt Diesing's (1997: 376) assumption that movement can be either syntactically driven by checking of uninterpretable features such as Case (Chomsky 1993, 1995), or semantically driven in the sense that movement is necessary as a result of the interpretive requirements of certain types of noun phrases. Thus, on the one hand, objects of transitive verbs in all languages must be raised universally, either overtly or covertly, to check the Case feature, according to Chomsky (1995). This is the syntactic motivation of object raising. On the other hand, definite objects must be raised out of VP, while indefinite objects need not, since they can be bound by the existential closure by default. To avoid the incompatibility between the existential binding and definite NPs is the semantic motivation of object raising. Like Case
checking, semantically driven object raising is also universal by LF and parametric in the overt syntax (Diesing & Jelinek 1995).

Based on this distinction, I then distinguish two kinds of economy requirements. The syntactic economy requires that a movement should be delayed if possible (Procrastinate, Chomsky 1993), while the semantic economy requires that indefinite object need not be raised. Let us assume that Case feature in both German and Chinese is weak, since in situ objects are allowed in both languages.

Furthermore, I assume that the two kinds of economy consideration can interact with each other differently across languages. Generally speaking, raising an object of any type overtly always violates syntactic economy, while raising an indefinite object will violate semantic economy. There are four patterns. First, raising of an indefinite object violates both the syntactic and semantic economy. In German, this raising is impossible, while in Chinese it must be enforced by certain kind of focalization. Specifically, raising of existentially quantified nominals and CL-N nominals can occur in the additive type of focusing. Second, raising of a definite object violates the syntactic economy but not the semantic economy. In German, this raising is a default situation, while in Chinese it must be triggered by a focus feature on the object. Third, leaving a definite object in situ satisfies the syntactic economy requirement but violates the general semantic constraint that presses a definite NP to move out of VP. In German, this in situ situation needs an external force of contrastive focusing, while in Chinese, it is the default situation. Finally, leaving an indefinite object in situ meets both the syntactic and semantic economy requirements. In both German and Chinese, this is a default case in the sense that no external force is required. The above are summarized in the following chart: +syn eco" and '+syn eco' read as violating syntactic economy and satisfying syntactic economy respectively. +sem eco' and '-sem eco' read as violating semantic economy and satisfying (or not violating) semantic economy respectively. '-semi' reads as violating semantic requirements).
(58) object raising in German and Chinese

<table>
<thead>
<tr>
<th></th>
<th>German</th>
<th>Chinese</th>
</tr>
</thead>
<tbody>
<tr>
<td>raising indef. obj</td>
<td>-syn eco, -sem eco</td>
<td>banned</td>
</tr>
<tr>
<td>raising def. obj</td>
<td>-syn eco, +sem eco</td>
<td>default</td>
</tr>
<tr>
<td>not raising def. obj</td>
<td>+syn eco, -sem</td>
<td>triggered by focus</td>
</tr>
<tr>
<td>not raising indef. obj</td>
<td>-syn eco, -sem eco</td>
<td>default</td>
</tr>
</tbody>
</table>

This section shows that the differences in specificity with respect to object raising between Chinese and German are the result of the different interaction patterns between two kinds of economy principles, governing the syntactically motivated movement, and the semantically motivated movement respectively.

5. CONCLUSIONS

In this paper, based on the investigation of Chinese object shift, I have made one major theoretical claim, namely, that the strength of a feature can be triggered to be strong. This claim implies that languages differ in default strength of a formal feature, rather than in terms of absolute strong/weak parameters. Empirically speaking, I have presented a unified analysis of the three types of object shift. They are all triggered in the same way and have the same locality constraints. I have also described the syntactic properties of various focus markers. Furthermore, I explored the specificity issue, claiming that the differences in specificity with respect to object raising between Chinese and German are the result of the different interaction patterns between two kinds of economy principles, governing the syntactically motivated movement, and the semantically motivated movement respectively.

NOTES

1. I am grateful to Lisa Cheng, Elizabeth Cowper, Alana Johns, Howard Lasnik, Waltraud Paul, the audience of the 8th North American Conference on Chinese Linguistics (University of Illinois at Urbana Champaign 1996), and the syntax
project group members of the University of Toronto for their numerous insightful comments on earlier versions of this paper. My special thanks go to my supervisor Diane Massam and the anonymous referee of JCL for their help in developing and clarifying the ideas presented here. All remaining errors are mine.

There is a rich literature on focus markers *shi* and *han-dou*, which has been reviewed by Qu (1994) and Shyu (1995), among others. Lack of space prevents me from making here a survey of the literature.

2. When *shi* is stressed, it means *indeed!*, rather than contrastive. As noted by Paris (1979: 122), in the *X shi Y Z* construction, if *shi* is stressed, the alternative is a negation, i.e. not *Y*. Compare the following two sentences:

(i) a. *wo shi zai youyong.*  (The stress is on *shi*)

   "I be at swim"

   "I AM swimming."

   "(It is not the case that I am not swimming)"

b. *wo shi zai youyong.*  (The stress is not on *shi*)

   "I be at swim"

   "I am SWIMMING. (not fishing)"

3. Following Peng (1979) among others, I claim that sentence final *de* in focus sentences, as in (i), is an aspect or mood particle, rather than a nominalizer. Arguments against the nominalizer analysis of this *de* can be found in Shi (1994).

   (i) *wo shi zuotian kai-le che de.*

   "I be yesterday drive-ASP car DE"

   "I drove a car YESTERDAY."

4. It is my and my informants' intuition that when a focus marker occurs to the left of a transitive verb, the verb, or the object, or the whole predicate, is focused on. This kind of ambiguity also occurs with English focus markers. See Tamurel's (1990) examples in section 3.5. Usually stress can help to remove the ambiguity.

5. The reviewer of this paper claims that *shen-zhi* cannot be used before nominals. For those who share this judgement, *han*, which occurs with nominals and CPs, and *shen-zhi*, which occurs elsewhere, are in complementary distribution.
6. While *han* ‘even’ can occur before a preverbal complement CP, *zhiyou* ‘only’ cannot.

(i) a. wo* zhi* zhidao [cp ta qu-le Beijing]
    I only know he go-ASP Beijing
    ‘I know only that he has gone to Beijing.’

   b. *wo zhiyou* [cp ta qu-le Beijing] (cai) zhidao
      I only he go-ASP Beijing only know

7. English subject-oriented adverbs, as in (i), may scope over both the subject and the predicate. Such adverbs usually occur with stage-level predicates, rather than individual-level predicates. They are related to an event. A focus marker in Chinese can occur with individual-level predicates, as in (ii). In addition, a pronominal adverb in English can be distinguished from other categories such as an adjective morphologically, while a focus marker in Chinese has no morphological marker to show its category.

(i) Eagerly, John chewed his nails.

(ii) Lao Wang dou xihuan jingju.
    even Lao Wang all like Beijing-opera
    ‘Even Lao Wang likes Beijing-operas.’

8. The interactions of focus markers and question words in a complex sentence will be discussed in a separate paper. See Shi (1994) for a recent discussion. It should be noted that Shi’s claim that A-not-A and a WH element cannot appear in a clause subordinate to the one where *shi* appears is wrong. The following sentences are counterexamples to his claim:

(i) a. ta shi Xingqisen wen-guo wo na-me-ni ta de zidian.
    he be Wednesday ask-ASP I take-not-take he DE dictionary
    ‘He asked on WEDNESDAY whether I have taken his dictionary.’

   b. ta shi Xingqisen wen-guo wo she na-le ta de zidian.
    he be Wednesday ask-ASP I who take-ASP he DE dictionary
    ‘He asked on WEDNESDAY who has taken his dictionary.’
Whether an A-not-A word or a WH word can appear in a complement CP depends on whether the matrix verb selects an interrogative CP, not on the occurrence of a focus marker in the matrix clause.

9. These data are in contrast to the data in which dow occurs in an eventuality quantificational sentence. See Zhang (1997b) for a discussion.

10. In this paper, I do not discuss the SOV order of Chinese BA-construction, which has long been studied (see Huang 1982 and Travis 1984, among others).

11. Branigan (1992: 47) claims that “I conclude that in English, as in French, there is some optionality in the strength of features at the point at which lexical items are drawn from the lexicon. When an Agr or verb with strong features is chosen, then overt movement will be forced (and allowed by Procrastinate). When an Agr or verb with weak features is chosen, the overt movement will be disallowed by Procrastinate.”

12. The [assign Accusative Case] feature of V has been checked in the checking domain of y before V adjoins to I to get its phi features checked by the subject. Thus by the time V moves to I, V does not contain any Case features. This assumption implies that object raising always precedes V-to-I raising.

13. For more discussion on this issue, see Chomsky (1995 lecture notes) and Hornstein (1997).

14. Clausal complement of a non-modal control verb cannot be shifted:

(i) a. *ta lian [PRO kai ge jiu ba] dou dasuan.
    he even run cl bar all plan
    intended: 'He even planned to run a bar.'

    he even run cl bar all promise
    intended: 'He even promised me to run a bar.'

    c. ??ta lian [PRO ha ji] dou qiang po wo.
    he even drink wine all force
    intended: 'He even forced me to drink wine.'
In English, a clausal complement of a control verb generally cannot undergo passivization, which can be used to test whether the clausal complement has Case. It is unclear whether the unacceptability of (i) can be accounted for by the lack of the Accusative Case of the clausal complement. Alternatively, we can explain cases like (ia) and (ic) in a Lexical Functional Grammar approach: if a verb cannot take a nominal argument, then the clausal complement of the verb cannot be fronted. See Chu-Ren Huang (1992) for such an approach to topicalization. I thank the reviewer of this paper for pointing out this alternative approach to me.

The strong feature checking in English interrogative sentences cannot be a categorical feature checking, although Chomsky (1995: 289) assumes that the checker feature might be [D]. In Zhang (1997a), I argue that if the strong feature is a categorical one, some undesirable result occurs. On the one hand, the strong feature of interrogative C can be checked by [V], according to Chomsky (1995: 290), thus it seems that either [V] or [D] can check a categorical feature of C; on the other, not all WH phrases have a [D] feature, although they are all able to check the strong feature of C.

REFERENCES


BOSKOVIC, Zeljko and Daiko Takahashi 1995 Scrambling and Last Resort. Unpublished manuscript, University of Connecticut and CUNY.


HORNSTEIN, Norbert 1997. Movement and chains, presented at University of Toronto.


KARIMI, Simin 1995. On object positions, presented at the University of Toronto.


TANCREDI, C. 1990. Not only EVEN, but even ONLY. Ms., MIT.


____. 1993. Psych flips, event and phrase structure, presented at University of Toronto.


WEERMAN, Fred 1989 The V2 Conspiracy, A Synchronic and Diachronic Analysis of Verbal Positions in Germanic Languages, Foris, Dordrecht.
论汉语主宾动语序中的宾语前移

张宁
普通语言学语言类型学及普通语法研究所，柏林

本文提出现代汉语的三类主宾动句型都与焦点词相关。本文进一步分析了各类焦点词的句法特性。此外，针对宾语前移与宾语特定位特征的关系，本文比较了汉语和德语，指出这两种语言在这方面不同点可由句法经济原则和语义经济原则相互作用的不同方式来解释。