THE SYNTAX OF FOCUS AND TOPIC IN MANDARIN CHINESE

by

Shu-ing Shyu

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ABSTRACT

This dissertation investigates topic and focus constructions in Mandarin Chinese with particular emphasis on understanding their structural representations. Structural focus involving overt focus movement is manifested in *lian...dou/ye* 'even...all/also' and object preposing constructions in Chinese. Chapter two first provides detailed discussion of the categorial status of *lian*, *dou/ye* and focused constituents that admit movement, the interpretation of *lian...dou/ye* sentences, and Chinese clausal structure. I propose a post-subject, strict preverbal focus projection, which is structurally distinct from topic. Post-verbal elements undergo focus movement to the strict preverbal focus projection, called (*lian-*) *focalization*. Focalization is triggered by formal [+Focus] feature checking in Spec-Head configuration, adopting Chomsky (1993; 1995). Chapter three presents movement diagnoses and a unified account for both *lian..dou/ye* and object preposing cases. The Chinese cleft construction with *shi* 'be' behaves like other focus adverbs or operators, in contrast to the cleft focus movement attested in English and Hungarian (Culicover (1993), Horvath (1986), Kiss (1994), etc.).

Focus and topic are grammatical distinguished with respect to the strict post-subject and preverbal position. Nevertheless, a focus constituent can occur in sentence-initial position. In chapter four I propose that the focus constituent can either be topicalized to be contrastively interpreted or base-generated sentence-initially to denote whole sentence focus scope. Consequently, the traditionally assumed discourse distinction of "new" and "old" information in focus and topic cannot

adequately account for the Chinese facts in this regard. Namely, a focus can be topicalized. Thus, a merged grammatical representation for both topic and "focused topic" is called for. I argue that Chinese does display movement of topicalization. The genuinely moved topic moves to the TopicP Spec position in root contexts. The topicalized sentence represents predicational judgment, in the sense of Kuroda (1965; 1972; 1992). Moreover, I argue for a base-generated IP-adjoined major subject position for the so-called base-generated "topic" with or without a gap. The base-generation structure also hinges on the presence of major subject in Chinese, on a par with that in Japanese. Hence, the proposed structure provides a unified account for the long-standing debate of (non-) movement of topic structure, and the identification of empty categories and overt pronominal copies.

Chapter five discusses related issues of scrambling and focus scope. Chinese movement structures do not correspond to Japanese scrambling. *Even*-focus scope is represented in the overt syntax in Chinese but at LF in English (e.g. Karttunen and Peters (1979) and Rooth (1985)).

CHAPTER ONE: INTRODUCTION

The distinction between focus and topic is often grounded in the discourse notions of new and old information, or the dichotomy of rheme and theme. This dissertation, however, argues that focus and topic can be grammatically represented. By investigating Chinese *lian...dou/ye* 'even...all/also' construction and inverted word order, I will address the following research questions.

(i) What is the grammatical representation of bare object preposing to post-subject/preverbal position? How can the study of this structural focus throw light on Chinese clausal structure?

(ii) Can focus position be structurally distinguished from topic?

(ii) In what circumstances do focus and topic overlap? What is topic structure?

(iv) What are the movement diagnoses attested in Chinese?

(v) Does Chinese have "major subject" like Japanese?

1.1. Theoretical Assumptions

This thesis presupposes the theoretical framework of Government and Binding as developed in Chomsky (1981; 1986; 1991, and others), and Bare Phrase Structure in the spirit of the minimalist program in Chomsky (1993; 1994; 1995). The following will briefly outline the assumptions.

In Chomsky's minimalist program, there are only two interface levels LF and PF specified for rules, eliminating D(eep)-structure and S(urface)-structure. Moreover, according to Chomsky's (1994; 1995) Bare Phrase Structure framework,

projection is minimal and only basic grammatical (thematic) relations are projected. Minimal and maximal projections are relational properties of categories, not inherent to them. Namely, they are determined from the structure in which they appear without any specific marking (see Muysken's (1992)). Consequently, the standard X-bar template is not assumed at the stage of forming the structure; rather it is a by-product, the output of the derivation--the computational system (C_{HL}). There are no non-branching projections. The computation system is based on two operations, merge and move. Merge is a concatenation of contiguous items selected from the lexicon, say $\alpha 2$ and β in (1). The label for these two items is determined derivationally and either one of them projects (see Chomsky 1995: 22).

(1)

$$\alpha 1$$
$$\alpha 2 \quad \beta$$
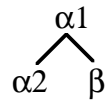
Move concerns non-local dependency. A chain $CH = (\alpha, t\,(\alpha))$ formed by Move should meet the following conditions:

(i) α must c-command its trace; hence, movement is raising.

(ii) Uniformity condition:

(2)   A chain is uniform with regard to phrase structure status.

(iii) Last Resort condition. Movement, Attract, is driven by feature-checking. Overt movement is forced by feature-strength. Chomsky (1995) lists several formal features: (i) categorial features (ii) f-features (iii) Case feature (iv) strong F, where F is categorial. I will also adopt Horvath's (1986) parameterization[1] to treat [Focus] as a formal feature.

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[1] However, the formal [Focus] feature in Chinese that triggers syntactic focus movement is attested in *lian...dou/ye* 'even...all/also' and contrastively focused preposed object, rather than in the cleft *shi* 'be' construction.

I will also adopt the VP-internal Subject Hypothesis for Chinese (cf. Kuroda 1988, Koopman and Sportiche 1990, among others), in which subject raises to [Spec IP] for nominative Case assignment.

In discussion of topicalized sentences, I will adopt Kuroda's framework (1965; 1972; 1992). Topicalized and non-topicalized sentences, although having the same truth condition, express different logical judgments. Topicalized sentences represent predicational (categorical) judgment while non-topicalized sentences express nonpredicational (existential, thetic) judgment. Categorical judgment consists of two distinct cognitive acts: one is recognizing (apprehending) something as substance, termed as "Subject," another is attributing to the Subject the property perceived in a situation (called Predication) and acknowledging or disavowing a Predicate of a Subject. Thetic judgment, a simple judgment and a unitary cognitive act, is expressed by nontopicalized, existential and impersonal sentences which do not associate a Subject with a Predicate. It simply expresses recognition of the existence of (a) specific entity (entities) or a specific situation. Topicalized sentences only occur in root contexts, whereas major subject, the non-thematic subject in double nominative construction, may occur in non-root contexts.

1.2. Focus Devices

Languages employ various strategies to mark focus. Often it is related to the pitch accent of elements in sentences, the phonological focus (e.g. Selkirk (1984), Rochemont (1986)). The study of the syntax of focus generally categorizes focus devices into the following types (cf. Kenesei (1993), Culicover (1993)):

(i) in-situ focus, such as in English (e.g. Chomsky (1977)),

(ii) focus movement, such as in Basque (Ortiz (1989), and Hungarian (Horvath (1986; 1993), Brody (1990), Kiss (1994), etc.),

(iii) mixed types: applying both (i) and (ii) in a language (e.g. Italian and Finnish mentioned in Kenesei (ibid.),

(iv) focus operator and focus association in Jackendoff (1972), Rooth (1985), and among others, in relation to presupposition and focus (see Chomsky (1971)).

Chinese also employs the above focus devices (cf. Cheng (1983)).[2] The most studied one is the so-called cleft *shi...de* construction (see Teng (1979), Huang (1982), Shi (1992), Chiu (1993), and Paris (1994)). Focus adverbs receive less attention except for a detailed pragmatic and semantic study of *cai* 'just, only' and *jiu* 'then, only' in Biq (1984). This thesis will concentrate on the *lian...dou/ye* 'even...all/also' construction and argue that a focus projection is attested in this construction, instead of in *shi..de* sentences as argued by Chiu (1993).

1.3. Outline of the Thesis

In chapter two, I will present a detailed discussion of the *lian...dou/ye* construction. First, I will show the categories of focus constituents that can follow *lian*, i.e. NPs, VPs and CPs. Second, I argue that *lian* behaves like an adverb or adjective to modify its following VP/CP or NP respectively. *Dou* is considered to be a predicate modifier. It does not only quantify the element to its left as traditionally assumed, it also subcategorizes an aspect or verb phrase. The interpretations of *lian..dou/ye* and *lian*-phrases are presented to show the parallelism between *lian*-NPs

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[2] I will not be concerned with phonological stress and intonation for marking focus in this thesis.

and universal QPs. The structure containing the focus projection is proposed in section 2.2.

Chapter three provides evidence for the movement of focalization to a post-verbal and strict preverbal position. Assuming the canonical word order of Chinese clauses is SVO in (3), an object can be preposed to a preverbal position, either in the *lian..dou/ye* (4a) or by bare object preposing (4b). I argue that the surface word order of SOV is derived by movement, called *focalization*. Our proposal provides a unified account for both types of object preposing. It will be shown that focalization observes A-movement properties.

(3)   Zhangsan mai le zheben shu[3]

         Zhangsan buy Asp this-CL book

         'Zhangsan bought this book.'

(4)   a. Zhangsan *lian* zheben shu *dou/ye* mai le

         Zhangsan even this-CL book all/also buy Asp

         'Zhangsan bought even this book.'

       b. Zhangsan zheben shu mai le

         Zhangsan this-CL book buy Asp

         'Zhangsan bought THIS BOOK.'

In addition to the strict preverbal focus position, chapter four focuses on sentences where *lian*-phrases occur sentence initially, as in (5). These are cases where focus constituents overlap with topic (6).

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[3] The following symbols are used in this paper:

Asp	aspect marker
Exp	experience aspect marker
CL	classifier
DE	a morpheme functioning as complementizer and NP modifier marker
PART	particle
Q	question marker

(5)   *Lian* zheben shu Zhangsan *dou/ye* mai le.

        even this-CL book Zhangsan all/also buy Asp

        'Even for this book, Zhangsan also bought.'

(6)   Zheben shu Zhangsan mai le.

        this-CL book Zhangsan buy Asp

        'This book Zhangsan bought.'

By examining the data in detail, both movement and base-generation of the sentence-initial *lian*-phrases are called for, just as with topic structures. Specifically, I argue that a genuine topic is derived by movement to a root TopicP Spec position, higher than CP. Movement evidence is drawn from binding reconstruction effects, weak crossover effects, and syntactic *wh*-island conditions. A base-generated S-initial object (or *lian*-object) is argued to occur in an IP-adjoined position, distinct from the directly the moved topic. This base-generated IP-adjoined position hinges on the presence of "major subject" in Chinese, in contrast to the widely held view of a base-generated "topic" in Chinese literature. I will also compare the Chinese major subject/ topic structures with those in Japanese and show that the complicated facts can be accounted for by adopting Kuroda's framework. The identification of an empty category and an overt pronominal copy is discussed afterwards. The proposed unified account helps resolve the long-standing debate over the (non-) movement of topic structures in the literature.

        Chapter five discusses related issues, including a comparison of the proposed Chinese movement structures with Japanese scrambling. The result indicates that Chinese lacks a scrambling mechanism. Another issue is related to focus scope and the association with focus in the *lian..dou/ye* sentences. The proposed structures in chapter four match the *even*-focus scope.

CHAPTER TWO: THE *LIAN...DOU/YE* CONSTRUCTION

2.0. Introduction

In this chapter, I study one type of focus construction--*lian...dou/ye* 'even...all/also' in Mandarin Chinese. *Lian...dou/ye* is limited to a preverbal position, shown in (2). When an object as in (1) is focused by *lian...dou/ye*, it has to be preposed preverbally, as in (2b). Failure to prepose results in ungrammaticality, as shown in (3).

(1) Zhangsan mai le zheben shu

Zhangsan buy Asp this-CL book

'Zhangsan bought this book.'

(2) a. *Lian* Zhangsan *dou* mai le zheben shu

LIAN Zhangsan DOU buy Asp this-CL book

'Even Zhangsan bought this book.'

b. Zhangsan *lian* zheben shu *dou/ye* mai le

Zhangsan LIAN this-CL book DOU/YE buy Asp

'Zhangsan bought even this book.'

(3) *****Zhangsan *dou/ye* mai le *lian* zheben shu

Zhangsan DOU/YE buy Asp LIAN this-CL book

In section 2.1 I will closely examine the distribution and categorial status of *lian..dou/ye*. Specifically, in section 2.1.1 I will demonstrate that only NPs, VPs or CPs can occur after *lian*. This generalization helps clarify the categorial status of verbal complements. In section 2.1.2 I will argue that *lian* syntactically functions as an adjective or an adverb to modify its focused constituents. Other logically possible

categories for *lian*, such as preposition, functional projection head, or focalizer as well as Paris' (1979) arguments will be compared. It will be concluded that *lian* should be an adjective or an adverb.

In section 2.1.3, I will adopt Dowty and Brodie's (1984) view that *dou/ye* is a predicate modifier, in addition to the traditional view of *dou*-quantification of elements to its left. In section 2.1.4 I propose that the interpretation of *lian..dou/ye* denotes a universal quantifier reading, adopting Lycan (1991). This view is supported by the similar distribution of *lian*-NPs and universal quantifier phrases-- *meige*-N, and their interaction with *dou*.

In section 2.2 I propose a phrase structure containing *lian..dou/ye* for Chinese. I will argue that *dou* or *ye* heads the functional projection of Focus Phrase FP, a maximal head in the sense of Chomsky's (1994) Bare Phrase Structure. This FP is projected with a strong [Focus] feature which has to be checked in syntax. A *lian* phrase is attracted by this [+Focus] feature; hence it undergoes overt focus movement (*lian*-focalization) to be licensed by *dou/ye* syntactically. After this movement takes place, the F' (F^0 with its complement) further projects to a maximal projection FP in the sense of Chomsky's Generalized Transformation. This is the case where both the *lian* phrase and *dou/ye* appear within the same FP, as shown in (2). A focalized (moved) object yields the surface order of SOV as in (4).

(4)   subject [$_{FP}$ *lian*-object *dou*]   VP

I assume that the subject is base-generated inside the VP, i.e. the Internal Subject Hypothesis proposed by Kuroda (1988), Koopman and Sportiche (1990), among others. *Lian*-subject then journeys through Spec of AspP, Spec of FP, and finally to Spec of IP to receive abstract nominative Case.

Besides the Focus position where the *lian*-phrase sits, the *lian*-phrase can also occur in a sentence initial position, such as S-initial *lian zheben shu* 'even this book' in (5).

(5)   *Lian* zheben shu Zhangsan *dou/ye* mai le.

         LIAN this-CL book Zhangsan DOU/YE buy Asp

         'Even this book, Zhangsan bought.'

In chapter four I will argue that the S-initial *lian* phrases are structurally ambiguous between movement and base-generation, on a par with topic structures. For the time being, we will concentrate in chapters two and three on the *lian* phrase occuring in an immediate preverbal position.

Although the focus projection often refers to "cleft" focus, such as in Hungarian, the focus projection proposed in Chinese is limited to *lian..dou/ye* or bare object preposing. Unlike the *lian..dou/ye* construction in quesion, the Chinese cleft *shi..de* 'be' construction does not display 'syntactic' focus constituent movement.[1,2] This dissertation, however, will concentrate on the *lian..dou/ye*

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[1] Huang (1982) and Shi (1992) have argued for the 'in-situ-focus' in syntax, and focus operator *shi* movement at LF by applying Quantifier Raising. Chiu (1993) argues for focus constituent LF movement to the Spec of a Focus Projection headed by *shi* instead.

[2] Although both *shi* and *lian* bear focal functions, they are not identical with respect to their syntactic properties. Unlike *shi*, *lian* does not display verbal properties. It cannot form A-not-A question, or be negated. Compare (ia, b) with (iia, b). However, one similarity between *lian* and *shi* is that both cannot take any other aspect marker. Hence both (ic) and (iic) are bad.

(i)   a   **Zhangsan *lian-bu-lian* xingqitian *dou/ye* gong-zuo
               Zhangsan   LIAN-not-LIAN Sunday DOU/YE work
         b.   **Zhangsan *bu-lian* xingqitian *dou/ye* gong-zuo
               Zhangsan   not-LIAN Sunday DOU/YE work
         c.   **Zhangsan *lian* **le/guo** xingqitian *dou/ye* gong-zuo
               Zhangsan   LIAN Asp/Exp Sunday DOU/YE work
(ii)   a.   Zhangsan *shi-bu-shi* xingqitian gong-zuo
               Zhangsan   be-not-be Sunday work
               'Is it Sunday that Zhangsan work?'
         b.   Zhangsan *bu-shi*   xingqitian gong-zuo

construction which displays focus constituent movement. Brief comparisons between *lian..dou/ye* and *shi..de* will be presented in section 5.2.3.

2.1. The Generalization of *Lian…Dou/Ye*

    Lian means *even*, *including*.[3] When *lian* occurs, *dou* 'all,' or *ye* 'also' has to co-occur with it. There is an adjacency requirement between *lian* and a focused element. *Lian* can be optional under the condition that the immediately following focused NP is singular, as *zheben shu* 'this book' in (6). In contrast, a plural NP without *lian*, as in (7) cannot be interpreted as *lian zhexie shu* 'even these books,' the reading in (7a), rather it is read as *all the books*, the reading in (7b).

          Zhangsan   not-be Sunday work
          'It is not Sunday that Zhangsan works.'
    c. ***Zhangsan xingqitian *shi le/guo* qu gong-zuo**
          Zhangsan Sunday be Asp/Exp go work
          'It is to work that Zhangsan did on Sunday.'

[3] Another related meaning of *lian* is *lian..(yiqi)* 'with...together.' *Lian* in (i) is interpreted as *together with*. I will not discuss this conjuntive *lian* in this dissertation.

(i)   Qing ni ba zhefeng xin, **lian** (tong) neizhang zhitiao (**dou/ye/yiqi**) dailai
             please you BA this-CL memo, with that-CL letter all/ also/ together bring
             'Please bring this memo altogether with that letter.'

There are two reasons to separate this conjunctive *lian* from the *lian*-even in question. First, note that *dou*, or *ye* is optional in (i) where *lian* is interpreted as *together with*, while *dou/ye* is obligatory in the *lian*-even construction. The second reason is that *lian*-even can be followed only by NPs, VPs or CPs. This point will be explicated later in this chapter. However, here *lian*-together does not seem to be able to be followed by clauses; rather it is only followed by NPs, as the unaccptable (ii) indicates.

(ii)   *Zhangsan **lian** [_S_ Lisi kan dianying] tong [_S_Mali kan shu] kanjian le
            Zhangsan together Lisi see movie   with Mali read book see
            'Zhangsan saw Lisi saw movies together with Mali read books.'

Furthermore, this conjunctive *lian* is on a par with other 'and, together' conjuncts, such as *tong, he*. All of these conjunctives can only be followed by NPs. This may suggest that these conjunctives are prepositions.

(6)   Zhangsan **(lian) zheben shu** dou meikan.

        Zhangsan LIAN this book DOU not read

        'Zhangsan didn't read even this book.'

(7)   Zhangsan **zhexie shu** dou kan le.

   a.   '***Zhangsan read even these books.**'

   b.   'Zhangsan read all of these books.'

The constituent immediately following *lian* is interpreted as the most prominent element in a sentence, though it does not necessarily bear stress.[4] This focused element is picked out by speakers to be the unexpected one in discourse contexts as understood by speakers and hearers. Unlike English *even* which can appear in several positions in a sentence (Kuroda 1965, 1969), *lian* and its focused element have to precede a verb in Chinese.[5] For example, in (8a) *Zhangsan* is the least likely person to buy this book, and even he did it. Compare (1) and (8b). Note that in (8b)

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[4] Note that phrses dominated by *dou/ye* can be focus associates. I will discuss this point in chapter four.

[5] There is another *even* expression in Chinese, the adverb *shenzhi*. Like other focus adverbs, *shenzhi* has to appear in a preverbal position (ia). *Shenzhi* and *lian..dou/ye* can co-occur in a sentence, but it differs from *lian..dou/ye* in two ways. First, movement of the focus constituent is not obligatory with *shenzhi*, so both (ia) and (ib) are good. However, if the object does move to the preverbal position, *dou/ye* has to be present. Second, *dou/ye* is optional in *shenzhi* sentences, except for subjects being focused by *shenzhi.*

(i)   a.   Zhangsan *shenzhi* mai le (*shenzhi) <u>zheben shu</u>
            Zhangsan even   buy Asp (even)   this-CL book
            'Zhangsan even bought this book.'
       b.   Zhangsan *shenzhi* (*lian*) <u>zheben shu</u> *dou*/*ye* mai le.
            Zhangsan even (LIAN) this-CL book DOU/YE buy Asp

(ii)   *Shenzhi* <u>Zhangsan</u> *(*dou/ye*) mai le zheben shu.
       even   Zhangsan all/also buy Asp this-CL book
       'Even Zhangsan also bought this book.'

This study only concentrates on *lian..dou/ye* construction.

the object *this book* is preposed to a preverbal position which immediately follows *lian* and precedes *dou/ye*.[6]

(1)   Zhangsan mai-le zheben shu

        Zhangsan buy Asp this-CL book

        'Zhangsan bought this book.'

(8)   a. *Lian* **Zhangsan** *dou/ye* mai le zheben shu

            even Zhangsan all/also buy Asp this-CL book

            'Even Zhangsan bought this book.'

        b. Zhangsan *lian* **zheben shu** *dou/ye* mai le[7]

            Zhangsan even this-CL book all/also buy Asp

            'Zhangsan bought even this book.'

2.1.1. The Categories of the Phrases Following *Lian*

Elements immediately following *lian* are limited to NPs or VPs. This generalization will shed some light on the controverial categorial status of PPs, *ba*, *bei*, descriptive and resultative phrases.

2.1.1.1. NPs and Clauses

Constituents immediately following *lian* have to be maximal projections, and they can be NPs, VPs[8] or CPs, including duration, frequency, temporal phrases, and complement clauses of factive verbs, modal verbs, etc.

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[6] *Dou* and *ye* can be used interchangeably in *lian...dou/ye* constructions. For the sake of discussion, I will use *dou* only from now on.

[7] Like its English translation, (8b) is ambiguous. Either the object is the focus or elements dominated by *dou/ye* are associated with *lian..dou/ye*.

[8] Tsao (1990) proposes that elements following *lian* are always NPs. He considers VPs as nominalized NPs.

Sentences (9) and (10) indicate that duration and frequency phrases occur after *lian* respectively. They are categorized as NPs by Li (1990), due to their nominal properties.[9]

(9)   (Zhangsan)*lian* [_N yi fenzhong] (Zhangsan) *dou/ye* bu xiuxi

                  LIAN one minute   DOU/YE not rest

         'Zhangsan doesn't rest even for a minute.'

(10)   Zhangsan *lian* [_N zheci jihui] *dou/ye*   bu cuo-guo

         Zhangsan   LIAN one-CL opportunity DOU/YE not miss

         'Zhangsan didn't miss even this opportunity.'

Temporal phrases can immediately follow *lian*, as in (11). I assume that they are nouns as well, cf. Larson (1985).

(11)   (Zhangsan)*lian* [_N shangke de shihou] *dou/ye* chi tang

         Zhangsan   LIAN   at class's time DOU/YE eat candy

         'Zhangsan eats candy even during class.'

         Sentences (12) and (13) show that clauses and VPs can occur after *lian*.

(12)   Zhangsan *lian* [_{VP} *e* dao Alasijia wan] *dou* meng-xiang/ bu xiang

         Zhangsan LIAN go-to Alaska travel DOU dream/ not willing

         'Zhangsan dreams even of going/doesn't even want to go to Alaska.'

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[9] The nominal properties of duration/frequency phrases noted by Li (1990: 9-10) include: (i) they can occur in a subject position, (ii) they can take demonstratives or other modifiers. Li concludes that they need to receive Case, like other NPs.

(13)   Zhangsan *lian* [**VP** *e* <u>zai cesuo</u>] *dou* kan shu[10]

         Zhangsan LIAN   at restroom DOU   read book

         'Zhangsan reads even in the restroom.'

Having shown that only NPs/VPs can occur after *lian*, I will further demonstrate that elements other than NPs or VPs cannot be directly focused by *lian*. The ungrammtical examples in (14), including head verbs[11] in (14a), manner adverbials in (14b) and reason adverbials[12] in (14c), are from Paris (1979). I further show that PPs cannot immediately follow *lian* and precede *dou/ye*; thus, sentences in (15) are unacceptable.

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[10] Locative phrases, such as *zai cesuo* 'in the restroom', behave like a propositional VP, since *zai* 'at' can function as a verb as well. Simple sentences which do not contain a copular verb can have *zai, Ta zai xuexiao* meaning 'he (is) at school'.

  To be more sophisticated, I would consider *zai cesuo* 'in the restroom' in (13) to be a predicate, rather than a locative PP. The word *zai* in locative phrases and in temporal phrases do <u>not</u> function the same way. Although we can say *Ta zai xuexiao* 'he (is) at school', we cannot say *Ta zai xingqitian* 'he on Sunday'. Furthermore, *zai* optionally precedes temporal phrases in regular sentences, as in (i). Nevertheless, it cannot occur after *lian*, as in (ii).
(i)   Wo **(zai) xingqi tian** kan dianying.
          I (at) Sunday watch movie
          'I watch movies on Sunday.'
(ii)   Wo *lian* **(*zai) xingqi tian** dou kan dianying.
          I LIAN (*at) Sunday DOU watch movies
          'I watch movies even on Sunday.'
[11] An apparent counterexample, in (i), was brought to my attention by James Huang (1994 p.c.), and cf. Paris (1994).
(i)   Ta *lian* <u>kan</u> *dou/ye* bu kan yiyan
          he   LIAN see DOU/YE not see one eye
          'He didn't even take a look at it.'
(ii)   Ta *lian* <u>geming</u> *dou* ge (zuo) le
          he LIAN revolution DOU do Asp
          'He did even revolution.'
Although sentence (i) seems to focus on the verb *kan* 'see', in contrast to (14a), Huang notes that *kan* 'see' in (i) is actually a nominalized verb (cf. J. Huang (1993)), on a par with *geming* revolution' in (ii). Consequently, what is given in (i) is actually an NP. If we adopt this view, then we can maintain the generalization that only NPs can follow *lian*. I will leave this open here.
[12] Sentence (14c) from Paris should be interpreted as a reason adverbial, *by airplane*, the verbal interpretation of *zuo* 'take' is irrelevant for the present discussion.

(14) a. *Lisi *lian* [_V <u>likai</u>] *dou/ye* le youju.   (Paris 1979)

           Lisi LIAN go Perf DOU/YE post office

           'Lisi even went to the post office.'

    b. *Lisi *lian* [_{Manner Adv} <u>hen xiaoxin</u>] *dou/ye* fan le sanci cuowu.

           Lisi LIAN very carefully DOU/YE   make Perf three mistake

           '*Lisi made three mistakes even very carefully.'

    c. *Ta *lian* [_{Reason Adv} <u>zuo feiji</u>] *dou/ye*   lai   kan ni.

            he LIAN take airplane DOU/YE come see you

           '?He came to see you even by taking the airplane.'

(15) a. ?*Lisi *lian* [_{PP} <u>cong dixia-qianzhuang</u>]*dou/ye* jie-le qian le.[13]

           Lisi LIAN from black-market bank DOU/YE borrow Asp money LE

           'Lisi borrowed money even from a black-market bank.'

    b．?*Lisi *lian* [_{PP} ti wo] *dou* bu xie gongke.

           Lisi LIAN for me DOU not write homework

           'Lisi does not write homework even for me.'

This thesis will not further compare *lian...dou/ye* with the adverb *shenzhi*, both of

which mean *even*; however, I will mention another difference between them (also see

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[13] Li (1993 p.c.) notes that *dui* 'toward, treat' is not a real preposition in Chinese. First, it has the verbal meaning of 'treat.' Second, it allows a subject-like element in the phrase, as shown in (ia). For a regular preposition, such as *cong* 'from,' the subject is not allowed to occur within the PP, thus (ib) is bad.
(i) a．women dui ta (de taidu)
      we treat he DE attitude
      '(the attitude with which) we treat him'
  b．*women cong yinhang (de qian)
      we from bank DE money
      '*(the money) that we from the bank'
Moreover, *wei* 'for' is not a pure preposition either. It can be followed by the aspect marker *le*, which is a general property of verbs.
(ii)   wo wei le ta fangqi le gongzuo
      I for Asp he give-up Asp job
      'For him, I gave up the job.'

footnote 5). Namely, even though verb heads, manner and reason adverbs, and PPs cannot follow *lian*, they can be associated with *even* by using the adverb *shenzhi.* The above unacceptable sentences become well-formed in (16) and (17) respectively by using *shenzhi.*

(16) a. Lisi *shenzhi* [**V** <u>likai</u>] le youju.

Lisi   even leave Perf post office

'Lisi even left (the post office).'

b. Lisi *shenzhi* [**Manner Adv** <u>hen xiaoxin</u>] (*ye*) fan le sanci cuowu.

Lisi   even   very carefully make Asp three mistake

'Lisi even very carefully (still) made three mistakes .'

c. Ta *shenzhi*   [**Reason Adv** <u>zuo feiji</u>] lai kan ni.

he even   take airplane come see you

'He even came to see you by airplane.'

(17)   Lisi *shenzhi* [**PP** <u>cong dixia-qianzhuang</u>] jie-le qian le.

Lisi even   from black-market   borrow Asp money LE

'Lisi even borrowed money from the black market.'

Moreover, the contrast between (14), (15) and (16), (17) respectively nullifies the hypothesis that V^0, manner, and reason adverbials cannot be associated with *even* semantically, since (16) and (17) are well-formed.

2.1.1.2. Complementation

This section discusses three types of complements: complements of (i) modals, (ii) *persuade*-type verbs, and (iii) *tell*-type verbs. It will be concluded that VPs and CPs can be preposed in *lian..dou/ye* constructions.

16

- **Modals:**

I will argue that epistemic and deontic modals do not have the identical structure, (details are discussed also in sections 2.2 and 3.4.1). Epistemic modals, including *yinggai* 'should,' *hui* 'possibly,' *keneng* 'possibly, maybe,' etc., make judgments about the possibility or necessity of propositions. Deontic modals, including *ken* 'willing,' *gan* 'dare,' *hui* 'able to,' etc., indicate permission, obligation, ability or disposition. The phrase structure for Chinese will be proposed and discussed in more detail in section 2.2.1. I will adopt the proposal that treats epistemic modals as raising verbs (also see Huang (1988)). They head an I^0 which selects either another IP or AspP. Deontic modals, which head an MP, select a VP and are structurally lower than epistemic modals. Moreover, I argue that it is VP complements, rather than IPs, that can be preposed and emphasized by *lian*.

In their paper, Lin and Tang (1991), henceforth L&T, argue that epistemic modals in Chinese select CPs and deontic modals select IPs. They observe that "*lian* seems able to emphasize only the complement of control modals," rather the complement of epistemic modals. Their sentences are given in (18) and (19). Preposing the complement of deontic modals in (18b) is better than preposing the complement of epistemic modals, as in (19b).

(18)   a   Lisi bu ken/ yuanyi/ gan/ hui <u>jiegei Zhangsan yibai quai</u>

                    Lisi not willing to/ dare not/ able to lend Zhangsan 100 dollars

                    'Lisi is not willing/ dares not/ is able to lend Zhangsan $101.'

      b   *Lian* <u>jiegei Zhangsan yibai quai</u> Lisi *dou* bu ken/yuanyi/ gan/ hui

                LIAN lend Zhangsan 100 dollars Lisi DOU not willing to/dare not/able to

                '(lit) Even lend Zhangsan $101, Lisi is not willing to/ dare not/ able to.'

(19) a Lisi bu yinggai/ keyi/ keneng/ hui <u>jiegei Zhangsan yibai quai</u>.

   Lisi not supposed to/permitted/ possible lend Zhangsan 100 dollars

   'Lisi is not supposed to/ may/ possibly/ will lend Zhansan $101.'

   b *<u>*Lian* jiegei Zhangsan yibai quai</u> Lisi *dou* bu yinggai/ keyi/ keneng

   LIAN lend Zhangsan $101 Lisi DOU not supposed to /permitted/possible

   '(lit.) Even lending Zhangsan $101, Lisi is not supposedto/permitted to/

   possible to.'

According to L&T, the unacceptability of (19b) is due to an ECP violation. There exists a trace in the preposed CP selected by epistemic modals. This trace is not theta-governed by a verb, nor is it antecedent-governed by the matrix subject *Zhangsan*. As for the grammaticality of (18b), they argue that the preposed complement of the deontic modals (an IP for them) contains a base-generated PRO in its subject position. Since PRO is irrelevant to ECP, sentence (18b) is well-formed.

Nevertheless, there are two problems in L&T's analysis. The contrast between (18b) and (19b) should not be due to the (ir)relevance of ECP, rather it should be subsumed under the general properties of the preposed categories in *lian..dou/ye* construction. It is VP, instead of IP, that can be preposed in the construction in question. Considering (20), we can improve (19b) by adding a negation or a dummy verb *zuo* 'do' in the Asp^0 position, (also see footnote 11). Hence, the grammaticality of (20) cannot be accounted for by L&T's analysis.[14]

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[14] Also see Ernst and Wang's (1995) arguments against Lin and Tang's (ibid.) analysis. However, note that Ernst and Wang do not distinguish the structural position of epistemic and deontic modals. They consider that both of these types select VPs as their complements. Instead, I will argue in section 2.2 that epistemic modals are structurally higher than deontic modals.

(20)   [_{VP} *Lian jiegei Zhangsan yibai quai*]_i Lisi keneng *dou* **meiyou/ zuo-le**

*t*_i

LIAN lend Zhangsan $101 Lisi possible DOU not-have/do-Asp

'(lit.) Even lending Zhangsan $101, Lisi possibly didn't/ did.'

Second, as noted before, *lian*-phrases can occur either in the Spec of FP position or in a sentence initial position. Consider L&T's sentence in (19b) again. They place this *lian*-phrase in sentence initial position by saying the trace inside is not antecedent-governed by the matrix subject. Suppose we place this *lian*-phrase in the Spec of FP (post-subject) position, as in (21), their conjunctive ECP violations should be alleviated. However, I think (19b) and (21) have the same unacceptability. Thus, their ECP account of the preposed complement of epistemic modals is not grounded.

(21)   *Lisi *lian jiegei Zhangsan yibai quai dou* bu yinggai/ keyi/ keneng

Lisi LIAN lend Zhangsan $3 DOU not supposed to /permitted/possible

- *Persuade*-**type verbs:**

Now, let us consider complements of *persuade*-type verbs. Li (1990: 21) has argued that *persuade*-type verbs in Chinese take infinitives as their complements, as in (22). Assume infinitives are IPs. As discussed above, VP-complements can be preposed in *lian..dou/ye* sentences, but IPs cannot. This account can be extended to the preposed complements of *persuade*-type verbs. Consider the contrast in (23). The VP *xiyan* 'smoke' in the complement infinitive can be preposed as shown in (23a); whereas the IP in (23b) cannot. Preposing the object in the infinitival clause is also allowed, as in (23c).

19

(22) Lisi bi [$_{IP}$ Zhangsan kan zheben shu]

Lisi force Zhangsan read this-CL book

'Lisi forces Zhangsan to read this book.'

(23) a. Lisi *lian* [$_{VP}$ kan zheben shu]$_1$ *dou* bi Zhangsan (zuo)*t*$_1$

Lisi LIAN read this-CL book DOU force Zhangsan (do)

'Lisi forces Zhangsan even to read this book.'

b. *Lisi *lian* [$_{IP}$ Zhangsan kan zheben shu]$_1$ *dou* bi *t*$_1$

Lisi LIAN Zhangsan read this-CL book DOU force

'Lisi forces even [Zhangsan to read this book].'

c. Lisi *lian* [$_{NP}$ zheben shu]$_1$ *dou* bi Zhangsan kan *t*$_1$

Lisi LIAN this-CL book DOU force Zhangsan read

• *Tell*-type verbs:

Complements of factive verbs, namely CPs, can be preposed to precede *dou*,
as illustrated in (24b).[15]

(24) a. Zhangsan zhidao/xiangxin [$_{CP}$ ni zai women xuexiao da le ren]

Zhangsan know/believe you at our school hit Asp people

'Zhangsan knows/believes that you hit people in our school.'

b. Zhangsan *lian* [$_{CP}$ ni zai women xuexiao da le ren]$_1$ *dou* zhidao/xiangxin

t$_1$

'Zhangsan even knows/believes that you hit people in our school.'

Moreover, factive verbs can select NPs, as in (25a) and (26a), which can be
preposed as well, as in (25b) and (26b) respectively.

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[15] Audrey Li (1993 p.c.) suggests that constituents that can follow *lian* are basically
parallel with those categorized as 'prenominal modifiers.' In other words, they are
fundamentlly clauses or NPs that need Case. CPs in relative clause can modify the
head noun, and NPs can modify nouns too.

(25) a. Zhangsan zhidao/xiangxin [NP zhejian shi]

          Zhangsan believe/know this-CL matter

     b. Zhangsan *lian* [NP zhejian shi] *dou* zhidao/xiangxin

          Zhangsan LIAN this-CL matter DOU know/believe

          'Zhangsan knows/believes even this matter.'

(26) a. Zhangsan zhidao [NP [ni zai women xuexiao da le ren] de zhejian shi]

          Zhangsan know you at our school hit Asp people Comp this-CL matter

          'Zhangsan knows the matter that you hit people in our school.'

     b. Zhangsan *lian* [NP [ni zai women xuexiao da le ren] de zhejian shi]$_1$ *dou*

          zhidao t_1

          Zhangsan LIAN you at our school hit Asp people Comp this matter DOU

          know

          'Zhangsan knows even the matter that you hit people in our school.'

Therefore, the above discussion shows that only NP, VP or CP complements can be preposed. This observation also helps understand the categorial status of certain phrases in Chinese, such as the categories selected by epistemic modals, deontic modals, *persuade*-type verbs and *tell*-type verbs.

2.1.1.3. BA-NPs and BEI-NPs?

This section demonstrates that *ba*-NPs and *bei*-NPs <u>cannot</u> directly follow *lian*, so the unacceptability of (27b) and (28b).[16]

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[16] *Ba* literally means 'take,' the construction denotes a 'disposable' reading, e.g. the NP after *ba* is affected by the event. There are two typical cases: one involves preposing of the logical object to a preverbal position and the other bears inalienable relation between the two objects, shown in (ib) and (iib). Also see Zou's (1993) study and references cited there.
(i)   a. Ta sha le tufei
           he kill Asp bandit

(27) a. Zhangsan meiyou [[ba shu] na-chulai]

          Zhangsan not-have BA book take-out

          'Zhangsan didn't take out the books.'

      b. ***Zhangsan *lian* [ba shu] *dou/ye* meiyou/bu yuanyi na-chulai.

              LIAN BA book DOU/YE not / not willing   take-out

(28) a. Zhangsan meiyou [[bei laoshi] jiajiang]

          Zhangsan not-have BY teacher praise

          'Zhangsan wasn't praised by the teachers.'

      b. ***Zhangsan *lian* [$_{NP}$ bei laoshi] *dou/ye*   meiyou / bu keneng jiajiang[17]

          Zhangsan LIAN BEI teacher DOU/YE not/ not possible praise

Sentences (27b) and (28b), however, can be made possible when the whole *ba* or *bei*

predicates are preposed to follow *lian* and precede *dou/ye*. Compare (27b), (28b)

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      b. Ta <u>BA tufei</u> sha le
          he BA bandit kill Asp   'He killed the bandits.'
(ii)   a. Ta bo le juzi peel
          he peel Asp orange skin
      b. Ta <u>BA juzi</u> bo le peel
          he BA orange peel Asp skin   'He peeled the skin of the orange.'
Bei roughly corresponds to 'by' in English. The *bei*-phrase has to occur in a
preverbal position, and the NP after *bei* can be optional, as shown in (iii). The
subject *ta* 'he' undergoes A-movement, see NP-movement analysis of direct passives
in Li (1990).
(iii)   Ta$_1$ BEI (laoshi) da le *t*$_1$
          he   by   teacher hit Asp   'He was hit by teachers.'
Another type of *bei* sentence is the indirect/adversative passive, as in (iv). I will
suggest that the subject, *ta* 'he', in indirect passives does not result from NP-
movement like direct passives.
(iv)   Ta BEI tufei qiangzuo le <u>qian</u>.
          he by bandit rob-away Asp money
          'He was (affected) robbed of money by bandits.'
[17] Although Paris's (1979) sentence, repeated in (i), allows *bei*-NPs to co-occur with
lian, native speakers that I consulted do not like it.
(i)   ?*Ta lian [bei tade airen] dou bu neng kanjian.
          she even by her husband all not can see
          'She cannot be seen even by her husband.'

and (29), (30) respectively. Preposing the whole predicate containing *ba*-NP and

bei-NP in (29) and (30) needs an additional modal, negation or verb.

(29)   Zhangsan *lian* [[ba shu] na-chulai]$_1$ *dou/ye*   meiyou/bu yuanyi t_1 .

         Zhangsan LIAN BA book take-out DOU/YE not/ not willing

         'Zhangsan didn't even take out the book.'

(30)   Zhangsan *lian* [[bei laoshi] jiajiang]$_1$ *dou/ye*   meiyou/ bu keneng t_1

         Zhangsan LIAN BEI teacher praise DOU/YE not/ not possible

         'Zhangsan even wasn't / is impossible to be praised by the teacher.'

         The unacceptability of (27b) and (28b) suggests that *ba* and *bei* are

prepositions (cf. Mei (1972), Li (1990)[18] and references cited there), on a par with

PPs discussed previously, which cannot be preposed.[19]

2.1.1.4. Descriptive and Resultative Expressions?

         The structure and an example of descriptive and resultative expressions are

given in (31) and (32), respectively. The unacceptability of (33) indicates that

descriptive and resultative phrases <u>cannot</u> be preposed to occur between *lian* and

dou/ye.

(31)   NP *X* V *de* Descriptive/Resultative

(32)   Zhangsan zou de <u>hen kuai/ lei</u>

         Zhangsan walk DE very fast/ tired

         'Zhangsan walks very fast/ (to a result of being) tired.'

---

[18] Li (1990: 186) argues that *ba* is a preposition, see her arguments. She also argues
that *bei* is a passive morpheme. The reason that *bei* cannot be a preposition is that the
NP after *bei* can be null and Chinese does not allow preposition stranding in general,
(ibid. p. 167). I will leave this issue aside and consider *ba* and *bei* as prepositions.
[19] Hashimoto (1971) and recent studies (e.g. Zou 1993) suggest that *ba* heads a
functional projection with the following NP occupying the Spec position of the XP
sister to *ba*, so is *bei*.

(33)   *Zhangsan *lian*   hen kuai/ lei *dou* zou le.

         Zhangsan LIAN very fast/ tired DOU/YE walk Asp

It is, however, possible to have *lian...dou/ye* occur in a preverbal position in descriptive/ resultative contexts. Either a preverbal predicate, like *chi fan* 'eat rice' in (35)=(34a), or the whole chunk of V-*de*-D/R, in (36)=(34b) occurs between *lian..dou/ye*. (35) means that Zhangsan often does things fast or to a state of getting tired, even for eating rice. (36) implies that anything would happen to Zhangsan, even for eating very fast or to a state of being tired.

(34)   a．NP lian *X* dou V *de* Descriptive/Resultative

        b．NP lian [V *de* Descriptive/Resultative] dou V

(35)   Zhangsan *lian* chi fan *dou/ye* chi de hen kuai/lei.

          Zhangsan LIAN eat rice DOU/YE eat DE very fast/tired

          'Even for eating, Zhangsan eats very fast/ tired.'

(36)   Zhangsan *lian* chi de hen kuai/ lei *dou* hui

         Zhangsan LIAN eat DE very tired DOU/YE will

         In the literature, descriptive and resultative expressions have been analyzed either as main predicates (Chao (1968), Huang and Mangione (1985)) or as complements (Mei (1972), Huang (1982; 1988), Ross (1984), and Li (1990)). The former argues for V as an adjunct; whereas the latter argues for V as a main verb. Li (1990: ch 3) further argues for distinct structures for descriptive (APs) and resultative expressions (Ss), shown in (37).

(37)   a．Descriptive Expressions   (Li 1990: 44)

            NP *X* V *de* **AP**

        b．Resultative Expressions

            NP *X* V *de* **S**

(38)   *Zhangsan zou de [_{S=IP} <u>hen lei</u>]

       Zhangsan walk DE very tired

       'Zhangsan walks (to a result of being) tired.'

Adopting Li's analysis, the ban on preposing APs of descriptive expressions is predicted by our generalization, since only NPs, VPs or CPs can be focalized. Moreover, the ungrammaticality of (38) is on a par with the ban on preposing IPs selected by epistemic modals and *persuade*-type verbs.

      In summary, there is a restriction on the constituents that can occur after *lian*. Only the categories NPs, VPs or CPs are allowed. *Ba*-NPs and *bei*-NPs are considered to be prepositional phrases, since their occurrence between *lian* and *dou/ye* is prohibited. It is possible to prepose a VP/CP to the position following *lian* and preceding *dou/ye* only when there is an additional modal verb, negation, or dummy verb like *zuo* 'do' available in the main clause.

2.1.2. The Categorial Status of *Lian*

      Having shown that only NPs, VPs or CPs can follow *lian*, we will now discuss the categorial status of *lian*. I will claim that *lian* is either an adjective or an adverb, instead of a functional head. Syntactically it functions as a modifier to modify its focused constituents. Semantically, it is like the quasi-quantifier that Paris proposes. In her article, Paris (1979) argues that *lian* is not a preposition, nor a focalizer, but a 'quasi-quantifier.' I think Paris' intuition is correct. In section 2.1.2 I will provide more evidence to substantiate this claim.

2.1.2.1. *Lian* is not a Preposition

Lian-NPs do not function like regular PPs. Paris (ibid.) notes that while the object NPs of regular prepositions can function as the heads of relative clauses and pseudo-cleft sentences, the NPs that follow *lian* cannot. Here I use prepositions *cong* 'from,' *ti* 'for' to test this. The object NP, *yinhang* 'bank,' of the preposition *cong* 'from' in (39a) can function as the relative head noun as in (39b). In contrast, the NP that follows *lian, neige xiaohai* 'that child' in (40a) cannot function as the head of the relative clause as in (40b).

(39) a. Ta [PP **cong *yinhang***] jie-le yiwan kuai.

  he from bank borrow Asp ten thousand dolloar

  'He borrowed ten thousand dollars from the bank.'

  b. [NP [Ta *t* jie-le yiwan kuai] de ***yinhang***] dao le

   he borrow Asp ten thousand dollar DE bank close-down LE

  'The bank that he borrowed money from has closed down.'

(40) a. Mali *lian **neige xiaohai*** dou bu xihuan

    even that-Cl child all   not like

  'Mali doesn't like even that kid.'

  b. *[NP [Mali *e* dou bu xihuan de] ***neige xiaohai***] jiao Wang er.

   Mali all not like DE that-CL child named Wang-er

  'The child that (even) Mali doesn't like is called Wang-er.'

Similarly, it is possible for the object NP of a regular preposition, such as *ti* 'for' in (41), to appear in the italicised head noun position in pseudo-cleft sentences. However, the NP that follows *lian* is banned in that position, as shown in (42).

(41)   [NP [Mali [PP **ti** ta] xiexin] de ***ren***] shi neige xuesheng[20]

Mali for him write-letter DE person is that-CL student

'The person that Mali wrote letters for is that student.'

(42)   *[NP [Mali [***lian*** ta dou] bu xihuan] de ***ren***] shi neige xiaohai.

Mali even he all not like DE (man) is that-CL student

'The person that even Mali doesn't like is that student.'

Second, Paris (ibid.) notes that negation and modal verbs must precede regular PPs, but not *lian*-NPs. Compare (43a, b) and (44a, b). The PP in (43) appears after negation or modals, but the PP in (43) has to precede negation or modals.

(43)   a. *Zhangsan [PP **xiang Lisi**] *meiyou / yingai* jieqian

Zhangsan from Lisi not-have /should borrow money

b. Zhangsan *meiyou /yingai* [PP **xiang Lisi**] jieqian

Zhangsan not-have /should from Lisi borrow money

'Zhangsan didn't/ should borrow money from Lisi.'

(44)   a. Ni [**lian gongke**] dou *meiyou/dei* xie wan

you even homework all not-have/ must write finish

'You didn't/ must finish writing even your homework.'

b. *Ni *mei / dei* [**lian gongke**] dou xie wan

you not /should even homework all write finish

Consequently, the different properties between *lian*-NPs and PPs, shown above, argue against *lian* as a preposition. Note that even though *lian* apparently seems to have complementary distribution with prepositions (also noted by Hagège cited by Paris), based on the sentences in (15) and repeated in (45), *lian* is **not** a

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[20] Chinese does not allow preposition stranding, so an overt pronoun is used here.

preposition.[21] Another piece of evidence is from the coordination test. Consider

(46) and (47). Since only identical cateogories can be conjoined, if *lian* were a

preposition, a *lian*-NP could conjoin with a PP. However, the unacceptable (46)

indicates that it is not the case: a *lian*-NP cannot conjoin with a PP. In contrast, in

(47) where two PPs are conjoined is acceptable. Thus, the unacceptability of (46)

further nullifies the claim that *lian* is a preposition.

(45)=(15) a.   ?*Lisi ***lian*** [PP **cong** dixia-qianzhuang]*dou/ye* jie-le qian le.

               Lisi LIAN from black-market bank DOU/YE borrow Asp money LE

               'Lisi borrowed money even from black-market bank.'

       b． ?*Lisi ***lian*** [PP **ti** wo] *dou* bu xie gongke.

                Lisi LIAN for me DOU not write homework

               'Lisi does not write homework even for me.'

(46)   *Ta [PP **gei yinhang**] haishi [**lian Lisi**] dou huan le qian?[22]

        He to bank or even Lisi all return Asp money

        '*Did he return money to the bank or even Lisi?'

---

[21] Paris' argument against *lian* as a preposition is that that *lian* can co-occur with *zai*-NPs 'at' and *bei*-NPs 'by', repeated in (i) and (ii). If *lian* were a preposition, it would violate a constraint of Chinese syntax which forbids an NP to be marked by two prepositions. The data that Paris gives does not argue for this point. First, as noted in footnote 16, sentence (i) is unacceptable for the native speakers I consulted. Second, as noted in footnote 11, *zai* 'at' in (ii) is not a preposition; rather it functions as a verb.

(i)   ?*Ta lian [bei tade airen] dou bu neng kanjian.
           she even by her husband all not can see
           'She cannot be seen even by her husband.'

(ii)   Ta *lian* [zai fanguan] *dou* bu chifan.
           he even at restaurant all not eat
           'He even doesn't eat in the restaurant.'

[22] *Haishi* 'or' can conjoin major categories: NPs, VPs, PPs, APs, etc., whereas *he* 'and' in Chinese only conjoins NPs. Thus *haishi* is used here.

(47)   Ta [PP **xiang Lisi**] haishi [PP **cong yinhang**]] jie le qian?

        he to Lisi or from bank borrow Asp money

         'Did he borrow money from Lisi or from the bank?'

2.1.2.2. *Lian* **Does Not Head a Functional Projection**

        In section 2.1.3, I will propose that *dou/ye* in *lian..dou/ye* constructions
heads a functional projection. A natural question may be raised as to whether *lian*
could head a functional projection, a *Lian*P that selects *Dou*P. There are two reasons
not to adopt this proposal. First, note that the *Dou*P selected by *lian* could be
conjoined, as in (48), thus *Dou*P is a constituent.

(48)   Ta *lian* dianhua dou/ye bu da, xin dou/ye bu xie[23]

        he LIAN phone call also not make, letter also not write

         'He didn't even make phone calls, didn't even write letters.'

On the surface, it seems that *lian* could select two conjoined *Dou*Ps in (48), rather
than forming a constituent with the NP that follows it. In fact, (48) does not
definitely permit this proposal. Recall that *lian* can be optional when its following
NP is a bare NP or a singular noun. The correct structure of (48) should be (49). In
other words, *lian* indeed forms a constituent with its following NP and this
constituent occurs in the Spec of *Dou*P position, instead of being a functional head
that selects *Dou*P.

(49)   S [DouP [NP (*lian*) NP] dou [VP..]], [DouP [NP (*lian*) NP] dou [VP ..]]

        Another problem in claiming *lian* heads a functional projection is that a
subject can intervene between a *lian*-NP and *dou*. If *lian* were to head *Lian*P that

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[23] I owe this sentence to Audrey Li.

selects *Dou*P, the discontinuity of *lian*-NP and *dou* in (50) could not be accounted for.

(50)   *Lian* zheben shu **Zhangsan** *dou* mei kan.

         LIAN this-CL book Zhangsan DOU not read

         'Even this book, Zhangsan didn't read.'

In brief, *lian* does not display the same properties of prepositions. *Lian* does not head a functional projection that selects *Dou*P, because of the lack of a reliable coordination test and the intervention of the subject between *lian*-NP and *dou*.

2.1.2.3. Focalizer?

Paris translates C. Hagège's (1975) remark accordingly: "focalizers do not allow the presence of a pronominal copy of the element on which they put focus." Since pronominal copies in (51) can be construed with sentence-initial *lian*-NPs, Paris rejects *lian* as a focalizer.

(51)   a. ***Lian* Zhangsan$_i$** Mali *ye* ti **ta$_i$** zuofan

         LIAN Zhangsan Mali also for he cook

         'Mary even cooks for Zhangsan.'

       b. ***Lian* Lisi$_i$** wo *ye* bei **ta$_i$** dabai le.

         LIAN Lisi I also by he defeat Perf.

         'I even was defeated by Lisi.'

In chapter four, I will give a detailed account for sentence (51). I will claim that the S-initial *lian*-NP in (51) is distinct from a *lian*-NP in a strict preverbal position in (52). I will claim that the former is base-generated in an S-initial position; whereas (52) is solely derived by syntactic focus movement to the strict preverbal FP position. Like (base-generated) topics, sentence in (51) allows pronominal copies in

the comment clauses. In contrast to (51), *lian*-NPs occuring in the Spec of FP position as in (52) do **not** allow pronominal copies. The unacceptability of (52) seems to support Hagège's insight (also see sections 3.2.2 and 4.3.4).

(52)   a. ***Mali *lian* Zhangsan**$_i$ *ye* ti **ta**$_i$ zuofan

          Mali LIAN Zhangsan also for he cook

         b. ***wo *lian* Lisi**$_i$ *ye* bei **ta**$_i$ dabai le.

          I LIAN Lisi also by he defeat Perf.

In chapter three I will discuss in more detail cases where pronominal copies cannot be interpreted with focused NPs. This point will become clear when we see the movement analysis of focalization later.

Paris' other argument against *lian* as a focalizer is based on the assumption that if a focalizer is deleted, the sentence changes meaning. Since in Paris' sentence (53) *lian* can be deleted without causing any change of meaning, she concludes that *lian* is not a focalizer.

(53)   (*Lian*) shuye *dou* bu dong

             even   tree-leaf all not move

             'Even the leaves didn't move.'

It should be also noted that it is **not** because *lian* is not a focalizer that the absence of *lian* in sentence (53) has no change in meaning. In fact, it is because *dou* is not deleted together with *lian*. Compare (53) and (54). The interpretation of (54) is different from (53) after the deletion of both *lian* and *dou*.

(54)   Shuye bu dong

             tree-leaf not move

             'Leaves don't move.'

What can we conclude from (53) and (54) is that *lian* by itself cannot serve a focus function, since it can be phonologically null. It is the co-occurrence of *lian* and *dou* that constitutes focus interpretation.

2.1.2.4. Syntactic Adjective or Adverb

As we have seen in sections 2.1.2.1-3, *lian* is neither a preposition, a head of a functional projection, nor a focalizer by itself. Recall that *lian* is optional, while *dou/ye* is obligatory. I will consider *lian* as an adjective or adverb, because of its property of being able to modify NPs or VPs/CPs respectively.

One thing I would like to note is that although modifers in Chinese generally allow stacking, *lian* cannot be stacked by other prenominal modifiers. In (55a) and (55b), there is no hierarchical restriction for adjectives such as *piaoliangde* 'beautiful' and *hongsede* 'red' to modify the head noun *dayi* 'overcoat.' *Lian*, on the contrary, has to occur in the beginning of its modified phrases. The occurence of *lian* in the middle position within an NP as in (56) is not allowed. This may be due to *lian*'s scope of modifying the whole NP/CP/VP that is focused by it.

(55) a．*lian* zhejian piaoliang de hongse de dayi ...

   LIAN this-CL beautiful red overcoat

   b．*lian* zhejian hongse de piaoliang de dayi ...

   LIAN this-CL red beautiful overcoat

(56)   *****zhejian *lian* hongse de (*lian) piaoliang de dayi ...

   this-CL LIAN red (LIAN) beautiful overcoat

After *lian* is drawn from the lexicon, it adjoins to its modified NP/VP/CP to form a constituent,[24] (cf. Rooth's (1985) discussion of crosscategorial status of *even/only*). This *lian* phrase bears a focus interpretation and quantifies every member of relevent worlds, see section 2.1.4.1. Then it needs to be licensed by *dou/ye*. There are two ways of achieving licensing: either in syntax or at LF. In syntax, licensing of a *lian* phrase with *dou* can be done by Spec Head agreement. This is the case where focalization movement takes place, which will be discussed in chapter three. A *lian*-XP moves to and merges with F', then projects to FP. Licensing at LF will be discussed in chapter four. It is the case where *lian*-phrases are base-generated in the S-initial position. Licensing requirement is done by the LF movement of *dou* maximal head to I^0, in which domain *dou* is able to check or discharge its [Focus] feature to the base-generated S-initial *lian*-phrase.

2.1.3. *Dou* as a Predicate Quantifier

In this section I will discuss the nature of *dou*. *Dou*[25] has been considered to be a quantificational adverb (Lee (1986), Cheng (1991)) to quantify elements to its

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[24] A constituent can undergo movement, so does a *lian*-phrase. A *lian*-phrase can be coordinated with another *lian*-phrase (coordination test of constituency), as in (48**'**). It can also serve as sentence-fragment, as in (i).
(48**'**)   Ta *lian dianhua* dou/ye bu da, (*lian*) *xin* dou/ye bu xie
              he LIAN phone call also not make, letter also not write
              'He didn't even make phone calls, didn't even write letters.'
(i)   A: Zhangsan shi-bu-shi *lian huangce xiaoshuo* dou mai le ne?
              Zhangsan be-not-be LIAN pornographic novel DOU bought Q
              'Did Zhangsan buy even novel?'
        B: Bu shi, shi *lian zaochi*...
              no, be LIAN magazine
[25] I will not further distinguish *ye* from *dou*. Paris (ibid.) notes that the scope of *ye* is not limited to elements placed on its left, although she also states that "*dou* can only take in its scope NPs or PPs which are placed to its left." Nevertheless, I will argue that both *dou* and *ye* have to be related to their following predicates, not only quantify to elements on their left.

left (Paris (1979), Huang (1982), Liu (1990) and among others). Adopting Dowty and Brodie's (1984) (D&B hereafter) proposal of English *all* as a VP quantifier (besides English determiner *all*), I suggest that Chinese *dou* functions as a VP (or predicate) quantifier, in addition to left quantification. This VP/predicate quantification property is syntactically realized as being a head of a functional projection which selects an VP or AspP. I will return to this in section 2.2. In other words, *dou* has a function of relating a VP (or a predicate) to its left element (also see Li (1992) and Aoyagi (p.c.)).

  Dou is not identical to English determiner *all*. Although both determiner and VP-quantifier in English have the same form, *all*, Chinese has distinct lexical items for determiners and VP-quantifiers. *Dou* cannot function as a prenominal modifier, in (57a). For NP determiners, it is either *meige* 'every' or *suoyou* 'all' that serves this function, as in (57b). *Dou* is obligatorily required and can co-occur with *meige/ suoyou*.

(57) a. *[_{NP} **Dou** xuesheng] lai le.

    DOU student come Asp

  b. [_{NP} Meige/Suoyou de xuesheng] zuotian ***(dou)** lai le.

    every-CL/ all student yesterday *(DOU) come Asp

Moreover, *dou* cannot occur in a post verbal position to quantify the object, as indicated in (58). Rather, a universal QP object *meiben/ suoyou de shu* 'every/all books' has to be preposed to a preverbal position to be quantified by *dou*;[26] see the contrast between (58) and (59).

(58) *****Zhangsan zuotian kan le [_{NP} meiben/suoyou de shu] **dou**

    Zhangsan yesterday read AsP every-CL/all DE book DOU

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[26] See footnote 35.

(59)   Zhangsan zuotian [NP meiben/suoyou de shu] **dou** kan le

         Zhangsan yesterday every-CL/all DE book DOU read Asp

         'Zhangsan read every book yesterday.'

    According to D&B (1984), the determiner *all* and the denotation of the VP

quantifier *all* in English are of different logical types, under the framework of

Montague Grammar. The syntax of determiner and VP-quantifier *all* as proposed by

them is repeated in (60). They state that a determiner, as in (60a), must map

common noun (CN)-denotations (i.e. sets of individuals) into NP-denotations,

whereas the VP-quantifier in (60b) must relate VP-denotations to NP-denotations.

This VP containing *all* is a function applying to an NP-denotation, not vice-versa.

(60)   a. Determiner *all*:   VP' ([all' (CN')])

        b. VP-quantifier *all*:   [*all*' (VP')] (NP')

Take *the student* in (61) and the VP-quantifier *all* for example, VP-*all* first examines

the NP-denotation and extracts the set of contextually relevant students. NPs are

determined by taking the intersection of all the sets in the NP-denotation. The

resulting sentence must then assert that every individual that is a member of this

intersection has the property denoted by the VP. Their formal rule is repeated in

(62).

(61)   [[the students]] = the family of all sets that contain every contextually-

         relevant student = {X | [[student]] $\cap$ Rel $\subseteq$ X}

(62)   [[[all VP VP]]] = { $P \in$ D$_{NP}$ | $\cap P \subseteq$ {y | y* $\in$ [[VP]] }}

         "$\cap P$" = the intersection of all the sets in P (power set) ,

         "y*" = {X | y $\in$ X} (i.e. the maximal filter generated by y)

         "D$_{NP}$" = the domain of NP-denotations

         (Dowty and Brodie 1984)

The semantics of the VP-quantification adopted from D&B and the existence of two distinct lexical items in Chinese (equivalent to English *all*) strongly argue for distinct representations of VP-quantifier *all* and determiner *all*. I will argue in section 2.2 that *dou* heads a functional projection (i.e. FocusP) and selects a predicate or a VP.[27] My position of VP modifier *dou* is further supported by Bowers' (1993) claim that English floating quantifiers (vs. determiner *all*) are base-generated as XP adjuncts only to the "propositional" categories PrP and IP, instead of being base-generated inside NPs as Sportiche (1988) has argued. Bowers' argument is drawn from the unacceptability of (63).

(63)   a. *The professors were fired all.   (Bowers 1993: #89)

       b. *The books have disappeared all.[28]

In other words, the sentences in (63) show that it is impossible to raise object NPs and leave the quantifier stranded in object position in English.[29] Bowers argues that it is because the stranded quantifier is not part of the moved NPs in D-structure. If it were, we would wrongly allow floating quantifiers to occur in any position from which an NP can move.

Bowers' sentences in (63) are on a par with the Chinese unacceptable sentence in (64). The object in (64) is preposed and *dou* is left stranded. Thus, *dou*, like English (VP)-quantifier *all*, cannot occur in an object position, since it has to modify a predicate.

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[27] This proposal is in contrast with the view of treating the so-called floating quantifier, *all* to be base-generated within an NP, as in Sportiche (1988) and the similar analysis for Chinese by Chiu (1993). Many Chinese facts suggest that *dou* is not a floating quantifier; see Cheng (1991), Li (1992) among others.
[28] Fiengo and Lasnik (1976) also note that (i) is unacceptable in English.
(i)   **He hates the men **all**.
[29] According to Bowers (1993 fn. 22), the acceptability of the French counterpart of (63) is due to the fact that French allows sentence-final quantifiers anyway, but English does not.

(64)   *Zhangsan (lian) zhexie shu kanwan le **dou**.

           Zhangsan LIAN these book read-finish Asp DOU

           'Zhangsan all finished reading books.'

Although Bowers treats the English floating quantifier *all* as a PreP/IP adjunct, what concerns us here is the 'predicate modifier' nature of *all* and *dou*. In other words, *dou* in Chinese should not be treated as being within an NP. Intead of treating *dou* as an adverb, I will argue that *dou* heads a functional projection that selects AspP or VP in order to account for its distribution relative to universal QPs in section 2.2.

2.1.4. The Interpretation of *Lian…Dou*

This section first presents the conventional implicature denoted by *lian...dou/ye*, similar to the English *even* sentences discussed by Karttunen and Peters (1979), Rooth (1985) among others. Second I will show that *lian*-NPs and universal quantificational noun phrases (QPs) have similar properties in relation to *dou*. It will be concluded that the apparent differences between *lian*-NPs (as well as universal QPs) and referential NPs, which will be discussed in section 2.1.4.2, are **not** due to two distinct *dou*s, as Gao (ibid.) argues: one for focalizer *dou* for *lian*-NPs and one for quantificational *dou* for referential NPs . Instead, I suggest that the differences lie in differnt types of NPs: QPs in general and referential NPs.[30] I will come to this point in section 2.1.4.2.

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[30] Li (1992) has observed different distributions among referential NPs, QPs, and Wh-indefinites in relation to *dou*. It seems to me that it is a more plausible research methodology to account for properties of different types of NPs related to *dou*, instead of postulating three distinct *dou*s.

The semantics of *even* contains two implicatures: existential and scalar. The examples in (65) are Rooth's (ibid.) reformulation of Karttunen and Peters' (ibid.) conventional implicature.

(65)   Existential implicature

a. $\exists$ pC (p) & ˘ p & p ˆ a] &

Scalar implicature

b. $\forall$p [[C(p) & p ˆ a] -->exceed' (likelihood' (p) likelihood' (ˆ a))]

(65a) says that there is a proposition, p, whose form is determined by the context, which is true, and p is not equal to **a**, the assertion (the proposition without *even*). The scalar implicature in (b) says for every proposition, if the proposition is of the form determined by the contextual variable, C, and is not the proposition given the assertion, **a**, then the likelihood of that proposition exceeds the likelihood of **a** (also see Wilkinson (1994)). Take (66) for example;

(66)   Sara read even ULYSSES.

the existential implicature says that there is a proposition, p, e.g. Sara read other books, and p is not equal to "Sara read Ulysses." The scalar implicature says the likelihood of every proposition related to the things that Sara read exceeds the likelihood of Sara's reading of Ulyssess. Namely, Ulyssess is the least likely book that Sara read.

2.1.4.1. *Lian*-NPs and Universal Quantificational NPs

The claim of the universal QP likeness of *lian*-NPs is supported by Lycan's (1991) semantics of English *even*. He argues that *even* denotes 'everything... including' and it adds a universal quantification over the members of contextually

specified (real-and-relevant) events.[31,32] Compare sentence (67a) without *even* and (67b) with *even*   (67b) implicitly refers to a group and entails that everyone in that group put on his or her coat; while no such entailment is in (67a).

(67)   a．Grannie put on her coat.

b．Even GRANNIE put on her coat.

The interpretation of *lian..dou/ye* in question exactly mirrors English *even* meaning: 'everything... including.' *Lian* literally means 'including, connecting,' which exhaustively quantifies all members in an understood domain. The VP-quantifier *dou/ye* 'all/ also' relates relevant events in discussion with *lian*-elements. Hence, based on this similar semantic interpretation: exhaustively screening elements in given discourse domains, it is reasonable to claim that *lian*-NPs behave like universal QPs.[33] The only difference is that *lian..dou/ye* presupposes the existence of a pragmatic likelihood scale associated with the sentence (see Horn (1969), Fauconnier (1975), Karttunen & Peters (1979) among others), but regular universal QPs do not.

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[31] Lycan argues that *even* affects truth-conditions. Kuroda (1965) and Anderson (1972) mention the effect of *even* on interpretation. Rather, Karttunen and Peter's (1979) claim that the truth-conditional aspect of meaning and meaning conventionally implicated by (67b) should be distinguished and treated differently. I will leave this issue open as to whether the interpretation of *even* contributes to truth-condition or conventional implicature.

[32] Lycan's semantic analysis of *even* is in (i). Instead of adopting 'conventional implicature', he leaves the attitude of counterexpectation in *even* sentences as being expressed by the use of 'conversational implicature'.

(i)   Where *S* is a sentence containing *even*, *C* is the constituent of *S* and of its corresponding *S** that is the focus of *even* in *S*, unsaturated dashes "---- ----" indicate the result of subtracting *even* and *C* from *S*, and *G* is a contextually determinded class containing at least one member *C*: *S* is true iff every member x of *G* including the referent of *C* is such that ----x----.

[33] Huang (1982:311), and Liu (1990:121) consider *lian..dou* and *dou* as having similar quantification force.

Having seen the similar interpretation between *lian*-NPs and universal QPs, the following will provide syntactic evidence for this view that *lian*-NPs are equivalent to universal QPs. First, like universal QPs (and *wh*-indefinites quantified by *dou* to interpret universally), *lian*-NPs have to be quantified by a predicate modifier: *dou* or *ye*, shown in (68). *Dou* has a collective or distributive reading in Chinese. Moreover, *lian* and *meige/ suoyou* 'every' cannot co-occur. This in fact indicates that *lian*-NPs and universal QPs have complementary distribution. This is demonstrated in (69), which is similar to (78a).[34,35]

(68)   *Lian* Lisi/Meigeren/Shei ***(*dou*)** ai chi chou-doufu

         LIAN Lisi/ everyone/who DOU love eat smelly-beancurd

         'Even Lisi/Everyone loves eating smelly beancurd.'

(69)   (******Lian*) <u>Meigeren</u>/<u>Shei</u> *dou* ai chi chou-doufu   =(78a)

         (LIAN) everyone/who DOU love eat smelly-beancurd

         '(*Even) Everyone loves eating smelly beancurd.'

Second, both *lian*-NPs and universal QPs do not enter into a scope interaction with negation or (deontic) modals. Compare (70a) and (70b). *Dou* has to occur

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[34] This complementary distribution between universal QPs with *lian*-NPs is similar to the point made by Fraser (1970) that *even* cannot be interpreted with quantifiers, like *someone, everyone, noone*.
(i)   *We want to see even *everybody*.
[35] Universal QPs tend to occur preverbally to be quantified by *dou*. However, there are limited cases of object universal QPs. Consider (i). According to Cheng (1991), universal QPs such as *meige ren* 'every person' cannot occur in object position unless it is a contrast focus.
(i)   *Qiaofong renshi <u>meige xuesheng</u>.   (Cheng 1991: 161)
            Qiaofong know every-CL student
Another case is the universal QPs as a postverbal indirect object. The interpretation of this universal QP might be the same as (i), bearing contrastive focus.
(ii)   Zhangsan gei le meige xuesheng yizhi bi.
            Zhangsan give Asp every-CL student one-CL pen
            'Zhangsan gave every student one pen.'
I have no account for this point. However, note that even though universal QPs might occur postverbally, *lian*-NPs can never do so.

before negation/modals in order to quantify over *lian*-NPs and universal QPs and for this exhaustively quantified element(s) to be related to relevant quantified event(s).

(70) a. Zhangsan <u>lian zheben shu</u>/<u>meiben shu</u> ***dou*** **meiyou/ xiang** kanwan.

Zhangsan LIAN this book/every book   DOU   not/   want read-finish

'Zhangsan didn't/ doesn't want to finish reading even this/every book.'

b. *****Zhangsan <u>lian zheben shu</u>/<u>meiben shu</u> **meiyou/ xiang** ***dou*** kanwan.

Zhangsan LIAN this book/every book not / want DOU read-finish

However, there exists a difference between *dou* quantifying over universal QPs/*lian*-NPs and referential NPs. *Dou* associated with regular referential NPs can either precede or follow negation/modals, resulting in the different interpretations in (71).

(71) a. Zhangsan <u>zhexie shu</u> ***dou*** meiyou kanguo/ gan kan.   ∀¬

Zhangsan these book   DOU not read Exp / dare read

'Zhangsan didn't read these books at all/ dares to read all these books.'

b. Zhangsan <u>zhexie shu</u> meiyou/ xiang ***dou*** kan guo/ kanwan   ¬∀

Zhangsan these book   not/ want   DOU read Exp/ read finish

'Zhangsan didn't/ wants to finish reading all these books.'

Dou has scope over negation/modal in (71a), but negation/modal has scope over *dou* in (71b). I suggest that the difference between (70) and (71) is because different types of NPs, QPs/*lian*-NPs vs. referential NPs, interact with *dou*, rather than two distinct *dou*s as argued by Gao (1994).

Second, Lee (1986), Chiu (1993) and Cheng (1993) have noted that *dou* cannot quantify an NP intervened by *ba-* or *bei*-phrases. This blocking effect of *ba-* or *bei*-phrases also applies to *dou* quantification of *lian*-NPs and universal QPs. In

(72) and (73), in order for *dou* to be interpreted with the subject *zhexie xuesheng* 'these students,' it has to precede the *ba*-phrase and *bei*-phrase.

(72)   Zhexie xuesheng ***dou*** [ba zheben shu] (****dou***) song gei Lisi[36]

             these student   BA this-CL book DOU give Lisi

             'These students all gave Lisi this book.'

(73)   Neixie xiaohai ***dou***[bei Lisi] (****dou***) qi-fu-quo

             those kid   DOU by Lisi exploit-Exp

             'Those kids were all exploited by Lisi.'

Similarly, (74) and (75) demonstrate that a *ba*-phrase or *bei*-phrase cannot intervene between a *lian*-NP/QP and *dou*.

(74)   Meigeren / Lian Zhangsan ***dou*** [ba zheben shu] (****dou***) kanwan le.

             Everyone/ LIAN Zhangsan DOU BA this book read-finish Perf

             'Everyone/ Even Zhangsan finished reading this book.'

(75)   Meigeren / Lian Zhangsan ***dou*** [bei laoshi] (****dou***) da le yidun.

             Everyone/ LIAN Zhangsan DOU by teacher hit Perf once

             'Everyone/ Even Zhangsan was hit by the teacher.'

      To summarize, *lian*-NPs behave like universal QPs both semantically and syntactically. They all exhaustively quantifies members in understood domains. They are in complementary distribution and obligatorily require *dou*. *Dou* co-occurring with them does not enter into scope interaction negation or modals. The only difference is the scalar implicature denoted in *lian..dou* sentences.

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[36] The underlied NPs are the elements quantified by *dou*.

2.1.4.2. Are There Two Different *Dou*s?

Having disscussed the predicate modifier nature of *dou*, one question arises as to whether the *dou* quantifying over referential NPs is the same as the *dou* quantifying over *lian*-NPs/QPs. It will be shown that these two *dou*s can be treated alike. The following will show apparent differences between the *dou* related to referential NPs and *lian*-NPs. It will be suggested that these differences result from the different types of NPs involved, rather than two distinct *dou*s as Gao[37] (1994) proposes.

First, it has been known that referential NPs quantified by *dou* should be plural. *Zhangsan*, a singular NP, is not interpreted with *dou* in (76) with the intended collective reading. However, sentence (76) can be interpretable when this singular NP is understood as *even*-NP as in (77). Recall that *lian* can be optional.

(76)   Tamen/**Zhangsan *dou* mai le zheben shu.

        they/ Zhangsan DOU buy Perf this book

        'They/*Zhangsan all bought this book.'

(77)   (*Lian*) tamen/ Zhangsan *dou* mai le zheben shu

        even they/ Zhangsan DOU buy Perf this-CL book

        'Even they/ Zhangsan bought this book.'

Therefore, both singular and plural referential NPs can be quantified by *dou*. In this case, singular NPs have *even* implicature. This is accountable under the current proposal of treating *lian*-NPs as universal QPs. A universal QP, as well as a *lian*+singular NP (or a non-G-specific NP, see below) screens each individual exhaustively in an understood domain to be related to the VP. In other words, it is

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[37] Gao (1994) argues for two different *dou*s: one for regular quantificational *dou*, and the other for a focalizer *dou* in *lian..dou*.

not because the *dou* that quantifies plural referential NPs is different from the *dou*

related to *lian*-singular NP. Rather, *dou* is related to both plural referential NPs and

lian-singular NP exhaustively quantifying all members in the domain in discussion,

except for the scalarity being implied in *lian*-NPs.

Related to the above point, Liu (1990) proposes that *dou* only co-occurs with

G-specific NPs,[38,39] such as universal QP *meigeren* 'everyone,' but not non-G-

specific NPs. This observation, however, is not carried over to *lian..dou* sentences;

see (78). On one hand, G-specific NPs do not follow *lian* as in (78a). On the other

hand, non-G-specific NPs like proportional NPs with a lower end 'less than N'

meaning as in (78b), can occur in *lian...dou* sentences.

(78) a. ***Lian** meigeren ***dou*** ai chi chou-doufu[40]   G-specific NP

        LIAN everyone DOU love eat smelly-beancurd

        '*Even everyone loves eating smelly beancurd.'

    b. *Lian* wufen zhi yi de ren *dou* chu-xi le   non-G-specific

        even one fifth   of person DOU present Perf

        'Even one fifth of the people were present.'

---

[38] G-specific NPs in Chinese categorized by Liu (1990) include proper nouns, pronouns, locative phrases, bare NPs, NPs with deictic determiners, bare numerical NPs, logical NPs. Non-G-specific NPs are NPs with modified numerical determiner: *zhishao, budao*, approximative det. *shiduo ge, shi-ji ge*, 'more than ten,' proportional NPs (with lower end), *sanfen zhi yi* 'one-third of.'

[39] In fact, non-G-specific NPs can occur with *dou*. In this context, it denotes a lower scale in the speaker's expectation, in the sense of the pragamatic scalarity proposed by Fauconnier (1975). I thank Barry Schein (1993 p.c.) for bringing my attention to this point.

[40] Although *every* in (i) occurs in *lian*-NP, it is not a counter-argument. (i) is comparing my every student with other sets of people, such as teachers, kids, etc.

(i)   Lian wode **meige** xuesheng dou ai chi chou-doufu
       LIAN my every student DOU love eat smelly-beancurd
       'Even my every student loves eating smelly beancurd.'

The possibility of co-occurrence of *lian* and non-G-specific NPs follows from our previous discussion. A *lian*-NP screens all the members in a domain under discussion and even includes members at the lower end of the pragmatic scale in the sense of Fauconnier (1975).

Universal QPs, since they have internal NP quantification, do not co-occur with *lian*.[41] *Wh*-phrases, which are licensed by *dou* yield a universal reading as in (79), behave like universal QPs related to *lian* in this respect, shown in (80). Namely, *wh*-phrases following *lian* and preceding *dou* in (80) denote interrogation,[42] and lack universal interpretation.

(79) a. Shei *dou* xihuan Mali.

          Who DOU like Mali

          'Everyone likes Mali.'

      b. Ta nar *dou* xihuan qu.

          he where DOU like go

          'He likes to go everywhere.'

(80) a. *Lian* shei *dou* lai le (ne /*ma)?

          LIAN who DOU come Perf (Q/yes-no Q)

          'Even who came?'

          '*Even everybody came.'

---

[41] *Lian* could co-occur with universal QPs as in (i), but *lian meizhi houzi* 'even every/each monkey' quantified by *dou* includes not only monkeys themselves, but other kinds of animals, say human beings. The speaker compares monkeys with other kinds of animals in his/her mind. A similar point is also made by James Huang.
(i) Lian meizhi houzi dou hui yong chazi
     LIAN every-CL monkey DOU can use fork
     'Even every (each) monkey can use forks.'
[42] It seems that the interpretation is that of an echo question when *even* co-occurs with *wh*-phrases.

b. *Lian*   shenme$_i$ ta *dou* yao t$_i$ (ne / *ma)?

LIAN what he DOU want   Q

'Even what does he want?'

'*****Even everything he wants.'

Another argument that Gao (1994) points out to argue for two distinct *dou*s is the possibility of multiple *dou*s within a sentence, as shown in (81). He states that the first *dou* in (81) is the focalizer *dou* (co-occurring with *lian*), and the second *dou* is the regular quantificational *dou*.

(81)   **Lian** tamen **dou** meiyou **dou** mai zheben shu

even they DOU not-have DOU buy this-CL book

'Even they have not all bought this book.'

However, we can come up with sentences like (82) and (83), which both contain two *dou*s of the same type in each sentence. If the co-occurrence of two *dou*s indicates that these two *dou*s were distinct types of *dou*, one would consider the two *dou*s in each following sentence are different types. This is by no means plausible.

(82)   **Lian** Zhangsan **dou** **lian** manhua **dou** taoyan[43]

LIAN they DOU LIAN comic strips DOU dislike

'Even Zhangsan dislikes even comic strips.'

(83)   Tamen (**dou**) meiyou **dou** taoyan manhua

they DOU not-have DOU dislike comic strips

'Not all of them dislike comic strips.'

---

[43] (i) is another example of having two *lian..dou*s.
(i) **Lian** Zhangsan **dou** **lian** yiben shu **dou** meiyou kan.
     LIAN Zhangsan DOU LIAN one-CL book DOU not-have read
      'Even Zhangsan also didn't read even one book.'

It is possible to create contexts in which (82) is acceptable.[44] Anderson (1972) has

noted that *even* is not limited to one occurrence per sentence (Fraser (1970) and see

even attachment transformation in Kuroda (1965)). This is also true in Chinese.

Suppose comic strips in (82) are the most popular thing for the general population.

Suppose in addition that there exists a group of anti-comics radicals. Zhangsan is a

level-headed person, whom one would not expect to be mixed up with this group of

people, but even he was influenced by their protest. In this situation one can utter

(82), implying that the idea of anti-comics finally had influenced Zhangsan.

Consequently, the recurrence of *dou*s in (82) should not be considered as two

different types of *dou*. It is also possible to utter (83) emphasizing 'all of them.'

The recurrence of *dou* in this sentence does not argue for two distinct *dou*s either.

In summary. The apparent differences between referential NPs and *lian*-NPs

quantified by *dou,* discussed above, can be explained in terms of different NP types

and the interpretations implied, instead of proposing that there exist two different

*dou*s.[45] Referential NPs quantified by *dou* are plural in order to have a collective

reading. This (exhaustively) collective reading is obtained when singular NPs (or

non-G-specific NPs) denote *lian*-NPs and scalarity is implied.

---

[44] The acceptability of (82) and (83) suggests that we can project two *Dou*Ps in a
sentence, and the higher *Dou*P selects another *Dou*P.
[45] There exists another difference in *dou* quantifying between regular PPs and *lian*-
PPs.   As discussed in section 2.1.1.1, *lian* does not precede a PP, hence (ii) is
unacceptable, but there is no such restriction for regular PPs.
(i)   a.   Zhangsan [PP ba zhexie shu] *dou*   kanwan le.
             Zhangsan BA these books   DOU read-finish Perf
             'Zhangsan finished reading these books.'
        b.   Zhangsan [PP cong zhexie yinhang] *dou* jie le bushao qian.
             Zhangsan from these banks   DOU borrow Perf a lot of money
             'Zhangsan borrowed a lot of money from these banks.'
(ii)   *Zhangsan *lian* [ba shu] *dou*   meiyou / bu yuanyi na-chulai.   =(16b)
             Zhangsan LIAN BA book DOU not / not willing take-out

2.1.4.3. *Lian* + **Indefinite NP =** *Any*

This section shows that *lian* + indefinite is equivalent to *any*, interpreted either as universal free choice *any* or existential *any* (a negative polarity sensitive item, NPI-*any*). *Any* is licensed by the existence of a pragamatic scale of some sort. This view avoids the problem of existential *lian*-NP not being syntactically c-commanded by negation.

Indefinite NPs can occur after *lian* in either affirmative or negative sentences, as in (84) and (85) respectively.

(84)   Zhangsan lian <u>yi/bankou fan</u> dou chi-xiaqu le

         Zhangsan LIAN one/half-CL rice DOU eat-down Asp

         'Zhangsan ate even a/half mouthful of rice.'

(85)   Zhangsan lian <u>yi/bankou fan</u> dou <u>meiyou</u> chi.

         Zhangsan LIAN one/half-CL rice DOU not-have eat

         'Zhangsan didn't eat even a/half mouthful of rice, (didn't eat any rice).'

These indefinites are non-specific. When these indefinite NPs are in positive contexts, they denote a minimal quantity (the low end in a pragmatic scale discussed above); when they occur in negative contexts, the negation *meiyou* negates the minimal quantity, hence the sentences denote no quantity at all.[46]

It has been discussed previously that *lian*+NPs are equivalent to universal QPs. Lee and Horn (1995) (L&H hereafter) propose that NPI and FC *any* are semantically equivalent to the indefinite determiner *a* and contain an incorprated *even* (also noted by Lahiri (1995)). Hence, we can equate *lian*+indefinite NP with *any*. One conjecture is that the *lian*-indefinite NP occurring in negative contexts might be a

---

[46] Bolinger (1972), noted by Horn (1989: 400), calls this type of minimal quantity items "minimizers," like English *a bit*, *care a fig*, *drink a drop*, etc.

negative polarity sensitive item, NPI henceforth. This view is based on the assumption of two homophonous *any*s made by Ladusaw (1979) and Carlson (1980; 1981).[47] Under this proposal, a *lian*+indefinite, when occurring in positive contexts, would be like free choice (FC-) *any*. When it occurs in negative contexts, it becomes a negative polarity NPI-*any*, putting aside the syntactic c-command of NPI-licensing. This view, however, runs into the problem of why a *lian*-indefinite NP can occur in the same position either in positive or negative contexts. The view of two homophonous *any*s does not seem to solve the problem.

Instead of treating *any* as two homonyms, L&H argue that FC and NPI *any* are semantically equivalent to the indefinite determiner *a* and contain an incorprated *even* (cf. Schmerling (1971)). They can be interpreted either existentially or universally in the same position, and paraphrased by either *even a single* or *even*+superlative respectively. The context that licenses this possibility presupposes the existence of a pragmatic scale; see (86) and (87).

(86)   *Even* presupposes the existence of a pragmatic likelihood scale associated
        with the sentence.

(87)   a. A sentence containing *any CN* presupposes the existence of a pragmatic
            scale of a particular sort.

        b. The nature of the scale is equivalent to the one constructed for a sentence
            containing the indefinite *a CN*, in which the potential focus of *even* is *a*,
            i.e. *a* is the focused element.

Take *any boy* in a negative context in (88a) for example, it is interpreted existentially in (88b), or universally in (88c). The existential reading of (88b) denotes a minimal

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[47] Ladusaw (1979) proposes that existential *any* (polarity sensitive, NPI-*any*) occurs within the scope of a downward entailing operator. Calrson (1981) argues that the universal *any* (the so-called free-choice *any*) occurs in generic/intentional contexts.

quantity, and the universal, generic reading of *even*+superlative in (88c) denotes a kind scale. L&H note that a kind scale is "whatever kind of CN for which the proposition schema is least likely to hold in the given context."

(88)   a. I didn't like any boy.

    b. I didn't like even a single boy.   --existential

    c. I didn't like even the most handsome boy.   --universal

Furthermore, if a pragamatic scale is presupposed, L&H argue that *any* can be interpreted either existentially or universally (generically) in a positive context. Consider Carlson's sentence repeated in (89). *Any* is interpreted existentially in (90a), denoting a minimal quantity. It is interpreted generically in (90b), presupposing a quality that is the least likely held, *even*+superlative.

(89)   For anyone to leave the room now would be a disaster.

    (Carlson 1981:25)

(90)   a. For even a single person to leave the room now would be a disaster.

    b. For even the most inconsequential person to leave the room now would

        be a disaster.

        (Lee and Horn 1995)

        L&H's study is supported by the Chinese data in question. Sentence (84) has an existential reading, presupposing a low scale in quantity. We can come up universal interpretation to denote a low scale in quality, as shown in (84'). Zhangsan is too hungry and he even ate a/half mouthful of spoiled leftover.

(84')   Zhangsan lian <u>yi/bankou zhou le de shengfan</u> dou chi-xiaqu le

        Zhangsan LIAN one/half-CL spoiled leftover DOU eat-down Asp

        'Zhangsan ate even a/half mouthful of spoiled leftover.'

Similarly, we can come up with a universal reading in (85') in comparsion with the existential (minimal quantity) reading of (85).

(85')   Zhangsan lian <u>yi/bankou zuigaoji de jiu</u> dou <u>meiyou</u> he.

         Zhangsan LIAN one/half-CL highest class wine DOU not-have drink

         'Zhangsan didn't drink even a/half mouthful of the highest class of wine.'

The consequence of this current proposal is that *lian*+indefinite NP, i.e. *ban*+N 'half,'[48] does not have to be treated as an NPI. Whenever a pragmatic scale, quantity or quality, is presupposed, *lian*+indefinite NP can occur either in negative or positive contexts. Therefore, the unacceptability of (91) is not because *ban CN* is an NPI that has to be licensed by negation. Rather it is because it is impossible to construe a universal (kind) interpretation with this particular head noun *man*. Hence only negating a minimal quantity can be construed with this head noun.

(91)   Zhangsan lian <u>bange ren</u> dou ***(bu)** xihuan.

         Zhangsan LIAN half-CL man DOU not like

         'Zhangsan doesn't like even half man, (doesn't like anyone).'

A consequence of L&H's proposal concerns the licensing of *any*. If *any*, FC and NPI, is uniformally licensed by a pragamatic scale and interpretation, what is the status of c-commanding NPI licensing that has been widely studied in the literature (see syntactic licensing in Progovac (1988), LF licensing in Uribe-Etxebarria (1993) and references cited there)? As Li (1992a: fn 25) notes *dou* licensing *wh*-indefinites is different from syntactic c-commanding indefninite licensing.[49] I will not give a full account here but will leave this for future research.

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[48] According to Hsieh (1994), *ban CN*, an NPI, has a stricter licensing requirement than *renhe* 'any' or *wh*-indefinites.

[49] Please also see chapter four, footnotes 16 and 18.

2.2. Strict Preverbal Position as a Focus Position

2.2.1. The Analysis

A *lian*-NP in post-subject preverbal position undergoes syntactic movement -- focalization. The structure is as follows:

(92)

```
        IP
       /  \
    NP₁    I'
          /  \
         I    FP
             /  \
          lian-  F'
          NP₂   /  \
            Dou/Ye  AspP/
                    MP
                   /  \
                  e₁   Asp'/
                       M'
                      /  \
                   Asp/   VP
                    M    /  \
                       e₁   V'
                           /  \
                          V    t₂
```
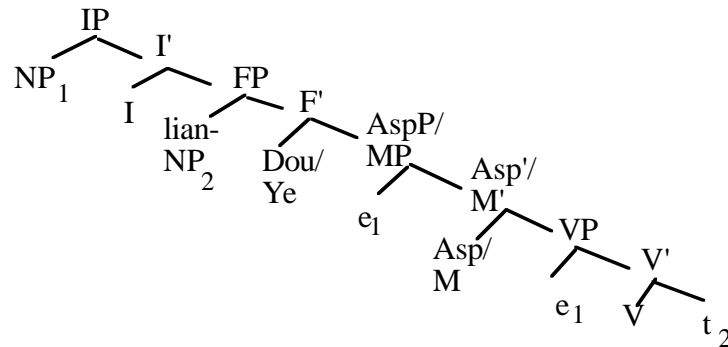
In (92) *dou/ye* is the head of a Focus Projection (FP). This head selects a perfective aspectual phrase, or a modal phrase, or a negation phrase.[50] Phrases selected by this F can be subsumed under a broader category, P in the sense of Laka (1990), which includes an affirmation marker or negation.[51] IP, instead of AgrSP, is proposed here for Chinese. The Spec of IP position is for abstract nominative Case checking (cf. English structure in Pollock (1989), Chomsky (1993; 1994), Huang (1993), and no subject raising in Aoun and Li (1993)).

When an Asp is projected with the perfective marker *le*,[52] the verb inside the VP raises to and adjoins Asp⁰, because of the affix nature of the aspectual marker. If

---

[50] Section 2.2.1.1 will provide evidence for the proposal that AspP, MP and NegP compete for the same projection.

[51] It is not my concern whether the VP in (92) corresponds to a Predicate Phrase as proposed by Tang (1990) for Chinese (cf. Bowers (1993)).

[52] I will not further consider the details of the experience aspectual marker *guo*. It seems that *guo* does not conform with the perfective aspectual marker *le*. In negative sentences *guo* can co-occur with negation *meiyou* 'not-have', in the order (*mei)you-*

a deontic modal is projected, the main verb does not raise to MP. I assume that Chinese lacks V-to-I movement in syntax (cf. Huang (1993), Tsai (1994)).[53] A subject is base-generated in the Spec of VP position, following the Internal Subject Hypothesis (Kuroda (1988), Koopman and Sportiche (1990) among others). The subject raises from Spec of VP to target Asp'/M'; then further raises to IP Spec. This intermediate step, in [Spec AspP/MP] of raising the subject from [Spec VP] to [Spec IP] is needed for the subject to be licensed as the subject of AspP/MP. Finally, the subject moves to Spec of IP for subject abstract Case-marking. Subject raising to [Spec IP] in Chinese is obligatory, even though Infl is defective in Chinese. I assume this subject raising is for assignment of nominative Case. Object abstract Case is checked by verb government in Chinese.

In Chomsky's (1994; 1995) Bare Phrase Structure, he prohibits non-branching projections (cf. Kitahara's (1995) employment of non-branching projection). The X-bar template is not assumed in this framework and phrase structures are formed by Generalized Transformation (GT). Projections are relational properties of categories, not inherent to them. Projections (maximal or minimal) are determined from the structure in which they appear without any specific marking (Chomsky 1994: 9) and Muysken (1982).

V-*guo*; whereas *meiyou* cannot co-occur with perfective *le*. This contrast is given in (i).

(i)   a.   Wo **meiyou** qu-**guo** Meiguo.
             I not-have go-Exp USA   'I have never been to the U.S.A.'
       b.   Wo **meiyou** qu-**(*le)** Meiguo.
             I not-have go-Asp USA   'I didn't go to the U.S.A.'

[53] Tsai (1994: 197) assumes no V-to-I movement both in overt syntax and in the LF component. Tsai's reason for a lack of V-to-I at LF aims to explain the definiteness effect of the Chinese subject, which is absent in English. English undergoes V-to-I raising at LF. The definiteness effect of the subject will be discussed in chapter 4. I will show that Tsai's observation is only partially true. Chinese allows indefinite subjects in certain contexts; also see Lee (1986). Thus, Tsai's argument for the lack of V-to-I at LF does not seem to be grounded.

Consider (93).

(93)

$$
\begin{array}{c}
F_1 \\
\diagup \diagdown \\
F_2 \quad AspP/MP
\end{array}
$$
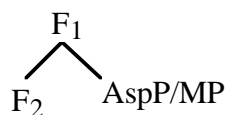
Adopting the generalized transformation discussed in Chomsky (1993; 1994), F, including lexical items of *dou/ye* or a formal strong [+Focus] feature[54] (labeled F_2), is selected and merges with AspP/MP. F_2 projects and is the head of the newly merged node F_1. If no other derivation happens to F_1, F_1 is labeled as FP, a maximal projection. In contrast to X-bar template, it is crucial that a specifier position is not formed if no GT (merge or move) applies. In other words, *dou*, like functional heads, does not require a Spec position to be projected, since there is no external argument for these heads. Moreover, the Spec-Head Agreement relation within functional projections does not represent basic grammatical relations, in contrast to lexical heads such as V; rather it is for feature checking. Hence, (93) is a legitimate syntactic object.

As for the post-subject preverbal focalized constituent in question, it undergoes move (target a category of) α. Focalization here is attracted by the projected lexical Focus head with a stong [+Focus] formal feature[55] an overt movement that has to be checked in overt syntax in the sense of Chomsky (1995). Consider (94).

---

[54] Object preposing will be discussed in sections 3.4 and 3.5. I will argue that bare object preposing (SOV) is derived from a strong [+Focus] feature projected, which triggers object movement. The distinction between the so-called object shift and this object preposing will be discussed at the same time.

[55] [+Focus] formal feature refers to a syntactic feature. It is different from a phonological focus feature which should not be treated in the same way, e.g. Culicover (1993).

(94)

```
          FP
         /  \
       NP    F'
            /  \
           F    MP/AspP
```
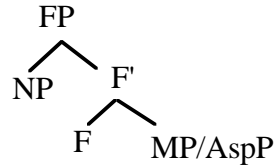
The focalized NP moves and merges with F' (=F$_1$ in (93)). F' further projects and forms the category labeled as FP. This NP-movement targets F' and creates a branching category FP immediately dominating both NP and F'. This is the substitution[56] mechanism that the focalized constituent finally becomes in [Spec FP], to check the strong [+Focus] feature via Spec Head agreement. This focus movement is triggered by the strong Focus formal feature in the sense of 'attract α' in Chomsky (1995). This strong Focus feature has to be checked prior to Spell-Out to avoid PF crash. The whole NP is pied-piped,[57] which conforms to the overt movement mechanism outlined in Chomsky (ibid.).

When a subject is attached (modified) by *lian*, this *lian*-subject has to raise through [Spec AspP/MP] to [Spec of FP], and finally becomes in [Spec IP]. When a (postverbal) object is focused by *lian*-attachment, it has to be moved and targets the F' projection. Sentences with *lian*-subject, in (5a), and *lian*-object, in (5b), are repeated here. For *lian*-object, the canonical SVO order in Chinese becomes S-*lian*-O-*dou*-V.

(5)   a. *Lian* **Zhangsan** *dou/ye* mai le zheben shu

           even Zhangsan all/also buy Perf this-CL book

           'Even Zhangsan bought this book.'

---

[56] According to Chomsky (1994:16), substitution forms a new category, whereas adjunction forms a two-segment category.
[57] Chomsky (1995) states that subject and object raising are raised overtly as full categories or covertly as features, in accord with the minimalist program.

b. Zhangsan *lian* **zheben shu** *dou/ye* mai le

Zhangsan even this-CL book all/also buy Perf

'Zhangsan bought even this book.'

2.2.1.1. Epistemic and Deontic Modals

In (92) I propose that that Asp and **deontic** modals are included in the same more broadly termed projection,[58] cf. the P in Laka (1990). The motivation is that aspectual affix *le*, and deontic modals are in complementary distribution. The co-occurrence of both is bad as in (95).

(95)   *Xiaohui **yao/gan** mai **le** zheben shu.

Xiaohui want/dare buy Perf this-CL book

In section 2.1.1.2, I have shown that epistemic modals and deontic modals should be structurally distinct. Lu (1994) does not distinguish the structural positions of epistemic and deontic modals. She proposes that both types of modals are in Modal^0 which is selected by AspP, as in (96). She has to assume no verb raising to the Asp^0, because there is an intervening Modal. However, if epistemic

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[58] Furthermore, this P may contain sentence negation as well. Sentential negation *meiyou*, Perfective marker *le*, and deontic modals are in complementary distribution, shown in (i). Thus, in affirmative sentences, this P is an AspP or a MP, and in negative sentences, NegP is projected. No further justification of P will be discussed here. What concerns us here is that the FP should be structurally higher than P.
(i)   a. *Xiaoying **meiyou** mai **le** zheben shu.
            Xiaoying not-have buy Asp this-CL book
        b. *Xiaoying **meiyou yao/gan** mai zheben shu
            Xiaoying not-have want/dare buy this-CL book
Note that although negator *bu* 'not' in (ii) can precede a modal and a verb, *bu* does not head a NegP. It can form an immediate construction with a verbal head, such as Modal^0, V^0 (cf. Huang (1988)).
(ii)   Xiaoying (bu) yao/gan (bu) mai zheben shu.
            Xiaoying not want/dare not buy this-CL book

modals were in M^0 as Lu suggests, she cannot explain why a perfective verb can follow an epistemic modal as in (97).

(96)   [$_{AspP}$ ... [$_{ModalP}$ ... [$_{VP}$ ...]]]

(97)   Xiaohui **keneng/yinggai** mai **le** zheben shu.

Xiaohui possibly/should buy Perf this-CL book.

'Xiaohui possibly/ should have bought this book.'

Moreover, I think that epistemic and deontic modals should be distinguished structurally. This is because the whole FP, *lian*-NP-*dou*, can follow epistemic modals, but cannot follow deontic modals, as shown in (98a) and (98b) respectively.

(98)   a. Lisi **keneng/hui** *lian* huangse xiao shuo *dou* mai (le).

Lisi possible/will LIAN pornographic novel DOU buy Perf

'Lisi possibly have bought/ will buy even pornographic novels.'

b. *Lisi **gan/yao** *lian* huangse xiao shuo *dou*   mai.

Lisi dare/want LIAN pornographic novel DOU buy Perf

'Lisi dares/wants to buy even pornographic novels.'

Specifically, epistemic modals are structurally higher than deontic modals. The contrast in (99a) and (99b) further illustrates that epistemic modals can precede deontic modals, but not vice versa.

(99)   a. Lisi **keneng/hui** *lian* huangse xiaoshuo *dou* **gan/yao** mai.

Lisi possible/will LIAN pornography novel DOU dare/want buy

'Lisi possibly will dare to buy even pornographic novels.'

b. ***Lisi **gan/yao** *lian* huangse xiaoshuo *dou*   **keneng/hui** mai.

Lisi dare/want LIAN pornography novel DOU possible/will buy

In order to explain the asymmetrical properties of epistemic and deontic modals, I adopt the proposals made by Huang (1988) and Li (1990: 128) for treating

epistemic modals as raising verbs. They will occur in I^0 and select another IP. Hence, this proposal can naturally account for sentence (99a).[59]

2.2.2. The Distribution of the *Lian*-Phrase in the Spec of FP

This section will provide evidence for my proposal of structure (92), in terms of the word orders of the whole FP, *lian*-NP-*dou*, in relation to sentential negation, modals, (non)movable adverbs, manner adverbs, PPs, etc. It will be concluded that structure (92) correctly predicts the word order of FP in relation to these phrases.

2.2.2.1. Modals

Structure (92) also predicts that the whole FP, *lian*-NP-*dou*, cannot occur after deontic modals. Sentence (100a) shows that this is the case. This FP should precede modals instead, as illustrated in (100b) and (101).

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[59] There is a complication when a full projected FP can precede epistemic modals, as in (i) and (101).
(i)   Zhangsan$_1$ lian zheben shu$_2$ dou **keneng/yinggai** [$_{IP}$ t_1[kan-le san-bian t_2]]
        Zhangsan LIAN this-CL book DOU possibly/should read three times
        'Zhangsan possibly/ should have read even this book three times.'
I will assume (i) is similar to (ii) in the sense of their biclausal structures and preposed infinitival objects, (also see the discussion in section 2.1.1.2 with respect to the prohibition against preposing IPs that are selected by epistemic modals and *persuade*-type verbs).
(ii)   Lisi lian zheben shu$_1$ dou bi Zhangsan kan t_1
        Lisi LIAN this-CL book DOU force Zhangsan read
        'Lisi forces Zhangsan to read even this book.'
In other words, the FP that is in the matrix clause in (i) has matrix focusing scope, meaning Zhangsan even has the possibility of having read this book three times, in contrast to the narrow scope of *lian*-NP in (iii). This analysis can not only explain why the FP can precede and follow epistemic modals, but also provides a natural and unified account for both espistemic modals and *persuade*-type verbs.
(iii)   Zhangsan$_1$ **keneng/yinggai** lian zheben shu$_2$ dou [$_{AspP}$ kan-le san-bian t_2]]
        Zhangsan possibly/should LIAN this-CL book DOU read three times
        'It is possible that Zhangsan should have read even this book three times.'

(100)   a.   *Lisi **gan/keng/yao** _lian_ guigushi _dou_ ting

Lisi dare/willing/want LIAN ghost story DOU listen

'Lisi dares/ is willing/wants to listen to even a ghost story.'

   b.   Lisi _lian_ guigushi _dou_ **gan/ken/yao** ting

Lisi LIAN ghost story DOU dare/willing/want listen

(101)   Lisi _lian_ guigushi _dou_ **keneng/hui** ting

Lisi LIAN ghost-story DOU possibly/will listen

'Lisi possibly/ will listen(s) to even a ghost story.'

For focalized subjects, modals should follow the FP as predicted, shown in (102).

Sentence (103) is not acceptable since the (deontic) modal precedes FP.

(102)   _Lian_ Lisi _dou_ **hui/gan** ting guigushi

Lisi LIAN DOU hui/dare listen ghost-story

'Even Lisi will/dares to listen to ghost story.'

(103)   *_Lian_ Lisi **gan** _dou_ ting guigushi[60]

Lisi LIAN DOU dare listen ghost-story

2.2.2.2.   Negation

Structure (92) predicts that FP has to precede negative _meiyou_.[61] This is in

fact true, as shown in (104a). When the (sentence) negation occurs before _lian_-NP-

---

[60] Compare (103) with (i). Although deontic modals cannot intervene between _lian_-subject and _dou_ (the badness of (103), epitemic modals in (i) can. As discussed in the previous footnote, epstemic modals are in I^0 as a raising verb. _Lian_ Lisi is moved to Spec of IP.

(i)   Lian Lisi **keneng** dou ai ting guigushi
LIAN Lisi possibly DOU love listen ghost-story
'Even Lisi possibly loves to listen to ghost stories.'

[61] I have assumed Neg and Asp are base-generated in a more general projection, ΣP.

dou, the sentence is out, as shown in (104b). A focalized subject sentence is given in (105), by way of contrast.

(104) a. Zhangsan <u>*lian* kewen *dou*</u> **meiyou** kan-wan

Zhangsan LIAN text DOU not-have read-finish

'Zhangsan didn't finish reading even texts.'

b. *Zhangsan **meiyou** <u>*lian* kewen *dou*</u> kan-wan

Zhangsan not-have LIAn text DOU read-finish

(105) <u>*Lian* Zhangsan</u> (***meiyou**) <u>*dou*</u> **meiyou** kan-wan kewen

LIAN Zhangsan DOU not-have read-finish text

'Even Zhangsan didn't finish reading texts.'

It is also the case that when the subject is focalized, sentential negation should follow the FP. Thus (106a) is grammatical, but (106b) is not .

(106) a. <u>*Lian* Zhangsan *dou*</u>   **meiyou** kan-wan kewen

LIAN Zhangsan DOU not-have read-finish the lesson

'Even Zhangsan didn't finish reading the lesson.'

b.   ***Meiyou** <u>*lian* Zhangsan *dou*</u>   kan-wan kewen

not-have LIAN Zhangsan DOU read-finish the lesson

2.2.2.3. Adverbs

Preverbal adverbs are classified into two types by Li and Thompson (1981). The first type of adverbs can occur either between the subject and modals or in a sentence-initial position ("movable"). These include *haoxiang* 'apparently,' *turan* 'suddenly,' *xianran de* 'obviously,' *dagai* 'probably,' *qishi* 'actually,' *yexu* 'maybe,' *dangran* 'of course,' *fanzheng* 'anyway,' *yuanlai* 'originally,' among others. The

second type is obligatorily post-subject ("non-movable") adverbs, which include *yijing* 'already,' *yizhi* 'always,' *changchang* 'often,' *bai* 'in vain,' etc.

If we adopt Tang's (1990) proposal that the first type of adverbs are licensed by I^0 or IP, structure (92) predicts that FP should follow the adverbs, and cannot precede them. This is in fact borne out. The sentences in (107) show that *qishi* 'actually' or *xianran* 'obviously' cannot occur lower than FP. Thus, (107b) is unacceptable.

(107) a. (**qishi/xianran**) Zhangsan (**qishi/xianran**) _lian_ dianying _dou_ bu kan

(actually/ obviously) Zhangsan (actually/obviously) LIAN movie DOU

not see

'Zhangsan actually/obviously doesn't see even movies.'

b. ?*Zhangsan _lian_ dianying _dou_ **qishi/xianran** bu kan[62]   (Shyu 1994)

Zhangsan LIAN movie DOU actually/obviously not see

As for obligatorily post-subject adjuncts, they are licensed by I or VP (see Tang 1990); thus, they should be able to either precede or follow the FP. This is in fact correct, as shown in (108).

(108)   Zhangsan (**yijing**) _lian_ wan _dou_ (**yijing**) xi-hao le.

Zhangsan (already) LIAN dishes DOU (already) wash-ready Part

'Zhangsan already finished washing even the dishes.'

The FP in (92) is predicted to precede manner adverbs, since manner adverbs are licensed by VP, according to Tang (1990). This is indeed borne out. (109a) is

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[62] It is also the same for focalized subjects. Compare (i) with (107)
(i)   a. ?*_Lian_ Zhangsan _dou_ **qishi/xianran** bu kan dianying
          LIAN Zhangsan DOU actually/obviously not see movie
          'Even Zhangsan obviously doesn't see movie.'
       b. _Lian_ Zhangsan **qishi/xianran** _dou_   bu kan dianying
          LIAN Zhangsan DOU actually/obviously not see movie

well-formed, whereas (109b) is ruled out because the manner adverb *henhende* 'harshly' precedes the FP.

(109) a. Xiaoying <u>*lian* Lisi *dou*</u> **henhende** ma le

        Xiaoying LIAN Lisi DOU harshly scold Perf

        'Xiaoying scolded even Lisi harshly.'

    b. *Xiaoying **henhende** <u>*lian* Lisi *dou*</u> ma le

        Xiaoying harshly LIAN Lisi DOU scold Perf

2.2.2.4. PPs

Some prepositional phrases closely related to verbs should be licensed by VP. In this case, FP should be higher than these phrases. This is in fact correct. Sentence (110a) is good since FP is higher than PP, but (110b) is not.

(110) a. Zhangsan <u>*lian* bi *dou*</u> [PP **cong bangongshi**] na-huijia

        Zhangsan LIAN pen DOU from office take-home

        'Zhangsan takes home even pens from the office.'

    b. ?*Zhangsan [PP **cong bangongshi**] <u>*lian* bi *dou*</u> na-huijia

        Zhangsan from office LIAN pen DOU take-home

In brief, a maximal projection FP precedes negation, deontic modals, PPs, and manner adverbs. FP can be preceded by a limited class of non-movable adverbs which are licensed either by I^0 or IP. The distribution of the maximal FP supports the proposed structure in (92).

2.3. Summary

In this chapter I have studied in great detail the structure and interpretation of *lian..dou/ye* construction. This study helps explicate the categorial status of *lian, dou/ye*, various verbal complements and the moved constituents, as well as understand the quantificational function of *dou*. I have proposed a Focus projection for Chinese, particularly in *lian...dou/ye* and object preposing sentences, as shown in the structure of (92). A *lian*-object as occurring inside the Focus position is the result of syntactic movement to the Spec of Focus position. Movement evidence will be presented in the next chapter.

CHAPTER THREE: FOCALIZATION AS SYNTACTIC MOVEMENT

3.0. Introduction

I have proposed a FocusP which is headed by lexical items such as *dou/ye* 'all, also.' Focused constituents move to and merge with the already formed [F' F AspP/MP]. F' further projects to a maximal projection (FP). I will call this movement derivation 'focalization.' This chaper concentrates on *lian*-focalized objects occurring in the Spec of FP position resulting in the word order S-*lian*-O-*dou*-V, corresponding to sentence (2).

(1)   Zhangsan mai-le zheben shu   --canonical order

        Zhangsan buy Asp this-CL book

        'Zhangsan bought this book.'

(2)   Zhangsan *lian* zheben shu *dou/ye* mai le   --S-*lian*-O-*dou*-V

        Zhangsan LIAN this-CL book DOU/YE buy Asp

        'Zhangsan bought even this book.'

Evidence of focalization as overt movement comes from obeying locality conditions, which will be discussed in section 3.l. In section 3.2 I will further demonstrate the A-movement properties of this focalization in terms of clause-boundedness, lack of obligatory binding reconstruction effects, and remedy of weak crossover effects.

In Section 3.3 I compare focalization with topic structure, namely (2) vs. (3).

(3)   Zheben shu Zhangsan mai-le   --OSV

        this-CL book Zhangsan buy Asp

        'This book, Zhangsan bought.'

It will be shown that a strict preveral focus position is structurally distinct from topic or major subject (the so-called base-generated "topic"). Focalization does not have the 'aboutness' relation, which holds in sentences with a major subject. Focalization does not permit overt pronominal copies in gap positions, but major subject structure does. Focalization observes the properties of A-movement, whereas topicalization displays A'-movement. Topic structure will be discussed in detail in chapter four.

In addition to this lexically realized focus head *dou/ye* which triggers overt focus movement--focalization, Chinese also displays bare object[1] preposing which lacks an overt lexical focalizer, such as in (4).

(4)   Zhangsan <u>zheben shu</u> mai-le   --SOV

              Zhangsan this-CL book buy Asp

              'Zhangsan bought <u>this book</u>.'

In section 3.4 I will compare bare object preposing with focalization. Based on their similar distribution and properties, it will be concluded that object preposing, on a par with focalization, undergoes overt focus movement. Overt bare object preposing is possible inasmuch as a strong [+Focus] feature is projected, which triggers the movement to the Spec of this FP. In section 3.5 I will examine previous analyses of object preposing and conclude that the analysis proposed in this chapter provides a unified account for syntactic focus movement in Chinese.

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[1] Bare objects here simply mean objects without involving *lian..dou* interpretation, instead of the standard term of "bare NPs" or "bare plurals" without determiners.

3.1. Focalization: Syntactic Movement to the Strict Preverbal Focus Position

In section 2.2 I have proposed a focalization structure like (5) for Chinese, which is repeated as follows.

(5)
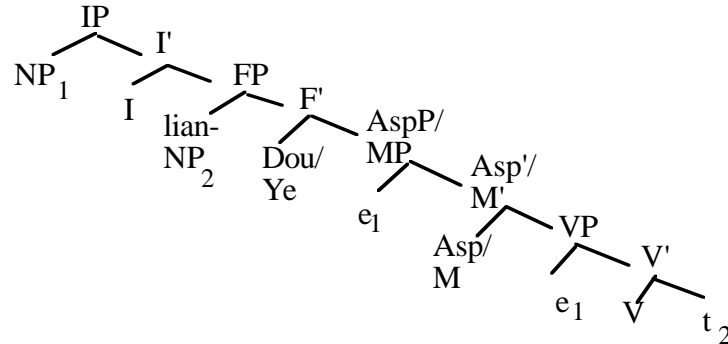
The focus head with a strong [+Focus] feature triggers (attracts in the sense of Chomsky (1995)) the object *lian zheben shu* 'even this book' in (2) to move to and become in the [Spec FP] position.

(2)   Zhangsan *lian* zheben shu *dou/ye* mai le

         Zhangsan LIAN this-CL book DOU/YE buy Asp

         'Zhangsan bought even this book.'

Notice that this movement (focalization) is attracted by a projected lexical Focus head with a strong [+Focus] formal feature that has to be checked in overt syntax in the sense of Chomsky (1995). Futhermore, feature checking is satisfied since the checked (moved) NP is in the checking domain of the Focus projection, that is, the Spec-Head relation in (6).

(6)

```
            FP
           /  \
         NP    F'
              /  \
             F    MP/AspP
```
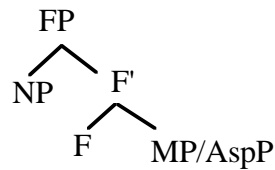
 I assume that this type of Spec-Head [+Focus] formal feature checking is included in the general feature checking, on a par with checking φ-features, Case features, and strong categorial F(eatures) as listed in Chomsky (1995).

Keeping this in mind, let us look at Gao's (1994) Focus Criterion proposal, given in (7).

(7)   The Focus Criterion (Gao 1994)

A: The focused element must be in a Spec-Head configuration with the F[+FOC].

B: The F[+FOC] must be in a Spec-Head configuration with the focused element.

Gao proposes that the Focus Criterion is satisfied at S-structure or at LF. When a lexical head *dou/ye,* which carries strong FOC feature, is projected, overt focus constituent movement takes place in order for the strong FOC feature to be checked at S-structure. In additon to syntactic focus constituent movement, Chinese has in-situ focus. He states that in-situ focus, carrying a weak FOC feature, will be checked at LF because of Procrastinate, an Economy Principle (Chomsky (1991)).

On the surface Gao's Focus Criterion seems to be similar to my current proposal, yet mine differs from his empirically and conceptually. Empirically, it is not clear how he handles bare object preposing cases resulting in a surface SOV order. If the in-situ focus object *zheben shu* 'this book' in (8) were to undergo <u>covert</u> movement in order to satisfy the Focus Criterion and Procrastinate Principle as

Gao proposes, he needs to explain why <u>overt</u> focus movement indeed takes place in (4).

(8)   Zhangsan mai le <u>ZHEBEN SHU</u>.   --covert focus movement for Gao

        Zhangsan buy Asp this-CL book

(4)   Zhangsan <u>zheben shu</u> mai-le   --SOV

        Zhangsan this-CL book buy Asp

        'Zhangsan bought <u>this book</u>.'

Of course he can modify his proposal by allowing an empty F^0 to be projected and bare object preposing in (4) to satisfy his Focus Criterion in syntax. Then he needs to explain the overt option of object raising, since he also adopts the Procrastinate Principle in his proposal.[2]

        In addition to the above question, if in-situ foci had to satisfy the Focus Criterion at LF as Gao proposes, how can he execute other in-situ foci, such as a subject in (9a), a verb in (9b), or any element in a sentence, like (9c)? What is moved at LF,[3] and moved where for these cases?

---

[2] If one insists that in-situ object focus involves LF object raising, (or feature raising in the sense of Chomsky (1995)), according to the Last Resort and Procrastinate Principles of the Economy Principle (Chomsky (1993; ibid.)), LF raising is presumably more economical than overt raising. In this situation overt raising will be blocked anyhow even if it converges. Since Chinese does allow <u>overt</u> object preposing, this conjecture of object raising solely at LF is by no means correct. Moreover, according to Kitahara (1995), the possibility of optional overt object raising in Icelandic crucially relies on an extra obligatory <u>overt</u> V-to-AgrO raising in Icelandic. This extra syntactic V-raising derivation equates numbers of move α overtly and covertly. Chinese, however, does not utilize this type of overt verb raising.

[3] Gao might be able to circumvent this problem by saying that a focus feature moves at LF, in the sense of Chomsky (1995). A more detailed mechanism needs to be developed in order to argue for this.

(9)　　a.　ZHANGSAN mai le zheben shu.

　　　　　　Zhangsan buy Asp this-CL book

　　　　　　'ZHANGSAN bought this book.'

　　　　b.　Zhangsan MAI le zheben shu.

　　　　　　'Zhangsan BOUGHT this book.'

　　　　c.　Zhangsan mai le ZHE-ben shu.

　　　　　　'Zhangsan bought THIS book.'

Instead of adopting covert object movement as proposed by Gao, I suggest that in-situ foci in (8) and (9) should belong to phonological focusing device. This kind of focusing device and syntactic focus need not be homogeneous, e.g. Culicover (1993). Therefore, I will only concentrate on syntactic focusing device here.

　　　　There seems to be a conceptual redundancy for Gao's claim. If Focus features can be checked and satisfied by a more general Spec-Head checking relation, there is no need for postulating such a specific criterion. Moreover, it does not seem to be appealing to propose a 'Focus Criterion' solely based on a specific *lian..dou/ye* construction. Therefore, I will not assume the need for Focus Criterion; instead, *lian*-focalization (move to [Spec FP]) is subsumed under the Spec-Head feature checking relation in general. The preposed object cases like (4) are similar to *lian*-focalization, except for the projection of a null head in F^0. Arguments will be provided in section 3.4.

3.1.1. Obeying Locality Conditions

　　　　Focalization obeys locality conditions. A *lian*-phrase cannot be extracted from a relative clause, an adjunct clause or a sentential subject and stays in [Spec FP]

of the main clause. Moreover, a *lian*-NP in the Spec of FP cannot be interpreted as an extracted object possessor. Thus, the data to be discussed immediately will support my claim that *lian*-focalization (*lian*-phrase in [Spec of FP]) involves movement.

A *lian*-NP cannot be extracted from a complex NP and further merges with F to be in the [Spec FP] in a main clause. (10) is a regular sentence without focusing. Sentence (11) is ungrammatical, since *lian Mali* is extracted from a relative clause to the matrix FP Spec position.[4]

(10)   Zhangsan taoyan [[e_2 kua-jiang Mali de] ren_2]

         Zhangsan dislike praise Mary DE person

         'Zhangsan dislikes the person who praises Mary.'

(11)   *Zhangsan *lian Mali*$_1$ ***dou*** taoyan [$_{NP}$[$_{CP}$ e_2 kua-jiang (ta_1) de] ren_2]

         Zhangsan LIAN Mary DOU   dislike   praise DE person

         '*Even for $Mali_1$, Zhangsan dislikes the person who praises her_1.'

Note that although (11) is ungrammatical, a *lian* phrase can occur inside the relative clause, as given in (12).[5] Moreover, the whole complex NP, *the person who Mary praises* can be focalized, as in (13). Sentence (13) means that Zhangsan is a cynical person and dislikes even the person(s) who praises Mary.

---

[4] (i) is on a par with (11), and (ii) is similar to (12).
(i)   *$Zhangsan_1$ *lian Chomsky*$_2$ ***dou*** wen-le wo[[*t*   (ta_2) huida bu chu-lai] de wenti]
         Zhangsan LIAN Chomsky DOU ask Asp I he   answer not DE question
(ii) $Zhangsan_1$ wen wo yige[[*lian Chomsky*$_2$ *dou* huida bu chu-lai] de wenti]
         Zhangsan ask me one-CL LIAN Chomsky DOU answer not DE question
         'He asked me a question that even Chomsky cannot answer.'
[5] Sentence (12) is ambiguous. The phrase, *lian Mali*, can be interpreted as either the subject or the object inside the relative clause.

(12)   Zhangsan taoyan [NP[CP *lian* Mali *dou* kua-jiang de] ren]

Zhangsan   dislike   LIAN Mary DOU praise DE person

'Zhangsan dislikes the person who *e* praises even Mary.'

'Zhangsan dislikes the person whom even Mary praises *e*.'

(13)   Zhangsan *lian* [[e₁ kua-jiang Mali de] ren₁] *dou/ye*   taoyan t₁

Zhangsan LIAN praise Mary DE person DOU/YE dislike

'Zhangsan dislikes even the person who praises Mary.'

        Lian..dou can appear inside adjunct clauses, as shown in (14b) and (15b).

(14b) means Zhangsan can still work although he did not eat anything, even meals.

(15b) means Zhangsan is not happy becuase Lisi criticized even Wangwu. Suppose

Wangwu is Zhangsan's best friend whom Zhangsan does not allow anybody to

criticize.

(14)   a. Zhangsan [suiran mei chi <u>fan</u>] hai neng gongzuo

Zhangsan although not-have eat rice still able work

'Zhangsan although not having eaten is still able to work.'

        b. Zhangsan [suiran *lian* <u>fan</u> *dou* mei chi *t*] hai neng gongzuo

Zhangsan [although LIAN rice DOU not-have eat] still able to work

'Zhangsan although not having even eaten, still can work.'

(15)   a. Zhangsan [yinwei Lisi piping le <u>Wangwu</u>] hen bu gaoxing

Zhangsan because Lisi criticize Perf Wangwu very unhappy

'Because Lisi criticized Wangwu, Zhangsan is not happy.'

        b. Zhangsan [yinwei Lisi *lian* <u>Wangwu</u>₁ *dou* piping le *t*₁] hen bu gaoxing

Zhangsan because Lisi LIAN Wangwu DOU criticize Asp very unhappy

'Because Lisi criticized even Wangwu, Zhangsan is not happy.'

However, *lian fan* 'even meals' and *lian Whangwu* 'even Wangwu' in (16) and (17) cannot be extracted from their originial adjunct clauses to sit in the matrix [Spec FP] position with the intended readings of (14b) and (15b), respectively.

(16)   *Zhangsan <u>*lian* fan</u>$_1$ ***dou*** [suran mei chi t_1] hai neng zhuanxin

          Zhangsan LIAN rice DOU although not-have eat, yet able concentrate

(17)   *Zhang <u>*lian* Wangwu</u>$_1$ ***dou*** [yinwei Lisi piping le (ta$_1$)] hen bu

          gaoxing.

          Zhang LIAN Wangwu DOU because Lisi criticize he Asp very unhappy

          'Lit. *Zhang, even Wangwu$_1$, is not happy because Lisi criticized t_1.'

    A *lian*-object possessor cannot be preposed to sit in the [Spec FP]; see the ungrammaticality of (18).[6]

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[6] The contrast between (ib) and (ii) has been observed by Huang (1982). Huang (1989) accounts for this subject/object possessor asymmetry in terms of a Generalized Control Rule (GCR), rather than Left Branch Condition. However, I will still retain the Left Branch Condition in Chinese. I will propose in chapter four that *Zhangsan* in (ib) and *Lisi* in (iii) actually are major subjects, base-generated in an IP-adjoined position, and construed with the *pseudo*-resumptive pronoun *ta*. The genuine topic *Lisi* in (iia) is a directly moved topic in [Spec TopicP] position and the gap is a genuine trace *t*, in violation of Subjacency. See the detailed discussion in section 4.3.3.

(i)   a   [Zhangsan de nüpengyou] chu shu le
             Zhangsan's   girl friend   publish book PART
             'Zhangsan's girlfriend has published books.'
        b.   Zhangsan [$_{IP}$ (ta de) nüpengyou chu shu le]
             Zhangsan   (his) girlfriend   publish book PART
             'Zhangsan, (his) girlfriend published books.'
(ii)   *Lisi$_1$, Zhangsan bu xihuan [t_1 shu]
              Lisi   Zhangsan not like   book
             '*Lisi$_1$, Zhangsan doesn't like t_1 book.'
(iii)   Lisi$_1$ Zhangsan bu xihuan [***ta$_1$*** de shu]
        Lisi Zhangsan not like his book
        'Lisi$_1$, Zhangsan doesn't like his book.'

(18)   *Zhangsan *lian* Lisi$_1$ ***dou*** bu xihuan [$_{NP}$ (tade$_1$) shu]

        Zhangsan LIAN Lisi DOU not like (his) book

        'Zhangsan doesn't like even Lisi's book.'

Note that an overt pronominal copy in (18) cannot improve its grammaticality. The pronoun *ta* in (18) cannot be interpreted with the focalized *even Lisi*. Thus, the unacceptability of (18) supports our movement claim for focalization.

        The sentences in (19) demonstrate that a *lian* phrase cannot be moved out of a sentential subject. Furthermore, having a pronominal copy in the gapped position in (19b) does not improve its acceptability.

(19)   a. *[$_{IP}$[$_{NP}$[$_{CP}$Lisi mei kan t_1]] *lian* neiben shu$_1$*dou* ling ta bugaoxing

            LIAN that-Cl book DOU Lisi not read DE fact make he unhappy

            '*Even that book, the fact that Lisi didn't read makes him unhappy.'

        b． *[[Mali jia **(ta$_1$)**]] *lian* zhege ren$_1$ *dou* bu heshi

             Mali marry (him) LIAN this-CL man DOU bu appropriate

            '(lit.)*Mary marries him, even this man, is not appropriate.'

        In section 3.2, I will claim that *lian*-focalization to the Spec of FP is an A-movement and focalization of this sort is clause bound. This clause-boundedness accounts for the above Subjacency violations.

3.1.2. Movement in Double Object Construction

        Only the *lian*-theme phrase (direct object, hence DO) can be focalized in [Spec FP] position. This is shown in (21a), in contrast to the ungrammaticality of moving a *lian*-indirect object (IO) in (21b). Note that (21b) cannot be improved with a resumptive pronoun in the gap position.

(20)   Zhangsan bu song-gei Mali shu

         Zhangsan not give Mali book

(21)   a. Zhangsan *lian* shu *dou* bu song-gei Mali

         Zhangsan LIAN book DOU not give Mali

         'Zhangsan does not give Mali even books.'

       b. *Zhangsan *lian* Mali$_1$ *dou* bu song-gei **ta$_1$**/***t$_1$*** shu

         Zhangsan LIAN Mali   DOU not give book

         'Zhangsan doesn't give books even to Mali.'

One might conjecture that the contrast between (21a) and (21b) is on a par with *wh*-movement of direct objects and indirect objects, rather than NP-movement of both objects as in English double object constructions, such as the pair of English sentences in (22) and (23). *Wh*-moved DO is allowed (22a), but *wh*-moved IO is not (22b). DO cannot be passivized, NP-moved (23a), but IO can (23b).[7]

(22)   a. What did you give John *e*?

       b. *Who did you give a book?

(23)   a. *The book was given John.

       b. John was given a book.

       However, this asymmetry of *wh*/NP-moving DO and IO does not occur in Chinese. Compare Chinese NP-movement and *wh*-movement of both indirect and direct objects in (24) and (25) respectively. Li (1990) has noted that a <u>direct</u> object can be either passivized as in (24a), or *wh*-moved as a relative head as in (25a), assuming that passivization and relativization in Chinese involve movement. On the

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[7] Detailed analyses proposed in the literature cannot be discussed because of time limitations. See Stowell (1981), Larson (1988) and among others.

contrary, an <u>indirect</u> object <u>cannot</u> be moved in either case, as shown in (24b) and (25b) respectively.

(24)   a. <u>Naben shu</u> bei wo song tamen le   (Li 1990: 85)

               that book by me send them Asp

               'That book was sent to them by me.'

    b. ***<u>Tamen</u>** bei wo song naben shu le

               they by me send that book Asp

(25)   a. [[wo dasuan qing ni ji gei ta] de shu]   --Relativizing DO

                I plan ask you mail to him DE book

               'the book that I planned to ask you to mail to him'

    b. *****[[wo dasuan qing ni ji shu] de ren]   --Relativizing IO

                I plan ask you mail book DE man

               'the man that I planned to ask you to mail the book'

               (Li 1990:78)

The point here is that an indirect object cannot be NP-moved or *wh*-moved syntactically.[8] The ungrammaticality of (21b) indicates that *lian*-focalization involves movement, whereas the indirect object cannot be moved.[9]

---

[8] Li's detailed technical account of this phenomenon in contrast to the English facts is not a concern for the current discussion.

[9] Paris (1994 p.c.) mentions that sentence (i) might be a counter-example of our claim based on (21). The overt pronominal copy in (i) could refer to the *lian*-indirect object.

(i)   Wo lian <u>laoshi</u> $_1$ dou jie-le shikuai qian gei **ta$_1$**   Paris (1979, #14)
       I even teacher all lend Asp \$10.00 give he
       'I lent ten dollars even to the teacher.'

I think there are other factors going on in sentence (i). First, if I change *wo* 'I' of Paris' example in (i) into *Mali* as in (ii), the pronoun can no longer refer to *lian laoshi,* rather it has to refer to the first NP, *Mali*. In other words, the reading in (ii) becomes totally different from (i), meaning that 'as for Mali, even teachers also lent her ten dollars.'

(ii)   ***Mali** lian <u>laoshi</u>**$_1$** dou jie-le shikuai qian gei **ta$_1$**

3.1.3. Idiom Chunks

Another piece of evidence for focalization movement comes from the possibility of preposing the object of V+O idiom chunks, shown in (27). For the idiom chunks, *zhan-pianyi* 'get off cheaply, take advantage of,' *zhan* and *pianyi* must co-occur (28) and *pianyi* can be modified (26) (see the discussion of idiom chunks, such as *youmo* 'humor' in Huang (1983) and using them as a movement test in Li (1990:126)).[10]

Mali even teacher all lend Asp $10.00 to she

Second, compare (i) with (iii). The native speakers that I asked think that (iii) is worse than (i).

(iii) ***/??**Wo lian <u>laoshi</u> ₁ dou jie-le **ta$_1$** shikuai qian

      I even teacher all lend Asp he $10.00

This contrast seems to be on a par with the English double object sentences in (iii).

(iv) a．Whom did you give the book *(to) *e* ?

     b．*****Whom did you give *e* a book?

(i) can be acceptable for the same reason as (iva): the gapped position has to be Case-marked by a preposition (i.e., *gei* 'give, to' as a preposition in Li (1990)). Moreover, Chinese does not allow preposition stranding (Huang 1982), so a pronoun has to be filled in.

Moreover, in sentence (i), since only *laoshi* 'teacher' is possible as the antecedent of *ta* 's/he' in (i), a speaker may try hard to find a coreference for *ta*. Even so, the native speakers that I consulted still find *ta* in sentence (i) strange when interpreted with *laoshi*. It is also possible that the pronoun *he* refers to another person. Then, it seems to suggest that this pronoun does not behave like a true spell-out of a moved trace, but may be a referential pronoun which can have its own reference (e.g. lacking inner index in the sense of Heim 1991). Even though some native speakers cast doubt on (i), they do not accept (iii). Therefore, the movement claim made here still holds.

[10] The object *mo* in *you-mo* 'humor' can be focalized as well.

(i)   Mali *you* le Lisi yi *mo*

         Mali *hu-* Asp Lisi one *mor*

         'Mali pulled Lisi's leg.'

(ii)   Mali <u>lian *mo*</u> dou *you* le Lisi yixia.

         Mali LIAN -*mor* DOU *hu-* Lisi once

         'Mali pulled even Lisi's leg once.'

(26)   Mali zhan le Lisi de pianyi

         Mali take Asp Lisi DE advantage

         'Mali took advantage of Lisi.'

(27)   a.   Mali <u>lian zhege/Lisi de pianyi</u> dou yao zhan.

           Mali LIAN this/Lisi's advantage DOU want take

           'Mali wants to take advantage of even this /Lisi.'

       b.   Mali <u>zhege/Lisi de pianyi</u> yao zhan.

           'This /Lisi Mali wants to take advantage of.'

(28)   a.   ***Wo bu xihuan zheige <u>pianyi</u>

           I not like this advantage

       b.   ***Wo bu hui <u>zhan</u>.

           I not can take.

Paris (1979) has pointed out that some objects of the verbs cannot be preposed, such as (29) and (30), while some objects of idiomatic expressions, like *pianyi* in *zhan pianyi* 'take advantage of' can be preposed after *lian*, as in (27a). She states that since not all the objects can be preposed, the logical object following preverbal *lian* is not due to movement.

(29)   a.   Ta zai 1986 nian bi le <u>ye</u>.

            he in 1986 year finish Asp profession

           'He graduated in 1986.'

       b. *Ta zai 1986 *lian* <u>ye</u> *dou* mei bi.

            he in   1986 LIAN profession DOU not finish

(30)   a. Zhangsan gen Lisi tan guo <u>tian</u> le

           Zhangsan with Lisi talk Exp sky Part

            'Zhangsan has chatted with Lisi.'

       b．*Zhangsan gen Lisi *lian* <u>tian</u> *ye* mei tan guo.

           Zhangsan with Lisi LIAN sky YE not talk Exp

Paris' observation needs further examination. In Tang's (1988) study of different types of Chinese V-O compounds, one type of compound already contains morphological objects. It does not need a syntactic object, and it behaves like (agglutinate into) intransitive verbs. This type of V-O compound does not allow prenominal modifiers inside the compounds, as in (31). Compounds like *bi-ye* (graduate), *tan-tian* (chat) in (29) and (30) mentioned by Paris should fall in this category of V-O compounds. Hence, that objects of this type of compound cannot be preposed is not due to non-movement as suggested by Paris, but due to the nature of these compounds.[11]

(31)   a. bi (*le wo de) ye

           finish (Asp my) profession   '*graduate my profession'

       b. tan (*le yici) tian

           talk (Asp once) sky   'chat once'

       c．qiao (*ta de) bianzi

           warp (his) braid   'kick the bucket'

---

[11] Fraser (1970) notes that parts of an idiom cannot be in the scope of *even*.
(i)   a．*We shot even *the breeze* last night.
       b．*They have a computer even *at their disposal*.
The unacceptability of (i) may be because the scope of *even* is not extended to VP. However, this point also raises a problem for LF *only*-NP/*even*-NP raising to have VP scope as discussed by Taglicht (1984), Rooth (1985), Kratzer (1989b) among others. I will leave this problem here.

In another type of V-O compound discussed by Tang (ibid.) the object is compounded with the verb through reanalysis. Thus, the object can be a syntactic object and can have prenominal modifiers. Examples are like *zhan pianyi* 'get off cheaply, take advantage of' in (26), *chi-cu* 'eat-vinegar, be jealous' (32), *chi-fan* 'eat-rice, eat,' all of which allow prenominal modifiers. This type of compound allows its object to be preposed, as shown in (27) and (33), respectively.

(32)   Zhangsan chi le ta taitai de cu

         Zhangsan eat Asp his wife's vinegar

         'Zhangsan is jealous toward his wife.'

(33)   Zhangsan *lian*   ta taitaide cu *ye* bu hui chi

         Zhangsan LIAN his wife's vinegar YE not will eat

         'Zhangsan won't be jealous even toward his wife.'

Therefore, the possibility of moving elements inside idiom chuncks discussed above lends further support for our movement claim of focalization.

3.1.4. Clause-Boundedness

Now that a movement derivation of focalization has been argued for, the following sections will demonstrate that focalization displays A-movement properties. It is clause bound.[12] Binding type reconstruction effects are not forced, and it remedies weak crossover effects.

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[12] In Shyu (1994), I suggested that *lian*-focalization is an A'-movement that can undergo long-distance movement. I did not distinguish a *lian* phrase in [Spec FP] from that in a sentence-initial position at that time. I think that movement to [Spec FP], the strict preverbal post-subject position, is a type of A-movement; see next section.

A *lian*-phrase cannot cross a **finite** embedded clause (34) and stay in a position immediately preceding the matrix verb and following the matrix subject, as in (35).

(34)   Zhangsan renwei [CP Lisi hen xihuan Mali]

         'Zhangsan think Lisi very like Mali'

(35)   *Zhangsan *lian* Mali$_i$ ***dou*** renwei [CP Lisi hen xihuan (ta$_i$)].

         Zhangsan LIAN Mali DOU think Lisi very like (her)

         'Zhangsan thinks that Lisi likes even Mali.'

The ungrammaticality of (35) indicates that *lian*-focalization is clause bound, which is considered a type of A-movement. Note that the *lian*-phrase in (36) can stay in the embedded FP Spec position.

(36)   Zhangsan renwei [CP Lisi *lian* Mali$_1$ ***dou*** bu xihuan t_1]

         Zhangsan think Lisi even Mali all not like

         'Zhangsan thinks that Lisi doesn't like even Mali.'

         Note that when *lian*-phrases display unbound dependency, they have to appear in the sentence-initial position. Compare (37) with (35). Moreover, *dou* in (37) stays in the embedded clause.

(37)   *Lian* Mali$_1$ Zhangsan renwei [CP Lisi ***dou*** bu xihuan t_1][13,14]

         LIAN Mali Zhangsan think Lisi all not like *t*

         'Even Mali, Zhangsan thinks that Lisi also doesn't like (her).'

---

[13] Sentence (i) is the case where *lian*-NP moves across more than one embedded clause. This sentence is well-formed. Although native speakers have a little difficulty in processing the long sentence, (i) is still acceptable.
(i)   *Lian* Mali Zhangsan xiang Lisi (*dou) renwei Wangwu *dou* hen xihuan.
       LIAN Mali Zhangsan think Lisi   think Wangwu all very like
[14] Native speakers have different degrees of preference for (37) with the resumptive pronoun in the embedded object position. Although having a resumptive pronoun is not totally acceptable, they tend to deemphasize it.

In chapter four, I will compare (37) with long-distance topicalization, and show that sentence-initial *lian* phrases are subsumed under topic structure.

Now consider focalization in relation to infinitival complements. They include complements after *persuade*-type verbs, like *bi* 'force,' *quan* 'persuade,' etc.[15] An object in an infinitival clause can be preposed to the matrix [Spec FP] position, in contrast to focalization to matrix clause with finite complements. (39) and (40b), as opposed to (35), are well-formed.

(38)   Lisi bi [$_{IP}$ Zhangsan kan <u>zheben shu</u>]

        Lisi force Zhangsan read this-CL book

        'Lisi forces Zhangsan to read this book.'

(39)   Lisi *lian* <u>zheben shu</u>$_1$ *dou* bi [$_{IP}$ Zhangsan kan t_1]

        Lisi LIAN this-CL book DOU force Zhangsan read

        'Lisi forces Zhangsan read even this book.'

(40)   a．Lisi rang Zhangsan pai Wangwu diaocha le <u>najian shi</u>

        Lisi ask Zhangsan send Wangwu investigate Asp that-CL matter

        'Lisi asked Zhangsan to send Wangwu to investigate that matter.'

        b．Lisi <u>*lian* najian shi</u> dou rang[$_{IP1}$ Zhangsan pai [$_{IP2}$ Wangwu diaocha le t]]

        Lisi LIAN that matter DOU ask Zhangsan send Wangwu investigate Asp

        'Lisi asked Zhangsan to send Wangwu to investigate even that matter.'

Li (1990) and Ernst and Wang (1995) note that nonfinite complements are subject to clause union phenomena. We can also assume that clause union takes place <u>before</u> focalization movement--moving the most embedded *lian*-object and targeting the matrix FP Spec position. After clause union takes place, focalization cnnot move this

---

[15] See Li (1990:18) in distinguishing finite/infinitival clauses in Chinese, and a discussion of clause union with passivization on page 200.

most embedded *lian*-object to the already united clauses; otherwise, it will violate Lexical Integrity, such as the unacceptability of (41).

(41)   a. ***Lisi rang [IP1 Zhangsan lian najian shi dou pai [IP2 Wangwu diaocha le

            t]]

            Lisi ask Zhangsan LIAN that matter DOU send Wangwu investigate Asp

        b.   *Lisi rang [IP1 Zhangsan pai [IP2 Wangwu lian najian shi dou diaocha le

            t]]

            Lisi ask Zhangsan send Wangwu LIAN that matter DOU investigate Asp

    In summary. Focalization is clause bound. A focalized object cannot be moved to the matrix [Spec FP] position with a finite complement clause. But it can cross infinitive complements to occur in the matrix [Spec FP] position.

3.1.5. No Reconstruction Effects

    This section shows that focalization does not force obligatory reconstruction effects. Consider (42). It is possible to coindex the compound reflexive[16] in (42a) with *Zhangsan*, the NP after *bei* 'by' in indirect/adversative passives.[17] When the direct object 'a book about himself' is preposed to the Spec of FP, as in (42b), *taziji* does not seem to be able to refer to *Zhangsan.*

---

[16] Chinese compound *taziji* is subject-oriented, see (i). Thus, the test of binding A reconstruction cannot use double objects of ditransitive verbs in Chinese, (cf. A-movement properties tests of clause-internal scrambling conducted by Nemoto (1993) and Saito (1994)).
(i)   Zhangsan**1** gaosu Lisi**2** [DO taziji**1/*2** de shenshi]
            Zhangsan tell Lisi him-self's life-story
            'Zhangsan$_1$ told Lisi$_2$ his own$_{1/*2}$ life-story.'
            (Huang and Tang (1991): fn. 9)
[17] Here we use *bei*-construction (*by*-phrase) to test reconstruction effects, since the compound reflexive can reconstruct in general (see Huang and Tang (1991)), and its antecedent can be ambiguous between the main subject and the NP after *bei*. I thank Audrey Li for pointing this out to me.

(42) a. Wo bei *Zhangsan*$_1$ qiang-zou le [$_{DO}$ yiben guanyu *taziji*$_1$ de shu]

I by Zhangsan rob-away Perf one-CL about himself's book

'(lit.) I was robbed by *Zhangsan* of a book about *himself*.'

b. **??**Wo <u>lian</u> [<u>yiben guanyu *taziji*$_1$ de shu</u>]$_2$ dou bei *Zhangsan*$_1$ qiang-zou le

t_2

I LIAN one-CL about himself's book DOU by Zhangsan rob-away Perf

'(lit.) I was robbed of [even a book about *himself*] by *Zhangsan*.'

The unacceptability of (42b) indicates that there is **no** reconstruction (or connectivity in Higgins' (1973) term) of the *lian*-NP containing *taziji*. According to Chomsky (1993: 37), reconstruction effects hold only for A'-chain, not for A-chain.[18] Therefore, it is naturally concluded that focalization to a strict preverbal position is a type of A-movement.

Furthermore, binding condition C type reconstruction effects are not forced in *lian*-focalization. In (43a) the pronoun *ta* cannot co-refer with *Zhangsan*, since it c-commands the R-expression in violation of binding principle C. When the direct object containing the R-expression is preposed to the Spec of FP position as in (43b), coreference becomes possible.

(43) a. *****Wo bei *ta*$_1$ qiang-zou le [yiben *Zhangsan*$_1$ de shu]

I by him rob-away Perf one-CL Zhangsan's book

'(lit.) I was robbed by *him* of a book of *Zhangsan*.'

---

[18] Belletti and Rizzi (1988) note that reconstruction for principle A is a property of X-chains (X=A or A'), and not only of A'-chains. Independently Kitagawa and Kuroda (1992) point out that Japanese *niyotte*-passivization observes reconstruction effects.

b. **?**Wo lian [*Zhangsan*$_1$ de shu]$_2$ dou bei *ta*$_1$ qiang-zou le *t*$_2$

I LIAN Zhangsan's book DOU by him rob-away Perf

'I was robbed of [even *Zhangsan*'s book] by *him*.'

Sentence (43b) is parallel to (44), a case of A-movement. A-movement in (44) does not reconstruct obligatorily.[19]

(44)   [John$_1$'s mother]$_2$ seems to him$_1$ *t*$_2$ to be smart   (Saito 1992:90)

3.1.6. Remedy of Weak Crossover Effects

Focalization remedies weak crossover (WCO) effects. The preposed direct object *meimei* in [Spec FP] in (45) can corefer with the pronoun inside the *bei*-NP. Therefore, the acceptability of (45) indicates that *lian*-focalization does not display WCO effects.

(45)   Wo lian *meimei*$_1$ dou bei [xihuan *ta*$_1$ de ren] qiang-zou le *t*$_1$ [20]

I LIAN sister DOU by [like her DE man] rob-away Asp

'(lit.) I was robbed of even my sister$_1$ by the person that likes her$_1$.'

One thing I would like to note is the contrast in (46) and (47). Coreference between the pronoun and *Zhangsan* is possible in (46).

---

[19] Actually some A'-movement does not show obligatory reconstruction effects either; see Chomsky (1993; 1994).

[20] There seems to exist an asymmetry between pronoun *ta* occurring in a *bei*-NP, as in (i), and in a subject NP (ii). Speakers do not seem to allow coreference in (i), though they accept (ii) where the backward pronoun is in the subject position.

(i)   *Wo bei [xihuan *ta*$_1$ de ren] qian-zou le *meimei*$_1$
           I by [like her DE man] rob-away Perf sister
           '(lit.) I was robbed away sister$_1$ by the person that likes her$_1$.'

(ii)   [[Kanjian *ta* de] neige nuren] ai-shang le *Zhangsan*.
           see   him Comp that-CL woman fall-in-love Perf Zhangsan
           'The woman that saw *him* fell in love with *Zhangsan*.'

Huang's (1982) cyclic-c-command and Shyu and Hsieh's (1992) CFC command stories do not seem to be able to account for (i). I will leave this problem here.

(46)   [[Piping *ta*$_1$ de] shu]$_2$ hui-le *Zhangsan*$_1$.

        criticize him DE book destroy Asp Zhangsan

        'The book that criticized him$_1$ destroyed Zhangsan$_1$.'

Coreference in (47) with focalized *lian Zhangsan* is unacceptable.

(47)   **?***[[Piping *ta*$_1$ de] shu]$_2$ <u>lian *Zhangsan*$_1$</u> <u>dou</u> hui-le *t*$_2$.

        criticize him DE book LIAN Zhangsan DOU destroy Asp

        '?*The book that criticizes him$_1$ destroyed even Zhangsan$_1$.'

There are two logical possibilities for this contrast. First, one might suggest that *lian Zhangsan* in (47) undergoes LF raising, thus it exhibits LF WCO effects, if WCO is defined with respect to the "bound reading"[21] between *lian Zhangsan* and the pronoun. This proposal, however, seems to contradict reconstruction effects observed in **topicalized *lian*-NPs** which will be discussed in section 4.2. Namely, if LF is the interpretive level, and since sentence initial *lian*-NPs reconstruct at LF, it will be a puzzle as to why the strict preverbal/post subject *lian*-NPs raise at LF, whereas sentence initial *lian*-NPs reconstruct at LF.

The other alternative is that it may **not** be the case that (47) is the standard case of WCO effects. Rather it is an instance of violating a condition on proper binding. Structure (48) from Reinhart (1983) states this condition regardless of the level at which this restriction applies. An example of pronominal binding violation in English is given in (49).

(48)   A pronoun must be c-commanded by its binder in order to be interpreted

        as a bound variable.[22]

---

[21] I thank Hiroshi Aoyagi for this point.
[22] Lasnik (1976) has proposed a similar condition.

(49)   *[His$_1$ mother] wonders who$_1$ Mary likes *t*.

Thus, the ungrammaticality of (49) is on a par with (47), in that the pronoun inside the subject NP is not c-commanded by its antecedent. I will adopt the second proposal. In other words, the apparent WCO effects in (47) stems from a violation of proper binding conditions, rather than LF raising of *lian*-NP inducing LF WCO effects.

One might conjecture that the lack of binding reconstruction and WCO effects in sections 3.1.5-6 suggests the base-generation of focalization, *lian*-NP in [Spec FP] position. If focalization were a base-generation mechanism, one could not explain the facts that I have discussed in sections 3.1.1-3. Namely, island sensitivity is respected and a resumptive pronoun is not allowed in gap position. Consequently, I contend that the lack of reconstruction and WCO effects are A-movement properties. Our analysis of A-movement of focalization to post-subject/preverbal position also naturally accounts for the clause-boundedness discussed in section 3.1.4.

3.2. Focalization vs. Topic/Major Subject Structure

In this section I compare focalization, as in (50), with sentence-initial bare object structure, as in (51).

(50)   Zhangsan *lian* Hong-Lou-Meng *dou* du-guo le

            Zhangsan LIAN Red Chamber Dream DOU read Exp Perf

            'Zhangsan has read even Red Chamber Dream.'

(51)   Hong-Lou-Meng Zhangsan du-guo le

Red Chamber Dream Zhangsan read Exp Perf

'Red Chamber Dream (a novel), Zhangsan has read.'

In section 4.2 I will demonstrate that a *lian*-phrase can also be topicalized to function as a contrastively focused topic. For the time being, let us concentrate on the comparison between focalization and strictly moved topicalization.[23] It is summarized in the following Table 3-I.

Table 3-I:

	Focalization (S*lian*-O*dou* V)	**Topicalization** (OSV)
1. Subjacency	obey	obey
2. Allowing overt pronominal copy *ta*	no	no [24]
3. Weak Crossover Effects	no	**yes** in long-distance movement; see 4.1.2. **no** in simplex clauses
4. Binding Reconstruction	not obligatory	yes

---

[23] Chapter four will discuss in more detail the Chinese topic structure. I will propose that genuine topicalization lands in a root [Spec TopicP] position, whereas major subject or base-generated sentence-initial (*lian-*) NP is generated in an IP-adjoined position. The properties of topicalization in Table 3-I refer to the former.

[24] In this thesis, topic refers to a directly topicalized element in the root [Spec TopicP] position, which does not seem to allow for a genuine resumptive pronoun (see section 4.3.3). Chapter four will demonstrate that the so-called "base-generated topic" is actually not a genuine topic; rather they are base-generated in a position distinct from a directly moved topic and they are major subjects. An overt pronoun *ta* can be inserted and refer to the base-generated major subject. I will also propose that under certain environments major subject can locally raise to the topic position in the sense of Kuroda (1988); hence the locally raised topic A'-binds the pronoun. I will return to this in chapter four.

Both focalization and topicalization obey locality conditions. Focalization (to a post-subject preverbal position) does not allow resumptive pronouns, or show reconstruction effects. However, topicalization shows reconstruction effects. WCO effects occur in long-distance topicalized *lian*-NPs when *dou* is in embedded clauses; see section 4.1.2. Table 3-I strongly argues for a strict preverbal focus position in Chinese, which is distinct from a sentence initial position, either topic or major subject position.

3.2.1. "Aboutness" Relation

Focalization lacks an aboutness or whole-part relation, which, on the contrary, is denoted in double nominative sentences.[25] This first NP is considered in this thesis as a base-generated major subject without a gap. (Chapter four will provide arguments for major subject in contrast to the so-called base-generated "topic"). There is a membership (aboutness) relation between the major subject *chezi* 'cars' and the object *kache* 'truck' in the main predicate, in which trucks are members (or a kind) of cars. (52b) illustrates the same point except for the possibility of having a gap in the object head noun position, and it means that 'in terms of cars, Zhangsan likes Japanese cars,' in which Japanese cars are members of cars in general.

(52)   Chezi a, Zhangsan xihuan kache

          car Pause PART Zhangsan like truck

          'As for cars, Zhangsan likes trucks.'

---

[25] In chapter four I will discuss in more detail that the first NP bearing an "aboutness" relation with the second NP or the rest of the sentence is a major subject, which is base-generated in an IP-adjoined position. It, however, can conditionally raise locally to topic position.

b．Chezi a, Zhangsan xihuan riben de (che)

  car Pause PART Zhangsan like Japan's (car)

  'As for cars, Zhangsan likes Japan's (cars).'

If our argument of the movement analysis of focalization is correct, this type of base-generated, gapless major subject cannot be *lian*-focalized in [Spec FP] position. This is in fact born out. In (53), this aboutness relation does not hold anymore when the NP, *cars,* is focalized and occurs in the FP Spec position. *Lian*-focalized sentences in (53), thus, do not have the same interpretation as in (52).

(53)　　a．?*Zhangsan *lian* chezi *dou/ye* xihuan kache

  　　 Zhangsan LIAN car DOU/YE like truck

  '?*Even cars, Zhangsan likes truck.'

  b．Zhangsan *lian* chezi *dou/ye* xihuan riben de (*chezi)

  Zhangsan LIAN car DOU/YE like Japan's

  'Zhangsan likes even Japan's cars.'

A larger contextual domain is implied in (53a) than topic counterpart in (52a), namely, Zhangsan's liking in general instead of the membership relation between *cars* and *trucks*. Despite this, it is still difficult to interpret 'even for cars that Zhangsan likes, Zhangsan likes trucks' in (53a).[26] Now consider (53b). Although

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[26] It will be discussed in chapter four that a *lian*-NP can occur sentence intially, syntacticaly on a par with base-generated a major subject or moved topic. Compare (53) to (i) with S-initial *lian*-NPs. It seems that (i) can be interpreted to have an aboutness relation provided with the reading that the whole sentence is focused. When uttering (ia), the speaker is so surprised that as for CAR Zhangsan EVEN likes truck. The subtle difference between (i) and (53) is also due to their different focus scopes (see section 5.2), patterning with different structures.
(i)　　a．?*Lian* chezi Zhangsan *dou/ye* xihuan kache
　　　　 LIAN car Zhangsan DOU/YE like truck
　　 b．*Lian* chezi Zhangsan *dou/ye* xihuan riben de (*chezi)
　　　　 LIAN car Zhangsan DOU/YE like Japan's

it is a good sentence, the interpretation is different from that in (52b). Semantically, the presupposition implicated in (53b) is that Zhangsan likes every Japanese product, and what is asserted is 'Zhangsan likes even Japanese cars.' *Japanese cars* are expected by the speaker to be the least thing that Zhangsan would like among Japanese products, but to one's surprise Zhangsan even likes them. Thus, the assertion of sentence (53b) is no longer the membership relation between *cars* and *Japanese cars* as the topic counterpart in (52b); rather it is the relation between Japanese cars with other Japanese products. Syntactically, it is argued that *chezi* 'car' in (53b) is moved out of the object NP. Repeating the moved head noun *chezi* (like resumption strategy) in the gap is ill-formed with the intended membership relation reading. It will become evident in the next section that an overt pronominal copy in the gap cannot be interpreted with *lian*-focalized NPs.

3.2.2. No Resumptive Pronoun in Focalization Structure

In this section I demonstrate that focalized gap positions do not allow resumptive pronouns both in simplex and complex clauses. This point supports our movement analysis.

3.2.2.1. In Simplex Clauses

Consider (55), derived from (54), with the order of NP1-*lian*-NP2-*dou*-V, and two NPs are animate. Sentence (55a) is ambiguous.[27] NP_2 can be interpreted as either the subject of the sentence, or the preposed focalized object. When NP_2, *Zhangsan*, is read as the focalized object, equivalent to the (55b) reading, NP_1 *Mali*

---

[27] The ambiguity is also noted by James Huang.

is the subject of the sentence. When NP$_2$ is interpreted as the subject, NP$_1$ becomes

an object topic, as in the (55c) reading.

(54)   Zhangsan xihuan Mali

           'Zhangsan likes Mali.'

(55)   a. Mali *lian* Zhangsan *dou* xihuan   --NP$_1$ *lian* NP$_2$ *dou* V

           Mali   LIAN Zhangsan DOU   like

           'Mali likes even Zhangsan .'   = (b)   '(NP$_1$) Mali as the subject'

           'Mali, even Zhangsan likes.'   = (c)   '(NP$_1$) Mali as the topic'

        b. Mali *lian Zhangsan$_2$* dou xihuan **(*ta$_2$)**   'Mali as the subject'

           Mali LIAN Zhangsan DOU like he/she

           'Mali likes even Zhangsan .'

        c. Mali$_1$ *lian Zhangsan$_2$* dou xihuan **(ta$_1$)**   'Mali as the topic'

           'Even Zhangsan likes Mali.'

Note that even though (55a) is ambiguous, the ambiguity is canceled when there is a

pronominal copy in the gap position.[28] The pronoun *ta* in (55b) **cannot** occur at all

if referring to the *lian*-focalized object *Zhangsan*. However, (55c) is felicitous only

when this overt pronoun refers to the first NP, *Mali*.[29]

       I have discussed in section 3.1.2 that focalizing the goal (indirect) object is

barred. (21b) is repeated below as (56). Now compare (56) and the major subject/

---

[28] There is no gender distinction in pronouns for Chinese, so ambiguity exists.
[29] Clause-initial *lian*-phrases allow pronominal copies in gap positions, as in (i) and
(ii). This will be discussed in chapter four.
(i)   ?*Lian* Zhangsan$_2$ Mali *dou/ye* xihuan ta$_2$
           LIAN   Zhangsan   Mali DOU/YE like he
(ii)   Lian Zhang$_1$ zheme youqian ren, Mali dou bu jia ta$_1$, hekuang jia gei ni.
           LIAN Zhang such a rich man Mali all not marry him, let alone marry you
           'Even such a rich man as Zhangsan, Mali doesn't want to marry; let alone
           to marry you.'

topic sentence in (57). (57) can be well-formed unless there is an overt pronominal copy being interpreted with the S-initial indirect object. Therefore, no resumptive pronoun is allowed at all to be interpreted with a focalized indirect object.

(56)   ***Zhangsan *lian* Mali$_1$ *dou* bu song-gei (ta$_1$)** shu   =(21b)

         Zhangsan LIAN Mali   DOU not give book

         'Zhangsan doesn't give books even to Mali.'

(57)   <u>Mali</u>$_1$, Zhangsan bu song-gei ***(ta$_1$)** shu.

         Mali   Zhangsan not give *(her) book

         'Mali, Zhangsan doesn't give *(her) books to.'

A-moved NPs in general do not allow resumptive pronouns in gap positions.[30] The example in (58) from Xu and Langendoen (1985, fn.11) illurstrates this point. An overt copy of a reflexive in an NP trace is not allowed either.

(58)   Zhangsan bei Lisi da le **(*ta/*taziji*)**

         Zhangsan by Lisi hit Asp him/himself

         'Zhangsan was hit by Lisi.'

---

[30] Although it is possible to come up with sentence like (i) with an overt pronominal copy following a passive verb, note that a duration or frequency phrase is necessary. I suggest that *ta* in (ii) may be an object expletive in the sense of Lin (1993), rather than a resumptive pronoun.
(i)   Zhangsan bei Lisi **da** le *ta* yixia.
         Zhangsan by Lisi hit Perf him once
         'Zhangsan was hit by Lisi once.'
Another possibility may be due to this *ta* being an object clitic in the sense of Chiu (1993), as suggested by A. Li. If the passive verb is more than one syllable, such as (ii), this may make object cliticization more difficult. Thus, (ii) is worse than (i).
(ii)   **?*Zhangsan bei Lisi chu-fa** le *ta* liangci.
         Zhangsan by Lisi punish Perf him two times
         'Zhangsan was punished by Lisi twice.'
The point here is that there are no resumptive pronouns in the passive gap position.

The same point also holds in English raising cases as in (59) and (60).[31]

(59)   *John* seems (***him***) to be likely (***him***) to marry Mary.

(60)   *John* seems (***himself***) to be likely (***himself***) to marry Mary.

As for the adversative passives in (61) (cf. (45)), the postverbal object *meimei* 'sister' is focalized to the preverbal FP Spec position. No resumptive pronoun is allowed in the gap position.

(61)   Zhangsan <u>lian meimei</u>$_1$ *dou* bei qiangdao qiang-zou le (***ta**$_1$)

         Zhangsan LIAN sisiter DOU by bandit abduct Perf she

         'Zhangsan was robbed of even his sister by a bandit.'

Therefore, the A-movement nature of focalization to the strict preverbal Spec of FP position can account for the prohibition against resumptive pronouns.

3.2.2.2. In Complex Clauses

The above section has shown that overt pronominal copies are banned in simple clauses when they are construed with *lian*-focalized NPs. If one argued for the base-generation of focalization, one might also argue that the impossibility of overt pronominal copies being related to focalized *lian*-NPs is due to a Binding Principle B violation. This conjecture, however, is not warranted. If the ban on overt pronominal copies were due to Binding Principle B, one would wrongly allow coreference when *lian*-NPs and overt pronouns are in different binding domains.

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[31] Compare (i) and (60). Although (i) is good, it does not have the same interpretation as that in (60).
(i)   ?*John* seems to *himself* to be likely to marry Mary.
The intended meaning in (60) (without *himself*) is that "it seems to <u>others</u> (maybe John too) that John is likely to marry Mary. It does not necessarily denote that John has the same opinion. However, if (i) is possible, the only interpretation is that John is the only person who thinks that he could marry Mary, but others do not think so. I owe these judgments to Nancy Antrim.

Having seen in section 3.1.1 that focalization obeys island conditions, this section illustrates that even when a *lian*-focalized NP and an overt pronominal copy are in different clauses, the pronoun still **cannot** be construed with *lian*-focalized NPs (in post-subject/preverbal of matrix clauses). Sentence (11) is repeated below as (62) to show this point. The overt pronominal copy *ta* inside the complex NP does **not** remedy a Subjacency violation by focaliztion.

(62)   *Zhangsan *lian* Mali$_2$ *dou* taoyan [$_{NP}$[$_{CP}$ e$_3$ kua-jiang **(ta$_2$)** de] ren$_3$]

         =(11)

         Zhangsan LIAN Mary DOU   dislike   praise DE person

         '*Even for Mali$_2$, Zhangsan dislikes the person who praises her$_2$.'

However, compare the topic sentence in (63) with the focalized sentence in (62). In (63), the occurrence of an overt pronominal copy inside the relative clause can remedy the Subjacency violation, and it obligatorily refers to the first NP, the major subject *Zhangsan*.

(63)   Zhangsan$_1$ Mali$_2$ taoyan [$_{NP}$[$_{CP}$ e$_3$ kua-jiang ***(ta$_1$)** de] ren$_3$]

         Zhangsan Mary dislike   praise (she)   DE person

         'As for Zhangsan$_1$, Mali$_2$ dislikes the person who praises him$_1$.'

More examples of the island sensitivity of focalizatoin are repeated in the following. Note that neither a resumptive pronoun inside an adjunct clause nor a sentential subject are permitted to be construed with the focalized NP in (64=17) and (65=19b) respectively.

(64)   *Zhang *lian* Wangwu**2** *dou* [yinwei Lisi piping le **(ta₂)**] hen bu

         gaoxing.

          Zhang LIAN Wangwu DOU because Lisi criticize he Asp very unhappy

          'Lit. *Zhang, even Wangwu₁, is not happy because Lisi criticized him₁.'

(65)   *[[Mali jia **(ta₁)**]] *lian zhege ren*₁ *dou* bu heshi

           Mali marry (him) LIAN this-CL man DOU bu appropriate

          '(lit.)*Mary marries him, even this man, is not appropriate.'

However, compare (64) and (64'). (64') becomes acceptable if the overt pronominal
copy in the adjunct island is related to the first NP, the major subject *Zhang*.

(64')   Zhang**1** *lian* Wangwu**2** *dou* [yinwei Lisi piping le ***(ta₁)**] hen bu

         gaoxing.

          Zhang LIAN Wangwu DOU because Lisi criticize he Asp very unhappy

          'Lit. *Zhang₁, even Wangwu is not happy because Lisi criticized him₁.'

Similarly, (66) and (67) with bare object preposing, indicate that an overt pronominal
copy inside an adjunct clause or a sentential subject, respectively, is only related to
the major subject.

(66)   Zhangsan₁ Wangwu₂ [yinwei ni piping le ***(ta₁)**] hen bu gaoxing

         Zhangsan Wangwu because you criticize Asp (he) very unhappy

         'Because you criticized Zhangsan, Wangwu is not happy.'

(67)   Zhegeren₁ [[Mali jia ***(ta₁)**]] zui heshi]

         this-CL man Mali marry (him) most appropriate

         '*This man, Mary marries him, is the most appropriate.'

     As noted in section 3.2.2, the movement of *lian* phrase to the Spec of FP
position is clause-bound. Hence (35), repeated as (68) here, is ungrammatical. Note

that in (68), no overt pronominal copy is construed with the focalized NP, *lian Mali*, is possible.

(68) ***Zhangsan *lian Mali*₁ *dou* renwei [CP Lisi bu xihuan (**ta₁**)]. =(35)

Zhangsan LIAN Mali DOU think Lisi not like (her)

'Zhangsan thinks that Lisi doesn't like even Mali.'

In contrast, (69) shows that the overt pronominal copy in the embedded clause can be construed with the major subject in the matrix clause.

(69) Mali₁ Zhangsan renwei [CP Lisi hen xihuan ta₁]

Mali Zhangsan think Lisi very like her

'As for Mali, Zhangsan thinks that Lisi likes her very much.'

To recapitulate, this section has shown that a *lian*-focalized NP in [Spec FP] position **cannot** allow overt pronominal copying, either in simplex or complex clauses. This prohibition against overt pronominal copying strongly argues for a movement analysis of focalization. This discussion also raises the issue of whether there exists genuine "resumptive pronouns" in Chinese. I will discuss this issue in sections 4.3.3-4.

3.2.3. Reconstruction Effects

In section 3.1.5 I have demonstrated that *lian*-focalization to the Spec of FP position does not force Principles A or C reconstruction effects. Sentences (42) and (43) are repeated below as (70) and (71) respectively.

(70) a. Wo bei *Zhangsan*₁ qiang-zou le [DO yiben guanyu *taziji*₁ de shu] =(42)

I by Zhangsan rob-away Perf one-CL about himself's book

'(lit.) I was robbed by *Zhangsan* a book about *himself*.'

b. **??**Wo lian [yiben guanyu *taziji*$_1$ de shu]$_2$ dou bei *Zhangsan*$_1$ qiang-zou le

   t$_2$

   I LIAN one-CL about himself's book DOU by Zhangsan rob-away Perf

   '(lit.) I was robbed of [even a book about *himself*] by *Zhangsan*.'

(71) a. *****Wo bei *ta*$_1$ qiang-zou le [yiben *Zhangsan*$_1$ de shu] =(43)

   I by him rob-away Perf one-CL Zhangsan's book

   '(lit.) I was robbed by *him* of a book of *Zhangsan*.'

   b. **?**Wo lian [*Zhangsan*$_1$ de shu]$_2$ dou bei *ta*$_1$ qiang-zou le *t*$_2$

   I LIAN Zhangsan's book DOU by him rob-away Perf

   'I was robbed of [even *Zhangsan*'s book] by *him*.'

It has been argued by Huang (1993) that topicalization in Chinese observes Binding-type reconstruction effects. His sentences are given in (72) and (73). The compound reflexive *taziji* in (72) is ambiguously interpreted with the matrix subject or the embedded subject. In (73), coreference between the R-expression *Zhangsan* inside the topic NP and the pronoun in the comment clause is barred. This indicates that topics are interpreted in their original position.

(72)   *Taziji*$_{1/2}$ de shi, *Zhangsan*$_1$ xiwang *Lisi*$_2$ neng guan-yi-guan

   him self's matter Zhangsan hopes Lisi can handle-a-little

   'His $_{1/2}$ own business, Zhangsan$_1$ hopes Lisi$_2$ will handle for a while.'

(73)   a. ?*Zhangsan$_1$ de pengyou, *ta*$_1$ changchang piping

   Zhangsan's friend he often criticize

   'Zhangsan's friend, he often criticizes.'

b. ?*_Zhangsan_$_1$ de pengyou, _ta_ zhidao [$_{CP}$ wo changchang piping]

   Zhangsan's friend he know I often criticize

   'Zhangsan's friend, he knows I often criticize.'

In section 4.1 I will further compare the reconstruction effects of topicalized S-initial _lian_-NPs and bare NPs in simplex and complex clauses. Obligatory reconstruction is observed, especially when _dou_ occurs in embedded clauses.

  To summarize, based on the discussion in sections 3.2.1 through 3.2.3, focalization (in the FP Spec position) differs from regular topicalization in the following aspects. Focalization does not employ a resumption strategy, but overt pronominal copying can occur in major subject/ topic structures. Topicalization displays reconstruction effects, but focalization lacks. Focalization is clause-bound, whereas topicalization is unbounded.

3.2.4. Weak Crossover Effects?

  In section 3.1.6 I have shown the remedy of the WCO effects of _lian_-focalization; (45) is repeated as follows.

(45) Wo <u>lian _meimei_$_1$ dou</u> bei [xihuan _ta_$_1$ de ren] qian-zou le t_1

   I LIAN sister DOU by [like her DE man] rob-away Perf

   '(lit.) I was robbed away even sister$_1$ by the person that likes her$_1$.'

  It has been noted in the literature that topicalization lacks weak crossover effects in English (see Lasnik & Stowell 1991, and references cited there), as in (74). Chinese (75) seems to be on a par with English (74).

(74) This book$_i$, I expect [its$_i$ author] to buy t_i

(75)   Zhangsan$_1$ [[piping ta$_1$ de] ren]$_2$ bu xihuan e_1

        Zhangsan criticize him DE person not like

        'Lit: Zhangsan$_1$ people that criticize him$_1$ don't like.'

Lasnik and Stowell (ibid.) suggest that the absence of WCO effects in topicalization is because the topic is not a true quantifier phrase (QP), but rather a referential NP. According to them, WCO effects occur only when the pronoun and the trace are locally A'-bound by a true QP (or by a trace of a true QP).

Although (75) does not explicate the nature of topicalization, one thing I would like to mention is that in section 4.1.2 I will show that certain cases do display WCO effects. They are long-distance topicalized *lian*-NPs, in which *dou* occurs in embedded clauses, as illustrated in (76).

(76)   a. ***_Lian_-NP$_1$ Sub   ... V...   [$_{CP}$ [$_{NP}$..ta$_1$..] *dou* V t_1]**

        b. ***_Lian_ Zhangsan$_1$ Mali renwei [$_{CP}$[piping ta$_1$ de zheben shu] dou hui le**

            t_1]

            LIAN Zhangsan Mali think criticize him DE this book DOU destroyed

            'Lit. Even Zhangsan$_1$, Mali thinks that the book that criticizes him$_1$

            destroyed.'

Recall that in chapter two I discussed certain parallel properties of *lian*-NPs and universal QPs. Hence, the ungrammaticality of (76) indicates that topicalization does show WCO effects when the topicalized element is a QP.

Therefore, the properties discussed in section 3.2 and summarized in Table 3-I strongly argue that the strict preverbal focus position should be structurally distinct from the sentence-initial major subject or topic position. This focalization is triggered

by a lexically realized Focus head *dou/ye*. In the following section I will discuss object preposing and argue that it undergoes a process similar to focalization.

3.3. Focalized Objects and Preposed Objects

Object preposing results in a surface SOV word order. An example is given in (77b), in which no overt *dou* or *ye* occurs. The preposed object in (77b) bears a contrastively focused interpretation.

(77)   a. Lisi kan-guo le naben shu

            Lisi read-Exp Perf that-CL book

            'Lisi has read that book.'

    b. Lisi <u>naben shu</u>$_1$ kan-guo le t_1

            Lisi that-CL book read-Exp Asp

For ease of discussion, I will call this strict preverbal and post-subject object a "preposed bare object" and the *lian*-object in the FP Spec position a "focalized object."

I will contend that (77b) is derived from (77a) by object movement similar to the focalization discussed previously. Syntactic object preposing is triggered by a strong formal [+Focus] feature, a lexically null head, being projected. Like *lian*-focalization, an object is moved, targeting an already formed [$_{F'}$ F AspP]. The F' further projects to a maximal projection; thus, the moved object is in [Spec FP] position. The strong [+Focus] feature hence is checked in the checking domain of F^0. The derivation converges. This proposal provides a natural unified account for deriving SOV order, in both focalization and object preposing cases.

As noted in section 3.1, although an in-situ object can be phonologically stressed without overt movement, I assume it is in the realm of a phonological focusing device, independent of any syntactic focusing device discussed here (see the discussion of Gao's proposal in section 3.1).

3.3.1. Comparison between Focalized and Preposed Objects

3.3.1.1. Similar Distribution

The following will compare the distribution of preposed objects and focalized objects. It will be concluded that the position of a preposed object is on a par with that of a *lian*-object as discussed in section 2.2.2, namely, in the [Spec FP] position.

Like *lian*-NPs, preposed bare objects cannot be structurally lower than negation *meiyou*. Sentences (78) from Lu (1994) and Qu (1994) and (79), the focalized sentence from chapter two, show this parallelism.

(78)   Lisi (***meiyou**) <u>naben shu</u> (**meiyou**) kan-guo   --(Lu 1994)

         Lisi (not-have) that-CL book (not-have) read-Exp

         'Lisi hasn't read that book.'

(79)   Zhangsan (***meiyou**) <u>*lian kewen dou*</u> (**meiyou**) kan-wan

         Zhangsan LIAN not-have text DOU not-have read-finish

         'Zhangsan didn't finish reading even the lesson.'

Like focalized *lian*-NPs, preposed objects cannot occur lower than deontic modals. This is shown in (80).[32] The preposed object in (80) is on a par with focalized object in (81) from section 2.2.2.

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[32] However, epistemic modals can precede this preposed object. See the discussion in section 2.2.2.
(i)   Lisi (yinggai) naben shu (yinggai) du-guo le   --Lu (1994)
         Lisi (should) that book (should) read-Exp Part

(80)   Lisi (**hui)** <u>zhexie wenti</u> (**hui**) jiejue   --Lu (1994)

        Lisi (will) these question (will) solve

        'Lisi is able to/can solve these problems.'

(81)   Lisi (***gan/ken/yao**) <u>*lian* guigushi *dou*</u> (**gan/ken/yao**) ting

        Lisi dare/willing/want LIAN ghost story DOU listen

        'Lisi dares/ is willing/wants to listen to even a ghost story.'

The obligatory post-subject (non-movable) adverbs *yijing* 'already,' *changchang* 'often' can either precede or follow a preposed object, as shown in (82). Compare (82) with the focalized object in (83); the parallelism holds.

(82) a. Zhangsan (**yijing**) <u>wan</u> (**yijing**) xi-hao le.

        Zhangsan (already) dishes (already) wash-read Perf

        'Zhangsan has finished washing the dishes.'

    b. Zhangsan (**yizhi**/**changchang**) <u>jiaokeshu</u> (**yizhi**/ **changchang**) bu
        mai.

        Zhangsan (always/often) textbook (always/often) not buy

        'Zhangsan never buys/often doesn't buy textbooks.'

(83)   Zhangsan (**yijing**) <u>*lian* wan *dou*</u> (**yijing**) xi-hao le.

        Zhangsan (already) LIAN dishes DOU (already) wash-ready Part

        'Zhangsan has already finished washing even the dishes.'

Like focalized objects, preposed objects have to precede manner adverbs. (84) with a preposed object and (85) with a focalized object illustrate this point.

        'Lisi should have read that book.'

(84)   Xiaoying **(*xixide)** <u>jiu</u> **(xixide)** he le

Xiaoying (gently) wine gently drink Perf

'Xiaoying drank wine gently.'

(85)   Xiaoying **(*henhende)** <u>*lian* Lisi *dou*</u> **(henhende)** ma le

Xiaoying (harshly) LIAN Lisi DOU harshly scold Perf

'Xiaoying scolded even Lisi harshly.'

Lu (1994) observes that preposed objects should follow PPs. Her example is given in (86), which is on a par with the *lian*-NP of (87), repeated here from section 2.2.2.

(86)   Lisi **(*ti wo)** <u>naben shu</u> **(ti wo)** mai le   --Lu (1994)

Lisi (for me) that-CL book (for me) buy Perf

'Lisi bought that book for me.'

(87)   Zhangsan **(*cong bangongshi)** <u>*lian* bi *dou*</u> **(cong bangongshi)** na-huijia

Zhangsan (from office) LIAN pen DOU from office take-home

'Zhangsan takes home even pens from office.'

The above distribution of preposed and focalized objects is summarized in (88).

(88)

	Sub __ non-movable adv __ VP	
a. *lian*-NP-*dou*	ok	ok
preposed object	ok	ok

	__ Negation/deontic modals __ VP	
b. S-*lian*-NP-*dou*	ok	*
preposed object	ok	*

$$\underline{\quad} \text{ [}_{VP} \text{ Manner Adv } \underline{\quad} \text{ V]}$$

c. S-*lian*-NP-*dou*   ok   *

    preposed object   ok   *

(88) clearly demonstrates the parallelism between focalized objects and preposed objects in the FP positon. Hence it further supports our unified account for both types of object preposing.

In short, object preposing and focalization can be accounted for uniformly, as their similar structural distribution summarized in (88) shows. In the following sections I will present further arguments for a unified account of focalization and object preposing movement. This strictly preverbal focus position can indeed be distinguished from IP-adjoined topics.

3.3.1.2. Object Preposing as A-Movement

In section 3.2 I have argued for A-movement of *lian*-focalization. If the preposed object undergoes a similar movement mechanism to focalization, we will predict that it is an A-movement as well. This is indeed correct. The A-movement properties of object preposing include (i) weak binding type reconstruction effects, (ii) remedy of weak crossover effects and (iii) clause-boundedness (cf. the following data with Qu's (1994) similar proposal, and Japanese VP-external scrambling in Saito (1985; 1992), Nemoto (1993), or Takano's (1995) VP-internal scrambling).

Sentences in (42) repeated as (89) indicate the lack of obligatory Principle A reconstruction effects in focalization discussed in section 3.1.5.

(89)   a. Wo bei *Zhangsan*$_1$ qiang-zou le [$_{DO}$ yiben guanyu *taziji*$_1$ de shu] =(42)

        I by Zhangsan rob-away Perf one-CL about himself's book

        '(lit.) I was robbed by *Zhangsan* of a book about *himself*.'

b. **??**Wo lian [yiben guanyu *taziji*$_1$ de shu]$_2$ dou bei *Zhangsan*$_1$ qiang-zou le

 t$_2$

 I LIAN one-CL about himself's book DOU by Zhangsan rob-away Perf

 '(lit.) I was robbed of [even a book about *himself*] by *Zhangsan*.'

Compare focalization in (89b) and object preposing in (90).[33]

(90)   **??**Wo [naxie *taziji*$_1$ de shu]$_2$ yijing jiao *Zhangsan*$_1$ xian na-zou le *t*$_2$

 I those himself's book already ask Zhangsan first take-away Asp

 'I have asked Zhangsan to take away his own books.'

The reflexive inside the preposed direct object is not interpreted with the intended antecedent *Zhangsan* either. Therefore, the unacceptability of both (89b) and (90) further supports a unified account for both focalization and object preposing.

Reconstruction effects with respect to Principle C are not forced both in focalization (in section 3.1.5) and object preposing. The R-expression *Zhangsan* in a direct object is c-commanded by a pronoun in (43a), in violation of binding principle C. However, focalizing or preposing the direct object improves the acceptability, as shown in (91a) and (92) respectively.

(91)   a.   *****Wo bei *ta*$_1$ qian-zou le [yiben *Zhangsan*$_1$ de shu] =(43)

 I by him rob-away Perf one-CL Zhangsan's book

 '(lit.) I was robbed by *him* of a book of *Zhangsan*.'

---

[33] Also see Qu's (ibid.) examples given in (i), which illustrate the same point.
(i)   a.   Wo gei *John*$_i$ kan-guo [taziji$_i$ de zhaopian]
    I to John see Asp himself's photo
    'I showed John his own photos.'
  b.   *Wo [taziji$_i$ de zhaopian]$_j$ gei *John*$_i$ kan-guo le *t*$_j$.
    I himself's photo to John see-Asp

b. Wo <u>lian</u> [*Zhangsan*$_1$ <u>de shu</u>]$_2$ <u>dou</u> bei *ta*$_1$ qiang-zou le *t*$_2$

I LIAN Zhangsan's book DOU by him rob-away Perf

'I was robbed of [even *Zhangsan*'s book] by *him*.'

(92)   a.   *Wo jiao *ta*$_1$ na-zou le [*Zhangsan*$_1$ <u>de shu</u>]

I let him take-away Asp Zhangsan's book

'I let *him* to take away *Zhangsan*'s book.'

b. Wo [*Zhangsan*$_1$ <u>de shu</u>]$_2$ jiao *ta*$_1$ na-zou le *t*$_2$

I Zhangsan's book let him take-awayPerf

In section 3.1.6 I have shown that focalization remedies weak crossover effects; (45) is repeated as (93) here.

(93)   Wo <u>lian *meimei*$_1$ dou</u> bei [xihuan *ta*$_1$ de ren] qiang-zou le *t*$_1$ =(45)

I LIAN sister DOU by [like her DE man] rob-away Perf

'(lit.) I was robbed away even sister$_1$ by the person that likes her$_1$.'

Consider (94b) and (93). Although the pronoun inside an NP is not bound by a universal postverbal object QP in (94a), it may be bound by a preposed universal QP in (94b).[34]

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[34] Qu (ibid.) also notes the ability remedying WCO in object preposing. His sentences are given in (i).
(i)   a. *Wo [$_{pp}$ zai *tamen*de$_i$ jiaoshile] jiandao le *suoyoude xuesheng*$_i$
          I at their classroom see Asp all student
          'I have met all the students in their classroom.'
      b. Wo *suoyoude xuesheng*$_i$ dou [$_{pp}$ zai *tamen*de$_i$ jiaoshili] jiandao le t$_i$
          I all student at their classroom see Asp
          'I have met all the students in their classroom.'
However, there are three problems related to his sentence (i) in testing WCO effects. First, he uses *suoyou* 'all,' which denotes plural or group reading. It is more referential than the real universal determiner *meige* 'every.' Hence it is not qualified as an operator, see Hoji (1985b) and the lack of scopal interpretation in group reading of QPs in Williams (1986). Qu also uses the plural pronoun *tamen* 'they' rather than the singular pronoun *ta* 'he' to test a bound pronoun interpretation. This is not in accord with the standard view of bound pronouns, since plural pronouns denote coreference, rather than a bound reading.

(94)   a.   *Wo bei [youguai *ta*$_1$ de ren] pian-zou le *meige haizi*$_1$

            I by abduct him DE person kidnap-away Asp every-CL child

       b.   Wo <u>*meige haizi*</u> dou bei [youguai *ta*$_1$ de ren] pian-zou le *t*$_1$

            I every-CL child DOU by abduct him DE person kidnap-away Asp

            '(lit.) I was affected by *every* child (of mine) being kidnapped by the

            person who abducted *him*.'

3.3.1.3. Semantic Restrictions on Preposed Objects

Although preposed objects obey certain semantic constraints, as has been

pointed out by F. Lu (1994), Z. Lu (1991) and Qu (1994) among others, yet such a

constraint does not seem to apply to *lian..dou* sentences. As mentioned in section

3.2.2.1, NP1-*lian*-NP2-*dou*-V order can be ambiguous. Sentence (55a) is repeated

here as (95). NP2 can have either the focalized object (b) reading or the subject (c)

reading.

Second, the pronoun contained inside an NP is an <u>adjunct</u> in Qu's examples.
Lasnik and Stowell (1991) have noted an asymmetry of argument/adjunct NP
containing pronouns in weak crossover configurations. The contrast is shown in (ii)
and (iii). WCO effects occur when the pronoun is inside an argument NP, rather
than in an adjunct NP. Their generalizations are repeated in (iv) and (v).
(ii)   *Who$_i$ does his$_i$ boss dislike
(iii)   a.   Who$_i$ did you say [$_{CP}$ t$_i$ was a liar] [$_{PP}$ before you met him$_i$]
        b.   Who$_i$ did Jan say [$_{CP}$ she admired t$_i$] [$_{PP}$ in order to please him$_i$]
             Lasnik and Stowell (1991)
(iv)   In a configuration where a pronoun P and a trace T are both A'-bound by a
             category C, T must c-command P.
             (Koopman and Sportiche (1983) and Safir (1984))
(v)   In a configuration where a category C A'-binds a pronoun P and a trace T, P
             may not be contained in an argument phrase XP that c-commands T.
           (Lasnik and Stowell (1991))
Third, the unacceptability of (i) may be independently due to a cyclic-c-command
coreference requirement in Chinese discussed by Huang (1982). A backward
pronoun needs to be further embedded within an NP to avoid cyclic-c-commanding
its antecedent.

(95)   Mali *lian* Zhangsan *dou* xihuan   --NP$_1$ *lian* NP$_2$ *dou* V =(55a)

          Mali   LIAN Zhangsan DOU   like

          b: 'Mali likes even Zhangsan .'   '(NP$_1$) Mali as the subject'

          c: 'Mali, even Zhangsan likes.'   '(NP$_1$) Mali as the topic'

As for NP1-NP2-V sentences without *lian..dou*, no such ambiguity exists when both NPs are (human) **animate**. This is shown in (96), where only the (b) reading is licit; namely, NP1 is a topic and NP2 is a subject.

(96)   Mali Zhangsan kanjian le.

          Mali Zhangsan see Asp

      a: '*Mali saw Zhangsan.'   --SOV

      b: 'Mali$_i$, Zhangsan saw *e*$_i$.'   --OSV

Lu (1994) thus proposes the following constraint (97) to rule out the reading of (96a), since both the subject and object in (96) are animate.

(97)   *Subject NP + Object NP + V   --Lu (1994)

          [+animate]   [+animate]

    Qu (1994:71) revises the constraint proposed by Z. Lu (1991) in consideration of predicate types, and a similar point has also been made by Tsao (1977: 99).[35] His revision and descriptive generalization are given in (98) and (99) respectively.

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[35] Qu (ibid.) disagrees with F. Lu's animacy constraint by giving the following example in (i). He states that even if both NP1 and NP2 are inanimate, NP2 still cannot be interpreted as a preposed object, hence the unacceptability of (ib).
(i)   **niuyue shibao**, **tade wenzhang** yijing piping-guo le.
          N.Y. times, his article already criticized Asp
      a. The New York Times$_j$, his article$_i$ has criticized t$_j$.'   --Topic object
      b. *The New York Times has criticized his article.'   --Preposed object
It seems to me that the unacceptability of (ib) is not what Qu originally meant. Rather it is because the canonical order of sentence (i), shown in (ii), is as unacceptable, or unnatural as (ib) anyhow. Hence, after the object is preposed (SOV), (ib) is not

(98)   *NP$_S$ + NP$_{O1}$ + V + t_1

(when NP$_S$ and NP$_O$ can switch θ-roles)

(99)   a. If NP$_S$ and NP$_O$ **cannot** switch θ-roles, NP$_O$ can be either fronted to the S-initial position or preposed to a position after the subject.

b. If NP$_S$ and NP$_O$ **can** switch θ-roles, then NP$_O$ can only be fronted to the S-initial position, not preposed.

'Switching θ-roles' here roughly refers to those predicates where the result of switching subject and object is still interpretable, such as 'symmetric predicates.' Sentence (96) allows switching θ-roles and according to (99b), only the topic object is interpreted. In contrast, in (100) the θ-roles of the subject and object cannot be switched. Following (99a), both topicalizing the object and preposing the object are well-formed, as in (101a) and (101b) respectively.

(100)   a. Zhangsan$_1$ jian-guo <u>zhezhong hua$_2$</u>.

Zhangsan see-Asp this-kind flower

'Zhangsan has seen this kind of flower.'

b. *<u>Zhezhong hua$_2$</u> jian-guo Zhangsan$_1$.

this-kind flower see-Asp Zhangsan

(101)   a. <u>Zhezhong hua$_2$</u>, Zhangsan$_1$ jian-guo   --topic object

this-kind flower, Zhangsan see-Asp

---

felicitous either. Thus, Qu's example can not be used to argue against Lu's generalization .

(ii)   ***Tade wenzhang** yijing piping-guo le **niuyue shibao**.
            his article already criticized Asp New York times

b. Zhangsan$_1$ <u>zhezhong hua$_2$</u> jian-guo   --preposed object

Zhangsan this-kind flower see-Asp

I have no formal account for this asymmetry of focalized object and preposed object with respect to both arguments involved being animate.

3.3.2. Object Preposing or Double Topicalization?

It has been argued above that object preposing, on a par with *lian-*focalization, undergoes movement to be in a preverbal/ post-subject [Spec FP] position (cf. VP-adjunction in Lu (1994) and Ernst & Wang (1995)). This analysis is in contrast to the 'double topicalization' (DT) analysis assumed by Xu and Langendoen (1985), Tang (1990) and Lin (1992). The DT hypothesizes that SOV order results from topicalizing the object first, i.e. IP-adjunction, then topicalizing the subject again. Nevertheless, it has been argued that focalized/ preposed objects (SOV) and topic objects (OSV) have different structures. The following will present arguments for the post-subject preverbal Focus position in object preposing and focalization, in contrast to a topic object position. The result of this discussion lends further support to our unified account of focalization and object preposing.

First, I think Chinese generally does not allow the multiple application of genuine topicalization, contrary to the widely held view. A reliable test is given in (102) and (103), in which involves PP topicalization. Multiple topicalization in (102b) becomes unacceptable, whereas single topicalization is good in (103); also see section 5.1.

(102) a. Zhangsan cong Meiguo ji le yiben shu gei Lisi.

   Zhangsan from USA send Asp one-CL book to Lisi

   'Zhangsan sent a book to Lisi from the USA.'

   b. *$\underline{\text{Gei Lisi}_2}$, $\underline{\text{Cong Meiguo}_1}$, Zhangsan t_1 ji le yiben shu t_2.

   to Lisi from USA Zhangsan send Asp one-CL book

   'To Lisi, from the USA, Zhangsan sent a book .'

(103) a. $\underline{\text{Cong Meiguo}_1}$, Zhangsan t_1 ji le yiben shu gei Lisi.

   from USA Zhangsan send Asp one-CL book to Lisi

   b. $\underline{\text{Gei Lisi}_2}$, Zhangsan cong Meiguo ji le yiben shu t_2.

   to Lisi, Zhangsan from USA send Asp one-CL book

If Chinese allowed mutliple topicalization, one cannot explain the contrast between (102b) and (103).

Furthermore, although it has been assumed that temporal and locative adverbials in Chinese can be fronted, Shi (1992a: 211-5) has correctly pointed out that it is undesirable to assume that adverbials could be topicalized or fronted. Temporal or locative adverbials occur either in a position between the subject and verb or in the sentence initial position, and the scope of adverbials usually coincides with their linear order in Chinese (cf. Huang 1982). The positions that the adverbials occur show different scope interpretations. Take (104) for an example, the locative phrases in (104a) and (104b) have different scopes. Sentence (104a) is three-way ambiguous: negation has scope either over the adverbial and the verb separately, or over the combination of the adverbial and the verb. Sentence (104b) only has the reading that the negation has scope over the verb but not the adverbial.

(104)   a.   Wo meiyou <u>zai Zhangsan jia</u> da Lisi.

          I not-have at Zhangsan's home hit Lisi

          'I didn't hit Lisi at Zhangsan's home.'

      b.   <u>Zai Zhangsan jia</u> wo meiyou da Lisi.

          at Zhangsan's home I not-have hit Lisi

          'At Zhangsan's home I didn't hit Lisi.'

Thus, the examples in (102) and (104) indicate that the widely assumed double topicalization in Chinese literature is not that well-grounded as people have thought.

The second piece of evidence considers the relative order among adverbs, focalized/preposed objects and topics. Obligatorily post-subject ("non-movable") adverbs,[36] like *yijing* 'already' and *zao* 'early, already,' cannot precede the subject, as shown in (105).

(105)   a.   ***Yijing** Guorong ye ziji feng yifu le.

          already Guorong also self sew clothes Asp

          'Guorong already sews clothes himself.'

      b.   ***Zao** ta mai-hao-le piao

          early s/he buy-good-Asp ticket

          'S/he got the tickets quite early.'

In their article arguing against the DT hypothesis, Ernst and Wang (hence E&W) (1995) note that if preposed objects were strictly topicalized as the DT hypothesis assumes, preposed objects would always precede "non-movable" (I^0-licensed) adverbs. However, their sentences in (106) show that preposed objects can follow

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[36] See Li and Thompson's (1981) adverb classes discussed in section 2.2.2.3.

these adverbs. Hence, preposed objects should not be solely derived by topicalization.

(106)   a. Guorong **yijing** yifu *(ye) ziji feng le.

Guorong already clothes also self sew Asp

b. Ta **zao** piao *(dou) mai-hao-le

s/he early ticket also buy-good-Asp   (E&W 1995)

The sentences in (106) show that there should be a post-subject/ preverbal position possible for bare object preposing. It is the same for focalized objects. (83) is repeated here as (107).

(107)   Zhangsan **yijing** _lian_ wan _dou_ xi-hao le. =(83)

Zhangsan already LIAN dish DOU wash-ready Part

'Zhangsan already finished washing even the dishes.'

Focalized objects either precede or follow obligatorily post-subject adverbs. In other words, if the order of S-_lian_-O-_dou_-V were a result of first topicalizing _lian_-O, then topicalizing S, the DT hypothesis cannot explain the grammaticality of (107).

The third argument against the DT analysis of object preposing discussed by E&W (ibid.) is related to embedded contexts (also noted by Lu (1994), Fu (1994)). It is known that topicalization can be unbounded in Chinese. Sentence (108) indicates that the embedded object _Mali_ of (34) is topicalized to the matrix clause.

(34)   Zhangsan renwei [CP Lisi bu xihuan Mali]

'Zhangsan thinks Lisi doesn't like Mali.'

(108) Mali_i Zhangsan renwei [$_{CP}$ Lisi bu xihuan *t*i].

'Mali$_i$, Zhangsan thinks Lisi doesn't like *t*$_i$.'

Now consider (109), in which the embedded object *Mali* is preposed to a position after the matrix subject and before the matrix verb.

(109) *Zhangsan Mali$_1$ renwei [$_{CP}$ Lisi bu xihuan *t*$_1$].

'Lit: Zhangsan, Mali$_1$ think Lisi doesn't like *t*$_1$.'

If (109) resulted from topicalizing the embedded object to the matrix clause (and topicalizing the matrix subject afterwards), then (109) would be predicted to be as acceptable as (108). On the contrary, the ungrammaticality of (109) in turn proves that there should be distinct positions for bare preposed objects and topic objects. Moreover, the ungrammaticality of (109) indicates that the object preposed is clause bound.

The clause-boundedness of *lian*-focalization has been discussed in section 3.2.1. Sentence (35) is repeated as (110) here to iterate this point. Thus, the ungrammaticality of (110) patterns with (109), namely, both focalization and object preposing are clause bound.

(110) *Zhangsan *lian* Mali_i *dou* renwei [$_{CP}$ Lisi bu xihuan *e*i]. =(35)

Zhangsan LIAN Mali DOU think Lisi not like (her)

'Zhangsan thinks that Lisi doesn't like even Mali.'

In relation to this point of embedded contexts, Fu (1994) notes that OSV order is less acceptable than SOV order inside relative clauses; also see Tsai (1994). The acceptable sentence in (111a) involves a preposed object inside a relative clause. In contrast, (111b) with a topic object inside a relative clause is unacceptable.

(111) a. Qing zai [[ta <u>neiben shu</u> kan-wan] de shihou] lai zhao ta. (Fu (1994))

please at he that-CL book read-finish of time come seek him

'Please come to see him when he finishes reading that book.'

b. *Qing zai [[<u>neiben shu</u> ta kan-wan] de shihou] lai zhao ta

please at that-CL book he read-finish of time come seek him

'Please come to see him when that book, he finishes reading.'

If SOV order were solely derived from OSV order as the DT hypothesis assumes, the contrast between (111a) and (111b) can not be accounted for. Like object preposing, focalization can occur inside relative clauses as in (112) (also see focalization in adjunct clauses in sections 3.1.1.2).

(112)   Zhangsan taoyan [$_{NP}$[$_{CP}$ t_j yizhi <u><i>lian</i> Mali</u>$_i$ <i>dou</i> piping t_i de] ren$_j$]

Zhangsan   dislike   LIAN always Mary DOU criticize DE person

'Zhangsan dislikes the person who always criticizes even Mary.'

Moreover, E&W (ibid.), based upon Tsai's (1994) observation, explictly state that pre-subject objects and post-subject objects have "differing pragmatic requirements: the latter must display some sort of contrast while the former need not (though it may be contrastive)." The first NP in (113) is not necessarily contrastive, but preposed objects in (114)[37] have to be contrastively focused.

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[37] Although sentence-initial NPs tend to be definite in Chinese (cf. Li and Thompson (1981), Tsai (1994) among others), numeral subject NPs are possible in certain situations; also see Lee's (1986) data. In section 4.3, I will discuss numeral subjects in different predicate types in more detail. If numeral subjects occur in stage-level predicates, they are interpreted 'specific, presuppositional.' If they occur in individual-level predicates, they have to denote contrastive focusing as the cardinal reading. They can be interpreted non-referentially if there are modal licensors or embedded in conditional contexts.

Let us examine (i). Tsai (1994) states that *yipian lunwen* in (i) is not necessarily contrastively focused.

(i)   <u>Yi-pian lunwen</u> wo hai keyi yingfu (liang-pian, na jiu tai duo le)

one-CL paper I still can handle (two-Cl, that then too much PRT)

(113)   Zhe-pian lunwen, wo hen xihuan.   (Tsai (1994))

　　　　this-CL paper I very like

　　　　'This paper I like very much.'

(114) a. Wo zhe-pian lunwen xihuan *(na-pian lunwen bu xihuan) (Tsai (1994))

　　　　I this-CL paper like that-CL paper not like

　　　　'This paper I like (but that paper, I don't).'

　　 b. Wo yi-pian lunwen keyi yingfu *(liang-pian jiu bu xing le)

　　　　I one-CL paper can handle two-CL then not possible PRT

　　　　'One paper I can handle (but two papers, I can't).'

Besides the obligatory contrastive reading of the preposed object, note that a preposed object can be either indefinite (114), definite or generic as in (115).

(115) a. Wo zheben shu$_i$ yijing kan-wan le t$_i$.　　　　--definite NP

　　　　I this-CL book already read-finish Asp

　　　　'I have finished reading this book.'

　　 b. Wo pijiu$_i$ he-guo t$_i$.　　　　　　　　--generic NP

　　　　I beer drink Asp

　　　　'I have had beer.'

Qu (1994), in contrast to Tsai's (ibid.) and E&W's (ibid.) observation, states that preposed objects show definiteness effects. According to him, definite or generic NPs in (115) can be preposed, but indefinite NP cannot, given in (116).

　　　　'One paper I can handle (two papers, that's too much).'
According to my observation in chapter four, I consider the underlined NP to be in major subject position. Like indefinite subject NPs, it is felicitous when the generic interpretation can be received, either by modals or in conditional clauses.

(116)   *Wo <u>yiben shu</u> kan-wan le.   --indefinite NP

          I one-CL book read-finish Asp

          'I have finished reading one book.'   (Qu 1994:90)

Nevertheless, I think Tsai's and E&W's observation is correct in the sense that preposed objects denote contrastive focus. Indefinite preposed objects are allowed if they are contrastively focused. Consider (117), a modification of Qu's sentence of (116). Sentence (117), on a par with (114b), is felicitous, since a contrastive reading is expressed.

(117)   Wo <u>yiben shu</u> kan-wan le, <u>yipian wenzhang</u> mei kan-wan

          I one-CL book read-finish Asp, one-CL article not-have read-finish

          'I finished reading a book but didn't finish reading an article.'

Similar to the contrastive reading of preposed objects, *lian*-focalized objects can be indefinite as well, as shown in (118) (also see the discussion of *lian*+indefinite NP in section 2.1.4.3).

(118)   Zhangsan (lian) <u>yikou shengfan</u> **dou** chi-xiaqu le

          Zhangsan LIAN one-mouthful leftover DOU eat-down Asp

          'Zhangsan ate even a mouthful of leftovers.'

The indefinite *lian*-focalized object denotes an exhaustive reading. When this kind of indefinite NP occurs in positive contexts, it denotes a minimal quantity; when it occurs in negative contexts, the absence of this minimal quantity equals no quantity at all (see Schmerling (1971), Fauconnier (1975), Horn (1989), Lee & Horn (1995) and references cited there).

3.4. Previous Analyses of Object Preposing

Lu (1994), Qu (1994) and Ernst and Wang (1995) have argued for a movement analysis of bare object preposing to the post-subject and preverbal position. The following will first briefly examine their proposals and discuss how their insights are incorporated and their problems are avoided in my present proposal.

3.4.1. Ernst and Wang's and Fu's Analyses

E&W propose that preposed objects undergo VP (or ModalP) adjunction. They consider bare preposed objects to be distinct from preposed *lian*-objects, in contrast to my unified account for both objects. They revise Gao's (1994) Focus Criterion, given in (119).

(119)   The Focus Criterion   (E&W (1995))

     A. The focused element must be checked with a head bearing [+Foc]

     B．A Focus head of FocusP must be in a Spec-head configuration with the focused element.

(119) means that while the landing site of *lian*-objects is eventually in [Spec FP], preposed objects, according to E&W, are adjoined to a VP with the verb head bearing [+Foc]. Therefore, the VP-adjoined preposed object moves into the checking domain (Chomsky (1993)) of the verb head. They also state that the emphatic negation marker *bu* 'not' differs from the lexical focus head *dou/ye*. It does not head a FocusP.

(120)   ***Guorong lian xiaohaizi bu taoyan.**

       Guorong LIAN children not dislike

       'Guorong even doesn't dislike children.'

I have been arguing for a unified account for focalization and object preposing, based on their similar distribution and semantic properties. (120) can be naturally accounted for under our current proposal, if we adopt the proposal that *bu* adjoins to a verbal or inflectional head (see Huang (1988)), rather than heading an FP as E&W assume. Object preposing in a negative sentence like (120) patterns with that in an affirmative sentence such as (121).

(121)   Lisi [$_{FP}$ (lian) xiaohaizi$_i$ (dou)] [$_{VP}$ (**bu**) taoyan t_i]

          Lisi (LIAN) children (DOU) not dislike

          'Lisi doesn't dislike (even) children.'

E&W suggest that languages like Korean and Chinese are classified as permitting a [+TopC] feature[38] which licenses a preposed object and "triggers its interpretation as a sort of topic." In the meantime, they correlate object preposing in Chinese with scrambling in Korean (or Japanese). English does not permit [+TopC] in VP; thus, no overt object preposing is allowed. There seems to exist an empirical problem with respect to this correlation. Chinese object preposing differs from Korean/Japanese scrambling in the multiple application of object fronting (either topicalization or focalization). As noted by Saito (1985), Hoji (1985) and others, multiple scrambling and topicalization are grammatical in Japanese. However, multiple topicalization and focalization are not allowed in Chinese; see the previous discussion in section 3.3.2. If preposed objects were VP-adjoined, it is not clear how E&W would rule out multiple adjunction, as in (122b).

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[38] E&W's (ibid.) parameter is given in (i).
(i)   a．Languages are parameterized as [±TopC].
        b．[+TopC] potentially occurs in both IP and VP;
        c．If [+TopC] is allowed in a given projection, then so is [+Foc].

(122) a. Zhangsan huangei <u>Mali</u> <u>zheben shu</u>

Zhangsan return Mali this-CL book

'Zhangsan returned this book to Mali.'

b. *Zhangsan <u>Mali</u> <u>zheben shu</u> huangei (ta) le

Zhangsan Mali this-CL book return (she) Asp

On the contrary, the present substitution movement mechanism avoids this problem.

Lu (1994) also proposes a similar VP-adjunction analysis, and her structure is given in (123). With an aim to explain the animacy constraint in (97), she postulates a *pro* in [Spec VP], which is co-indexed with the IP Spec subject. Sentences with structure (123) become uninterpreted if a VP-adjoined object is a possible antecedent (animate NP) for the *pro* to be identified with.

(123)   Lu (1994)
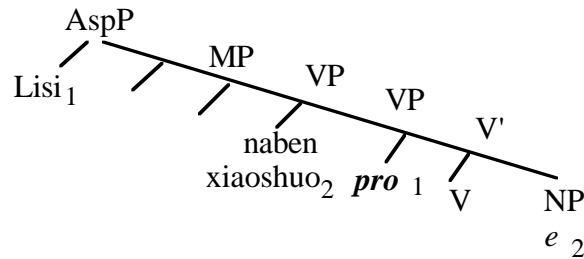
Lu's *pro*-identification still has to explain why this identification is not necessary in *lian..dou/ye*. Her animacy constraint is not a logical consequence of adjunction or substitution analysis.

3.4.2. Qu's Analysis

Qu (1994) proposes the following structure (124) for Chinese.

(124)   Qu (1994:94)
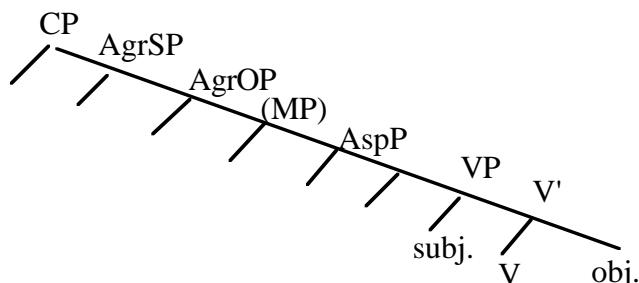
According to him, the SOV and OSV word orders are derived as follows: (underlined mine)

SVO: the canonical word order: The subject is base-generated in [Spec VP], and moves <u>overtly</u> to [Spec AspP] for <u>Case</u> assignment. It can further move to [Spec AgrSP] for <u>feature</u> checking. The object undergoes <u>covert</u> LF movement to [Spec AgrOP] for <u>feature/Case</u> checking.

SOV: object preposed: Both the subject and the object <u>overtly</u> raise to [Spec AgrSP] and [Spec AgrOP] respectively.

OSV: A-type fronting: The object raises <u>overtly</u> to [Spec AgrOP]. The subject moves to and remains in [Spec AspP] at S-structure, but it later <u>covertly</u> moves to [Spec AgrSP] for feature checking.[39]

Qu's proposal captures the A-movement properties of object preposing by adopting Pollock (1989), Mahajan (1990), Chomsky and Lasnik (1991). Besides, object preposing is a substitution movement mechanism for him.

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[39] OSV order includes A-move and A'-move in Qu's analysis. For A'-movement of OSV order, he proposes that the object overtly raised to [Spec AgrOP] is further adjoined to CP, inducing A'-movement properties, such as reconstruction effects.

Although Qu's postulating ArgPs in Chinese adopts the object shift analysis in the literature (cf. Pollock 1989, Chomsky 1994; 1995), it is not without problems when implementing it into Chinese. First, assuming Procrastinate Principle and Last Resort of Economy considerations proposed by Chosmky (1993; 1995), covert movement is preferable to overt movement if no derivation crashes prior to Spell-Out. Movement is triggered by feature checking in a checking domain. According to Qu, an object raises either overtly or covertly to [Spec AgrOP] for feature and Case checking (so does the subject). Nevertheless, he does not specify what kind of feature is required for checking. For expository purposes, if Qu's raising to [Spec AgrP] is for checking φ-features (as well as Case), he needs to provide further constraints to explain why the raising to [Spec AgrP] can freely occur either at S-structure or at LF within one single language. This is by no means in the spirit of Chomsky's (1993; 1994) attempt to parameterize the levels of applying raising to [Spec AgrP]. Chomsky's parameterization aims to account for different word orders among languages, rather than free application within a single language. Moreover, if one considers the Procrastinate Principle, it is not clear why overt raising has to take place, since covert raising is always obligatory in Qu's analysis.

Although the optionality of object raising in overt syntax within a single language is attested in Icelandic (see Thráinsson (1993)), Kitahara's (1995) account of Icelandic optional overt object raising crucially relies on the claim that an extra derivation of the verb raises overtly to AgrO in this language, in contrast to covert verb raising in English. This extra derivation (overt V-to-AgrO) makes Icelandic LF and overt object raising have equal cost. Hence, this language allows optional raising either overtly or covertly. Let us come back to Qu's (ibid.) proposal.

According to him, there is no <u>overt</u> verb raising to AgrO and AgrS. It is not clear how the optionality of overt object raising proposed by Kitahara can be executed in Qu's framework. In relation to the lack of V-to-AgrO and AgrS as Qu proposes, it is also not clear how [Spec AgrSP] and [Spec AgrOP] become A-positions.

Let us consider again Qu's feature checking. Suppose it is a [+definite] feature to be checked, since he states a correlation between the definiteness of the fronted NP and the availability of [Spec AgrP] (p. 51 and pp. 97-100). According to him, both <u>overtly</u> and <u>covertly</u> raised objects eventually sit in [Spec AgrOP] at LF and are interpreted at LF, Qu will predict that objects, overtly moved or unmoved, are uniformally interpreted as 'definite' NPs at LF. This is obviously wrong in Chinese. Objects in Chinese can be both definite and indefinite without any morphological marking.

3.5. Summary

This chapter has concentrated on *lian*-NP and bare object movement to a post-subject, strict preverbal focus position. They are contrastively focused. I have proposed a unified account for both types of object fronting. This focus triggered movement (i) is clause bound, (ii) remedies WCO, (iii) does not have resumptive pronouns in gap positions, and (iv) does not force binding reconstruction effects. This focus position is structurally distinguished from major subject and topic positions that will be discussed in chapter four. Furthermore, the movement is a substitution mechanism. Previous analyses of bare object preposing have also been

compared with our current proposal. It is concluded that the current proposal not only incorporates their insights but also avoids their problems.

CHAPTER FOUR: SENTENCE INITIAL *LIAN*-PHRASES AND TOPICS

4.0. Introduction

In chapter three I have proposed that focalizing a postverbal object is a syntactic movement, resulting in the word order of S-*lian*-O-*dou*-V. The proposed structure is repeated in (1), and a corresponding sentence is given in (2).

(1) $[_{IP}$ Subj. $[_{I'}$ I $[_{FP}$ *lian*-NP$_1$ $[_{F'}$ F $[_{VP}$ ...t_1 ... $]]]]]$

(2)   Zhangsan *lian* zheben shu$_1$ *dou* kan guo le t_1

        Zhangsan LIAN this book DOU read Exp Part

        'Zhangsan has read even this book.'

Moreover, in chapter three I have shown that *lian*-focalization is on a par with object-preposing sentences like (3).

(3)   Zhangsan zheben shu$_1$ kan guo le t_1

        Zhangsan this book read Exp Part

        'Zhangsan has read THIS BOOK.'

This chapter focuses on *lian*-objects or bare objects occurring in sentence (S)-initial position. Examples are given in the simplex sentences of (4) and (5) respectively.

(4)   *Lian* Mali$_1$ Zhangsan *dou* piping guo e_1

        LIAN Mali Zhangsan DOU criticize Exp

        'Even Mali, Zhangsan has criticized.'

(5)   <u>Mali</u>$_1$ Zhangsan piping guo e_1

    Mali Zhangsan criticize Exp

    'Mali, Zhangsan has criticized.'

Particularly I argue that these S-initial *lian*-objects or bare objects are derived either by movement or base-generation. In section 4.1 I present arguments for a movement derivation based upon Binding reconstruction effects being observed in simplex and complex clauses and weak crossover effects occurring in complex sentences. The Spec of Topic position, above CP, is the movement landing site. In section 4.2 I demonstrate non-moved S-initial *lian*-objects and bare objects with respect to overt pronominal copies and the lack of weak crossover effects. The base-generation site, however, is an IP-adjoined position. In section 4.3 I further argue for the existence of "major subject" in Chinese.   The major subject is base-generated in an IP-adjoined position, which can be structurally distinguished from the moved topic in [Spec CP] position. This distinction between topic and base-generated major subject resolves the long-standing debate on the movement vs. non-movement of topic structures in Chinese literature. The major subject can further locally raise to topic position in root contexts, adopting Kuroda (1986). In section 4.3.3 I discuss the identification of empty categories and overt pronominal copies in the gap position related to major subject and topic. Particularly the so-called resumptive pronoun in the topic gap position in Chinese is not a genuine resumptive pronoun. Rather I call it a *pseudo*-resumptive pronoun. A summary of all the constructions discussed in chapters three and four will be provided in section 4.4.

A bare topic NP is a thematic topic, an entity of which the rest of clause is predicated. If it is phonologically stressed, it can behave like a contrastive topic, to contrast with other entities in a discourse context. An S-initial *lian*-NP is a focused

topic, which always bears a contrastive interpretation. The focus scope interpretations will be discussed in chapter five.

4.1. Moved (*Lian-*)Topic

Let us first concentrate on S-initial *lian*-objects and bare objects in complex clauses in sections 4.1.2-3. Specifically, *dou*, the head of the FP, can occur in a embedded clause, as in (6).

(6)   *Lian* MALI$_1$ Zhangsan renwei [$_{CP}$ Lisi *dou* bu xihuan t_1].

         LIAN Mali Zhangsan think Lisi all not like

         'Even Mali, Zhangsan thinks that Lisi also doesn't like *t*.'

It will be shown in sections 4.1.2-4 that weak crossover effects are observed in long-distance moved S-initial *lian*-phrases and binding reconstruction effects are displayed in both simplex and complex clauses. The observations made in these subsections argue for the movement structure of an S-initial *lian*-phrase, whose structure is on a par with the topicalization structure.

4.1.1. Movement Structure

The movement structure, proposed in (7), is a root phenomenon. In root contexts, an S-initial *lian*-phrase first moves to the [Spec FP] to satisfy [+Focus] feature checking in a Spec-Head agreement configuration. Then it further moves to the [Spec TopicP] position.

(7)

```
TopP
  \    Top'
   \    \    CP
 lian-  \    \
 NP 2  Topic \    IP
         \    C  \    I'
          \    \   \
           \   NP₁  \   FP
            \    \   I  \
             \    \  t'₂  \  F'
              \    \       \  \   VP
               \    \    Dou/ \   \   V'
                \    \     Ye   \   \   \
                 \    \         e₁  V   t₂
```
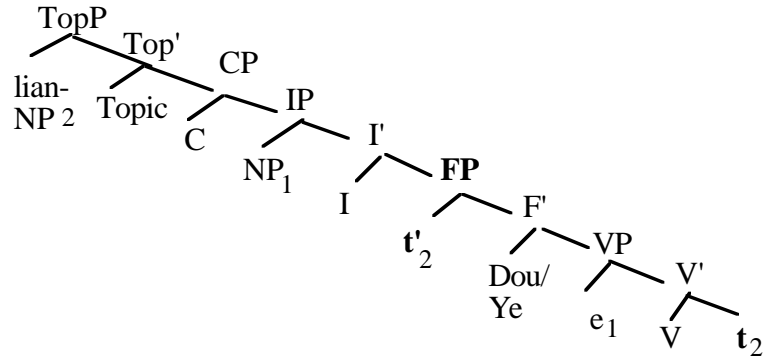
This [Spec TopicP] position is a non-L-related position (cf. Chomsky (1986; 1993)). Movement of this sort also displays A'-movement properties. It will become evident in section 4.1.2-4 that binding reconstruction effects are observed in this type of S-initial *lian*-phrases. The Specifier of Comp position in (7) is reserved for *wh*-interrogatives: either *wh*-phrases move there at LF (Huang (1982)) or the Qu(estion)-operator moves there at syntax (Aoun and Li (1993)). Sentences containing S-initial (*lian-*)NPs and *wh*-interrogatives will be discussed in section 4.4.

I will assume that TopicP is not projected in embedded or non-root contexts due to the non-asserted (non-judgmental) function of embedded complements in the sense of Kuroda (1986; 1992) (cf. the lack of embedded TopicP in Lasnik and Saito (1993).[1] Moreover, I will assume that embedded [Spec CP] is an escape hatch for moving a long-distance *lian*-phrase or topic to the matrix [Spec Topic] position. Hence, the long-distance moved S-initial *lian*-phrase first moves to the [Spec FP] position of the embedded clause, then moves to embedded [Spec CP], finally lands

---

[1] A topic can occur relatively easily in the complement to bridge verbs (see Hooper and Thompson (1973)), such as Japanese topic *wa* in this context. However, it is impossible for Japanese topic *wa* to occur in a relative clause or non-root contexts; see Kuroda (1986) and Hoji (1985: 208 fn. 24). It is so because certain bridge verbs behave like matrix sentences (cf. Emonds (1976) and Fiengo and Lasnik (1976)). Because of this concern, I will not use the complement of bridge verbs to test topic structures in embedded contexts.

in the matrix [Spec TopicP]. The structure given in (8), corresponds to sentence (6).

Note that *dou* is in the embedded clause.

(8)   *Lian*-NP$_1$ Subj......[$_{CP}$ t''_1 Subj. t'_1 ***dou*** V t_1]]
           ↑_____|↑_____|↑_____|

A fronted bare object, the so-called (A'-) moved topic, moves through the embedded

[Spec CP] and lands in [Spec TopicP] in the matrix clause. If a topic is contrastively

focused, it results in an embedded null Focus projection being projected, through

which the moved topic has passed.

        Structure (8) predicts that if there is a *wh*-phrase in the embedded clause, a

long-distance topicalized *lian*-phrase will observe *wh*-island effects. This is indeed

borne out. The unacceptability of (9) indicates that *wh*-island effects are in fact

observed in Chinese.[2]

(9)   **?****Lian* zheben shu**$_1$, Zhangsan xiangzhi dao [shei *dou* kan le t_1].

           LIAN this-CL book, Zhangsan wonder who DOU read Asp

           'Even this book, Zhangsan wonders who has read.'

Assuming Chomsky (1986), a *wh*-phrase or the A'-moved element in question here

may not adjoin to IP (cf. Lasnik and Saito 1993). Thus (9) is a weak Subjacency

violation resulting from crossing the embedded CP.[3]

---

[2] Note that the lack of *wh*-island effects in the topic structure (i) mentioned by Huang
(1982) results from being considered here as a base-generated structure.
(i)   Zheben ren Zhangsan xiangzhi dao [shei kan le]
           this-CL book Zhangsan wonder who read Asp
           'This book Zhangsan wonders who has read.'
[3] This point assumes that Subjacency operates at syntax, since Huang (1982) argues
that there is no LF *wh*-island effect in Chinese.

4.1.2. Complex Clauses

In his article, Huang (1993) argues that fronted predicates obligatorily reconstruct. A reflexive contained in a fronted argument, as in (10a) and in the Chinese counterpart of (11a), can be interpreted with either matrix subject or embedded subject. A fronted VP, as in (10b) and (11b) argued by Huang (ibid.), has to reconstruct to its original position since the reflexive has to be interpreted with the embedded subject to satisfy Binding Principle A.[4]

(10) a. Which picture of himself $_{1/2}$ did John$_1$ think Bill$_2$ saw t ?

　　 b. Criticize himself $_{*1/2}$, John$_1$ thought Bill$_2$ would not t.

(11) a. Taziji$_{1/2}$ de shi, Zhangsan$_1$ xiwang Lisi$_2$ neng guan-yi-guan

　　　　 him self's matter Zhangsan hopes Lisi can handle-a-little

　　　　 'His$_{1/2}$ own business, Zhangsan$_1$ hopes Lisi$_2$ will handle for a while.'

　　 b. Piping taziji$_{*1/2}$, Zhangsan$_1$ zhidao Lisi$_2$ juedui bu hui[5]

　　　　 criticize himself Zhangsan knows Lisi definitely not will

　　　　 'Criticize himself$_{*1/2}$, Zhangsan$_1$ knows Lisi$_2$ definitely will not.'

　　　　 (Huang 1993: #53)

Despite this asymmetry of argument-predicate fronting discussed by Huang, S-initial *lian*-phrases, whether predicate or argument, need to reconstruct when *dou* occurs in

---

[4] There are three reconstruction mechanisms discussed in the literature. (i) Chomsky's (1977) genuine reconstruction at LF, (ii) Barss's (1986) chain-binding, and (iii) Chomsky's (1993) copy and deletion. I will leave these meachanisms open here without further justifying any of the approaches.

[5] Huang (ibid.) notes that there is no such predicate/argument asymmetry with respect to the fronted long-distance anaphor *ziji*.

(11')　　a.　**ziji**$_1$$_{/2}$ de shi, Zhangsan$_1$ xiwang Lisi$_2$ neng guan-yi-guan
　　　　　　self's matter Zhangsan hopes Lisi can handle-a-little
　　　　　　'His$_{1/2}$ own business, Zhangsan$_1$ hopes Lisi$_2$ will handle for a while.'
　　　b.　Piping **ziji** $_{1/2}$ de pengyou, Zhangsan$_1$ zhidao Lisi$_2$ juedui bu hui
　　　　　criticize self's friend　　Zhangsan knows Lisi definitely not will
　　　　　'Criticize his$_{1/2}$ own friend, Zhangsan$_1$ knows Lisi$_2$ definitely will not.'

embedded clauses. Sentences (12) and (13), in which the compound reflexive *taziji* is interpreted with the embedded subject, illustrate this point.[6]

(12)   *Lian* [(guanyu) taziji**?∗1/2** de wenzhang]$_3$ Zhang$_1$ renwei Lisi$_2$ ***dou***

         piping guo t_3

         LIAN   about he-self's article Zhang think Lisi DOU criticize Exp

         'Even about his own$_{1/2}$ article, Zhangsan$_1$ thinks Lisi$_2$ has made

         criticism.'

(13)   *Lian* piping taziji **∗1/2** de wenzhang, Zhang$_1$ renwei Lisi$_2$ ***dou*** bu hui

         LIAN criticize self's article, Zhangsan know Lisi DOU not will

         '∗Even criticizing his own∗$_{1/2}$ article, Zhang$_1$ thinks Lisi$_2$ also won't.'

         Similarly, Huang (ibid.) argues that this fronted argument/adjunct asymmetry holds with respect to Principle C type reconstruction effects; see the sentences in (15b) and (16) respectively. The referential noun *Zhangsan* in (14) is not free, violating Principle C. After the embedded object containing *Zhangsan* is preposed, coreference between *Zhangsan* and *ta* 'he' in an argument (15a) is still not possible. Although strong crossover effects are considerably weakened in (15b) if a pronoun is

---

[6] Here I use anaphor to test reconstruction effects. A bound pronoun does not seem to display the "connectivity" effect on binding (see Higgins (1973)) in this structure.
(i)   Zhangsan gei **meige**$_1$ xuesheng jiqu [laoshi gei **ta**$_1$ de pingyu]
          Zhangsan to every student mail-to   teacher give him DE comment
          'Zhangsan mailed every$_1$ student the comments that the teacher gave him$_1$.'
(ii)   **?∗**[Lian laoshi gei **ta**$_1$ de pingyu]$_2$ Lisi renwei Zhangsan **dou** gei **meige**$_1$
          xuesheng jiqu le t_2
          LIAN teacher to him DE comment Lisi think Zhangsan DOU give every
          student mail-out Asp
          'Even the comments that the teacher gave him$_1$ Lisi thinks Zhangsan also
          have mailed to every student$_1$.'
The unacceptability of (ii) may be due to the weak crossover effect of QP raising at LF, as suggested by A. Li. LF raised QPs usually do not reconstruct, so the QP in (ii) does not fuction as the antecedent of the pronoun anymore.

sufficiently embedded, noted by Huang (1993:119), fronted predicates obligatorily

reconstruct inasmuch as (16a) and (16b) are unacceptable.

(14)   *Ta zhidao [$_{CP}$ wo changchang piping Zhangsan$_1$ de pengyou]

         '*He$_i$ knows I often criticize Zhangsan$_i$'s friend.'

(15)   a.   **?***Zhangsan$_1$ de pengyou, ta$_1$ zhidao [$_{CP}$ wo changchang piping]

            Zhangsan's friend he know I often criticize

            'Zhangsan's friend, he knows I often criticize.'

       b.   **?**Zhangsan$_1$ de pengyou, wo zhidao [ta$_1$ changchang piping]^7

            Zhangsan's friend I   know   he often criticize

            'Zhangsan's friend, I know he often criticizes.'

            (Huang 1993: #54b, c)

(16)   a.   *Piping Zhangsan$_1$ de pengyou, ta$_1$ zhidao wo juedui bu hui

            'Criticize Zhangsan's friend, he knows I definitely will not.'

       b.   *Piping Zhangsan$_1$ de pengyou, wo zhidao ta$_1$ juedui bu hui

            'Criticize Zhangsan's friend, I know he definitely will not.'

            (Huang 1993: #55b, c)

Despite the bare argument/predicate fronting asymmetry, there does not

appear to be such an asymmetry when *lian*-NPs or *lian*-VPs are long-distance fronted

to topic position. Compare (15b), (16) and (17), (18) respectively. These long-

distance fronted *lian*-NPs and *lian*-VPs in (17) and (18) obligatorily reconstruct.

---

^{7} I think the improvement of (15b) is due to the fact that the S-initial embedded object
can be base-generated (vs. (18)). Since an S-initial bare object does not require an
overt *dou*, hence we cannot decide whether this S-initial bare object is moved from
the embedded clause or base-generated. On the contrary, whether S-initial *lian*-
phrases are base-generated or long-distant moved can be determined by the position
of *dou*. If *dou* is in the embedded clause, the S-initial *lian*-phrase is moved. If *dou*
is in the matrix clause, S-initial *lian*-phrase is base-generated. I will come to this
shortly, and their different interpretations will be discussed in section 5.2.

(17)   a. ***_Lian_** Zhangsan**₁** de pengyou, ta**₁** zhidao wo **_dou_** changchang piping

LIAN Zhangsan's friend he know I DOU often criticize

'*Even Zhangsan₁'s friend, he₁ knows that I often criticize.'

   b. ***_Lian_**   Zhangsan**₁** de pengyou, wo zhidao ta**₁** **_dou_** changchang piping

LIAN   Zhangsan's friend I know he DOU/YE often criticize

'*Even Zhangsan₁'s friend, I know he₁ often criticizes.'

(18)   ***[**_Lian_ piping Zhangsan**₁** de pengyou]₃, wo yiwei Lisi₂ zhidao ta**₁** **_dou_**

juedui bu hui _t_₃

LIAN criticize Zhangsan's friend, I think Lisi know he DOU definitely

not will

'*[Even criticizing Zhangsan₁'s friend]₃, I think Lisi₂ knows he₁

definitely will not _t_₃.'

Further embedding the referential expression in preposed _lian_-NPs still observes
reconstruction effects, as shown in (19).

(19)   a. ***[**_Lian_ Zhangsan₁ gege de zhaopian], ta₁ renwei [CP ni **_dou_** hui xihuan]

LIAN Zhangsan's picture he think you DOU will like

'Even pictures of Zhangsan₁'s brother's , he₁ thinks you also will like.'

   b. ***[**_Lian_ Zhangsan₁ mai de zhaopian] ta₁ meixiangdao [ni **_dou_** hui xihuan]

LIAN Zhangsan buy DE picture he not think-of you DOU will like

'Even the picture that Zhangsan₁ bought, he₁ didn't think that you also

will like.'

On the one hand, this predicate/argument asymmetry does not appear when
lian-phrases are long-distance fronted to the matrix topic position and _dou_ occurs in
the **embedded** clauses. On the other hand, in section 4.2 I will show cases where
S-initial _lian_-phrases may be base-generated when _dou_ occurs in **matrix** clauses, in

which no obligatory reconstruction effects are observed. Since the position of the focus head *dou* disambiguates movement/non-movement structures of S-initial *lian*-phrases in complex clauses, an S-initial bare argument may be structurally ambiguous in the same fashion except that no overt *dou* can show definitely if it is moved or base-generated. Hence the weak reconstruction effects of bare objects discussed by Huang in (15b), repeated here, are ascribed to the base-generation of the S-initial objects.

(15b)   **?**Zhangsan$_1$ de pengyou, wo zhidao [ta$_1$ changchang piping]

          Zhangsan's friend I   know   he often criticize

In other words, S-initial bare arguments are ambiguous between movement and base-generation possibilities, whereas fronted predicates are strictly moved; hence they obligatorily reconstruct.

4.1.3. WCO

A long-distance *lian*-phrase fronted to the topic position observes weak crossover effects. Relevant structures and their corresponding sentences are given in (20) and (21) respectively.[8] The pronoun inside the matrix or embedded subject NPs cannot be bound by the long-distant preposed *lian*-phrases.

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[8] The unacceptablility of both (20a) and (20b) is not parallel with Hindi's counterparts of long-distance scrambling. Mahajan (1990) shows that long-distance scrambling remedies weak crossover effects as in (i). When the pronoun occurs inside the embedded subject NP, long-distance scrambling first A-moves, then A'-moves. The first move (A-move) does not observe WCO effects; hence sentence (i) is acceptable in Hindi.
(i)   who$_1$/everyone$_1$ (EDO) Ram (Sub) thinks [*t*' **his$_1$** sister (ESub) saw *t*]?
              ↑_____A'-movement_____|↑_____A-move_____|
He also notes that when the pronoun is inside the matrix subject NP, the long-distance scrambled constituent directly undergoes A'-movement. WCO effects are observed, as in (ii).
(ii)   *who$_1$/everyone$_1$ **his$_1$** sister (Sub) thought that Ram (ESub) had seen *t*?
              ↑_____A'-movement_____|

(20) a. *$Lian$-NP$_1$ Sub   ... V...[$_{CP}$ [$_{NP}$..ta_1..] $\boldsymbol{dou}$ V t_1]

     b. ?*$Lian$-NP$_1$ [$_{NP}$..ta_1..] ..V.. [$_{CP}$ .. $\boldsymbol{dou}$ V t_1]

(21) a. *<u>$Lian$ Zhangsan$_1$</u> Mali renwei [$_{CP}$[piping ta$_1$ de zheben shu] $\boldsymbol{dou}$ hui le t_1]

          LIAN Zhangsan Mali think criticize him DE this book DOU destroyed

          'Lit. Even Zhangsan$_1$, Mali thinks that the book that criticizes him$_1$ destroyed.'

     b. ?*Lian Zhangsan$_1$ [[piping ta$_1$ de] nage nuren] renwei [$_{CP}$ Mali $\boldsymbol{dou}$ xihuan t_1]

          LIAN Zhangsan criticize him DE that woman think Mali DOU likes

          'Lit. Even Zhangsan$_1$, the woman who criticizes him$_1$ thinks that Mali likes.'

4.1.4. Simplex Clauses

S-initial *lian*-objects as well as bare objects in simplex clauses observe Binding reconstruction effects. Compare (22) with (23) and (24). The reflexive *taziji* is bound by *Zhangsan* in (22). Reconstruction is forced in order for *taziji*, contained in the S-initial NP in (23) and (24), to be interpreted with subject *Zhangsan*.

(22) Zhangsan$_1$ diu-diao le [<u>guanyu taziji$_1$ de shu</u>]

      Zhangsan throw away Asp about himself's book

      'Zhangsan$_1$ all threw away books about himself$_1$.'

Chinese long-distance topicalization does not seem to show such a contrast.

(23)   [Guanyu taziji$_1$ de shu] Zhangsan$_1$ diu-diao le

         about himself's book Zhangsan throw away Perf

         'Books about himself$_1$, Zhangsan$_1$ threw away.'

(24)   Lian [guanyu taziji$_1$ de shu] Zhangsan$_1$ dou diu-diao le

         LIAN about himself's book Zhangsan DOU throw away Perf

         'Even the book about himself$_1$ Zhangsan$_1$ threw away.'

(25) and (26) illustrate the same point of Principle A reconstruction effects.

(25)   [Taziji$_{1/*2}$ de shu] Zhangsan$_1$ ji-gei Lisi$_2$ t_3 le.

         himself's book Zhangsan send-to Lisi Asp

         'His own book Zhangsan sent to Lisi.'

(26)   Lian [taziji$_{1/*2}$ de shu] Zhangsan$_1$ dou ji-gei Lisi$_2$ t_3 le.

         LIAN himself's book Zhangsan DOU send-to Lisi Asp

         'Evne his own book Zhangsan sent to Lisi.'

        Moreover, consider the ungrammaticality of (27) and the grammaticality of (28) and (29). *Taziji* 'himself' in (27) is not bound by its antecedent *Zhangsan*. However, S-initial *taziji* in (28) and (29) is interpreted with the subject *Zhangsan*. Hence, (*lian*) *taziji* in (28) and (29) does reconstruct.

(27)   *Taziji$_1$ piping Zhangsan$_1$.

         himself criticize Zhangsan

         '*Himself criticizes Zhangsan.'

(28)   Taziji$_1$, Zhangsan$_1$ changchang piping (*ta$_1$).[9]

         himself, Zhangsan often criticize

         'Himself, Zhangsan often criticizes.'

---

[9] I owe this sentence to Xiu-Zhi Wu.

(29)   *Lian* Taziji$_1$, Zhangsan$_1$ *dou* changchang piping (***ta$_1$**).

         LIAN himself, Zhangsan DOU often criticize

         'Even himself, Zhangsan often criticizes.'

Note that an overt pronominal copy is not allowed in the gap position of (28) and

(29). This strongly indicates that the S-initial *lian*-NP and bare object in (28) and

(29) are derived from movement. Specifically this is a type of A'-movement.[10]

Reflexive reconstruction is forced and cannot be blocked by an pseudo-resumptive

pronoun.

       Now consider Principle C reconstruction effects in simplex clauses. The

pronoun *ta* in (30) c-commands the referential expression *Zhangsan* in violation of

Princple C.

(30)   *Ta$_1$ changchang piping Zhangsan$_1$ de pengyou.

         'He$_1$ often criticizes Zhangsan$_1$'s friend.'

Topicalized object/*lian*-object containing *Zhangsan* in (31) and (32) cannot refer to

the pronoun either. The unacceptability of (31) and (32) is due to the fact that these

moved S-initial phrases are obligatorily undone at LF (reconstruction).[11]

---

[10] One might argue that it can be A-movement, namely *taziji* moves to an A-position to be interpreted with *Zhangsan*; and A-chain could undergo reconstruction in the sense of Belletti and Rizzi (1986). In section 4.2.1 I show that NP-fronting does not accord completely with scrambling in Japanese and Hindi. Particularly, the so-called clause-internal A-scrambling in those languages can be accounted for by base-generation in Chinese. (28) and (29) undergo A'-movement in accord with the long-distance A'-movement discussed in previous sections. Consequently, **S-initial NPs** in Chinese are derived either by A'-movement or base-generation, and no A-movement is involved.

[11] Fronting predicates in Huang's examples, repeated in (i) and (ii), reconstruct.

(i)   *Piping Zhangsan$_1$ de pengyou, ta$_1$ juedui bu hui   (Huang 1993:55a)
         'Criticize Zhangsan's friend, he definitely will not.'

(ii)   *Lian piping Zhangsan$_1$ de pengyou, ta$_1$ *dou* juedui bu hui
         LIAN criticize Zhangsan's friend, he DOU definitely not will
         'Even for criticizing Zhangsan's friend, he definitely will not.'

(31)   **?*Zhangsan$_1$ de pengyou, ta$_1$ changchang piping. (Huang 1993:54a)

Zhangsan's friend he often criticize

'Zhangsan's friend, he often criticizes.'

(32)   ***Lian* Zhangsan$_1$ de pengyou, ta$_1$ dou changchang piping

LIAN   Zhangsan's friend he DOU often criticize

'Even Zhangsan's friend, he also often criticizes.'

(Shyu 1994)

Therefore, the above data concerning weak crossover effects in complex clauses and binding reconstruction effects naturally follow from the movement analysis of S-initial *lian*-phrases/bare objects as proposed in section 4.1.1.

4.2. Non-Moved S-Initial (*Lian-*)NPs

Section 4.1 has demonstrated that S-initial *lian*-objects can be further topicalized from [Spec FP] to (matrix) [Spec TopicP] position, yet the whole picture of S-initial (*lian-*)NPs is not that simple. If S-initial *lian*-phrases were uniformly derived by further raising from the Spec of FP position (i.e. Gao (1994)), several facts cannot be accounted for. After the discussion in subsections 4.2.1-2, I will propose in section 4.2.3 that S-initial (*lian-*) objects may be base-generated in an IP-adjoined position.

4.2.1. Simplex Clauses

It has been shown in section 3.3.2 that a focalized *lian*-NP, moving to the strict preverbal [Spec FP] position, does not allow an overt pronominal copy in its gap position. Sentence (33) is ungrammatical because *lian Lisi* is moved out of

object possessor position to the [Spec FP] position. Moreover, an overt pronominal copy in the object possessor position does not improve the unacceptability.

(33)   *Zhangsan <u>lian Lisi$_2$</u> <u>dou</u> bu kan [$_{NP}$ **ta**$_2$ de shu]

         Zhangsan LIAN Lisi DOU not read (his) book

         'Zhangsan doesn't read even Lisi's book.'

However, when *lian*-NP occurs S-initially with a *pseudo*-resumptive pronoun in the object possessor position, (34) is good. If S-initial *lian*-phrases were only derived by further moving from [Spec FP] position, one cannot explain why the *lian*-NP in [Spec FP] in (33) is ill-formed while the S-initial *lian*-NP in (34) is acceptable.

(34)   <u>Lian Lisi$_2$</u> Zhangsan$_1$ <u>dou</u> bu kan [**ta**$_2$ de shu].

         LIAN Zhangsan Mali DOU not read his book

         'lit: Even Lisi, Zhangsan does not read his book'

Similarly, a *lian* indirect object focalized to [Spec FP] position does not allow an overt pronominal copy in the gap position; see the ungrammaticality of (35).

(35)   *Zhangsan <u>lian Mali$_2$</u> <u>dou</u> bu song-gei **ta**$_2$ shu

         Zhangsan LIAN Mali   DOU not give she book

         'lit: Zhangsan doesn't give even Mali books.'

On a par with (34), the S-initial *lian*-indirect object in (36) allows a *pseudo*-resumptive pronoun in the gap.

(36)   <u>Lian Mali$_2$</u> Zhangsan <u>dou</u> bu song-gei **ta**$_2$ shu

         LIAN Mali Zhangsan DOU not give she book

         'lit: Even Mali, Zhangsan doesn't give her books.'

Therefore, the contrast between ungrammatical (33), (35) and grammatical (34), (36) indicates that S-initial *lian*-NPs are not solely derived by further movement from [Spec FP] to an S-initial position.[12]

In addition to the moved topic [Spec TopicP] position discussed in section 4.1, in section 4.2.3 I will discuss the base-generated IP-adjoined position for S-initial *lian*-phrase or bare object in more detail. One might argue that the proposed base-generated S-initial bare object or *lian*-object could be derived by A-movement (cf. Qu (1994)), on a par with clause-interal A-scrambling in Japanese (Saito (1992) and Yoshimura (1992)) and Hindi (Mahajan (1990)). However, I think that Chinese does not display such clause-internal A-scrambling; also see the discussion in section 5.1. The reasons are as follows. First, it is not clear if S-initial *lian*-objects or bare objects in Chinese accord with scrambling in Japanese and Hindi inasmuch as there are no overt case markers in Chinese to distinguish topic and scrambled elements, which Japanese and Hindi have.

Second, the following will compare Chinese data with those in Japanese that are used to argue for A-scrambling in the literature. It will be shown that the Chinese data can be readily explained by my proposed base-generated IP-adjunction position without further burdening the grammar by postulating clause-internal A-movement.

Chinese (37a) and Japanese (38a) from Saito (1992) are ungrammatical because *taziji* or *otagai* is not bound by its antecedent. When *Zhangsan* occurs S-initially, (37b) is acceptable, on a par with Japanese (38b).

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[12] Overt *ta* in gap positions in (34) and (36) are obligatory.
(i)   *<u>Lian Lisi$_2$</u> Zhangsan$_1$ <u>dou</u> bu kan *e*$_2$ shu.
         LIAN Lisi Zhangsan DOU not read *e* book
         'lit: Even Lisi, Zhangsan does not read *(his) book'
(ii)   *<u>Lian Mali$_2$</u> Zhangsan <u>dou</u> bu song-gei *e*$_2$ shu
         LIAN Mali Zhangsan DOU not give *e* book

(37)　a.　*Taziji$_1$ piping le Zhangsan$_1$.

　　　　himself criticize Asp Zhangsan

　　　　'*Himself$_1$ criticized Zhangsan$_1$.'

　　b.　?Zhangsan$_1$ taziji$_1$ piping le.

　　　　Zhangsan himself criticize Asp

　　　　'Zhangsan$_1$ himself$_1$ criticized.'

(38)　a.　?*[[Otagai$_1$-no sensei]-ga [karera$_1$-o hihansita]] (koto)

　　　　each other-Gen teacher-Nom they Acc criticized fact

　　　　'*Each other's$_1$ teachers criticized them$_1$.'

　　b.　?[karera$_1$-o [[otagai$_1$-no sensei]-ga [t_1 hihansita]]]] (koto)

　　　　they Acc each other-Gen teacher-Nom criticized fact

　　　　'Them$_1$, each other's$_1$ teachers criticized t_1.'

Traditionally the acceptability of (38b) in Japanese is employed to argue for clause-internal A-scrambling in the literature.[13],[14] Nevertheless, the acceptablity of Chinese (37b) is explained by the proposed base-generated IP-adjoined position for S-initial *lian*-objects or bare objects. Thus, *Zhangsan* in (37b), the antecedent of the reflexive, occurs in the IP-adjoined position which can A-bind *taziji*.

Consider the Chinese data in (39-42). S-initial *lian*-phrases and bare objects in **simplex** clauses do not observe weak crossover effects.

(39)　　*Lian*-NP$_1$ [$_{NP}$..ta$_1$..] ..dou - V -*ec*$_1$

---

[13] Saito (1992), Yoshimura (1992) among others use scrambled *wh*-phrases to test A/A'-movement. Since there are no clear data of overt *wh*-movement in Chinese, I cannot compare Japanese and Chinese in this respect.

[14] Hoji ((1995) and 1994 class notes), however, provides counter-arguments against the validity of previous **A**-movement tests with respect to the use of *otagai* and WCO. His arguments suggest that no A-scrambling is attested in Japanese and scrambling uniformly displays **A'-**properties.

(40) [[e_2 Piping **ta**$_1$ de] nege nüren$_2$] faner xihuan Zhangsan$_1$.

criticize he DE that-CL woman unexpectedly like Zhangsan

'The woman that criticizes him$_1$ likes Zhangsan$_1$.'

(41) *Lian* Zhangsan$_1$ [$_{NP}$[e_2 piping **ta**$_1$ de] nage nüren$_2$] dou xihuan ec_1]

LIAN Zhangsan criticize he DE that-CL woman DOU like

'Lit. Even Zhangsan$_1$, the woman who criticizes him$_1$ likes.'

(42) Zhangsan$_1$, [[piping **ta**$_1$ de] ren]$_2$ bu xihuan e_1

Zhangsan criticize him DE book does not like

'Zhangsan$_1$, people that criticize him$_1$ don't like.'

There are three logical possibilities to explain the acceptability of Chinese (41) and (42). The S-initial (*lian-*)NPs, such as (*lian*) *Zhangsan* in (41) and (42) can be: (i) base-generated S-initially, (ii) A'-moved non-operators, in the sense of Lasnik and Stowell (1991), or (iii) moved to an A-position, hence an A-movement. The second possibility (ii) would not be consistent with the WCO effects observed in the long-distance fronted *lian*-NPs discussed in section 4.1.3. Theoretically, both (i) and (iii) proposals are possible. Empirically, if (iii) were adopted, it could only account for limited data like (41) and (42). Although remedying weak crossover effects has been used to argue for clause-internal A-scrambling in Japanese and Hindi, proposal (i), however, can account for all the Chinese data discussed in sections 4.2.1-3. Due to this empirical concern, I will argue that S-initial (*lian*)-objects may be base-generated in the IP-adjoined position, rather than undergoing A-movement.

4.2.2. Complex Clauses

Base-generated S-initial *lian*-phrases in complex clauses differ from moved ones in the position of *dou*. Moved S-initial *lian*-phrases in complex clauses are

those where *dou* occurs in the embedded clauses, as discussed in section 4.1.1 and

(6) repeated here as (43). In contrast, base-generated S-initial *lian*-phrases have *dou*

in the matrix clause (44).

(43)=(6) *Lian* MALI $_1$ Zhangsan renwei [$_{CP}$ Lisi **dou** bu xihuan t_1].[15]

       'Lit: Even Mali, Zhangsan thinks that Lisi also doesn't like *t*.'

(44) *Lian* MALI$_2$ Zhangsan **dou** renwei [$_{CP}$ Lisi bu xihuan (ta$_2$)][16]

       LIAN Mali Zhangsan all think Lisi not like

       'Lit: Even Mali, Zhangsan all thinks that Lisi doesn't like.'

Besides the dissimilar syntactic properties that will be discussed shortly, (43) and

(44) observe different scope interpretations. I will return to this in section 5.2.

    Unlike the WCO effects observed in long-distance fronting of bare NPs and

lian-NPs discussed in section 4.1.2, no WCO effects are displayed when *dou* occurs

in matrix clauses, as shown in (45), (46) and (47).

(45) a. *Lian*-NP$_1$ S .. **dou**-V .. [$_{CP}$ [$_{NP}$ ...ta$_1$...] V *ec$_1$*]

    b. *Lian*-NP$_1$ [$_{NP}$ ...ta$_1$...]-**dou**-V.. [$_{CP}$ S-V-*ec$_1$*]

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[15] Sentence (43') with overt *ta* in embedded object position seems to be more degraded than (44).
(43') **?****Lian* MALI $_1$ Zhangsan renwei [$_{CP}$ Lisi **dou** bu xihuan **ta**$_1$].
    'Even Mali, Zhangsan thinks that Lisi also doesn't like *t*.'
[16] Li (1992) also notes that in (i) *dou* can occur in the matrix clause associated with *meigeren* 'everyone' and a *wh*-indefinite to be interpreted with a universal reading.
(i) Meigeren/Shei, wo **dou** renwei [bu hui lai]
    everyone/who   I DOU think not will come
    'Lit: Everyone, I think will not come.'
(i) is on a par with (ii) in question with S-initial *lian*-phrase and *dou* in matrix clause.
(ii) **Lian ta** wo **dou** renwei [bu hui lai].
    LIAN he I DOU think will not come
    'Lit: Even he I think *(he) will not come.'

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(46)   *Lian* Zhangsan$_1$ Mali ***dou*** renwei [$_{CP}$ [$_{NP}$ piping ***ta***$_1$ de zhege nüren] bu

xihuan (*ta*$_1$)]

LIAN Zhangsan Mali DOU think criticize him DE this-CL woman dislike

'Even Zhangsan$_1$, Mali thinks that the woman that criticizes him$_1$

dislikes.'

(47)   *Lian* Zhangsan$_1$ [$_{NP}$ piping ***ta***$_1$ de nage nüren] ***dou*** renwei [$_{CP}$ Mali

xihuan (*ta*$_1$)]

LIAN Zhangsan criticize him DE that-CL woman DOU think Mali likes

'Even Zhangsan$_1$, the woman who criticizes him$_1$ also thinks that Mali

likes.'

Similar to the simplex clauses in (41) and (42), the proposal of base-generating S-initial objects or *lian*-objects can account for the lack of WCO effects in (46) and (47). Note that (46) and (47) allow the overt *pseudo*-resumptive pronoun *ta* in the gap position. I will return to this *pseudo*-resumptive pronoun in section 4.3.3.2.

A *pseudo*-resumptive pronoun can occur in the gap position inside a relative clause to be interpreted with the base-generated S-initial *lian*-NP; note that *dou* appears in the main clause.

(48)   <u>*Lian* Mali**$_1$**</u> Zhangsan ***dou*** taoyan [$_{NP}$[$_{CP}$ e$_2$ kua-jiang ***ta***$_1$ de] ren$_2$]

LIAN Mary Zhangsan DOU dislike praise she DE person

'Even for Mali$_1$, Zhangsan dislikes the person who praises her$_1$.'

Thus, the grammaticality of (48) supports our proposal of base-generating S-initial *lian*-NPs.

4.2.3. Base-Generation Structure

Having seen the necessity of base-generating the S-initial *lian*-object or bare object, I propose that this position is an IP-adjoined position (cf. Ernst and Wang's (1995) insight of correlating this extra position with languages allowing double nominatives). The relevant structure is given in (49).[17]

(49)

```
            IP
          /    \
     lian-      IP
     NP₂      /    \
          NP₁      I'
              /        \
             I          FP*
           Dou/        /   \
           Ye       t₁      VP
                          /    \
                         V'
                        /   \
                       V     e₂
```
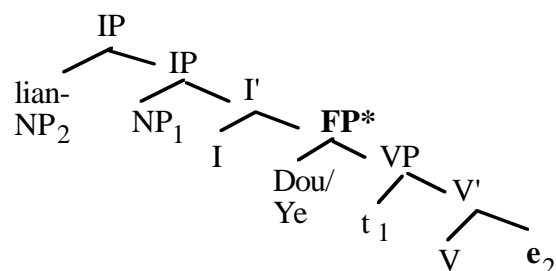
An immediate question that arises with respect to this proposal is how the S-initial *lian*-object is checked with the [+Focus] feature with the lexical FP head *dou/ye*. I propose that the S-initial *lian*-phrase is licensed by *dou* after *dou* adjoins to I^0 at LF (cf. Cheng 1991), or merely the [+Focus] feature in F moves to adjoin to I^0 at LF, in the sense of feature movement in Chosmky (1995). I also assume that a verb raises covertly to *dou* and the amalgamated [V *dou*] further raises and adjoins to I^0, which lexically marks I^0. This lexically marked I^0 allows the IP-adjoined NP to be L-related in the sense of Chomsky (1993). Therefore, the focus interpretation of *lian..dou/ye* is derived, since the base-generated IP-adjoined position of *lian*-object is in the checking domain (Chomsky 1993) of IP. It is checked with the LF raised [+Focus] feature or *dou*. Furthermore, it is *dou* or the [+Focus] feature that raises at LF, rather than the base-generated S-initial *lian*-object lowering to the F and merging

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[17] Note that for base-generated S-initial bare objects, FP is not necessarily projected if no contrastively focused interpretation is involved.

with FP to occur in the [Spec FP]. If lowering were to take place, the trace of *lian*-NP could not be identified in the sense of an Empty Category Principle violation.

The possibility of lacking the specifier position in a functional projection follows from Chomsky's (1994; 1995) Bare Phrase Structure. In section 2.2.1 the functional projection (Focus phrase) is derived as follows:

(50)

$$F_1 = FP$$
$$F_2 = F^0 \quad AspP/MP$$
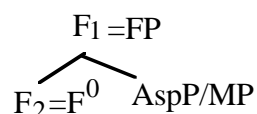
The F (labeled F_2), including a lexical item like *dou/ye* or a formal strong [+Focus] feature, is selected from lexicon and merges with its selected complement, AspP/MP. F_2 projects and is the head (F^0) of the newly merged node F_1. If no other derivation targets F_1, F_1 is labeled as FP, a maximal projection. Crucially in Chomsky's Bare Phrase Structure, no X-bar template is assumed prior to generalized transformation (GT). Hence in (50) specifier is not formed since no GT (merge or move) further applies to the head. In other words, *dou*, like other functional heads, does not require a Spec position to be projected, since there is no external argument for these heads (vs. X-bar template). Moreover, the Spec-Head Agreement relation within functional projections does not represent basic grammatical relations, in contrast to lexical heads like V; rather it is for feature checking. Hence, (50) is a legitimate syntactic object.

The following will discuss a couple of predictions from structure (49). First, (49) naturally explains why only the subject and Infl-licensed adverbs can intervene between S-initial *lian*-object and *dou*, as illustrated in (51) and (52).[18]

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[18] It is also possible for an S-initial *meige* 'every'-object to be interpreted with *dou*.
(i)   Meigeren Zhangsan **qishi/xianran** *dou* bu xihuan
         everyone Zhangsan actually/obviously DOU not like

(51)   *Lian* dianying Zhangsan (**qishi/xianran**) *dou* bu kan

Zhangsan actually/obviously LIAN movie DOU not see

'Lit: Even movies, Zhangsan actually/obviously doesn't see.'

(52)   *Lian* wan Zhangsan (**yijing**) *dou* xi-hao le.

LIAN dishes Zhangsan already DOU wash-ready Part

'Lit: Even the dishes, Zhangsan already finished washing.'

Second, structure (49) predictes that the base-generated IP-adjoined S-intial

lian-object or bare object can be an A-binder. Consider the ungrammaticality of (53).

The compound reflexive *tazjij* is within the subject NP and is not c-commanded by

Zhangsan within the same domain, violating Binding Principle A (54).

(53)   *[Ta-ziji$_1$ de mama]$_2$ hen aihu Zhangsan$_1$

himself's mother very love Zhangsan

'*His$_1$ own mother loves Zhangsan$_1$.'

(54)   An anaphor must be A-bound in a certain domain.

(Chomsky (1981; 1986b))

'Everyone, Zhangsan actually/obviously doesn't like.'
Wh-indefinites can be interpreted universally if they are licensed by *dou*. They require a closer relation with *dou* than universal QPs do (cf. Li (1992b) and (1992b)). Thus, (ii) is worse than (i) when adverbs intervene between the *wh*-indefinite and *dou*.
(ii)   ?*Shei Zhangsan **qishi/xianran** *dou* bu xihuan
         who Zhangsan actually/obviously DOU not like
         'Everyone Zhangsan actually/obviously doesn't like.'
I suggest that the asymmetry between universal QPs (also *lian*-NPs) and *wh*-indefinites may be due to the **syntactic** licensing requirement of *wh*-indefinites. Unlike the *dou* which raises **covertly** to I^0 in (51) and (i) to 'discharge' its Focus feature to *lian*-NPs or universal QPs at LF, *dou* in (ii) needs to raise **overtly** to I^0 in order to license a *wh*-indefinite universal reading in syntax. *Wh*-indefinites, once licensed syntactically, will not be interpreted as *wh*-interrogatives in a later computation system.

Compare (55a) and (55b) with (53). *Zhangsan* or *lian Zhangsan* occurs in the S-initial (IP-adjoined) position, serving as an A-binder position, and can bind the reflexive *taziji* contained in the subject position, assuming strict binary c-command.

(55)　　a. Zhangsan₁, [ta-ziji₁ de mama]₂ hen aihu

　　　　　　'Zhangsan₁, his₁ own mother loves.'

　　　　b. Lian Zhangsan₁ [ta-ziji₁ de mama]₂ dou hen taoyan

　　　　　　LIAN Zhangsan, himself's mother DOU very dislike

　　　　　　'Even Zhangsan₁, his₁ own mother dislikes.'

　　　To recapitulate, in section 4.1 I argue for a matrix [Spec TopicP] position for moved S-initial (*lian*)-objects based on binding reconstruction effects and WCO effects, especially when *dou* occurs in the **embedded** contexts of complex clauses. This movement of (*lian-*) objects to [Spec TopicP] is the so-called topicalization. In section 4.2 I argue for the need of base-generating S-initial (*lian*)-objects in the IP-adjoined position when *dou* stays in the **matrix** of complex clauses. (*Lian-*)objects in simplex clauses can be ambiguous with respect to these two positions.

4.2.4.　Summary　and　Discussion

　　　Section 4.1.1 has shown that in long-distance topicalization cases when there is no [+WH] feature on the Comp selected by the matrix verb, the embedded [Spec CP] position can serve as an escape hatch for successively cyclic topicalized (*lian-*)NP to the matrix clause. When there is a [+WH] selected by the matrix verb, the Spec of CP is reserved for *wh*-elements. Hence, long distance movement of *lian*-NP respects the *wh*-island condition, as in (9) repeated here. Note that *dou* is in the embedded clause.

(9)   **?*_Lian_ zheben shu$_i$, Zhangsan xiangzhi dao [shei _dou_ kan le t$_i$].**

            LIAN this-CL book, Zhangsan wonder who DOU read Asp

            'Even this book, Zhangsan wonders who also has read.'

Compare (9) with (56) in which *dou* occurs in the matrix clause. As discussed in section 4.2, this *lian*-NP is base-generated in the IP-adjoined position. Thus, the *wh*-island condition is irrelavant in (56).

(56)   Lian zheben shu Zhangsan **dou** xiangzhidao [shei yijing mai le].

            LIAN this-CL book Zhangsan DOU wonder who already read Asp

            'Even this book Zhangsan also wonders who has already read.'

S-initial bare object in (57), e.g. Huang (1982: 461), is on a par with (56), which is insensitive to *wh*-island conditions.

(57)   Zheben shu Zhangsan xiangzhidao [shei yijing mai le].

            this-CL book Zhangsan wonder who already read Asp

            'Even this book Zhangsan also wonders who has already read.'

        TopicP occurs only in matrix clauses of asserted contexts, and expresses a categorical judgment and "Predicational" relation with its following clause in the sense of Kuroda (1972). I will come to this in section 4.3. The current proposal, on the one hand, follows the observation made by Baltin (1982) and Lasnik and Saito[19] (1993) that IP-adjoined position, but not a topic in Topic position (higher than CP for them), is allowed in the embedded contexts. On the other hand, my proposal differs from theirs in one aspect. Note that for Baltin and L&S, the IP-adjoined position is the landing site of the moved topic and the Topic position is for base-generated topics. However, I propose that the matrix Topic position is the landing site for

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[19] Lasnik and Saito (1993: 78) propose that matrix topicalization can involve either movement to Spec of CP (as in Chomsky's (1977) analysis) or IP-adjunction, and embedded topicalization only involves IP-adjunction.

moved topics, but the IP-adjoined position is for **base-generated** S-initial (*lian-*) phrases, the so-called base-generated "topic" with a gap in the literature. It will be suggested that the difference between English and Chinese lies in the existence of major subject in Chinese. I will postpone this discussion until section 4.4 after studying the Chinese major subject and topic in the following section.

4.3. Topic, Major Subject and Syntactic Subject

I have argued that the Chinese topic does undergo movement to [Spec TopicP]. The S-initial (*lian-*) NPs discussed in section 4.2, the so-called base-generated "topic," occurs in IP-adjoined position, distinct from the moved topic position. This section will first distinguish the structural positions of topic, major subject[20] and syntactic subject in Chinese. Namely, topics occur in root [Spec TopicP] position, major subject is base-generated in an IP-adjoined position, and regular subject sits in the [Spec IP] position. After the discussion in sections 4.3.1-2, it will become evident that the base-generated IP-adjoined S-initial (*lian-*) NP or major subject may further locally raise to [Spec TopicP] position in root contexts[21] to express a "substance" of a categorical judgment, in the sense of Kuroda (1992). The proposal made here, thus, can account for the often confused notions of topic, major subject, base-generated "topic," and syntactic subject. The identification of empty category and what I call *pseudo*-resumptive pronouns related to topic and major subject/S-initial NP will be studied in section 4.3.3.

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[20] Major subject roughly corresponds to the so-called base-generated "topic" without gap. The IP-adjunction position in which the major subject sits could be the same position for the S-initial *lian*-objects discussed in section 4.2.

[21] They can locally raise to topic position with the proviso that they are definite, generic in root contexts.

4.3.1. Subject vs. Topic

Before beginning the discussion of major subject in Chinese, I would first like to present the distinctions between subject and topic. Especially in the following subsections the so-called "definiteness effect" in Chinese subject will be reconsidered in comparison with the Japanese data. I will adopt Kuroda's framework to distinguish topic and (syntactic) subject. Once this background is established, the task of differentiating major subject from topic can be conducted, which will come into play in section 4.3.2.

Although it is well-known that subject tends to be definite in Chinese (Chao 1968, Li and Thompson 1981 among others), this section demonstrates that the definiteness effect of subjects[22] is limited to the subject of individual-level predicates (first termed by Carlson (1977), discussed in Kratzer (1989)) or generic sentences (Kuroda 1992)) in root, asserted contexts. I will also summarize the interpretations of Japanese topicalized (NP-*wa*) and nontopicalized (with NP-*ga*) sentences in the literature and compare those with Chinese.[23] It will be concluded that this dichotomy also exists in Chinese, although there are no overt morphological case topic and nominative case markers in Chinese.

Let us first look at some well-know distinctions between subject and topic (also see Chafe (1976), Keenan (1976), Li and Thompson (1976; 1981) and Tang

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[22] I am also grateful for the discussions and participants in A. Li's course (Fall 1994) with respect to the facts concerning the definiteness effect of subjects.
[23] The discussion about Japanese is drawn largely from Kuroda (1992; 1995) and discussions in Hoji's course in Spring 1995. I thank Hajime Hoji for helping me understand the issues here. I also thank Hiroshi Aoyagi, Keiko Miyagawa, Yuki Masuta, Shin Watanabe and Maki Watanabe for their discussions with me about these issues.

(1979), Tsao (1977), among others). A topic has to be definite or generic (referring to a class) (58a), rather than (non-contrastive) indefinite (58b).

(58)   a. (Zheyizhong) yu, wo hen xihuan chi.

             '(This kind of) fish, I like to eat.'

         b. *Yizhong yu, wo hen xihuan chi.

             one-CL fish I very like eat

             'A kind of fish, I like to eat.'

A subject bears selectional restriction with verbs. In (59) it is *wo* 'I,' the subject, who got sick.

(59)   Qunian <u>wo</u> zhi bing le yici

         'Last year I was only sick once.'

A subject may serve as an antecedent of a reflexive as in (60).

(60)   Zhangsan piping taziji.

         'Zhangsan criticizes himself.'

Chao (1968) notes that topic has to be in the S-initial position, but logical subjects of unaccusative (presentational) verbs may not necessarily be, as in (61).

(61)   Lai le <u>keren</u>

         come Asp guest

         'Guests have come.'

4.3.1.1. Chinese Numeral Subject NP

        Although a topic has to be definite or generic, Lee (1986: 86-95) correctly points out that a numeral indefinite NP can occur clause initially as in (62) when it functions as a non-referential subject of a hypothetical clause.

(62)   [Ruguo <u>yige ren</u> zhong le caipiao], ta hui biande hen fuyou

           if one-CL man hit Asp lottery, s/he will be very rich

           'If a man wins the lottery, he will become very rich.'

           (Lee 1986:90)

Note that the numeral NP of Lee's example (62) is a non-referential subject in a stage-level predicate (SLP hereafter, in the sense of Carlson (1977), Kratzer (1989)) in a **non-root**, conditional clause.[24] Besides this non-root context, an indefinite NP can also occur S-initially as a subject of a stage-level predicate in a **root** clause, as shown in (63).[25]

(63)   <u>Yige ren</u> lai le/zheng zai nian shu.[26]   --indefinite referential

           one-CL man come Asp/ Progressive at read book

           'A man came/is reading.'

The indefinite NP subject in (63) has to be interpreted referentially (Kuroda 1995 class note), specifically (Enç (1991)), or presuppositionally (Diesing (1992)), meaning that a specific person in the speaker's mind came or is reading books.

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[24] Non-root contexts include conditional clauses, relative clauses and embedded clauses of non-bridge verbs. See footnote 1.

[25] Lee (1986: 82) notes that numeral subjects can occur referentially if they are preceded by a topic; also see Fan (1985). Note that their sentences are SLPs.
(i)   <u>Beijing</u> [sanshi ge qingnian] fangwen le riben
           Beijing thirty CL youth visit Asp Japan
           'Thirty youths from Beijing visited Japan.'

[26] More examples similar to (63) are given by Fan (1985).
(i)   a. <u>Yiwei yisheng</u> xiang wo jieshao tamen de bingren.
           one-CL doctor to me introduce their patient
           'A doctor introduced their patients to me.'
       b. <u>Ershiliuwei youxiu xuesheng</u> yi bei xuan song-dao Shanghai nong xueyuan
           twenty-six excellent student already BEI choose send to Shanghai agriculture school
           'Twenty-six excellent students have been sent to a Shanghai agriculture school.'

Despite allowing an indefinite subject NP in SLPs, an indefinite numeral NP does **not** appear as a subject of an **individual**-level predicate (ILP henceforth or generic sentences in Kuroda's (1992) sense) in **root** contexts (64), but it can occur in non-root contexts (e.g. conditional) such as in (65).[27],[28]

(64)   *Yige ren hen congming/gao.

            one-CL man very smart/tall

            'A/One man is very smart/ tall.'

---

[27] (64) can be felicitous if it is contrastively focused and has a cardinal interpretation, in which this numeral subject is understood as 'the number is one (rather two or three, etc.).' I will suppress this contrastive reading, since it is independent of our current consideration of presuppositional indefinites.

However, consider (64'). The contrast in Chinese (64) and (64') is exactly on a par with Japanese bare NP-*ga* in ILPs, which is obligatorily focused in such root contexts.

(64')   (Shi) Yige nanren hen congming/gao, *****(bushi yige nüren hen congming/gao).
        (be) one-CL man very smart/tall, not one-CL woman very smart/tall.
        'It is one MAN who is smart/tall, not one WOMAN.'

An indefinite NP cannot be a "Subject" (topic) of a sentence; see Kuroda (1992: 36). The referent of an indefinite NP is "presubstantive," and its cognitive existence does not extend beyond the confines of perception in making judgments; namely, it cannot be apprehended as "substance." Kuroda's judgment as related to the use of topic *wa* will be discussed in section 4.3.1.3.

[28] The unacceptability of (64) may also be due to the lack of a generic interpretation licensor. Compare (64) with (66) and (i). It is possible for numeral subjects of ILPs to occur in sentences having a non-referential and implicit free choice *any* interpretation, which is either licensed by modals or in conditional (non-root) contexts.

(i)   Yige ren **keyi** hen congming dan bu shanliang.
        one-CL man may very smart but not kind.
        'A man can very smart but not kind.'

Thus, the acceptability of (65) may also be ascribed to the non-referential, conditional interpretation licensed in an *if* clause.

If this is correct, Chinese numeral *yi*-CL is in fact ambiguous between English *a* and cardinal *one*. The cardinal reading of (64) can be obtained, but it needs to be focused in root ILPs; see previous footnote. The free choice *any* reading cannot be obtained due to the lack of modals or not being in embedded contexts. If a modal is added as in (i), a (non-referential) numeral subject can occur in such a context and be interpreted generically.

(65)   Ruguo <u>yige ren</u> hen congming dan bu yonggong, hai shi meiyou yong.

          if one-CL man very smart but not hard-working, still not useful

          'If a person is smart but not hard-working, it still is no use.'

Besides non-root contexts, an indefinite NP subject may be licensed with a non-referential reading by modals verbs in root generic sentences (ILPs); see (66) from Lee (1986).

(66)   a. <u>Liangge ren</u> *(**keyi**) chi shiwan fan

          two-CL person can eat ten-bowl rice

          'Two persons can eat ten bowls of rice.'

       b. <u>Wuge ren</u> zhun *(**neng**) wancheng renwu

          five CL person definitely complete task

          'Five persons can definitely complete the task.'

Chinese indefinite subjects occurring in ILPs and SLPs are summarized in table 4-I.

Table 4-I:

	Chinese Clause-initial Numeral NPs
Individual-Level Predicates (Generic Ss)	* in root contexts, but interpretable when it is contrastively focused or denotes cardinality, (64).
	OK in non-root contexts, interpreted non-referentially, (65)
Stage-Level Predicates (Specific Ss)	**OK** in root contexts, but obligatorily interpreted as specific indefinite, (63)
	OK in non-root contexts, interpreted non-referentially, (62)

Table 4-I clearly shows that the so-called definiteness effect of subjects in the literature only happens to the (non-focused) subjects of ILPs (or generic sentences) in root contexts (vs. Tsai 1994).

In the following section I will compare Japanese (bare) NP-*ga* with Chinese indefinite numeral NP subjects. It will be concluded that the properties of Chinese indefinte NPs in table (64) are on a par with Japanese nominative bare NP-*ga*.

4.3.1.2. Japanese NP-*ga* and NP-*wa*

A topic NP, such as *neko-wa*[29] in (67), can occur in generic sentences (or ILPs), which only denote definite or generic reading (see Kuroda (1992) and (1995 class notes)).

(67)   Neko **wa** yoku nemuru.   --*indef/ def/ generic

            cat-*wa* a lot sleep

            'Cats sleep a lot.'

Neko-ga does not occur in root SLPs unless it is focused as in (68) or in non-root contexts, such as the coordinate clause in (69). Moreover, *neko-ga* in (68) is interpreted as definite (referential) in such a context.[30]

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[29] A bare NP in Japanese like *neko-ga* is ambiguous among *(the) cats, a cat,* or *one cat* readings.

[30] Unlike English generic NPs which can be either plural or *a*-Ns, generic NPs in Japanese are expressed only by bare NPs. Moreover, a numeral NP such as *ippki no inu* 'one-CL dog' and floated *inu-ga ippiki* 'dog one' only expresses cardinal or partitive readings. The Japanese sentence (i) from Kuroda (1995 class lecture) is felicitous only when the indefinite (floated) subject *neko-ga nihiki* 'two cats' is interpreted as a focused cardinal NP, Keiko Miyagawa (1995 p.c.).
(i)   <u>Neko **ga** nihiki</u> yoku nemuru   --*indef/*def/*gen
           cat-Nom two-CL a lot sleep
Compare Japanese (i) with Chinese (64). As mentioned in footnote 27, *yi*-CL in Chinese is ambiguous between English *a*-N and *one*-N. When *yi*-CL is interpreted generically, certain lisensors, such as modals or embedded contexts, are needed. Hence, (64) cannot be interpreted generically, since there is no non-referentiality licensor. However, (64) is felicitous under the focused cardinal reading.
(64)   <u>Yige ren</u> hen congming/gao.   --*indef/*def/*gen
            one-CL man very smart/tall
            'A man is very smart/ tall.'
The generic reading of a numeral subject in root ILPs can be obtained when a modal is added, as in (ii).
(ii)   <u>Yige ren</u> **keyi** hen gao.

(68)   **Neko ga** yoku nemuru   --***indef/ definite

              cat-Nom a lot sleep

              '(The) cat sleeps a lot.'

(69)   Neko **ga** inu o oikakeru ka inu ga neko o oikakeru

              cat-Nom dog-Acc chase or dog-Nom cat-Acc chase

              'Cats chase dogs or dogs chase cats.'   (Kuroda 1992: 51)

Kuroda (ibid.) further notes that such restrictions on NP-*ga* in root ILPs are lifted when nominative NP-*ga* appears in stage-level predicates (specific sentences). Hence *neko-ga* in SLP (70) is interpreted as either definite or (referentially) indefinite, on a par with Chinese as in (63), repeated here.

(70)   Neko **ga** asoko de nemutte iru   --definite/indefinite ref.

              cat-Nom there-at sleeping is

(63)   <u>Yige ren</u> lai le/zheng zai nian shu.   --indefinite referential

              one-CL man come Asp/ Progressive at read book

Again, topic *neko-wa* in (71) has to be definite.

(71)   Neko **wa** asoko de nemutte iru   --definite/*****indefinite

              cat-*wa* there-at sleeping is

The above discussion of Japanese bare NP-*ga* in ILPs and SLPs is summarized in Table 4-II.

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      one-CL man may very tall
      'A man can be very tall.'
The point illustrated here indicates that Chinese numeral NPs differ from Japanese ones in that Chinese numeral NPs can express either cardinality or generality provided there are appropriate licensing elements, such as modals or embeding in non-root contexts. However, Japanese numeral NPs only denote cardinality. I have benefited by discussing this issue with Keiko Miyagawa and Shin Watanabe.

Table 4-II:

	Japanese Bare NP-*ga*
Individual-Level Predicates (Generic Ss)	In root clause, **OK** only when it is contrastively focused, (68)
	OK in non-root contexts, interpreted generically, (69)
Stage-Level Predicates (Specific Ss)	**OK** in root contexts, but obligatorily interpreted as definites, or specific indefinites (70)
	OK in non-root contexts, interpreted non-referentially

Compare the Japanese Table 4-II with the Chinese Table 4-I. Both languages have similar restrictions on the subject occurring in a root ILP (or generic sentence). The Chinese numeral subject in such a context is possible only when it is contrastively focused and denotes cardinality. The Japanese bare NP-*ga* is obligatorily focused. A cardinal reading is expressed by a floated NP; see footnote 30.

The Chinese data observed here calls for a reconsideration of the so-called "definiteness effect" in subjects. It is not that indefinite subjects cannot occur in subject position (cf. Tsai 1994); rather it can do so as long as certain licensors and interpretations are available. Indefinite (numeral) subjects can occur relatively freely in both root and non-root stage-level predicates. In root individual-level predicates, numeral subjects, if allowed, have to be rendered as a contrastively focused cardinal interpretation. Moreover, if there are modals that can licence a non-referential interpretation of these root ILPs, numeral subjects are also possible. In non-root ILPs, they are allowed and interpreted non-referentially. How these semantic properties match the syntactic representation of subjects is beyond the scope of this thesis and must await future research.

4.3.1.3. Categorical and Thetic Judgment

In his extensive work on "judgment," Kuroda (1975; 1992) proposes a logical distinction between topicalized (with NP-*wa*) and non-topicalized (with NP-*ga*) sentences. Topicalized and non-topicalized sentences express different "cognitive acts" or "judgments," although they represent the same proposition, or the same truth-condition. The definition of "judgment" is given as follows:

> A *judgment* is meant to be a cognitive act. It is externalized by a speech act of *stating*.... A statement, as well as a judgment, a cognitive act externalized by it, is said to be *expressed* by an utterance of a sentence. An utterance of a sentence is said to *represent* the intentional object of the cognitive act it expresses.
> (Kuroda 1992: 20)

According to Kuroda, a topicalized sentence expresses *categorical judgment* (double judgment), which consists of two distinct cognitive acts: one is recognizing (apprehending) something as substance, termed as "Subject,"[31] another is attributing to the Subject the property perceived in a situation (called Predication) and acknowledging or disavowing a Predicate of a Subject. Categorical judgment is expressed by the Subject-Predicate form, and this Predication associates an attribute represented by a Predicate with the referent of the Subject. *Thetic judgment*, a simple judgment, a unitary cognitive act, is expressed by nontopicalized, existential and impersonal sentences which do not associate a Subject with a Predicate. It simply expresses recognition of the existence of (a) specific entity (entities) or a specific situation.[32]

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[31] Kuroda (1992:19) uses capital "Subject" to refer loosely to what is termed "topic."
[32] In addition to categorical and thetic judgment, Kuroda (1992; 1995) also discusses 'quantificational' judgment and 'response' judgment. Quantificational judgment can be a simple judgment if a perception of an event cannot be recalled any more, but the effect of the thetic judgment is retained. In (i) the speaker does not perceive an entity, but just utters a thetic judgment that s/he made before.
(i)   There is a cat sleeping there.

Kuroda (1992: 43) states that generic judgments are only expressed by sentences with topicalized *wa* phrases. (67a) expresses a cognitive act (categorical judgment) of apprehending the existence of an entity *neko*, recognizing it as a substance, and attributing to the Subject *neko* the perceived property of sleeping a lot. In order to perceive an entity as a substance (topic), it has to be definite or generic, such as in Japanese (67) and (72).

(67)   Neko **wa** yoku nemuru.

            cat-*wa* a lot sleep

            'Cats sleep a lot.'

(72)   Kuzyaku **wa** osu no hoo ga kirei da

            peacock WA male side Nom beautiful

            'As for the peacock, the male is more beautiful.'

As mentioned before, non-topicalized generic sentences (ILPs) are possible only when NP-*ga* is obligatorily focused in root contexts, such as (69) and *kuzyaku-ga* in (73).

(73)   Kuzyaku **ga** osu no hoo ga kirei da   --obligatorily focused

            peacock Nom male side Nom beautiful

Japanese NP-*wa* (72) and NP-*ga* (73) are both translated into Chinese (74).

(74)   <u>Kongque</u> gong de bijiao piaoliang.

            peacock male DE comparatively beautiful

            'With peacocks, the male is more beautiful.'

Quantificational jugement can be a double judgment as well. In (ii), the speaker may perceive an entity of 'some cats are sleeping there' (thetic judgment). Then, s/he further judges that the number of cats is many.
(ii)   Many cats are sleeping there.

It is easy to interpret the first NP *kongque* 'peacock' in (74) as a topic, recognizing it as a substance, i.e. Japanese *kuzyaku-wa*. However, we should not preclude the possibility that the first NP in (74) can be a non-topicalized subject as in generic sentences, like the Japanese focused *kuzyaku-ga* in the same context.

Unlike generic sentences (ILPs), specific sentences (SLPs) exhibit a contrast between topicalized and non-topicalized sentences. (71) with *neko-wa* expresses a categorical judgment, but (70) with *neko-ga* expresses a thetic judgment.

(71)   Neko **wa** asoko de nemutte iru   --definite/*indefinite

         cat-*wa* there-at sleeping is

(70)   Neko **ga** asoko de nemutte iru   --definite/indefinite

         cat-Nom there-at sleeping is

Kuroda states that an indefinite noun phrase can refer in a specific sentence without *wa*, but the NP-*wa* in a specific sentence (SLP) must be definite. An indefinite referring noun cannot be a Subject (topic). Compare Chinese (75) root SLP with Japanese (71) and (70).[33]

(75)   <u>Mao</u> zhengzai nar shuijiao

         cat Progressive there sleep

(75) is ambiguous between topicalized (equivalent to Japanese (71)) and non-topicalized (Japanese (70)) sentences, although there are no morphological topic/subject case markers in Chinese to distinguish topicalized and nontopicalized sentences. When (75) expresses a "categorical (double) judgment," a **topicalized** sentence, it involves a "cognitive act" of apprehending *mao* 'cat' as substance and

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[33] Kuroda (1988) proposes that syntactic subject NP-*ga* position is within VP in Japanese, without further raising out of VP. Here I propose that the position of syntactic subject in Chinese is raised to [Spec IP].

attributing to it/them the property perceived as the event of sleeping there. This can also be expressed by inserting a pause particle, as in (76).

(76)   Mao a, zhengzai nar shuijiao ne!

         cat Pause Part, Progressive there sleep Part

The **nontopicalized** reading of (75) contains no such cognitive act of apprehending the "substance" of the cat(s). It expresses a thetic judgment which is a simple recognition or perception of the existence of an actual situation (sleeping there) with participants (cat) in that event.

Non-root clauses, such as conditional or embedded contexts, do not express categorical judgments inasmuch as there is no apprehension of an entity as substance involved. Thus, Japanese NP-*wa* does not occur in these contexts. Consider (77). The NP-*ga* of a ILP in a conditional clause is not necessarily focused. This non-root context does not express a categorical judgment.

(77)   mosi kuzyaku **ga/*wa** osu no hoo ga kireida nara...

         'If the peacock is more beautiful on the male side...'

         (Kuroda 1986a: #117)

Kuroda (1988) further proposes that Japanese topicalization uniformly involves movement. It is derived in two ways. One is that *wa* phrases are <u>directly</u> moved to the topic position ([Spec CP] in Kuroda's framework) leaving an empty site in the comment clause, as in (78).

(78)   [$_{S'}$ Eigo **wa** [$_S$ Masao ga *t* hanasu]].

         English WA Masao Nom speak

         'English, Masao speaks.'

The other way is to locally move a definite major subject NP-*ga* to the topic position. For example, the definite NP-*ga* in (73), the thetic judgment, non-topicalized

sentence, can be topicalized to the topic position to express a categorical judgment by *wa* attachment as in (72).

In short, according to Kuroda, a topic *wa* phrase is derived either by directly moving it to the topic position, or by locally raising nominative NP-*ga* to the topic position to express categorical judgments. I will adopt Kuroda's view of topicalization. The raised topic (either directly raised from Predicate clause or from major subject position) involves a categorical judgment in which a particular entity is apprehended as Subject (topic) to which the property of the Predicate clause is attributed.[34]

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[34] Kuroda (1986) points out three types of NP-*wa* in Japanese: (a) a *wa* phrase which obviously binds an empty site, (b) a *wa* phrase which does not, or does not appear to, bind an empty site but alternates with a *ga* phrase, and (c) a *wa* phrase which does not bind an empty site and does not alternate with a *ga* phrase. According to him, type (a) is the directly moved topics. Type (b) topics are derived from major subjects. Nevertheless, he excludes type (c) from his proposed semantic Subject-Predicate Predication relation. It is because a type (c) *wa* phrase, such as in (i), and its following clause have very loose relation, and "loose enough almost to verge on vacuity." (Kuroda 1986: 285) This *wa* phrase cannot be relativized as a relative head, as shown in (ii).
(i)   sinbun-o yomi tai hito **wa**, koko ni arimasu
        newspaper read want person WA here be
        'those who want to read newspapers, (you find) them here.'
(ii)   *****koko ni aru sinbun-o yomi tai hito
        'those who want to read newspapers such that newspapers are here'
Chinese also witnesses this kind of loose related topic; also see the famous firefighter example originated from Chao (1968) and adopted by Li and Thompson (1976; 1981). Consider Shi's (1992: 135) example in (iii). Shi (ibid.) excludes this type of "topic" from his discussion of topic. He states that the acceptability of (iiia) is because it is an incomplete form of (iiib). The adverb *xingkui* 'fortunately' is a conjunctive adverb, which introduces an adverbial clause of cause, reason or condition. The result of uttering (iiia) is implicitly understood. However, if the adverb is deleted to eliminate this contextual clue, (iiic) becomes unacceptable.
(iii)   a. <u>Neizuo fangzi</u>, xingkui qunian mei xia xue
            that CL house fortunately last-year not fall snow
            'That house, fortunately it didn't snow last year.'
        b. <u>Neizuo fangzi</u>, xingkui qunian mei xia xue, cai meiyou daodiao
            that CL house fortunately last-year not fall snow consequently not collapse
            'That house, fortunately it didn't snow last year, consequently (it) didn't collapse.'
        c. *****<u>Neizuo fangzi</u>, qunian mei xia xue.

4.3.2. Major Subject and Topic

In this section I will argue that there exists a position for major subject[35] which is often considered a base-generated non-gap "topic" in Chinese literature (cf. "main subjects" in Chao 1968: 95). Instead I will propose that major subject can be structurally distinguished from moved topic, although their properties overlap to a great extent. Specifically, I argue that major subject in Chinese is base-generated in the IP-adjoined position, distinct from directly moved topic to the [Spec TopicP] position. Major subject may be raised further to [Spec TopicP] position to become the topic of a categorical judgment in root contexts.

4.3.2.1. Double Nominative

A typical case of major subject is shown in (79) which contains two (or more than two) nominatives. The first nominal element bears a certain "aboutness, whole-part" relation with the second NP or the rest of clause. The verbal element can be a stative intransitive, such as an adjectives or copulative predicate (79) (e.g. Teng (1974)), or an eventive verb, as in (80).

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that CL house last-year not fall snow
This loosely related "topic" does not seem to be able to be relativized as a relative head noun as in (iv), cf. Kuroda's example in (ii). Under these considerations, I will not include this type of "topic" in the current discussion.
(iv)   *(xingkui) qunian mei xia xue de <u>neizuo fangzi</u>
            fortunately last-year not fall snow Comp that CL house
            '*that house that fortunately it didn't snow'
[35] I adopt the term "major subject" used in Japanese by Kuno (1973) and Kuroda (1978).

(79)	a.	Daxiang <u>bizi</u> hen chang[36]

elephant trunk long   'Lit: Elephant, nose very long.'

    b.	Ta tou teng.

he head painful   'He has a headache.'

(80)	Daxiang <u>bizi</u> shen-chu le langan.

elephant trunk stretch-out Asp fense

'(An) elephant's trunk stretched across the fense.'

Although there are no overt case markers in Chinese to distinguish major subject from topic, we can gain insight by comparing Chinese data with those in Japanese. The notion of "major subject" has been well studied in Japanese literature; see Kuno (1973), Kuroda (1978; 1986a; 1986b; 1988) among others. It is proposed that the major subject *zoo-ga* in Japanese (81) is derived either by Subjectivation (Kuno (1973)) or by base-generation (Kuroda (1986)).

(81)	**Zoo ga** hana ga nagai

elephant-Nom trunk-Nom long

According to Kuno (ibid.), Subjectivation adjoins the possessor NP to the maximal phrase[37] domintaing the original subject NP leaving a trace *t*. However, Kuroda (1988) suggests that major subject can also be base-generated in an adjoined position dominating the original subject NP with an empty category *e* in the subject possessor position rather than a trace, as shown in (82).

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[36] There could be more than two nominative NPs. The genitive marker *de* can be inserted between two NPs.
(79')	Daxiang (**de**) bizi hen chang.
       elephant Gen trunk very long
(ii)	Zhangsan (**de**) diannao (**de**) cidieji hui le.
       Zhangsan Gen computer Gen drive break Part
       'Zhangsan, computer, floppy drive broke.'
[37] It is to adjoin to VP as suggested by Kuroda (1988).

(82)   [$_{VP}$ [$_{NP}$ <u>zoo</u>$_i$ **ga** [$_{VP}$ [$_{NP}$ e_i hana ga]] [$_{VP}$ nagai]]

In other words, major subject, according to Kuroda (1988), can be either base-generated or moved to an adjoined position. What concerns us here is that there exists an additional position for major subject, distinct from topic *wa* phrases.

This point of an independent position for major subject is supported by the intervention of sentential adverbs between the major subject and the syntactic subject (also see footnote 37). The first two nominative NPs do not have to form a constituent. Consider (83). A genitive *de* may be inserted between the first and the second NPs in (83b).

(83)   a. (Ouzhou a) <u>xianjin guojia</u> <u>nanren</u> bi nüren pingjun-shouming duan

(Europe) civilized countries male compare with women average-life-span

shorter

'In Europe, in civilized countries the average life-span of men is shorter

than that of women.'

b. (Ouzhou a) <u>xianjin guojia</u> **de** <u>nanren</u> bi nüren pingjun-shouming duan

(Europe) civilized DE countries male compare with women average-life-

span shorter

However, double subjects in (83a) do **not** obligatorily form a single constituent. It is because these two NPs can be separated by adverbs, as shown in (84a). Furthermore, in (84b) it is impossible to insert the genitive *de* in between these two nominative NPs when a sentential adverb intervenes. The sharp contrast between (84a) and (84b) clearly shows that two nominative subjects do not have to form a single NP constituent.[38, 39]

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[38] I refer readers to Teng's (1974) and Tsao's (1977) discussion of double nominative structure. Teng claims that the two nominative NPs are generated in separate positions. He tries to separate two types of possession nouns. His

(84)   a. Ouzhou a, <u>xianjin guojia</u> **zuijin** <u>nanren</u> bi nüren pingjun-shouming duan

        'In Europe, in civilized countries recently the average life-span of men is

        shorter than that of women.'

    b. ***Ouzhou a, [<u>xianjin guojia</u> **de zuijin** <u>nanren</u>] bi nüren pingjun-

        shouming duan

        'In Europe, men of civilized countries recently have shorter average life-

        span than women.'

Notice that a topic with a pause partcle is added in (83) and (84) to ensure the major

subject, *xianjin guojia* 'civilized countries,' is not being overtly topicalized.

    The point of an independent position for the major subject is further

supported by cases where the major subject does not correspond to any argument or

adjunct in the following predicate. As noted by Kuroda (1986a), the major subject

Tokyo-wan no sakana-ga in (85), from Kuno (1973), does not bind an empty site.

(85)   <u>Tokyo-wan no sakana **ga**</u> koozyoo-haisui ni yoru kaisui no
       Tokyo bay-Gen fish-Nom factory-effluent-due-to sea-water-Gen

       osen de moo-sudeni sisya ga san-mei deteiru
       pollution-by already dead-person Nom three-CL come-out

       'It is fish of Tokyo Bay that due to the pollution of sea water by factory
       effluent the death of three people already happened.'

---

arguments are based on the positions of adverbials *hai* 'still' and *ye* 'also,' and equi-NP deletion. Tsao provides counter-examples for Teng's data. I refer readers for the detailed discussion. Despite Tsao's arguments, I think some adverbs do occur either between two nominative NPs or after the second NP, such as *zuijin* 'recently' in (84), or *renran* 'still' as in (i). This indicates that these two nominative NPs do not have to form a single constituent. Hence the first NP is not necessarily derived from the possessor of the subject.
(i)   Ta (*renran*) tou/shou (*renran*) hen teng.
     he still head/ hand still very painful
     'He (is such that) head/hand is still very painful.'
[39] Compare Heycock's (1993:175-7) argument against Tateishi's (1991) obligatory constituency of double nominative *ga*-phrases in Japanese. The Chinese data in (83) and (84) seem to be parallel to the Japanese counterparts discussed in Heycock (ibid.). Namely, sentential adverbs can intervene between double subjects.

It is similar to (86), the Chinese counterpart of (85). Sentence (87) is another

example where no gap is related to the major subject.

(86)   <u>Dong-jing wan de yu</u> youyu gongchang paishui yin-qi de haishui
         Tokyo bay DE fish due to factory effluent release DE sea-water

         wuran yijing chuxian sizhe san ren.
         pollution already appear dead-person three-CL man.

(87)   Hua meigui hua zui piaoliang.

         flower rose most beautiful '(Among) flowers roses are most beautiful.'

It is generally assumed in the literature that in double nominative sentences

the first NP is the topic and second one the subject of the comment clause; see Teng

(ibid.), Li and Thompson (1976; 1981), Huang (1982) among others, vs. Tsao's

(1977) analysis of double topic constructions. Since Chinese does not have overt

case markers to distinguish major subject from topic, arguments for or against a

major subject position in Chinese can not be solely based upon sentences (79), (86)

and (87). Furthermore, given the alternation of NP-*wa* (topic) and major subjects

NP-*ga* in Japanese (81) and (85),[40] and their Chinese counterparts in (79) and (86)

respectively, one cannot simply jump to the conclusion that the major subject cannot

be distinct from topic in Chinese either. The following will examine the data and

arguments discussed in the literature and provide further arguments and motivation

for postulating this base-generated IP-adjoined major subject position, besides the

[Spec TopicP] topic position.

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[40] The Japanese *wa* counterparts of (81) and (85) are given in (i) and (ii)
respectively.
(i)   <u>Zoo</u> **wa** hana ga nagai
         elephant-Topic trunk-Nom long
(ii)   Tokyo-wan no sakana **wa** koozyoo-haisui ni yoru kaisui no osen de moo-
         sudeni sisya ga san-mei deteiru
         'Fish of Tokyo Bay, due to the pollution of sea water by factory waste
         water, the death of three people has already happened.'   (Kuno (ibid.))

One of Li and Thompson's (1976) arguments for the first NP as topic comes from the lack of selectional restriction between the first NP and the verb. In (79), repeated below, it is the syntactic subject *bizi* 'trunk' being long, rather than the first NP *daxiang* 'elephant' being long.

(79)   a．Daxiang <u>bizi</u> hen chang

        elephant trunk long   'Lit: Elephant, nose very long.'

However, it does not seem to be always the case. Kuroda (1988) notices another type of major subject, in which the θ-role is distributed to both nominative NPs as in (88). Namely, both *kono koma* 'this top' and *iro* 'color' can be the subject of being beautiful.[41]

(88)   Kono koma ga iro ga kirei da

        this top-Nom color-Nom beautiful

        'this top is a pretty color.'

Similarly, we can come up with a Chinese counterpart as in (89) which allows the first NP to be interpreted with the verb as well.

(89)   Zhuomian yanse hen piaoliang

        table-surface color very beautiful

(79b) is repeated below to further show that both *ta* 'he' and *tou* 'head' can be the subject of the predicate, being painful.

(79)   b．Ta tou teng.

        he head painful   'He has a headache.'

Seeing that major subject can also be interpreted as the subject of the verb, Li and Thompson's argument against major subject is weakened.

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[41] According to Kuroda (1988), the structure of (88) is like (i), .
(i)   [NP [NP kono koma ga] [NP [NP e] iro ga]] kirei da

Another piece of evidence of a major subject position distinct from topic position comes from the contrast between root and non-root contexts. Consider (90). *Yizhi daxiang* 'one elephant, an elephant' is **not** interpreted as generic or referentially indefinite (specific) in such a root ILP.[42]

(90) ***Yizhi daxiang** bizi hen chang.

one-CL elephant trunk very long

One might say the unacceptability of (90) is because the first NP is a topic which has to be definite or generic. However, if topic were the only possibility for the first NP, why is it the case when (90) is embedded in a non-root (conditional) context (91) becomes well-formed?

(91) Ruguo <u>yizhi daxiang</u> bizi hen chang, na yiding hen keai

if one-CL elephant trunk very long, then definitely lovely

'If an elephant's trunk is very long, then (it) must be lovely.'

Yizhi daxiang in (91) is interpreted as non-referential generic indefinite; see the discussion of Chinese indefinite subjects in section 4.3.1.1. Therefore, the contrast between (90) and (91) strongly argues that there exists a major subject position distinct from topic position. A major subject in non-root context is **not** perceived as a "Subject" (topic) to express categorical judgement, although it can do so in root contexts (by further raising to topic position). Recall that categorical judgment is expressed by topicalized sentences, non-root contexts generally do not allow topic.

Let us look at similar contexts in Japanese. As pointed out by Kuroda (1986a), the NP-*ga* of individual level predicates generally does not occur in root contexts without being obligatorily focused. Hence, *kuzyaku-ga* in (92)[43] is

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[42] (90) is felicitous under a contrastively focused cardinal interpretation.

[43] Recall that the bare NP *kuzyaku* is ambiguous among English *the peacock, a peacock*, or *peacocks*.

obligatorily focused, and has a definite or generic instead of an indefinite (referential)

reading. A topicalized sentence with *kuzyaku-wa* is given in (93).

(92)   **Kuzyaku ga** osu no hoo ga kireida   --generic/ def/ ***indef**

          'the peacock is that of which the male is more beautiful'

          (Kuroda 1986a: #116)

(93)   Kuzyaku **wa** osu no hoo ga kireida   --generic/ def/ ***indef**

          'as for the peacock, the male is more beautiful.'

          (Kuroda 1986a: #115)

When (92) appears in a non-root context like (77), repeated here, *kuzyku-ga*[44] does

not have to be focused and is interpreted either a generic or defninte NP (see regular

subject NP-*ga* in section 4.3.1). Note that NP-*wa* does not occur in such a non-root

context.

(77)   mosi kuzyaku **ga/*wa** osu no hoo ga kireida nara.....

          'If the peacock is more beautiful on the male side...'

The contrast between major subjects of ILPs in root and non-root contexts in

Japanese (92) and (77) are parallel to Chinese (90) and (91) respectively. Hence, it

strongly argues for a major subject position in Chinese, independent of the topic

position.

        Heycock (1993) explicitly argues for syntactic predication[45] between a major

subject and the rest of the sentence.[46]   Its position is not licensed by θ-role

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[44] According to Kuroda (ibid.), NPs attached by *mo* 'also,' *dake* 'only' and *sae*
'even' can occur in non-root contexts as well.
[45] Heycock's syntactic predication does not totally correspond to Kuroda's notion of
(logical) Predication between Subject (topic) and Predicate. As Yuki Masuta points
out, Heycock's predication refers to a syntactic relation between major subject and
the rest of the sentence, which does not necessarily assert "categorical judgment" as
in topicalized sentences (Predication in Kuroda's logical sense).
[46] Cf. VP-adjoined major subject position in Japanese in Kuroda (1988) and
Heycock (ibid.).

assignment, but by syntactic predication. Moreover, the "aboutness" relation of major subject and regular subject is the semantic correlate of this syntactic predication relation. One of her arguments is that major subject may serve as an A-binder in Japanese (94). A major subject occurs in an A-position given the general assumption that binding of anaphors is only possible from A, rather than A'-positions.

(94)   sono hito$_1$-**ga** kodomo-**ga** zibun$_1$-yori atama-ga ii (koto)

that person-Nom child-Nom self-than head-Nom ii (fact)

'That person$_1$ [is such that her] child is more intelligent than she$_1$.'

Major subject in Chinese can serve an A-binder as well, as illustrated in (95).

(95)   a. Zhangsan$_1$ chezi zhuang-dao le ziji$_1$.

Zhangsan car hit-result Asp self

'Zhangsan's$_1$ car hit himself$_1$.'

   b. Nageren$_1$ haizi bi ziji$_1$ hai congming.

that-CL man child than self still smart

'That person [is such that his] child is more intelligent than he$_1$.'

Furthermore, the reflexive can be A-bound by the major subject preceded by *lian*, such as *lian Zhangsan* and *lian nageren* in (96a) and (96b) respectively.

(96)   a. *Lian* Zhangsan$_i$ chezi *dou* zhuang-dao le ziji$_i$.

LIAN Zhangsan car DOU hit Asp self

'Even Zhansan$_1$ (is such that his) car also hit himself$_1$.'

   b. *Lian* nageren$_1$ haizi *dou* bi ziji$_1$ hai congming.

LIAN that-CL man child DOU than self still smart

'Even that person [is such that his] child is more intelligent than he$_1$.'

In section 4.2.3 I have argued that an S-initial *lian*-object, on a par with a bare object, can be base-generated in the IP-adjoined position. In the next section I will propose that major subject is also base-generated in an IP-adjoined position.[47]

I have argued that the major subject in the Chinese double subject construction patterns like that in Japanese. Adopting Kuroda's framework for Japanese, I contend that major subject is base-generated IP-adjunction in Chinese, which is distinct from topic and regular subject positions.[48] In addition, this major subject may be raised to [Spec TopicP] topic position to express Subject of categorical judgment in root contexts. This is why it often bears similarities to topic in such contexts. The following presents more data to support this proposal of distinct positions for topic and major subject. Consider Shi's (1992) examples in (97).[49] The empty category *ec* of the second clause in (97a) refers to either the major subject *ni* 'you' or the regular subject *haizi* 'child.' However, when the major subject of (97a) is overtly topicalized by adding a pause particle as in (97b), the *ec* only refers to the first NP, namely the topic.

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[47] Kuroda (1986b: 21) notes that Japanese *fuku-zyosi* particles, like *sae* 'even',*mo* 'also' and *dake* 'only', can be attached to major subject.
(i)   mosi ano tetugakusya **mo**/**dake** Masao ga seizen sitteita hito o mitukereba,...
       if that philosopher   also Masao-Nom knew person-Acc find-if
[48] For Kuroda, movement to major subject position occurs in *tough* sentences and Kuno's Subjectivization cases. As mentioned before, Kuroda does not commit himself to movement for Subjectivization, and he allows base-generation as well. I will assume that major subject is base-generated in major subject position in Chinese. The *tough* sentence is not relevant to our current discussion.
[49] Shi (ibid.) is not concerned about major subject; rather he claims that the two nominative NPs are constituents of one single NP. According to him, the first NP is the specifier. When the first NP is overtly topicalized, it becomes the topic and the second NP is a subject, not a topic. This leaves a variable in the specifier position. As discussed previously, these two nominative NPs do not obligatorily form a single NP. This should involve a major subject position.

(97) a. Ni$_1$ haizi$_2$ dou zheme dale, *ec*$_{1/2}$ hai zhemo ainao.[50]

        you child even so big Part,   still so like-play-prank

        i. 'You (are such that) the child is already big enough, but still (you)

        like to play pranks.'

        ii. 'Your child is already big enough, but (he) still likes to play pranks.'

    b. Ni$_1$ a, haizi$_2$ dou zheme dale, *ec*$_{1/*2}$ hai zhemo ainao.

        you child even so big Part,   still so like-play-prank

        'As for you, (your) child is already big enough, but (you) still like to play

        pranks.'   (Shi (1992: 199))

The contrast between (97a) and (97b) mentioned by Shi (ibid.) can be naturally

explained by the current proposal. In other words, topic and major subject positions

can be distinguished structurally.

        Another piece of evidence for major subject raising to topic position is

presented in the following. In (98) the object pronoun *ta,* like regular pronouns, can

refer to either *Zhangsan* or someone else.

(98)   Zhangsan$_1$ nüpengyou$_2$ zhengzai ma **ta $_{?1/*2/3}$**.

      'Zhangsan$_1$ girlfriend$_2$ is scolding him/her $_{?1/*2/3}$.'

However, when a pause particle is inserted or *Zhangsan* is interpreted as a topic in

(99), the object pronoun only refers to the raised topic *Zhangsan*.

(99)   Zhangsan$_1$ a, nüpenyou$_2$ zhengzai ma **ta$_{1/*2/*3}$**.

      'Zhangsan$_1$, girlfriend$_2$ is scolding him/her$_{?1/*2/*3}$.'

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[50] The reading of (97a-**i**) is received with no pause between these two NPs. (97a)
could be analysized as involving subordinate or coordinate clauses, as shown in (i)
and (ii) respectively (H. Hoji and A. Li p.c.).
(i)   [$_{IP}$ Ni$_{\mathbf{i}}$ haizi$_{\mathbf{j}}$ [dou zheme dale], EC$_{\mathbf{i/j}}$ hai zhemo ainao].   --subordination
(ii)   [$_{IP}$ Ni$_{\mathbf{i}}$ haizi$_{\mathbf{j}}$ dou zheme dale], [$_{IP}$ EC$_{\mathbf{i/j}}$ hai zhemo ainao]   --coordination
         you child even so big, still like-play-prank

When the pronoun is further embedded in another NP, (100) is ambiguous between structures (101) and (102). *Ta* in (101) can refer to the major subject *Zhangsan*. Nevertheless, *ta* in (102) only refers to (A'-bound by) the topicalized *Zhangsan*.

(100)   Zhangsan nüpengyou piping le [**ta** de baba]

         Zhangsan girlfriend criticize Asp his/her father

(101)   [$_{IP}$ Zhangsan$_1$ [$_{IP}$ nüpengyou$_2$ piping le [**ta**$_{1/2/3}$ de baba]]]

(102)   [$_{CP}$ Zhangsan$_1$ a, [$_{IP}$ nüpengyou$_2$ piping le [**ta**$_{1/*2/*3}$ de baba]]]

I will return to the identification of the empty category and overt pronominal copy in section 4.3.3.

      To recapitulate, this section has argued that the first NP in double nominative sentences can be a major subject, not totally identical to topic. One sharp contrast between major subject and topic is in non-root contexts, where major subject is allowed but topic is not. Chinese is on a par with the Japanese *ga/wa* distinction in this aspect. Consequently, I posit that major subject in Chinese is base-generated in the IP-adjoined position, which is distinct from the moved [Spec TopicP] topic position. A major subject, however, shares similar properties with topic in root contexts inasmuch as major subjects (definte or generic NPs) can raise to topic position to become the "Subject" of a categorical judgment in such contexts; see Kuroda (1986b). Raising to [Spec TopicP] position and becoming a "Subject" (topic) takes place when speakers are making a categorical judgment to express a perception of an entity as a substance. Moreover, only definite NPs can be raised to become topics. Indefinite major subjects in Chinese (90) and Japanese (92) fail to raise, since they are not qualified to be the "Subject" of a categorical judgment.[51]

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[51] I suggest that this kind of topic raising to express categorical judgment can be extended to shared topic in topic chains (cf. Shi (1992)).

4.3.2.2. The So-called Base-Generated "Topic"

In the previous section I have argued that Chinese does have major subjects. They are base-generated (BG) in an IP-adjoined position, distinct from the moved topic [Spec TopicP] position and the regular subject position. This section will extend this BG IP-adjoined position to the so-called BG "topics" both with and without gaps in the predicates. Let us first consider a BG major subject without a gap, as in (87) and (103). The first NP bears an "aboutness" relation with either the regular subject or the object of the predicates, which contain no gaps.

(87)   Hua meigui hua zui piaoliang.

            flower rose most beautiful '(Among) flowers roses are most beautiful.'

(103)   Chezi Zhangsan xihuan riben che

            car Zhangsan like Japanese car

            '(As for) cars Zhangsan likes Japanese cars.'

This BG major subject in the IP-adjoined position can be overtly topicalized to the [Spec TopicP] position in root clauses, as illustrated in (104).

(104)   Chezi a, Zhangsan xihuan kache

            car Pause PART Zhangsan like truck

I have proposed in section 4.1 that a topic position is not projected in embedded or non-root contexts. Hence, this analysis prohibits a directly moved topic to the [Spec TopicP] position. This is indeed correct; see the unacceptable (105) from Fu (1994).

(105)   *Qing zai [[neiben shu$_i$ ta kan-wan t_i] de shihou] lai zhao ta

            please at that-CL book he read-finish of time come seek him

            'Please come to see him when that book, he finishes reading.'

Moreover, the current analysis predicts that it is possible for an IP-adjoined NP to occur in embedded contexts. This is also borned out. The acceptability of sentence (106) indicates that the major subject *chezi* can occur inside the relative clause because it is actually base-generated IP-adjunction. Crucially Chinese does not allow movement adjunction to IP.

(106) a. Wo kandao [nage [$_{CP}$ [$_{IP}$ <u>chezi</u> [$_{IP}$ t_1 (zhi) xihuan kache de] ren$_1$]

   I see that-CL car only like trunk Comp person

   'I saw the person who only likes trucks.'

   b. Wo jide [nage [$_{CP}$ [$_{IP}$ <u>chezi</u> [$_{IP}$ tamen (zhi) xihuan kai kache de] niandai]

   I remember that-CL car they only like drive truck DE age

   'I remember the time that cars (are such that) they only liked driving trucks.'

Furthermore, a directly topicalized PP can occur in root contexts, but not in embedded contexts. Hence, (107b) is acceptable, but the sentences in (108) are not.[52]

(107) a. [$_{IP}$ Chezi [$_{IP}$ wo song le kache gei Zhangsan]]]

   car I give Asp truck to Zhangsan

   'Lit: Car I gave truck to Zhangsan.'

   b. [$_{CP}$ <u>gei Zhangsan</u>$_1$ [$_{IP}$ chezi [$_{IP}$ wo song le kache t_1]]]

   to Zhangsan car   I give Asp truck

   'Lit: To Zhangsan, car (is such that) I gave a truck.'

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[52] Sentence (i) is acceptable, since *kafei* inside the *if*-clause is also base-generated in the IP-adjoined position with a gap.
(i) Ruguo <u>kafei</u> Zhangsan bu gan he *pro*, wo jiu qing ta he cha.
   if coffee Zhangsan not dare drink, I then treat he drink tea
   'Lit: If coffee (is such that) Zhangsan dare not drink, I'll treat him tea.'

(108) a. *Ruguo <u>gei Zhangsan</u>$_1$ [$_{IP}$ <u>chezi</u> [$_{IP}$ wo song kache t_1]], Lisi hui checu

if to Zhangsan car I send/give truck, Lisi will jealous

'Lit: If to Zhangsan, car (is such that) I give a truck, Lisi will be jealous.'

b. *Lisi kanjian [$_{NP}$ naliang [$_{CP}$ <u>gei Zhangsan</u>$_1$ [$_{IP}$ <u>chezi</u> [$_{IP}$ wo song t_1 t_2]]

de] kache$_2$].

Lisi see that-CL to Zhangsan car I send/give DE truck

'Lit: Lisi saw the truck that to Zhangsan, car (is such that) I gave to.'

In addition to the major subject cases discussed above, it also seems to be plausible that the base-generated IP-adjunction is also the site for the S-initial (*lian-*) NPs discussed in section 4.2, which are the so-called base-generated "topics" with gaps in the comment clauses. I argue that they are originally base-generated in the IP-adjoined position, rather than being base-generated in the topic position. The IP-adjunction position is L-marked after the verb moves to I^0 at LF. The only difference between S-initial IP-adjoined (*lian-*) NPs and major subject is that the former contains an empty site in the predicate, but the latter may or may not. In other words, S-initial (*lian-*) NPs should be structurally distinguished. If they result from direct topicalization, they occur in (root) [Spec TopicP] position as the cases shown in section 4.1. If they display base-generation properties, they are generated in IP-adjoined position as the cases discussed in section 4.2.

It has also been posited that base-generated IP-adjoined (*lian-*) NPs can further locally raise to [Spec TopicP] position and be interpreted as topics under the conditions that they are definite or generic, occur in root contexts, and are perceived as "substance," e.g. (112).[53] If this base-generated *lian*-NP is not qualified to be a

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[53] Namely, an IP-adjoined base-generated object with an action main verb may further raise to the topic position. Hoji (1995 class notes) mentions the following

topic, not perceived as "substance" in Kuroda's sense, it is not raised to topic position. E.g. *lian banben shu* in (109a) is interpreted as existential (negative polarity) *any*, which is not perceived as a "substance" (109a), noted by Hsieh (p.c.). Since (109a) is not a categorical judgment, it is predicted that it does not occur in a non-root, non-assertive context. It is borne out, as shown in (109b). *Lian banben shu* in (109b) occurs in the IP-adjoined position rather than the topic position.

(109) a. <u>*Lian* banben shu</u> ta *dou* mei mai

LIAN half-CL book he DOU not buy

'Lit: Even a book he didn't buy.'

b. Yaoshi <u>*lian* banben shu</u> ta *dou* mei mai de hua, ta shizai tai xiaoqi le

if LIAN half-CL book he DOU not buy, he indeed very stingy

'If he didn't buy a book, he is indeed very stingy.'

Before ending this section, I would like to point out that the structural ambiguity of S-initial *lian*-NP in Chinese is supported by the Japanese data. Kuroda (1995 p.c.) notes that NP-*sae* 'even' can be either topicalized or scrambled, as given in (110c) and (111c) respectively.

(110) a. ika-wa kujira-ga taberu

squid-Topic whale-Nom eat   'Squids, whales eat.'

b. ebi-wa kujira-ga taberu

shrimp-Topic whale-Nom eat   'Shrimps, whales eat.'

Japanese sentence (i) where *John-ga* occurs in the major subject position related to an object gap. He suggests that (i) could be acceptable if *John-ga* is heavily stressed.
(i)   ?**John-ga** Mary-ga *ec* butta
          John-Nom Mary-Nom hit   'Mary hit John.'
If his remark is correct, topic sentence (ii) does not exclude the possibility of further raising the major subject of (i) to topic position, in addition to direct topicalization from object position.
(ii)   John-**wa** Mary-ga butta
          John-Topic Mary-Nom hit

c．unagi-**sae** kujira-ga taberu

eel-even whale-Nom eat 'Even eels, whales eat.'

(111) a．ika-o ano kujira-ga tabe-ta

squid-Acc that whale-Nom eat-Past 'That whale ate squids.'

b．ebi-o ano kujira-ga tabe-ta

shrimp-Acc that whale-Nom eat-Past 'That whale ate shrimps.'

c．unagi-**o**-**sae** ano kujira-ga tabe-ta

eel-Acc-even that whale-Nom eat-Past 'That whale ate even eels.'

NP-*sae* 'even' in (110c) occurs in topic position, which is different from the scrambled NP-*sae* in (111c). The above Japanese sentences correspond to Chinese (112) and (113) respectively. Despite different markers for Japanese to indicate different positions, Chinese S-initial (*lian*) NPs is also structurally ambiguous between topics (112) or base-generated NPs (113).

(112) a．Yiuyu a, jingyu ai chi

squid Pause, whale love eat 'Squids, whales love to eat.'

b．Xiazi a, jingyu ai chi.

shrimp Pause, whale love eat 'Shrmips, whales love to eat.'

c．<u>Lian manyu a</u>, jingyu dou chi.

LIAN eel Pause, whale DOU love eat 'Even for eels, whales love to eat.'

(113) a．Yiuyu zhezhi jingyu chi le.

squid this-CL whale eat Asp 'Squids this whale has eaten.'

b．Xiazi zhezhi jingyu chi le.

shrimp this-CL whale eat Asp 'Shrimps this whale has eaten.'

c．<u>Lian manyu</u> zhezhi jingyu dou chi le.

LIAN eel this-CL whale DOU eat Asp 'Even eels this whale has eaten.'

To summarize, subsections 4.3.1-2 have argued for a major subject position which is base-generated in the IP-adjoined position. Instead of calling it the so-called base-generated "topic" without gap, I consider it to be a major subject, since its position and properties can be distinguished from topic. Furthermore, I suggest that this base-generated IP-adjunction position also hosts the base-generated S-initial (*lian-*) NPs discussed in section 4.2 in addition to major subjects. Traditionally the debate over (non-)movement of topic structure assumes only one position for topic; see the movement proposals by Huang (1982; 1992), Liu (1986), Li (1990), Shi (1992), Ning (1993), Qu (1994) and the non-movement proposals by Xu and Langendoen (1985), Cheng (1989), Chiu (1993) among others. However, the current proposal distinguishes the base-generated major subject position from the moved topic position. Hence, it can resolve this long-standing debate. By comparing Chinese with Japanese, the analysis proposed in this thesis can shed some light on our understanding of Universal Grammar.

4.3.3. Identification of the Empty Category and *Pseudo*-Resumptive Pronoun

S-initial (*lian-*) NPs, on the one hand may be derived from <u>directly</u> moving to [Spec TopicP] position as discussed in section 4.1. A movement analysis is called for due to island sensitivity, and the reconstruction and weak crossover effects discussed above. The gap related to the <u>directly</u> moved topic is a genuine trace. In section 4.3.3.1 I will present the island sensitivity observed in this type of direct topicalization. On the other hand, I have suggested that the so-called base-generated "topic" actually is not a genuine topic originating in topic position. Rather they are base-generated in the IP-adjoined position.[54] I will posit in section 4.3.3.2 that the empty category *ec* related to the base-generated IP-adjoined NP is a *pro*, vs. a trace *t* related to the directly moved topic. The identification of *pro* follows from a general Full Interpretation principle.[55] An overt pronominal copy in the gap position, called *pseudo*-resumptive pronoun, becomes obligatorily A'-bound by the locally raised major subject to the topic position.

The conclusion of this study not only incorporates our previous discussion of major subject/ moved topic distinctions, it also explicates the complex phenomena of Chinese topic, major subject and base-generated S-initial NP. A complicated analysis cannot simply reduce one approach to another. This complicated situation is due to this extra major subject in Chinese, base-generated IP-adjoined position.

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[54] Recall that base-generated IP-adjoined (*lian-*) NPs could be further locally raised to root [Spec TopicP] position when they are qualified to express "substance" in root contexts; see section 4.3.

[55] A principle which can interpret this *pro* with the base-generated S-initial (*lian-*) NP under a certain "aboutness" relation, or by Huang's (1984; 1989) Generalized Control Rule (when it occurs in subject position), Cheng's (1989) aspectual licensing (when it occurs in object position), or Ning's (1993) covert *pro* possessor in inalienable NPs.

4.3.3.1. Topicalization as a Movement Derivation

The following will present arguments for topicalization movement. Topicalization means an NP (or predicate) **directly** moves from gap position to the topic [Spec TopicP] position. One piece of evidence for topicalization as a movement comes from the possibility of topicalizing a PP.[56]

(114) a. <u>Cong Meiguo$_1$</u>, Zhangsan renwei Lisi ji le yiben shu gei Lisi t_1.

from USA Zhangsan think Lisi send Asp one-CL book to Lisi

'From the USA, Zhangsan thinks that Lisi sent a book to Lisi.'

   b. <u>Gei Lisi$_2$</u>, Zhangsan renwei Lisi cong Meiguo ji le yiben shu t_2.

to Lisi Zhangsan think Lisi from USA send Asp one-CL book

'To Lisi, Zhansan thinks that Lisi sent a book from the USA.'

Moreover, topicalizating PPs obeys the Complex NP Condition. Sentence (115a) is well-formed, but (115b) is ungrammatical due to a Subjacency violation.

(115) a. Zhangsan renshi le [$_{NP}$ nage [$_{CP}$ t_2 <u>cong yinhang</u> jie le shiwan kuai de]

ren$_2$]

Zhangsan know Asp that-CL from bank borrow Asp $10,000 Comp man

'Zhangsan knew the man who borrowed $10,000 from the bank.'

   b. *<u>Cong yinhang$_1$</u>, Zhangsan renshi le [$_{NP}$ nage [$_{CP}$ t_2 t_1 jie le shiwan kuai

de] ren$_2$]

from bank Zhangsan know Asp that-CL borrow Asp $10,000 Comp

person

'*From the bank$_1$, Zhangsan knew the man who borrowed $10,000 t_1.'

---

[56] Recall that in section 3.3.2 I have pointed out that Chinese does not allow genuine double topicalization. Also see Shi's (1992a: 211-5) arguments against adverbial topicalization.

There are plenty of examples in the literature showing a Subjacency violation in complex NPs environments. Topics in (116), (117), and (118) are related to the subject gaps in complex object NPs.

(116)   *Lisi$_1$, wo hen xinhuan [$_{NP}$[$_S$ t_1 changge] de shengyin]

          Lisi, I very like   sing song Comp voice

          'Lisi, I like the voice that *(he) sings.'   (Huang 1987: #28b)

(117)   *Zhangsan$_1$, wo mai-le yixie [[t_1 xihuan] de shu].

          Zhangsan, I buy Asp some like Comp book

          '*Zhangsan, I bought some books t likes.' (Liu (1986))

(118)   *Zhangsan$_1$, wo kan-guo [[t_1 mai] de shu].

          Zhangsan I read-Exp t buy Comp book

          '*Zhangsan$_1$, I have read books that t_1 bought.' (Tang (1990: 353))

The gaps in (119), (120) and (121) are in object positions inside the complex object NPs.

(119)   *Neige ren$_1$,[$_S$wo bu xiangxin [$_{NP}$[$_S$Lisi kanjian t_1] de zheju hua]]

          that man I not believe   Lisi see   Comp this statement

          '*That man, I don't believe the statement that Lisi has seen t.'

          (Huang 1982:459)

(120)   *Nage xuesheng$_1$, wo zhengzai zhao [[jiao-guo t_1] de laoshi].

          that-CL student, I Progressive look-for [teach-Exp Comp teacher]

          '*That students$_1$, I am looking for the teacher who has taught t_1.'

          (Qu (1994:14))

(121)   *Zhangsan$_1$, wo renshi [[da t_1] de ren].

Zhangsan, I know hit t Comp person

'*Zhangsan$_1$, I know the person who hit t_1.'(Tang (1990: 353))

All the above sentences are unacceptable due to island sensitivity.

The ungrammaticality of (122) is due to extraction from an object possessor; see Huang (1984).

(122)   *Lisi$_1$, Zhangsan bu xihuan [t shu]^{57}

Lisi   Zhangsan not like   book

'*Lisi$_1$, Zhangsan doesn't like t_1 book.'

The topics in (123) and (124) are sensitive to adjunct islands.

(123)   *<u>Wangwu</u>$_1$ Zhangsan [yinwei Lisi piping le t_1] hen bu gaoxing.

Wangwu Zhangsan because Lisi criticize Asp very unhappy

'*Wangwu$_1$, because Lisi criticized t_1, Zhangsan is unhappy .'

(124)   *Qian$_1$, huodong ban bu hao, [ruguo t_1 bu duo]   (Tang 1990)

money activity hold not good, if t not much

'Money, activities cannot be well prepared, if *(it) is not enough.'

The above data of an island sensitivity in topicalization strongly argues for a movement analysis; i.e. topics are **directly** moved from inside the islands to the topic position. The *ec*s inside islands are traces *t*.

4.3.3.2. Base-Generated Major Subject and S-Initial (*lian*) NP

An *ec* related to IP-adjoined base-generated S-initial (*lian*-NP) is a *pro* or *Pro*, adopting Huang (1984). This *pro*, can be identified under a certain loosely related

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^{57} Li (1990: 198) rules out Left Branch Condition (extraction of object possessor) for Case reason. Variables from *wh*-movement (topicalization in Chinese) need Case.

"aboutness, belonging" semantic relation that can be established between the major subject or (*lian-*) NP and the rest of the sentences or the *pro*, fulfilling the Full Interpretation principle (adopting Chomsky (1991)).[58] This "aboutness" relation not only captures Huang's (1984; 1987) Generalized Control Rule (GCR)[59,60] of *pro* identification, it also identifies the *pro* that occurs in other positions such as object possessor, object positions or the gap position inside an island. In other words, a *pro* in the gap position related to the base-generated IP-adjoined position is licensed when an "aboutness" relationship is understood. A major subject or NP in the IP-adjoined position may further locally raise to [Spec TopicP] position as long as it is recognized as a substance and expresses categorical judgment in root contexts. This local topic raising from the major subject position corresponds to the following structure (125):

(125)   [$_{TopP}$ NP$_i$ [$_{IP}$ t_i [$_{IP}$ .... *pro*$_i$]]]

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[58] How this "aboutness, whole-part" relation is formulated is beyond the scope of this thesis. I will leave it for future research.

[59] The Generalized Control Rule (GCR) proposed by Huang (1984, 1987) is as follows:

(i)   An empty pronominal is controlled in its control domain (if it has one).

(ii) α is the control domain for β iff it is the minimal category that satisfies both (a) and (b):

    a. α is the lowest S or NP that contains (i) β, or (ii) the minimal maximal

       category containing β.

    b. α contains a SUBJECT accessible to β.

[60] Huang's GCR can only account for limited cases; see Ning's (1993) modification and Qu's (1994: 58-63) objection to Huang's proposal.

(i)   ?**Nage ren$_i$** wo bu zhidao [$_{IP}$[$_{NP}$[$_{IP}$ e_i jian-guo John] zhege xiaoxi] shi dajia
      name chijing]
    that man I not know *e* see-Exp John this news make everyone surprised
    'That man, I don't know that the news that [he] has met John makes everybody
      so surprised.'

(ii)   ?**Zhexie xuesheng$_i$** wo bu zhidao [[[t$_j$ jiao-guo **e$_i$**] de laoshi$_j$] yijing tuixiu
      le.   Qu (1994: 63)
    these students I not know see-Exp *e* Comp teacher already retired Part
    'These students$_1$, I don't know the teacher who have taught (them)$_1$ is retired.'

Structure (125) is reminiscent of English control sentences, such as (126) and (127).

(126)   John$_i$ promised Mary PRO$_i$ to come.

(127)   Who$_i$ t_i promised Mary PRO$_i$ to come?

Moreover, if an *ec* inside an island can be identified with a base-generated major subject or NP, it is a *pro*, and locality constraints can be alleviated to a certain extent. When an *ec* is related to a directly moved topic, it is a trace *t* and it will be subject to locality constraints. Let us first compare (128) and (122).

(128)   ?Zhangsan$_1$ tufei dasi [***pro$_1$*** baba] le.

           Zhangsan bandit hit-die father Part

           '*Zhangsan, bandit killed *e* father.'   (Huang 1984: 564)

(122)   *Lisi$_1$, Zhangsan bu xihuan [***t*** shu]

            Lisi   Zhangsan not like   book

The acceptability of (128) is due to the fact that the "aboutness, belonging" relation can be established:[61] the inalienable NP *baba* 'father' contains a *pro* in the sense of Ning (1993) and this *pro* is identified with the major subject *Zhangsan,* which is base-generated in the IP-adjoined position. In contrast, the ungrammaticality of (122) is due to a Subjacency violation; i.e. the object possessor position is a genuine trace related to the directly moved topic *Lisi* in [Spec TopicP] position.

        The *pro* in (129) and (130) occurs in a subject position inside a sentential subject[62] and a subject relative clause respectively. Both sentences are acceptable because this major subject means "as for..," and the *pro* is semantically related to it.

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[61] Hoji (1995 p.c.) has observed a similar contrast between (128) and (122) in Japanese.

[62] The Sentential Subject Condition is weakened in Chinese (see Huang (1984; 1989), Tang (1990), and cf. Qu (1994)). The ungrammaticality of (i) from C.-R. Huang (1991) does not indicate that topicalization observes SSC, since elements inside predicate nominals cannot be topicalized in general (see Tsao (1977: 65)).
(i)   *Zhuxi$_1$, [[ta dang-xuan t_1]] hen gong-ping.

(129)   Nage ren**1** [NP[S **pro1** nian Yinwen]] zui heshi

        that-CL man   study English most appropriate

        'Lit: That man [*pro* studies English] is appropriate.'

(130)   Lisi**1** [NP[S **pro1** changge] de shengyin] hen haoting

        Lisi, sing song Comp voice very good

        'Lisi, the voice with which (he) sings is good.'

        (Huang 1987: #28a)

Pro can also occur in the object position of a subject relative clause as in (131), and in the subject posessor position as in (132).

(131)   Zhejian chenyi**1** [NP[S Lisi chuan **pro1**]] hen heshi (ya)

        this-CL shirt   Lisi wears *e* very suitable particle

        'Lit: This shirt that he wears *ec* is very suitable.'(Qu 1994: 28)

(132)   Zhangsan**1**, **pro1** nüpengyou chu shu le

        Zhangsan   (his) girlfriend publish book PART

        'Zhangsan, (his) girlfriend published books.'

The point I would like to make here is that the identification of *pro* should be understood in a broader sense than Huang's GCR. *Pro* is able to be identified even if it is inside islands, as long as an "aboutness, belonging" relation between the major subject and the rest of the sentence or the *pro* is established by certain understood contexts.

The current proposal can also cover the Aspect licensed object *pro* in the sense of Cheng (1989); namely, object *pro* in (133) can be interpreted with the first NP, the major subject *Huangrong*.

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       chairperson s/he act-elect very just-fair
      '*Chairperson, that s/he elected *t* is just and fair.'

(133)   Huangrong$_1$ Guojing shuo Botong kandao le ***pro***$_1$

          H.   G. say B. see-Asp

          'Huangrong, Guojing said Botong saw.'

What Cheng (ibid.) calls "base-generated topic" is indeed base-generated <u>major</u> <u>subject</u>, with which the construction *pro* can be identified when the major subject is the element that the rest of the clause talks about, reminiscent of the "aboutness" predication relation.

     There is one more piece of evidence for major subject position that is related to *pro* in the gap inside a sentential subject, such as in (134) and (135). Notice that the numeral major subjects in these sentences are not interpreted generically, referentially or as "substance," although they could be understood with a cardinal focused interpretation which I will suppress here.

(134)   Nage/*Yige ren$_1$ [$_{NP}$[$_S$ ***pro***$_1$ nian Yinwen]] hen heshi

          that/one-CL man   study English very appropriate

          'That man/a man [*e* studies English] is appropriate.'

(135)   Nage/*Yige ren$_1$ [$_{NP}$[$_S$ Lisi xihuan ***pro***$_1$]] bu qiguai

          that/*one-CL man Lisi like *e* not strange

          'That man/ a man [Lisi likes (him)] is not strange.'

As noted in section 4.3.2, an indefinite major subject of an individual level predicate (ILPs) may appear in non-root (e.g. conditional) contexts to have a generic nonreferential interpretation. Similarly, in (134) and (135) indefinite major subjects related to the gaps inside the sentential subjects of ILPs can be embedded in

conditional contexts as in (136) and (137) and do not express categorical judgments.[63] *Yige ren* 'a man' in these contexts is non-referential generic.

(136)   Ruguo <u>yige ren$_1$</u> [[*pro$_1$* nian Yinwen]] heshi, na jiu bu xuyao laoshi le

if one-CL man   study English appropriate, then not need teacher

'If a man [[*e* studies English]] is appropriate, then there is no need of

teachers.'

(137)   Ruguo (lian) <u>yige ren$_1$</u> [[Lisi kuangjiang *pro$_1$*]] (dou) qiguai de hua, na

shijieshang meiyou qiguai de shi le

if (LIAN) one-CL man Lisi praise *e* also strange, then world-on no strang

thing

'Lit: If (even) a man [Lisi praises *e*] is strange, then there is no strange

thing in the world.'

In other words, although indefinite major subjects are not interpreted as non-referential or generic in root ILPs in (134) and (135), they are allowed in conditional clauses (non-root contexts). Therefore, the non-referential interpretation in (136) and (137) suggests that *yige ren* 'one man' in question occurs in the IP-adjoined (major subject) position, since topic is not allowed in non-root contexts.

In brief, the so-called base-generated "topic" is actually "major subject." The empty site related to the major subject is a *pro*, which is identified by an "aboutness, belonging" predication relation with the major subject. Moreover, the major subject may further locally raise to the root [Spec TopicP] position. In contrast, the <u>directly</u> moved topic from gap position to [Spec TopicP] as discussed in section 4.3.3.1 leaves a genuine trace, rather than a *pro*.

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[63] The major subjects in conditional clauses in (136) and (137) tend to be interpreted as *even* NP. Actually *lian*-NPs can occur in these contexts as well.

One question immediately raised regards the status of the overt pronominal copy *ta* related to the S-initial NP.[64] I will suggest that *ta* is the overt manifestation of the *pro* discussed above. It can be interpreted with the major subject or NP when a certain predication relation is established between the major subject and the IP containing *ta*. Moreover, this *ta* in gap position is obligatorily A'-bound by the topic which has been locally raised from the major subject to the topic position, although it is not necessarily bound by the major subject in certain cases. For the ease of discussion hereafter, I will call this *ta* a *pseudo*-resumptive pronoun. This *pseudo*-resumptive pronoun is not a spell-out variable as resumptive pronouns that are traditionally understood.

Let us first see the sentences where *pro* is replaced with *ta*, and *ta* refers to the major subject in (128'), (129'), (130') and (132').

(128')   Zhangsan$_1$ tufei dasi [***ta*$_1$** de baba] le.

           Zhangsan bandit hit-die his father Part

           'Zhangsan, bandit killed his father.'

(129')   Nage ren**$_1$** [$_{NP}$[$_S$ ***ta*$_1$** nian Yinwen]] zui heshi

           that-CL man he study English most appropriate

           'Lit: That man, [he studies English] is appropriate.'

(130')   Lisi**$_1$** [$_{NP}$[$_S$ ***ta*$_1$** changge] de shengyin] hen haoting

           Lisi, he sing song Comp voice very good

           'Lisi, the voice with which he sings is good.'

---

[64] Inanimate pronouns are very limited in Chinese, and occur only after prepositions. Hence, animated topic and major subject are used here for discussion.

(132') Zhangsan**₁** **ta₁** de nüpengyou chu shu le

Zhangsan his girlfriend publish book PART

'Zhangsan, his girlfriend published books.'

However, subjacency violations can be circumvented by base-generating the NP in the major subject position and having *ta* in the gap position. The presence of *ta* makes an "aboutness" relevance more easily interpreted than *pro*. For example, (138) is sensitive to islands,[65] since the trace is inside the complex NP. In contrast, the acceptability of (139) is due to the fact that *Zhangsan* is base-generated in the IP-adjoined position, like a major subject with an overt *ta* in gap position.

(138) *Zhangsan$_1$, wo renshi [[da t_1] de ren].   =(121)

(139) Zhangsan$_1$ wo renshi [[da **ta₁**] de ren].

Zhangsan I know hit he Comp person

'Zhangsan$_1$ I know the person who hit him$_1$.'

Similarly, sentences are improved when a predication relation between the major subject and its following clause can be established; namely, the major subject is a possessor or what the following clause is talking about. *Lisi* in (122') and (116') is the person that the following clauses are talking about.

(122') Lisi$_1$ Zhangsan bu xihuan [**ta₁** de shu]

 Lisi   Zhangsan not like his book

(116') Lisi$_1$ wo hen xinhuan [$_{NP}$[$_S$ **ta₁** changge] de shengyin]

Lisi, I very like   sing song Comp voice

'Lisi, I like the voice that he sings.'

Recall that the major subject can be locally raised to [Spec TopicP] to express a categorical judgment in a root clause. The originally identified *ta* in (139) then refers

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[65] Recall that the <u>directly</u> topicalized NP is subject to island conditions.

to *Zhangsan* in topic position. (139) corresponds to the structure in (140). A similar

structure can be found in English (141), except that *ta* in Chinese (57) is obligatorily

A'-bound by the topic, while *him* in (141) is not necessarily bound by *who*.

(140) $[_{\text{TopicP}} \text{NP1}_1 [_{\text{IP}} t_i \ldots [\ldots ta_i]]]$

(141)   Who$_1$ t_1 hates the person that praised him$_1$?

However, it is not the case that the overt *ta* can always enable a predication

relation between the major subject and the rest of the clause. Consider (119**'**).

Although *ta* occurs inside the complex NP in (119**'**), this sentence is not as good as

those above. It is difficult for the first NP *neigeren* 'that man' to be interpreted as the

major subject of the sentence. The sentence is about a certain statement that I do not

believe, rather than about that person.

(119**'**)   **?*Neige ren**$_1$ [$_S$wo bu xiangxin [$_{NP}$[$_S$ Lisi kanjian ***ta***$_1$] de zheju hua]]

        that man I not believe   Lisi see him Comp this statement

        'Lit: That man, I don't believe the statement that Lisi has seen him.'

If the presence of *ta* in the gap position were to be the resumption strategy of

remedying the island sensitivity of (119) as traditionally assumed, the unacceptability

of (119**'**) could not be explained. Therefore, (119) is bad due to a subjacency

violation, whereas (119**'**) is due to the failure of establishing a predication relation.

(119)   ***Neige ren**$_1$,[$_S$wo bu xiangxin [$_{NP}$[$_S$Lisi kanjian t_1] de zheju hua]]

        that man I not believe   Lisi see   Comp this statement

        '*That man, I don't believe the statement that Lisi has seen *t*.'

There is complication with respect to the relation between major subject and

ta. First, *ta* can occur in the subject position to be interpreted with the major subject

in the embedded contexts as in (142).

(142) a. Ruguo Zhangsan**₁** *ta***₁** bu nianshu, ...

      if Zhangsan he not study, ...

    b. [NP Nage [CP [IP Zhangsan**₁** [IP *ta***₁** bu xihuan]] de] haizi] lai le

      that   Zhangsan he not like Comp kid come Asp

      'The kid that Zhangsan doesn't like came.'

Second, consider (128**'**) and (143). The predication relation in (128**'**) is between the major subject *Zhangsan* and the event of *his* father being hit, rather than the relation between *Zhangsan* and *tufei* 'bandit.' Hence, *ta* refers only to *Zhangsan*. However, *ta* in object possessor position of (143) can refer to either the major subject *Zhangsan*, the girlfriend or someone else. This may be because the "aboutness" predication relation has been established locally between *Zhangsan* and girlfriend; hence, *ta* behaves like a regular pronoun.

(128**'**)   Zhangsan₁ tufei dasi [*ta***₁** de baba] le.

      Zhangsan bandit hit-die his father Part

      'Zhangsan, bandit killed his father.'

(143)   [IP Zhangsan**₁** [IP nüpengyou**₂** piping le [**ta ₁/₂/₃** de baba]]]

      Zhangsan girlfrind criticize Asp his/her father

It is similar to the pair in (144) and (145).[66] *Ta* in the object gap position of (144) is interpreted with *Zhangsan*. In (145) it behaves like a referential pronoun, and can refer to either the major subject or someone else.

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[66] The contrast is the same for embedded contexts as in (i) and (ii).

(i)   Rugou Zhangsan**₁** Lisi**₂** zhengzai ma ta**₁/*₂/*₃**, ni bu yao shuo hua
        if Zhangsan Lisi Progressive scold him, you not talk
        'Lit: If Zhangsan (is such that) Lisi is scolding him, you don't talk.'

(ii) a. Ruguo Zhangsan**₁** nüpengyou**₂** zhengzai ma ta **₁/*₂/₃**, ...
        if Zhangsan girlfriend Progressive scold s/he...
        'If Zhangsan's girlfriend is scolding her/him....'

    b. Wo jide nage Zhangsan**₁** nüpengyou**₂** ma guo ta **₁/*₂/₃** de difang.
        I remember that Zhangsan girlfriend scold s/he Comp place

(144)   Zhangsan**1** Lisi**2** zhengzai ma ta **1/*2/*3**.

          Zhangsan₁ Lisi Progressive scold him₁

(145)   Zhangsan**1** nüpengyou**2** zhengzai ma ta **1/*2/3**.

          'Zhangsan**1** girlfriend**2** is scolding him/her **1/*2/3**.'

The above contrast disappears after the major subject locally raises to the topic position in root contexts. Compare (143) and (145) with (146) and(147) respectively. A pause particle is inserted in (146) and (147), and *ta* only refers to the topic *Zhangsan*.

(146)   [CP Zhangsan**1** a, [IP nüpengyou**2** piping le [**ta** **1/*2/*3** de baba]]]

          Zhangsan Part, girlfriend criticize Asp his father

(147)   Zhangsan**1** a, nüpengyou**2** zhengzai ma ta **1/*2/*3**.

          'Zhangsan**1**, girlfriend**2** is scolding him/her **1/*2/*3**.'

      This section has presented the identification of *pro* and *ta* in the gap position related to the IP-adjoined base-generated major subject or (*lian-*) NPs. It is suggested that in most of the cases *ta* is the overt form of *pro*. However, certain cases show that the presence of *ta* helps the predication relation between the major subject and the rest of the sentence. It has also been proposed that the so-called "resumptive pronoun" is actually a *pseudo*-resumptive pronoun to be interpreted with the major subject under a certain "aboutness, belonging" predication relation. It is obligatorily A'-bound, when the major subject is locally raised to the root [Spec TopicP] position. It is not a spell-out of a movement variable.

'I remember the place that Zhangsan₁'s girlfriend₂ has scolded him₁/₃.'

4.3.4. Does Chinese Have Resumption Pronouns?

The previous discussion suggests that there is no genuine resumptive pronoun as a free spell-out of the variable in Chinese topic structures, as well as in focalization as discussed in chapter three (cf. the genuine resumptive pronouns in languages like Hebrew in Sells (1984), Vata in Koopman and Sportiche (1981), etc.). In section 3.2 I have demonstrated that no resumptive pronoun is allowed in the gap position related to the focalized NP in [Spec FP]. I also have mentioned that in general A-moved NPs do not leave pronominal copies. The lack of a resumption strategy in focalization reflects C. Hagège's (1975:218) insight: "il ne peut y avoir de reprise dans le cas de la focalisation" ("focalizers do not allow the presence of a pronominal copy of the element on which they put focus," (translated by Paris (1979)). In the previous section I propose that overt pronouns in topic sentences are not simply spell-outs of variables; rather they are related to major subjects (but A-free from major subjects). After the major subject raises to topic position, it is obligatorily A'-bound by the topic. Hence, *pseudo*-resumptive pronouns can be construed with major subjects but not focalized phrases in [Spec FP] position inasmuch as major subjects have to bear a certain predication relation with the comment clause, but there is no such requirement for focalization.

The prohibition against construing resumptive pronouns with syntactic foci seem to be attested to in English as well. According to Culicover (1993), sentence (148a-2) is well-formed. This is because the association of a focus constituent with the operator *only* is subject to a locality requirement, and clefting *Robin* in (148a-2) does not cross any islands. However, sentence (148b-2) is unacceptable because *Robin* crosses the relative clause and violates the Subjacency.

(148) a-1   Kim only likes pictures of ROBIN.

a-2   It's only *Robin* that Kim likes pictures of *t*

b-1   Kim only knows people who like ROBIN

b-2   *It's only *Robin*$_1$ that Kim knows people who like *t*$_1$

(Culicover 1993:#26, 27)

If focus-moved phrases do not allow resumption as mentioned above, I predict that Culicover's sentences (148a-2) and (148b-2) will be out even with pronominal copies in the gapped positions. This is in fact borne out. Consider (149a) and (149b).

(149) a.   *It's only *Robin*$_1$ that Kim likes pictures of *him*$_1$

b.   *It's only *Robin*$_1$ that Kim knows people who like *him*$_1$

Sentence (148a-2) becomes illicit when a resumptive pronoun is inserted as in (149a). (148b-2) cannot be improved by inserting a pronoun copy as in (149b).

Furthermore, the real topicalized sentences (e.g. which show reconstruction effects) discussed in section 4.1 do not allow resumptive pronouns. Sentences (28) and (29) are repeated as following.

(28)   ?Taziji$_1$, Zhangsan$_1$ chang piping **(*ta$_1$)**.

himself, Zhangsan often criticize

'Himself, Zhangsan often criticizes.'

(29)   *Lian* Taziji$_1$, Zhangsan$_1$ *dou* chang piping **(*ta$_1$)**.

LIAN himself, Zhangsan DOU often criticize

'Even himself, Zhangsan also often criticizes.'

They indicate that a directly moved topic from the gap position does not allow a resumptive pronoun. Similarly, the reflexive *taziji* in (150a) can refer to either the

matrix or the embedded subject. This is a directly topicalized NP; see section 4.1. However, compare (150) and (151).

(150)   [Taziji**1/2** de nüpengyou]**3**, Zhangsan**1** xiwang Lisi**2** neng quan-yi-quan

*t***3**

himself's girlfriend Zhangsan hopes Lisi can pacify

'His$_{1/2}$ own girlfriend, Zhangsan$_1$ hopes Lisi$_2$ can pacify.'

(151)   [Taziji**1/*2** de nüpengyou]**3** Zhangsan**1** xiwang Lisi**2** neng quan-yi-quan

ta3

himself$_1$'s girlfriend$_3$ Zhangsan$_1$ hopes Lisi can pacify her$_3$

Although the pronoun *ta* in the embedded object position refers to the first NP *taziji de* nüpengyou 'his own girlfriend,' the reflexive in the NP only refers to the matrix subject *Zhangsan*, in contrast to (150). Therefore, the first NP in (151) is base-generated, rather than a directly moved topic from the embedded clause. Therefore, the pronoun *ta* in (151) is not a spell-out of a moved variable.

Another example is (119**'**), repeated below. Here, *neigeren* 'that man' is directly moved from the complex NP, instead of being interpreted as a base-generated major subject; see section 4.3.3.2. The presence of *ta* does not save this sentence.

(119**'**)   **?*Neige ren**$_1$ [$_S$wo bu xiangxin [$_{NP}$[$_S$ Lisi kanjian *ta*$_1$] de zheju hua]]

that man I not believe   Lisi see him Comp this statement

'Lit: That man, I don't believe the statement that Lisi has seen him.'

Let us look at overt pronominal copies in relative clauses in (152) and (153) and compare them with the *pseudo*-resumptive pronouns in (154) and (155). While the overt pronominal copies show a subject/object asymmetry in (152) and (153), there is no such asymmetry in the topic sentences of (154) and (155).

(152)   **?**[NP [CP wo xihuan ta**1** de] neige ren**1**]]

I   like him Comp that-CL person

'?*the person$_1$ that I like him$_1$'

(153)   *[NP [CP ta**1** cong-bu gen wo shuohua de] neige ren**1**]]

he never with me talk Comp that-CL person

'*the person$_1$ who he$_1$ never talks with me'

(154)   Zhangsan**1** wo xihuan ta**1**

Zhangsan I like him

'Zhangsan$_1$ I like him$_1$'

(155)   Zhangsan ta**1** cong-bu gen wo shuohua

Zhangsan he never with me talk

'Zhangsan$_1$ he$_1$ never talks with me'

With respect to the overt pronominal copies in gaps inside relative clauses, I suggest that they are on a par with bound pronouns, both of which seem to obey an A'-disjointness requirement in the sense of Aoun and Li (1990) and McClosky (1990). *Ta* inside relative clauses is bound by a relative operator proposed by Ning (1993). Bound pronouns are bound by QPs in A-positions. Hence we limit A'-disjointness to bound pronouns related to an operator element, a QP, or a relative head (operator). The *pseudo*-resumptive pronoun in major subject/topic structures is A'-bound by the topic and can be referentially interpreted with the major subject.

Another occurrence of an overt pronominal copy is after prepositions. Ning (1993: 35) states that this pronoun aims to escape ECP violations (e.g. Tellier (1991)).

(156)   [NP [CP wo [PP gen ta**i** tiaowu de] neige ren**i**]]

          I   with he dance Comp that-CL person

          'the person that I dance with him'

Nevertheless, I think the overt pronominal in (156) does not really argue for the existence of resumptive pronouns, since languages do not allow preposition stranding in general as in (157).

(157)   Wo gen ***(*ta*)** tiaowu

          I   with (him) dance

          'I dance with *(him).'

      To sum up, in Chinese genuine resumptive pronouns as free spell-outs of variables do not seem to exist. Genuinely moved topic gaps do not allow overt pronominal copies in Chinese. The so-called resumptive pronouns are actually *pseudo*-resumptive pronouns. They are A'-bound if there is a topic, and can be referentially interpreted with the major subject. Overt pronominal copies in relative clauses behave like bound pronouns which are subsumed under an A'-disjointness requirement in the sense of Aoun and Li (ibid.).

4.4. Summary and Discussion

      Therfore, the discussion of chapters three and four can be summarized in the following Table 4-III.

Table 4-III:

	I	II	III	IV
	Focalization to [Spec FP] (S-*lian*-O*dou*-V)	**Topicalization to [Spec TP]**[†] (OSV) (*lian*-O-S-*dou*-V)	**BG S-initial** (***lian-***) **NP** (OSV) (*lian*-O-S-*dou*-V)	**Major Subject**
1. Subjacency	obey	obey	not obey	not obey
2. Allowing *ta*	no	no	yes [†††]	yes [†††]
3. WCO Effects	no	yes [††]	no	N/A
4. Binding Reconstruction	no	yes	no	N/A

[†]: direct topicalization from gap to [Spec TP]

[††]: especially in long-distance topicalization

[†††]: if "aboutness, belonging" predication relation can be established

Column I is the focalization discussed in chapter three. This is a clear case of syntactic Focus constituent movement in Chinese. Columns II, III, IV are the cases discussed in sections 4.1, 4.2, and 4.3 respectively. It is shown that genuine movement diagnoses are relevant for Chinese, such as island sensitivity, Binding reconstruction effects, weak crossover effects and lack of resumption strategy. This analysis also suggests that [Focus] should be included as a formal feature (cf. Hovarth 1986), in addition to other formal features, such as categorial features, ϕ-features, Case feature, and strong F, where F is categorial, listed in Chomsky (1995). Movement is feature attracted, triggered in the sense of Chomsky (1993; 1994).

The analysis presented here not only resolves the long-standing problem of (non-) movement of topic structure in Chinese, it also naturally accounts for a wide range of data. Moreover, the comparison between Chinese and Japanese can provide more insight for our understanding of Universal Grammar, particularly with respect to (non-) topicalized sentences in the so-called topic-prominenet languages.

4.4.1. Base-Generated Major Subject vs. English IP-adjoined Topic

As noted in sections 4.1 and 4.2.4, long-distance topicalized *lian*-NPs are sensitive to wh-islands, repeated in (158). Syntactic *wh*-island is observed in English *wh*-movement and topicalization, as given in (159) and (160).[67]

(158)   **?****Lian* neiben shu**$_i$** wo xiangzhi dao [ni *dou* shenmeshihou yao t_i].

          LIAN that-CL book, I wonder you DOU when want

          'Even that book, I wonder when you want.'

(159)   **??**What$_i$ do you wonder whether John put t_i

(160)   **??**this book$_i$ Mary wonder whether John bought t_i

I have argued that the IP-adjoined position is for the base-generated major subject. Topicalization in Chinese is not moved IP-adjunction. In contrast, Baltin's (1982) and Lasnik and Saito's (1993), L&S hereafter, argue that English topicalization involves movement IP-adjunction. Although our current proposal and theirs allow IP-adjunction (especially in embedded contexts), Chinese and English display different properties. I suggest that the difference between base-generation/ movement of IP-adjunction between Chinese and English respectively is due to the possibility of having major subjects in Chinese.

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[67] In this analysis, I do **not** adopt movement of IP-adjunction, since IP-adjunction is already reserved for base-generated NP or major subject. Chomsky's (1986) stipulation of barring IP-adjunction of *wh*-phrases is because the embedded CP would not inherit barrierhood if a *wh*-phrase adjoins to IP, the newly formed IP will not be a blocking category, since the adjoined element is not excluded by IP. According to him, the embedded IP is only a relevant barrier for t_i in (i).
(i)   ..[$_{VP}$ wonder [$_{CP}$ whether [$_{IP}$ [$_{IP}$ .. t
          ↑_____|↑_____|
In contrast, Lasnik and Saito (1993) observe that the *wh*-island condition holds for topicalization as well. Since they allow IP-adjunction of topicalization, they revise the *Barrier's* system by positing that adjoined IP and original IP are separate maximal projections in order to rule out both *wh*-movement and topicalization in *wh*-island cases. Hence for them the long-distance extraction crosses only one CP barrier.

In English Baltin (1982) has noted that embedded topicalization is possible but embedded left-dislocation is not, repeated in (161) and (162).

(161)   the man to whom liberty, we could never grant   (=Baltin's (69))

(162)   *the man to whom liberty, we could never grant **it**   (=Baltin's (86))

However, recall that Chinese allows a base-generated IP-adjoined "major subject" in relative clauses, or non-root contexts, and a *pseudo*-resumptive pronoun to be interpreted with it. Hence, the sentences in (163) are acceptable.

(163)   a.   Wo renshi [NP neige [CP [IP <u>Zhangsan</u>$_1$ [IP wo jue bu hui jieshao gei **ta$_1$**

    t_2]] de] ren$_2$]

    that-CL   Zhangsan I absolutely not will introduce he Comp person

    'Lit: I know the man to whom I would never introduce Zhangsan$_1$.'

   b． Ruguo <u>Zhangsan</u> ni bu ting **ta**$_1$ de hua, ni jiu yao shou chufa

    'Lit: if *Zhangsan* (is such that) you don't listen to *his* word, then you will

    be punished.'

In short, while a left-dislocated topic in English relative clauses is barred (162), base-generated (IP-adjoined) major subjects in Chinese can appear in non-root contexts and permit a *pseudo*-resumptive pronoun to be interpreted with the major subject. That is, English allows topicalization through IP-adjunction, especially in embedded contexts, Chinese does not have this movement IP-adjunction. Rather, the S-initial NP or major subject is **base-generated** in IP-adjoined position. The difference between these two languages is due to the existence of an extra major subject position in Chinese.

4.4.2. Scope of *Wh*-Interrogative

I have proposed that a topic sits in [Spec TopicP] which is structurally higher than CP in root contexts, repeated in (164a), (cf. Chomsky (1977), Huang (1982)).[68] Major subjects or base-generated S-intial (*lian-*) NPs are in the IP-adjoined position either in root or non-root contexts, as in (164b).

(164) a. [TopicP [CP [IP ..]]]

      b. .....[CP [IP major subject [IP ..]]]

Spec of CP position is reserved for *wh*-phrases raised there at LF (Huang 1982) or *wh*-operators raised there in syntax (e.g. Aoun and Li (1993)). Let us consider (165), (166) and (167). Recall that only major subjects, rather than topics, can appear in non-root contexts without expressing categorical judgment; in particular see the generic numeral major subject in (166). Major subjects in these sentences are base-generated in the IP-adjoined position in the embedded clauses. The embedded [Spec CP] is reserved for the covertly or overtly moved *wh*-arguments.[69]

(165)   Wo xiangzhidao [CP [IP Zhongguo [IP **nar** zuihao wanr]]]

           I wonder China where most fun

           'I wonder which part of China is most fun.'

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[68] I refer readers to Ning's (1993) comparisons between NP-movement of topicalization and operator movement of relativization.

[69] Tang (1990) argues that *Zhongguo* in (165) is not in the scope of the *wh*-phrase at LF because it is not *China* to be asked about; rather it is the places in China that are asked about. (She then proposes to base-generate topic in CP-adjoined position.) I think her point is not relevant to the scope of *wh* and major subject; rather it is due to different restrictions within *wh*-phrases. Let us look at other plausible cases. Compare (i) and (ii). They differ in their restriction clauses, rather than in different scopes of *wh*.
(i)   jiaoshi de nar
       classroom Gen. where
       'which place x, x in the classroom'
(ii)   nar de jiaoshi
       where Gen. classroom
       'which place x, classroom(s) in x'

(166)   Zhangsan xiangzhidao [CP [IP yizhi kongque [IP shenshang **nar** zui

piaoliang]]]

Zhangsan wonder one-CL peakcock body where most beautiful

'Zhangsan wonders which part of a peakcock is the most beautiful.'

(167)   Zhangsan xiangzhidao zheben shu₁ **shei** mai le *pro*₁?

'Lit: Zhangsan wonder this book who bought'

As for *weishenme* 'why,' I will assume that it can occur either inside IP or in

the Spec of CP in syntax (cf. Lin (1992)).[70] The sentences in (168) are predicted to

be well-formed by the current proposal.

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[70] The following will present arguments that permit *weishenme* to be generated
inside IP (I-adjunction), in addition to the Spec of CP position argued for by Lin
(1992). First, Lin (ibid.) ascribes the ungrammaticality of (i) to the reason that
weishenme only occurs in [Spec CP].
(i)   ***[[Weishenme **ta** chuli nei-bi qian] de shuofa] bijiao kexin?
        why he handle that-CL money Comp story more reliable
        'What is the reason x such that the story that he handles the money for x is
            more reliable.'   (Lin 1992: 296)
Nevertheless, compare (i) with (ii). If [Spec CP] were the only position for
weishenme, he cannot explain why in the same relative clause but when *weishenme*
follows the subject *ta*, sentence (ii) becomes perfect.
(ii)   [[**ta** weishenme chuli nei-bi qian] de shuofa] bijiao kexin?
        he why handle that-CL money Comp story more reliable
        'What is the reason x such that the story that he handles the money for x is
            more reliable.'
    Moreover, according to Lin, *weishenme* in (iii) is in [Spec CP] and the subject *ta*
is topicalized to Spec of Topic position or CP-adjunction; hence, (iv) is ruled out.
(iii)   Ta weishenme yinggai/bixu zuo nei-jian shi?
(iv)   *Ta yinggai/bixu weishenme zuo nei-jian shi?
        he should/must why do that-CL thing
        'Why should/must/would he do that?'   (Lin 1992: 294)
Besides this possibility, I think the contrast between (iii) and (iv) may also be due to
the I-adjunction of *weishenme*. (iv) is bad because *weishenme* is generated lower
than I⁰, assuming espitemic modals can occur in I⁰.
Therefore, under closer examination of the positions of *weishenme*, there is no
reason to bar the possibility of I-adjunction.

(168) a. Wo xiangzhidao [CP [IP <u>Zhongguo</u> [Changcheng **weishenme** youmin]]]

I wonder China Great Wall why famous

b. Wo xiangzhidao [CP **weishenme** [IP<u>Zhongguo</u> [Changcheng youmin]]]

I wonder why China Great Wall famous

'I wonder why in China Great Wall is famous.'

Lin (ibid.) argues that *weishenme* is generated in the Spec of CP, (168a) is derived from topicalizing NPs, either by CP-adjunction or Spec of Topic substitution (also see Tang (1990)). If topicalization were able to adjoin to CP in embedded contexts or move to a higher position than CP, then we could not prevent extraction from embedded contexts involving Subjacency cases, i.e. CP would always be able to be debarrierized. Without running into Lin's and Tang's problem, our IP-adjunction analysis can naturally account for the acceptability of (168).

The last point is related to the lack of *wh* interaction with *lian*-NPs. For regular universal QPs, Aoun and Li (1993) point out that they interact with *wh*-interrogatives. According to them, sentence (169) is ambiguous between a same object that everyone bought or different objects that are distributed to everyone.

(169) **Meigeren** dou (gei Zhangsan) maile **sheme**? (ambiguous)

everyone all for Zhangsan buy Asp what

'What did everyone buy (for Zhangsan)?'

Although there exists such an interaction between regular universal QPs and *wh*, it does not carry over to *lian..dou* sentences. (170) with *lian*-subject and *wh*-object is not ambiguous. It only means that others bought something, and the speaker is

questioning whether even Lisi bought that thing. It seems that (170) is an echo qeustion.[71]

(170)   **Lian Lisi** dou (gei Zhangsan) maile **sheme**?   (unambiguous)

LIAN Lisi DOU for Zhangsan bought what

'What did even Lisi buy (for Zhangsan)?'

In section 2.1.4.1, I have demonstrated that *lian*-NPs behave like universal QPs syntactically. The only difference between them is in the conventional implicatures in *lian...dou* sentences. Similarly, the contrast between (169) and (170) may be because in uttering (170) a speaker already has a certain implication. Hence, the *wh* cannot be non-specific. Since the *wh* is always specific, no interaction holds.

To conclude, the analysis proposed in this chapter, summarized in Table 4-III, naturally explains the difference between the English moved IP-adjoined topic and the Chinese base-generated IP-adjoined major subject. It also correctly predicts the *wh*-interogative scope in topic/ major subject sentences.

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[71] The lack of interaction between an *even*-NP and a *wh*-element also exists in English.

CHAPTER FIVE: RELATED ISSUES

In section 5.1 I first outline the distinctions with respect to inverted word order between Chinese and Japanese, and concludes that Chinese lacks scrambling properties. In section 5.2 I will discuss the scope interpretation of *lian..dou/ye* sentences in Chinese. It will be shown that the structures proposed in chapter four match the scope interpretations and the association with focus in *lian...dou/ye* construction.

5.1. Focalization, Topicalization vs. Scrambling

Scrambling has been well-studied in the literature; see Hoji (1985), Mahajan (1990), Nemoto (1993), Saito (1985; 1992; 1993), Tada (1990), Yoshimura (1992) and references cited there. The issue at stake is the A/A'-distinction of different types of scrambling: Small[1] (VP-external), Medium (simplex clause internal) and Long scrambling. Assuming the basic word order in Japanese is S-IO-DO-V (see Hoji 1985), (1b), (2b) and (3b) are the results of M-scrambling, S-scrambling and L-scrambling respectively.

(1)   a. Michael-ga hon-o kaita (koto)

            M. -Nom book-Acc wrote   'Michael wrote a book.'

        b. [$_{IP}$ hon-o$_i$ [$_{IP}$ Michael-ga [$_{VP}$ t_i kaita]]] (koto)

            book-Acc M.-Nom wrote

---

[1] I am also aware of VP-internal scrambling as proposed by Takano (1995). Whether his VP-internal scrambling is the same as the Small-scrambling discussed by Nemoto (1993), Saito (1994) and Tada (1990) is beyond the scope of this thesis. For ease of discussion, I use S-scrambling (VP-extrenal) scrambling here.

(2)   a.   Michael-ga Kate-ni hon-o okutta (koto)

      M.   -Nom K.-Dat book-acc sent

      'Michael sent Kate a book.'

   b.   [$_{IP}$ Michael-ga [$_{VP}$ hon-o$_i$ [Kate-ni t_i okutta]]] (koto)

      M.-Nom book-Acc K.-Dat sent

(3)   a.   [Taroo-ga [$_{CP}$ Hanako-ga sono hon-o yonda to] itta] (koto)

      T. -Nom   H.-Nom that book-Acc read Comp said fact

      'Taro said that Hanako read that book.'

   b.   [Sono hon-o$_1$ [Tarro-ga [$_{CP}$ Hanako-ga t_1 yonda to] itta] (koto)

      that book-Acc T. -Nom   H.-Nom read Comp said fact

      'That book$_1$, Taro said that Hanako read t_1.'   (Saito 1992: 83)

The properties of the three types of scrambling discussed in the literature are summarized in Table 5-I. I will refer readers to this literature without further repeating the data here.

Table 5-I:

	S - scrambling	M- scrambling	L- scrambling
1. Subjacency	N/A	yes	yes
2. Allow pronominal copy	no	no	no
3. WCO effects[†]	no	no	no[††]
4. Binding Reconstruction	no	yes	yes
5. Anaphor Binding	N/A	yes	no

[†]: WCO = weak crossover

[††]: Mahajan (1989) observes that long-distance scrambling in Hindi does not remedy WCO violations when the pronoun is in an embedded clause. However, Yoshimura (1989) shows that Japanese long-distance scrambling remedies WCO violations. Also see Saito (1992: fn. 39).

Tada and Saito (1991), and Nemoto (1993) have argued that S-scrambling to the post subject position is A-movement based on the examples in (4) and (5),[2] which lack reconstruction effects Principle A and C respectively.

(4) a. Michael-ga [Kate-to Joe]$_1$-ni <u>otagai$_1$</u>-o syookaisita

   -nom   and   dat each other-acc introduce

   'Michael introduced Kate and Joe to each other.'

   b. *Michael-ga <u>otagai$_1$</u>-o [Kate-to Joe]$_1$-ni t_1 syookaisita

   M.-Nom each other-Acc K-and-J.-Dat introduced

(5) a. *Joe-ga kare$_1$-ni [Michael$_1$-no fan-o] syookaisita (koto)

   Joe-Nom he-Dat Michael-Gen fan-Acc introduced (fact)

   'Lit: Joe introduced, to him, Michael's fan.'

   b. Joe-ga [Michael$_1$-no fan]$_2$-o kare$_1$-ni t_2 syookaisita (koto)

   'Joe introduced Michael's fan to him.'

Tada (1990) observes that S-scrambling remedies WCO violations.

(6)   **?**John-ga <u>dare$_1$</u>-o [[soitu$_1$-ni aitagatteiru] hito]-ni t_1 syookaisita no

   John-Nom who-Acc he-Dat want-to-meet person-Dat introduced Q

   'Who did John introduce to the person who wanted to see him?'

---

[2] Takano (1995), however, gave (i) and (ii) to show the connectivity observed in this type of scrambling (VP-internal scrambling for him). Compare with (4b), the reflexive is further embedded in (i). The sentences in (ii) shows the bound reading of the bound pronoun *soitu* 'that guy, he.' I will not linger on this issue here.

(i)   a. Mary-ga John-to Bill-ni$_1$ [otagai$_1$-no sensei]-o syookaisita

   -Nom   -and   -Dat each-other-Gen teacher-Acc introduced

   '?Mary introduced each other's teacher to John and Bill.'

   b. **?**Mary-ga [otagai$_1$-no sensei]-o$_2$ John-to Bill-ni$_1$ t_2 syookaisita

   Mary-Nom each-other-Gen teacher-Acc John-and-Bill-Dat introduced

(ii) a. Mary-ga subete-no gakusei$_1$-ni [soitu$_1$-no sensei]-o syookaisita

   -Nom all-Gen student-Dat he-Gen teacher-Acc introduced

   '?Mary introduced his$_1$ teacher to every student$_1$.'

   b. Mary-ga [soitu$_1$-no sensei]$_2$-o subete-no gakusei$_1$-ni t_2 syookaisita

   -Nom he-Gen teacher-Acc all-Gen student-Dat introduced

Moreover, Saito (1994) notes that scrambling out of a finite embedded clause to a matrix post-subject position is not permitted, as in (7b).[3] A possible landing site for long-distance scrambling is the sentence initial position as in (7c).

(7)   a.   John-ga Bill-ni [CP Mary-ga <u>sono hon</u>-o motteiru to] itta (koto)

John-Nom B.-Dat M.-Nom that book-Acc have that said fact

'John said to Bill that Mary has that book.'

   b.   **??**John-ga <u>sono hon</u>-o$_1$ Bill-ni [CP Mary-ga t_1 motteiru to] itta (koto)

book-Acc John-Nom B.-Dat M.-Nom that have that said fact

   c.   <u>Sono hon</u>-o$_1$ John-ga Bill-ni [CP Mary-ga t_1 motteiru to] itta (koto)

book-Acc John-Nom B.-Dat M.-Nom that have that said fact

The above Japanese S-scrambling with A-movement properties is reminiscent of Chinese focalization. As discussed in chapter three, focalization to a strict preverbal position remedies weak crossover effects, does not force binding reconstruction effects, and is clause-bound. It has been argued previously that Chinese focalization is a strong [+Focus] feature attracted movement. Whether Japanese scrambling is also triggered by the same mechanism is beyond the scope of this thesis. I will leave this for further research.

Let us now consider inverted word order to a S-initial position. In Japanese it is derived by either topicalization or scrambling with distinguishable case markers and properties (e.g. Hoji 1985, Saito 1985). However, Chinese does not have morphological case markers to distinguish both, and inverted word order can be analyzed in Chinese as either topicalization (movement) or base-generation

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[3] However, Saito's (1994) VP-adjunction (S-)scrambling can be moved out of a non-finite embedded clause, e.g. control complement.

structures. The following will provide more data to show that Chinese lacks the properties of Japanese scrambling.

As noted by Hoji (1985), and the intuition from Kuroda (1970: 138), scrambling creates scope ambiguity. (9a), corresponding to (10a), is unambiguous with the scope everyone over someone. Scope ambiguity results from the scrambled QP object in (9b) equivalent to (10b).

(9) a QP-ga QP-o V   (unambiguous)

     b QP-o QP-ga V   (ambiguous)

(10) a. Daremo-ga dareka-o semeta   (unambiguous)

        everyone-Nom someone-Acc criticized

     b. Dareka-o Daremo-ga semeta   (ambiguous)

        someone-Acc everyone-Nom criticized

Chinese (11a) is on a par with Japanese (10a), in which everyone has scope over someone. Nevertheless, in contrast to Japanese (10b), *some book* in (11b) does not interact with *meigeren* 'everyone,' instead it only denotes a specific book bought by everyone.

(11) a. Meigeren dou mai le yiben shu   ($\forall > \exists$)

        everyone DOU buy Asp one book

        'Everyone bought a book.'

     b. You yiben shu meigeren dou mai le.   ($\exists > \forall$)

        have one-CL book everyone DOU buy Asp

        '(There is) one book everyone bought.'

Related to this point, Hoji (1985; 1994-5 class notes) has shown that Japanese scrambling displays a bound variable dependency (connectivity). Hence

the scrambled object containing a bound variable in (12b) is interpreted as though it is in its original position.

(12)   a.   Subete$_1$-no syookengaisya-ga [soko$_1$-no daini kumiai]-o tubusimasita

   all-Gen stock company-Nom its-Gen 2nd union-Acc destroyed

   'Every$_1$ stock company destroyed its$_1$ 2nd labor union.'

   b.   [Soko$_1$-no daini kumiai]$_2$-o subete$_1$-no syookengaisya-ga t_2 tubusimasita

   its-Gen 2nd union-Acc all-Gen stock company-Nom destroyed

Nevertheless, inverted word order in Chinese does not seem to have such a clear dependency relation with "bound pronouns."[4] Although *ta/ziji* in (13a) can be interpreted as bound variables, it is hard to interpret a bound reading in (13b) when they occur in an S-initial position.

(13)   a.   Meigeren$_1$ dou bu manyi Zhangsan gei ziji$_1$/ta$_1$ de chengji

   everyone DOU not satisfied Zhangsan give self's/his grade

   'Everyone$_1$ is not satisfied with the grades that Zhangsan gave to

   him$_1$/himself$_1$.'

   b.   *?[Zhangsan gei ziji$_1$/ta$_1$ de chengji] meigeren$_1$ dou bu manyi

   Zhangsan give self's/his grade everyone DOU not satisfied

   Second, Chinese topic/major subject structures differ from Japanese (M/L)-scrambling in that the pronoun *kare* is not allowed in the gap positions related to scrambled phrases, as in (14), but the *pseudo*-resumptive pronoun *ta* is allowed in Chinese in the gap position related to the major subject, or to be A'-bound by a locally raised topic in root contexts; see the discussion in chapter four.[5]

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[4] This point is based on the discussions in Hoji and Li's 1995 summer class.
[5] Recall that Chinese focalization does not allow resumption at all.

(14)   John$_1$-o [Mary-ga [Bill-ga (*kare$_1$-o) butta to] omotteita

     -top   -nom   -nom he-acc hit COMP was thinking

     'John$_1$, Mary thought that Bill hit t_1.'

Third, while Japanese allows multiple application of scrambling (Saito 1985; 1992), Chinese does not seem to allow multiple fronting. Japanese (15b) from Saito (1992) is acceptable, but multiple fronting of PP in Chinese (16b, c) is not good.[6]

(15)   a. Taroo-ga [$_{CP}$ Hanako-ga Masao-ni sono hon-o watasita to] omotteiru

        (koto)

        T.-Nom H.-Nom M.-Dat that book-Acc handed Comp think fact

        'Taro thinks that Hanako handed that book to Mary.'

    b. Sono hon-o$_i$ Masao-ni$_2$ Taroo-ga [$_{CP}$ Hanako-ga $t_2 t_1$ watasita to]

        omotteiru (koto)

        'That book$_1$, to Masao$_2$, Taro thinks that Hanako handed $t_2 t_1$.'

        (Saito 1992: #30)

(16)   a.   Wo xiang Zhangsan cong Meiguo ji le yiben shu gei Lisi.

        I think Zhangsan from USA mail Asp one book to Lisi

        'I think that Zhangsan mailed one book to Lisi from the USA.'

    b. *Cong Meiguo$_1$, gei Lisi$_2$, wo xiang Zhangsan t_1 ji le yiben shu t_2.

        from USA to Lisi I think Zhangsan mail Asp one book

    c. *Gei Lisi$_2$, cong Meiguo$_1$, wo xiang Zhangsan t_1 ji le yiben shu t_2.

        to Lisi from USA I think Zhangsan mail Asp one book

In addition to multiple scrambling in Japanese, it is possible to overtly scramble *wh*-phrases, which are different from covert *wh*-movement (see Takahashi

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[6] I use PP-fronting here to exclude the possibility of base-generating either argument from Saito's example. I thank Hoji (p.c.) for this point.

(1993) and references cited there). Chinese does not allow overt *wh*-scrambling, although both languages are *wh*-in-situ languages which display LF *wh*-movement properties. Takahashi (ibid.) notes that Japanese (17b) and (17c) are acceptable, with *wh* in the intermediate embedded clause and in the matrix clause respectively.

(17) a. Kimi-wa [John-ga [Mary-ga <u>nani</u>-o tabeta ka] sitteiru to] omotteiru no?

you-Top J.-Nom M.-Nom what-Acc ate Q know Comp think Q

'Do you think that John knows what Mary ate?'

'What do you think that John knows whether Mary ate?'

  b. Kimi-wa [$_{CP}$ <u>nani</u>$_i$-o John-ga [Mary-ga t_i tabeta ka]sitteiru to] omotteiru no?

Do you think what, John knows (Q/whether) Mary ate?

  c. <u>Nani</u>$_i$-o kimi-wa [$_{CP}$John-ga [Mary-ga t_i tabeta ka] sitteiru to] omotteiru no?

'What do you think that John knows whether Mary ate?'

In contrast to Japanese, Chinese *shenme* 'what' does not seem to be able to be topicalized, although one may use *shenme dongxi* 'what thing' to make it more D(iscourse)-linked. What is more important is that a *wh*-phrase cannot occur in the intermediate embedded clause, as the ungrammaticality of (18b) shows.

(18) a. Ni xiang [$_{CP}$ Zhangsan renwei [$_{CP}$ Mali chi le <u>shenme</u>]]

'Lit: you think Zhangsan thinks Mali ate <u>what</u>'

  b. *Ni xiang [$_{CP}$ <u>shenme</u>$_1$ Zhangsan renwei [$_{CP}$ Mali chi le t_1]]

'Lit: you think <u>what</u> Zhangsan thinks Mali ate.'

  c. ?*<u>shenme</u>$_1$ ni xiang [$_{CP}$ Zhangsan renwei [$_{CP}$ Mali chi le t_1]]

'Lit: <u>What</u> you think Zhangsan thinks Mali ate.'

Recall the discussion in section 4.1; fronting to an S-initial position displaying A'-movement properties is the genuine case of topicalization in Chinese. Base-generated S-initial (*lian*)-objects can accommodate Japanese A-movement of M-scrambling (see section 4.2). Under these considerations with the above different properties between both languages, there is no need to postulate the presence of a scrambling mechanism in Chinese.

Let us consider the A-movement properties of Japanese M-scrambling discussed by Saito (1992; 1994) and others; namely, anaphor binding and remedy of weak crossover violations. According to Saito (ibid.), the contrast between (19a) and (19b) is because the reciprocal *otagai* in (19a) is not bound by its antecedent, but in (19b) it is bound by the scrambled *karera* 'they,' which occurs in an A-position.[7]

(19) a. **?***[Otagai$_1$-no sensei]-ga <u>karera$_1$</u>-o hihansita (koto)

    each other-Gen teacher-Nom they-Acc criticized (fact)

    'Each other's$_1$ teachers criticized them$_1$.'

    b. **?**[<u>karera$_1$</u>-o [[otagai$_1$-no sensei]-ga t_1 hihansita]] (koto)

    they-Acc each other-Gen teacher-Nom criticized (fact)

The remedy of WCO violations as argued by Saito is that (M)-scrambling may involve A-movement, shown in (20) from Saito (1992) and Yoshimura (1992).

(20) a. ?*Masao-wa [PP Hanako-ga e_1 yomu mae-ni][<u>dono hon$_1$</u>-o yonda] no

    Masao-Top Hanako-Nom   read before which book-Acc read Q

    '[Masao [read which book$_1$][before Hanqako read e_1]]'

<hr>

[7] However, Hoji (1995a), (1995b) argues that Japanese *otagai* is not a local reciprocal anaphor. It need not have its antecedent in its local domain. It need not have a reciprocal interpretation of the sort typically associated with *each other* in English. It need not be c-commanded by its antecedent, and it allows split antecedence.

b. <u>Dono hon</u>-o$_1$ [Masao-wa [Hanako-ga e_1 yomu mae-ni][t_1-o yonda]] no

　　which book-Acc　-Top　　　　-Nom　　read before　read Q

　　'Which book$_1$, [Masao [read t_1][before Hanako read e_1]]'

I have shown in section 4.2 that IP-adjoined S-initial (*lian-*) NPs remedy WCO violations, and allow *pseudo*-resumptive pronouns. They are analyzed as base-generation without further postulating an A-movement fronting to a S-initial position.

　　Furthermore, Chinese topicalization can accommodate the A'-movement of both (M)- and (L)-scrambling cases. Namely, fronting is A'-movement to the topic position. They exhibit binding reconstruction effects, as (21) and (22).

(21)　　Zibunzisin-o$_1$ [Hanako-ga t_1 criticized] (koto)

　　　　himself Hanako-Nom criticize　　(Saito 1992: #17)

(22)　　?*Masao-no hahaoya-o [kare-ga t　aisiteiru] (koto)

　　　　Masao-gen mother-acc he-nom　love fact

　　　　'Masao's mother, he loves.'　　(Saito 1985)

　　Therefore, the above data indicates that Chinese does not display identical scrambling properties to Japanese. One reason may be because Chinese does not have overt case markers to indicate whether the dislocated element is topicalized or scrambled. Furthermore, movement in Chinese is less free than that in Japanese. Namely, movement in Chinese is either triggered by a [+Focus] feature or topic structure. This may be related to the different clausal structures in the two languages. As suggested by Fukui (1993), Japanese is a head final language both in NPs and clauses, thus scrambling is free. Clause structure in Chinese and English is not head final, hence movement is more costly. How this correlation is attested needs further empirical support. I will leave this issue for future research.

5.2. Focus Issues

5.2.1. Association with Focus

It has been noted in the literature (see Anderson (1972), Jackendoff (1972), Rooth (1985) among others) that focus adverbs, such as *even*, *only* or *just,* can associate focus elements as long as the focus/foci fall(s) within the domain (or scope) of the focus adverbs, and they can be phonologically stressed. This is the idea of Jackendoff's (ibid.) *association with focus* rule, repeated in (23). Association with focus will be able to take place only if the focus is within the scope ('range' in Jackendoff's term) of *even*.

(23)　Range of *even*
　　　　If *even* is directly dominated by a node X, the range of *even* includes X and all nodes dominated by X to the right of *even* , plus the subject if X is an S.

His examples in (24) indicate that when *even* occurs before a VP, all the elements including the subject are in the range of *even*.[8]

(24)　a．JOHN even gave his daughter a new bicycle.

　　　　b．John even gave his DAUGHTER a new bicycle.

　　　　c．John even gave HIS daughter a new bicycle.

　　　　d．John even gave his daughter a NEW bicycle.

　　　　e．John even gave his daughter a new BICYCLE.

　　　　f．John even GAVE his daughter a new bicycle.

When *even* occurs before the subject, it only associates the subject *John* in (25).

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[8] Phonologically stressed focus associates are shown with capital letters.

(25) a. Even JOHN gave his daughter a new bicycle.

   b. *Even John GAVE

   c. *   HIS

   d. *   DAUGHTER

   e. *   NEW

   f. *   BICYCLE

In addition to association with focus, a sentence may allow multiple focus devices.[9] For example, a sentence can have a focus adverb associating a focus, and at the same time contain a structural focus, such as English cleft sentences. Consider (26) and (27).

(26)   It is <u>John</u> that likes *even* <u>Mary</u>.

(27)   It is *only* <u>Mary</u> that John likes.

In (26), the structural focus is the cleft head NP *John*. The focus operator *even* associates the focus to *Mary* which is not the same as the structural focus. The structural focus and focus associate coincide in (27), where the focus *Mary* is marked by different focusing devices.[10] The point I would like to make here is that when there exist multiple focusing devices in a sentence, they do not necessarily fall on the same focus, although they may do so.

In *lian..dou/ye* sentences a *lian*-phrase bears major stress (noted by Paris (1979)). This structural focus requires a syntactic [+Focus] licensing mechanism which has been discussed in the previous chapters. In addition to the structural

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[9] Culicover (1993) states that there are at least three types of focusing devices: (i) stress focus, (ii) operator focus, such as *wh*, *only*, and *even* in English, and (iii) structural focus. He states that they cannot all be reduced to a uniform focusing device (cf. Rooth (1992)).

[10] What I am concerned about here is the possibility of mutliple focusing devices within a sentence. My current concern is different from Krifka's (1991), in which a sentence may have multiple focus adverbs and focus associates.

focus, *dou/ye*, the head of the functional FocusP, functions as a focalizer (focus operator). The VP/AspP subcategorized by *dou/ye* falls within its scope (range). Hence elements inside the VP or the whole VP can be interpreted as focus associates when they are contrastively interpreted or phonologically stressed. Note that the association with focus is optional, since there is already a major focus, *lian*-NP. Take (28) for example, *lian Hong-Lou-Meng* is in FP Spec position.

(28)   Zhangsan [FP *lian* Hong-Lou-Meng dou] du le

          Zhangsan LIAN Red Chamber Dream all read Asp

          'Zhangsan read even Red Chamber Dream.'

On the one hand, this FP Spec *lian*-NP is the major focus. The novel of *Hong Lou Meng* is expected to be the least possible book that Zhangsan would read, in contrast with other books in an understood context. On the other hand, the verb or the whole VP dominated by *dou* may be associated with it. Consider (29b). The verb *du* 'read' is the focus associate (or could be phonologically stressed). Under the context of (29a), (29b) is rendered as: Zhangsan even READ Hong-Lou-Meng to one's surprise, not just bought it.'

(29)   a. Zhangsan zuotian bu zhi lian Hong-Lou-Meng dou mai le,

            Zhang yesterday not only LIAN Red Chamber Dream DOU buy Asp,

       b. ta lian Hong-Lou-Meng dou DU le ne!

            he LIAN Hong-Lou-Meng DOU read Asp

            'Zhangsan not only bought even Red Chamber Dream, he also READ

            even Red Chamber Dream.'

When the whole VP is the focus associate in a context like (30a), (30b) asserts an unexpected event: Zhangsan's reading of Hong-Lou-Meng, in contrast with other events that Zhangsan did yesterday; e.g. washing dishes, writing letters, etc.

(30) a. Zhangsan zuotian xi-le wan, xie-le hen duo xin,

Zhangsan yesterday wash Asp dishes, write Asp many letters

b. ta <u>lian Hong-Lou-Meng dou du le</u> ne!

he LIAN Red Chamber Dream DOU read Asp

'He even read Red Chamber Dream.'

In other words, when a *lian*-phrase occurs in the FP position (focalized phrase discussed in chapter three), focus scope can include any elements dominated by the head of the FocusP, i.e. V, AspP or VP. Therefore, the sentences in (31) are felicitous, since the stressed elements are either inside the *lian*-phrases (31a, b), or within the scope of FP (31c, d).

(31) a. Zhangsan [FP lian yiliang XINDE zixingche dou [VP song gei le

Mali]], (er bu shi JIUDE)

Zhangsan LIAN one NEW bike DOU give Asp Mali, rather not OLD DE

'Zhangsan gave Mali even a NEW bike, (rather than an OLD (one)).'

b. Zhangsan [FP lian yiliang xinde ZIXINGCHE dou [VP song gei le Mali]],

(er bu shi wanju che).

Zhangsan LIAN one new BIKE DOU give Asp Mali, rather a TOY CAR

'Zhangsan gave Mali even a new BIKE, (rather than a TOY CAR).'

c. Zhangsan [FP lian yiliang xinde zixingche dou [VP SONG gei le Mali]], (er

bu MAIGEI ta).

Zhangsan LIAN one new bike DOU GIVE Asp Mali, not SELL him

'Zhangsan even GAVE Mali a new bike, (rather than selling to her).'

d. Zhangsan [FP lian yiliang xinde zixingche dou [VP song gei le MALI]], (er

bu shi tade NÜER).

Zhangsan LIAN one new bike DOU give Asp MALI, not his daughter

'Zhangsan gave a new bike even to MALI, (rather than to his daughter).'

The subject *Zhangsan* in (32) is not within the scope of the focalizer, hence it is not

likely to be interpreted as a focus associate.[11]

(32)   *ZHANGSAN [FP lian yiliang xinde zixingche dou [VP song gei le Mali]],

(er bu shi Lisi gei de.)

Zhangsan LIAN one-CL new bike DOU send-give Asp Mali, but not Lisi

give Asp

'*ZHANGSAN gave Mali even a new bike, (not Lisi gave (her)).'

However, when the subject is the structural focus, elements in the range of *dou/ye*

can be focus associates as in (33a, b).

(33)   a. <u>Lian ZHANGSAN</u> dou mai le shu.

LIAN Zhangsan DOU buy Asp book

'Even ZHANGSAN bought the books.'

b. <u>Lian Zhangsan</u> dou mai le SHU, (er bu shi zazhi).

LIAN Zhangsan DOU buy Asp this-CL book, (but not be magazine)

'Even Zhangsan also bought the BOOKS, (but not magazines).'

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[11] In addition to *lian*-even, Chinese also has focus adverb *shenzhi* 'even.' The
adverb *shenzhi* can co-occur with *lian..dou/ye*. If *shenzhi* occurs before FP as in (i),
the subject can be a focus associate. (i) is on a par with English (24a). The adverb
shenzhi extends the focus scope (range) to the whole sentence.
(i)   ZHANGSAN **shenzhi** [FP lian yiliang xingde zixingche dou [VP song gei le
       Mali]], (er bu shi Lisi gei de.)
       Zhangsan even LIAN one-CL new bike DOU send-give Asp Mali, but not Lisi
          give Asp
       'ZHANGSAN even gave Mali even a new bike, (not Lisi gave (her)).'
Shenzhi differs from *lian..dou/ye* in that overt focus constituent movement is not
obligatory.

Therefore, when the *lian*-phrase occurs in the FP position focus scope covers the elements dominated by the head of the FocusP. Moreover, it seems that when a *lian*-phrase is base-generated in the S-initial IP-adjoined position (in section 4.2), the focus scope ranges over the whole sentence; e.g. the subject, the verb, and the object in (34a), (34b) and (34c) respectively can be focus associates.

(34)   a.   [IP[IP Lian yiliang zixingche [ZHANGSAN dou song gei le Mali]]], (er bu shi Lisi song de).

         LIAN one bike ZHANGSAN DOU give Asp Mali (not Lisi gave)

         'ZHANGSAN even gave a bike to Mali, rather Lisi gave (her).'

   b.   [IP[IP Lian yiliang zixingche [Zhangsan dou [VP SONG gei le Mali]]], (er bu MAIGEI ta).

         LIAN a bike Zhangsan DOU GAVE Mali, (rather than SELLING to her).'

         'Zhangsan even GAVE a bike to Mali, rather than SELLING to her.'

   c.   [IP[IP Lian yiliang zixingche [Zhangsan dou [VP song gei le MALI]]], (er bu shi tade nuer).

         LIAN a new bike Zhangsan DOU gave MALI, not to his DAUGHTER

         'Zhangsan gave a bike even to MALI, rather than giving his DAUGHTER.'

To recapitulate, when a *lian*-NP appears inside the FP, the focus scope includes the elements dominated by the head of FP. When a *lian*-NP is base-generated in the IP-adjoined position, the focus scope can extend to the whole sentence, as the contrast between (32) and (34a) indicates.

5.2.2. Focus Scope

When *lian*-NPs are topicalized to occur in root [Spec TopicP], they are contrastively focused. The following will show that while the focus scope of

English focus *even* or *only* adverbs is interpreted at LF, focus scope is represented in the syntax in Chinese.

It has been known that when an English focus adverb modifies a VP, their scope is fixed, i.e. the VP; see Taglicht (1984) Rooth (1985), Kratzer (1989b) and Tancredi (1990). Sentence (35a) with *only* modifying VP is rendered as: *like Mary is true of John*, and for any *x* if *likes x* is true of *John* then *x=Mary* (from Tancredi (ibid.)). However, when the focus adverb modifies an object NP in a simplex clause (35b), either the object *Mary* or the whole VP, *like Mary*, is in the scope of *only*.

(35)　a．John *only* likes Mary.

　　　b．John likes *only* Mary.

Moreover, Taglicht (ibid.) has pointed out that in a complex clause when the embedded object is modified by a focus adverb, its scope may be extended across clause boundaries. Taglicht's examples are repeated here.

(36)　a．I knew he had *only* learnt SPANISH.

　　　　i.　[embedded scope] OK

　　　　ii.　[matrix scope]　　*

　　　b．I knew he had learnt *only* SPANISH.

　　　　i.　[embedded scope] I knew he hadn't learnt any other language.

　　　　ii.　[matrix scope] I didn't know he had learnt any other language.

　　　　(Taglicht, 1984: 150)

Only in (36a) modifies the embedded VP *learnt Spanish*. This VP is the only focus scope. When *only* modifies the embedded object *Spanish* as in (36b), the sentence is ambiguous between (b-i) and (b-ii) readings. Hence, the data suggests that the scope ambiguity in (36b) is interpreted in a post syntactic level, e.g. the proposed LF movement of focus adverbs.

Focus scope in Chinese is represented in the structure of *lian..dou/ye* sentences.[12] Consider long-distance moved *lian Mali* in (37) where *dou* occurs in the embedded clause. Recall that in section 4.1 this is a case of long-distance topicalized *lian*-NP.

(37)   <u>*Lian* MALI</u> $_1$ Zhangsan renwei [$_{CP}$ Lisi ***dou*** bu xihuan t_1].

　　　　　LIAN Mali Zhangsan think Lisi all not like (her)

　　　　　'Even Mali, Zhangsan thinks that Lisi also doesn't like (her).'

　　i. [embedded scope] Zhangsan thinks that Lisi doesn't like anybody, even Mary.

　　ii. [matrix scope]　　*

In sentence (37), the embedded object NP scope reading is achieved by reconstructing the *lian*-NP at LF.[13] It thus denotes that Zhangsan thinks that Lisi is

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[12] The focus adverb *shenzhi* 'even' only occurs preverbally, in contrast to English *even* which can modify postverbal elements. See the contrast between (ia) and (ib).
(i)　　a.　Zhangsan *shenzhi* du le Hong Lou Meng.
　　　　　　Zhangsan even read Asp Red Chamber Dream
　　　　　　'Zhangsan even read Red Chamber Dream.'
　　　　b．*Zhangsan du le *shenzhi* Hong Lou Meng.
　　　　　　Zhangsan read Asp even Red Chamber Dream
Thus, object NP focus scope like English (35b) and (36b) is expressed in Chinese only by preposing the object to [Spec FP] in *lian..dou/ye* sentences. Using *shenzhi* only gives rise to an unambiguous VP scope.
[13] Sentences (i) and (ii) further illustrate this point that the long-distance moved *lian*-NP in (iB) only has an embedded object focus scope reading, rather than an embedded VP focus scope. Thus, (iB) is a felicitous reply to question (iA), to contrast *Hong Lou Meng* with other books that Zhangsan thinks that Lisi bought yesterday. However, (iiB) is not an appropriate reply to question (iiA), since the utterance of (iiB) does not have an embedded VP focus scope reading to contrast the events that Zhangsan thinks Lisi did yesterday.
(i)　　A:　Zhangsan renwei Lisi zuotian <u>mai le hen dou dongxi</u>.
　　　　　　'Zhangsan thinks that Lisi yesterday bought many things.'
　　　　B:　Shi a! <u>Lian Hong Lou Meng</u>, Zhangsan renwei Lisi *dou* mai le.
　　　　　　'Yeah! Even for Red Chamber Dream, Zhangsan thinks Lisi also bought.'
(ii)　 A:　Zhangsan renwei Lisi zuotian <u>ban le hen dou shi</u>.
　　　　　　'Zhangsan thinks that Lisi yesterday did many things.'
　　　　B:　#Shi a! <u>Lian HongLouMeng</u>, Zhangsan renwei Lisi *dou* mai le.
　　　　　　'Yeah! Even for Red Chamber Dream, Zhangsan thinks Lisi also bought.'

a picky person who does not like even Mali who is considered to be the most likely person to be loved by Lisi. Let us now consider (38) when *dou* occurs in the matrix clause. As discussed in section 4.2, *lian Mali* in (38) is base-generated in a matrix IP-adjoined position. Consequently, (38) only has matrix scope reading. It is to contrast an unexpected situation of Zhangsan's opinion (of Lisi's disliking Mary). At the same time *lian Mali* is contrastively focused.

(38)   <u>*Lian* M<small>ALI</small></u>$_1$ Zhangsan ***dou*** renwei [$_{CP}$ Lisi bu xihuan *pro*$_1$].

        LIAN Mali Zhangsan all think Lisi not like (her)

        'Lit. Even Mali, Zhangsan all thinks that Lisi doesn't like her.'

    i.   [embedded scope] ?*

    ii. [matrix scope] Other people also think that Lisi doesn't like even Mali.

The scope ambiguity of *even*-NP in complex clauses has been observed by Karttunen and Peters (1977), K&P hereafter, Rooth (1985), and the discussion of both proposals in Wilkinson (1993). K&P have proposed that (39) contains both existential implicature (40a) and scalar implicature (40b).

(39)   Bill likes even Mary.

(40)   a．There are other x under consideration besides Mary such that Bill likes x, and
      b．For all x under consideration besides Mary, the likelihood that Bill likes x is greater than the likelihood that Bill likes Mary.

They further notes that (41) is scope ambiguous between a narrow scope reading in (42) and a wide scope reading in (43). The existential implicature in (42a) says that "there is something other than Syntactic Structure (S.S.) that Bill can understand." The scalar implicature is rendered as: S.S. is the least likely thing for Bill to understand. That is, S.S. is a difficult book for Bill to understand.

(41)   It is hard for me to believe that Bill can understand *even* SYNTACTIC

         STRUCTURE.

(42)   existential implicatures
         a. Bill can understand x

         scalar implicature
         b. For all x under consideration besides S.S, the likelihood Bill can
            understand x is greater than the likelihood that Bill can understand S.S.
            SS is the least likely thing for Bill to understand.

The wide scope interpretation of the existential implicature in (43a) says that "there is

something other than S.S. that it is hard for me to believe that Bill understands." The

scalar implicature is: "S.S. is the least likely thing that it is hard for me to believe that

Bill understands." This implies that S.S. should be easy for Bill to understand.

(43)   existential implicatures:
         a. It is hard for me to believe that Bill can understand x.

         scalar implicature
         b. For all x under consideration besides S.S, the likelihood that it is hard for
            me to believe that Bill can understand x is greater than the likelihood that
            it is hard for me to believe that Bill can understand S.S.

         In Chinese the two interpretations of English (41) are expressed by (44) and

(45) syntactically, in reminiscence of isomorphism.[14] (44) corresponds to a narrow

scope interpretation of English (42), meaning that this book is difficult for Zhangsan

to understand.

(44)   <u>Lian zheben shu</u> wo hen nan xiangxin [Zhangsan **dou** neng liao-jie]

         LIAN this-CL book I hard believe Zhangsan DOU can understand

         'It's hard for me to believe that Zhangsan can understand even this book.'

(45), with *dou* in the matrix clause, is equivalent to the wide scope interpretation of

English (43). It implies that this book is relatively easy for Zhangsan to understand.

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[14] That is LF interpretations are determined by syntactic structures.

(45)   Lian zheben shu wo **dou** hen nan xiangxin [Zhangsan neng liao-jie]

LIAN this-CL book I DOU hard believe Zhangsan can understand

'Even this book, it's hard even for me to believe that Zhangsan can

understand.'

The different interpretations between (44) and (45) are naturally and consistently accounted for by our discussion in chapter four. The *lian*-NP in (44) is overtly topicalized and reconstruction gives rise to its narrow scope interpretation. In contrast, the *lian*-NP in (45) is base-generated in the matrix clause. Hence, wide focus scope is interpreted. Thus, our data seems to favor the scope theory proposed by K&P (1977) and defended by Wilkinson (1994).[15] Namely, the ambiguity of *even* NP is attributed to the different scopes interpreted at LF in English, whereas the scope interpretations are represented syntactically in Chinese.

5.2.3. Focus Adverbs

I have ignored the so-called cleft *shi* 'be' focus construction in this thesis.[16] The following will first briefly summarize its properties and then compare those with the focus adverbs *zhi* 'only' and *shenzhi* 'even.' I will suggest that *shi* functions as a focus adverb (although it is a verb syntactically), (cf. Huang 1982, Shi 1992b), rather than heading a Focus projection as argued by Chiu (1993).

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[15] I refer readers to Wilkinson's (1994) arguments for scope theory, in contrast to Rooth's analysis of two *even*s: NPI-*even* and regular *even*.

[16] I refer readers to this widely discussed *shi..de* construction in Chinese literature: Cheng (1983), Chiu (1993), Huang (1982; 1988), Paris (1979), Shi (1992b), Teng (1979) and references cited there. Specifically Huang (1982) and Shi (1992) have argued for the 'in-situ-focus' in syntax, and focus operator *shi* movement at LF by applying Quantifier Raising. Chiu (1993) argues for focus constituent LF movement to the Spec of a Focus Projection headed by *shi* instead.

It has been observed that *shi* occurs only preverbally. The focused element is either the constituent immediately following *shi* or the entire sequence following *shi*. If *shi* is immediately preverbal, it can focus a postverbal XP (for detailed distribution see Chiu (1993: 130) among others). The restriction of preverbal positions for *shi* is on a par with other focus adverbs.[17] (46a) with postverbal *shi* and (46b) with postverbal *zhi* 'only' or *shenzhi* 'even' are ungrammatical.

(46) a. ***Zhangsan mai *shi* zheben shu.**

Zhangsan buy SHI this book

'It is the book that Zhangsan bought.'

  b. ***Zhangsan mai *zhi*-(*you*)/ *shenzhi* zheben shu.**

Zhangsan buy only-you/ even this book

'Zhangsan bought only/even this book.'

When *shi*, *shenzhi* or *zhi* directly precedes the verb, sentences like (47a) and (47b) have ambiguous focus scopes. Elements inside the VPs: either the verb, the object or the whole VP can be focus associates.[18],[19]

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[17] Focusing an object NP can be expressed by the so-called pseudo-cleft constructions. The verb *you* is obligatorily attached to *zhi* in (ii) to focus an NP.
(i)   Zhangsan mai de (*shenzhi*) *shi* zheben shu.
      Zhangsan buy DE (even) SHI this book
      'What Zhangsan bought is (even) this book.'
(ii) Zhangsan mai de *zhi*-***(*you*)** zheben shu.
      Zhangsan buy DE only-have this book
      'What Zhangsan bought is only this book.'
[18] The scope (range) of *shenzhi* 'even' is similar to that in English discussed by Jackendoff (1972). Compare (i), (ii) with (24), (25) respectively. When *even* precedes the verb, its scope can extend to the subject, whereas when it immediately precedes the subject, its scope is limited to the subject.
(i)   a. ZHANGSAN *shenzhi* gei tade nüer yilang xin zixingche
          'ZHANGSAN *even* gave his daughter a new bicycle.'
      b. Zhangsan *shenzhi* gei tade NÜER yilang xin zixingche
      c. Zhangsan *shenzhi* gei tade nüer yilang xin ZIXINGCHE
(ii) a. *Shenzhi* ZHANGSAN gei le tade nüer yilang xin zixingche
          '*Even* ZHANGSAN gave his daughter a new bicycle.'
      b. ******Shenzhi* Zhangsan gei le tade NÜER yilang xin zixingche

(47)	a.	Zhangsan *shi* mai le zheben shu.

	Zhangsan SHI buy Asp this book.

	'It is to buy this book that Zhangsan did.'

	'It is this book that Zhangsan bought.'

	b.	Zhangsan *zhi*-(*you*)/ *shenzhi* mai zheben shu.

	Zhangsan only (have)/ even buy this book

	'Zhangsan only/even bought this book.'

Sentences (48) and (49) behave the same with this respect. Moreover, both *shi* and *zhi* can focus preverbal elements provided that *zhi* 'only' has to be followed by the verb *you* 'have' when it precedes a noun phrase, as shown in (48) and (49).

(48)	a.	*Shi* Zhangsan mai le zheben shu.

	SHI Zhangsan buy Asp this book

	'It is Zhangsan that bought this book.'

	'it is the case that Zhangsan bought this book.'

	b.	*Zhi-*(you)*/ *Shenzhi* Zhangsan mai le zheben shu.

	only-have/ even Zhangsan buy Asp this book

	'Only/Even Zhangsan bought this book.'

(49)	a.	Zhangsan *shi* zuotian mei lai.

	Zhangsan SHI yesterday not come

	'It is yesterday that Zhangsan didn't come.'

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	c．	***Shenzhi* Zhangsan gei le tade NÜER yilang xin ZIXINGCHE

[19] Although the adverb *even* can have scope over the subject when it immediately precedes the verb, the adverb *only* does not extend its focus scope to the subject; see Jackendoff (1972).

b. Zhangsan *zhi-*(you)*/ *shenzhi* zuotian mei lai.

Zhangsan only-have/ even yesterday not come

'Zhangsan didn't come only/even yesterday.'

We have seen the parallelism between *shi* and the focus adverbs *zhi, shenzhi*. They have to occur preverbally. The association with focus of *shi*, *zhi* and *shenzhi* follows naturally from the discussion in section 5.2.1, and patterns with English focus adverbs except that Chinese adverbs do not occur postverbally.

5.2.4. Focus Movement

In this section I would like to point out certain differences between Hungarian focus movement and Chinese focalization and topicalization (for the discussion of Hungarian see Horvath (1986), Kiss (1994) and references cited there).

First, the Chinese focus construction in question is *lian..dou/ye* 'even...all/also' sentences. The Chinese cleft construction is treated like a focus adverb rather than heading a focus projection, as discussed in the previous section. However, the Hungarian focus position corresponds to the cleft construction.

In her extensive work on Hungarian focus constructions, Horvath (1986) has proposed a strict pre-V(erb) focus position (see Kiss (1994), etc. and cf. Brody (1990)) and syntactic focus constituent movement. She argues that like *wh*-movement Hungarian focus movement can undergo long-distance movement to the <u>matrix pre-V</u> focus position following the matrix subject. Sentences involving focus and *wh*-movement from Horvath (ibid.) are given in (50a) and (50b) respectively.

(50)   a.   [$_S$ Janos [$_{VP}$ <u>melyik fiúnak</u>$_1$ gondolta [$_{S'}$ hogy Péter [$_{VP}$ *ki*jelentette
            John which boy-to$_1$ thought that Peter out-reported

            [$_{S'}$ hogy a házigazda már [$_{VP}$ *be*mutatta Marit t_1?]]]]]]
            that the host already in-showed Mary-acc t_1

            'To which boy did John think Peter delcared that the host had already
            introduced Mary?'

       b.   [$_S$ János [$_{VP}$ <u>ATTILÁNAK</u>$_1$ gondolta [$_{S'}$ hogy Péter [$_{VP}$ *ki*jelentette [$_{S'}$
            John ATTILA-TO$_1$ thought that Peter out-reported

            hogy a házigazda már [$_{VP}$ *be*mutatta Marit t_1?]]]]]]
            that the host already in-showed Mary-acc t_1

            'It's ÁTTILA to whom John thought Peter delcared that the host had
            already introduced Mary?'   Horvath (1986: 223)

In chapter three I have demonstrated that *lian*-focalization (movement to strict

preverbal and post-subject position) is clause-bound.[20] Namely, it is not acceptable

to move long distantly out of a **finite** embedded clause to the strict preverbal and

post subject position in a matrix clause (51b).

(51)   a.   Zhangsan renwei [$_{CP}$ Lisi hen xihuan Mali]

            'Zhangsan think Lisi very like Mali'

       b.   *Zhangsan <u>*lian* Mali</u>$_1$ ***dou*** renwei [$_{CP}$ Lisi bu xihuan t_1].

            Zhangsan LIAN Mali DOU think Lisi not like (her)

            'Zhangsan thinks that Lisi doesn't like even Mali.'

However, focalization out of a **infinitival** embedded clause is possible; see the

acceptability of (52b).[21]

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[20] In chapter two I have discussed the similar properties between *lian*-NPs and
universal QPs. The clause-boundedness of focalization is reminiscent of that in the
standard Quantifier raising QR.

[21] Saito (1994) observes the (non-)finite distinction with respect to scrambling to the
matrix post-subject position. (ii) is worse than (iii). (ii) is scrambling to the matrix
post-subject position out of a finite embedded clause, whereas (iii) is scrambling out
of an infinitival embedded clause.

(i)   John-ga Bill-ni [$_{CP}$ Mary-ga <u>sono hon</u>-o motteiru to] itta (koto)
         John-Nom B.-Dat M.-Nom that book-Acc have that said fact

(52) a. Lisi rang [IP1 Zhangsan pai [IP2 Wangwu diaocha le najian shi]]

Lisi ask Zhangsan send Wangwu investigate Asp that-CL matter

'Lisi asked Zhangsan to send Wangwu to investigate that matter.'

b. Lisi lian najian shi dou rang [Zhangsan pai [Wangwu diaocha le *t*]]

Lisi LIAN that matter DOU ask Zhangsan send Wangwu investigate Asp

'Lisi asked Zhangsan to send Wangwu to investigate even that matter.'

In chapter four I have further proposed that the unbound dependency of S-initial *lian*-NP is either base-generated in the matrix clause (53) or involves directly topicalizing the embedded *lian Mali* (54). Recall that the position of *dou* is a diagnosis.

(53)   *Lian Mali*$_1$ Zhangsan ***dou*** renwei [CP Lisi bu xihuan e_1].

LIAN Mali Zhangsan DOU think Lisi not like (her)

'Zhangsan even thinks that Lisi doesn't like MALI.'

(54)   *Lian Mali*$_1$ Zhangsan renwei [CP Lisi ***dou*** bu xihuan t_1].

LIAN Mali Zhangsan think Lisi DOU not like (her)

'Zhangsan thinks that Lisi doesn't like even Mali.'

The point I would like to make here is that whether base-generation or topicalization, unbound dependency (with embedded <u>finite</u> clauses) is possible only when *lian*-phrases occur in the <u>sentence-initial</u> position, on a par with topic structure, rather than in the matrix strict preverbal post-subject position.

'John said to Bill that Mary has that book.'

(ii)   **??**John-ga <u>sono hon</u>-o$_1$ Bill-ni [CP Mary-ga t_1 motteiru to] itta(koto)
book-Acc John-Nom B.-Dat M.-Nom that have that said fact

(ii)   John-ga <u>sono hon</u>-o$_1$ Bill-ni [IP PRO t_1 mottekuru yooni] itta (koto)
Jonn-nom   that book-acc Bill-to   bring to said fact
'John told Bill to bring that book.'

Even if we admit an object in the S-initial position preceded by *zhiyou*, *shenzhi* or *shi*, as in (55), the unbound dependency of the cleft object or the object following focus adverbs is always to the S-initial position.

(55) a. *Zhi-*(you)*/ Shenzhi zheben shu Zhangsan mai le.

   only-have/ Even this book Zhangsan buy Asp

   'Only/ Even this book Zhangsan bought.'

   b. *Shi* zheben shu Zhangsan mai de.[22]

   SHI this book Zhangsan buy DE

   'It is this book that Zhangsan bought.'

In addition to the acceptable (55), an embedded object in (56) can occur in matrix topic or major subject position, as indicated in (57a). Although (57a) is good, (56b) is nevertheless uninterpretable with the intended reading of (57a).

(56)   Wo tingshuo/xiangxin tamen yao kaichu <u>Zhangsan</u>.

   'I heard/believe that they want to fire Zhangsan.'

(57) a. *Shi/zhiyou /shenzhi* <u>Zhangsan</u>$_1$ wo tingshuo/xiangxin tamen yao kaichu

   t_1.

   SHI/ only/ even Zhangsan I hear/believe they want fire

   'It is/ Only/ Even Zhangsan (that) I heard/believe that they want to fire.'

   b. *Wo *shi/ zhiyou/ shenzhi* <u>Zhangsan</u>$_1$ tingshuo/xiangxin tamen yao kaichu

   t_1.

   I SHI/ only/ even Zhangsan hear/believe they want fire

Therefore, we have seen that although the long-distance moved (cleft) focus constituent or *wh*-phrases in Hungarian occur in the matrix pre-V post-subject position, unbound dependency in Chinese is limited to sentence-initial position only,

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[22] Chiu (1993) does not allow (55b), but I think it is acceptable.

on a par with topicalization or major subject structures. I have no account for the difference between these two languages. It may be due to different clause structures (e.g. free word order in Hungarian) or the presence of overt case-marking in Hungarian. I will leave this problem for future research.

5.3. Concluding Remarks

The proposed structural Focus position (chapters two and three), together with topic/ major subject structures (chapter four), has thrown new light on Chinese clause structure and the long-standing debate over topic structure in the literature. The proposed analyses are comparable to Japanese topic/ major subject structures, except for the lack of overt morphological case markers in Chinese. The comparisons between these two languages provide insights for our understanding of Universal Grammar, particularly with respect to (non-) topicalized sentences in the so-called topic-prominent languages.

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