

Case, Tense and Clauses

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The theory of Case has played an important role in deriving categorial selection (subcategorization) from the semantic properties of lexical items. Some of such analyses have been built on the claim that noun phrases require Case but non-gerundival clauses are not in Case-assigned positions. In Chinese, the issue is whether different types of clauses are distinguished and whether the notion of Case is relevant in Chinese, particularly to (different types of) clauses. This paper shows that the notion of abstract Case indeed is relevant in Chinese but clauses are not in Case-assigned positions. When a non-Case marked clause appears in a Case position, it is actually contained in a complex noun phrase and Case is assigned to the containing NP instead. This analysis of clauses captures many interesting semantic and syntactic properties of clauses in various contexts.

Key words: Case, clause, tense, c-selection, s-selection, conjunction

1. Introduction

Chinese does not have much inflectional morphology. It is not surprising that the literature frequently debated on whether Chinese makes some of the similar types of distinctions as those demonstrated by inflectional morphemes in other languages. For instance, the issue has been raised whether Chinese has number distinctions (plurality; see, among others, Iljic 1994, 2001, 2005, Li 1999). Much debate has also generated arguments for and against the distinction between finite (tensed) clauses and non-finite clauses in Chinese (see, for instance, Huang 1982[1998], Li 1985, 1990, C. Tang 1990, T. Tang 2000, Hu, Pan & Xu 2001, among many others). Recent works have considered the role of semantic and syntactic tense anchoring in “tensed” clauses (Lin 2003a, 2003b, 2006, Sybesma 2007, Tsai 2008).

Focusing on the question of whether different types of clauses need to be distinguished, we note that the issue is not only interesting in itself but also important in helping us understand the behavior of clauses in Chinese and the more general studies concerning order and constituency in Universal Grammar. Claims have been made in the literature that certain constructions allow only specific kinds of clauses. Take for instance Kayne’s anti-symmetric approach to word order and hierarchical structures in

Universal Grammar. In such an approach, relative constructions in all languages have the same base structure and head-final relative clauses — the modifying relative preceding the modified phrase — are, roughly speaking, derived by moving the relative clause across the modified phrase to a higher (left) position. Due to some well-formedness conditions on the movement process, head-final relative clauses are possible only when such relatives are non-tensed (for details of the analysis, see Kayne 1994). That is, a tensed relative clause should not precede the modified phrase. In this regard, being able to define clearly the nature of clauses in Chinese and determine their distribution would be a good testing ground for the said approach to a universal relative construction.

The distinction of different types of clauses also bears on the characterization of Case theory and the Visibility condition on thematic role assignment (Stowell 1981, Plann 1986, Li 1985, 1990, Lin 2003a, 2003b, 2006, Sybesma 2007, Tsai 1995, 2008). Empirically, whether or not clauses need Case has been controversial.¹ Pesetsky (1982) distinguishes between NPs and clauses categorially: only the former need Case. Accordingly, the subcategorization properties of heads can be determined by the s(ematic)-selection properties of a head, coupled with the Case assigning ability of the head. C(ategorial)-selection is derived from s-selection interacting with Case. Stowell (1981) argues that some clauses are inherently visible for theta-assignment, such as infinitives and the tensed complements of heads expressing psychological states. Other tensed clauses are assigned Case but cannot stay in Case positions. Such Case properties affect the distribution of clauses and related grammatical processes. For instance, demonstrating the role of Case on the distribution of clauses is the generalization that non-gerundive clauses do not occur in the object positions of Ps.

Li (1985, 1990) was the first systematic attempt to define the role of Case in a language like modern Chinese, which does not have any overt Case markings. Regarding clauses, the poverty of morphological inflections in Chinese makes it quite challenging to determine if different types of clausal structures can be clearly distinguished in this language. The study needs to rely on indirect evidence. Appropriate interpretations of the relevant data are critical. The works by Huang (1982[1998]), Li (1985, 1990), C. Tang (1990), T. Tang (2000), Tsai (1995), Hu, Pan & Xu (2001), among many others, represent the continuous serious efforts to solve the challenges. As theories evolve and more empirical generalizations are discovered, better tools become available to explore the relevant issues in greater depth. This work builds on the more recent observations and analyses regarding tense anchoring, conjunction and ellipsis structures in Chinese (Aoun & Li 2003, Huang 2006, Li 2005, 2007, 2008, Sybesma 2007, Tsai 1995, 2008, Zhang 2009) and re-examine the Case status and the structures of the clausal constituents

in postverbal and preverbal positions. It brings new empirical generalizations from the constructions involving null objects, conjunction, topicalization of clauses, and extraction from within complement clauses to properly define the nature of clauses in clearly Case-marked positions in Chinese. The study will help resolve the conflict between the claim that clauses in Chinese are always Case-marked when they are assigned thematic roles (Li 1985, 1990, Tsai 1995) and the modified claim that some of such clauses are not assigned Case (Li 2008). It will be shown that clauses in Case positions behave as if they are nominal expressions.² This follows if Case is assigned to NPs, rather than clauses, as in Pesetsky (1982). Chinese is not much different from English in regard to the Case requirement on clauses and NPs (following Pesetsky's analysis of English). The conclusion has significant consequences on how Case should be characterized in the grammar.

Empirically, this work will focus on the clauses in the object positions of verbs and prepositions, leaving other possibilities to a separate work because of the limited space. I will first review the issues regarding Case and clauses in §1 and discuss the distribution of “tensed” clauses in §2. Section 3 brings a different perspective to the issues regarding the categorial status of “tensed clauses” — conjunction. An NP structure will be proposed for clauses in clearly Case-marked positions (§4). It will be concluded that NPs and clauses do not behave alike regarding Case theory (§5).

2. Case and clauses

Case theory was a major tool in the government and binding theory to capture the generalizations regarding order and constituency in natural languages (Chomsky 1980, 1981, 1986). For instance, NPs must be assigned Case — the Case filter (Chomsky 1981).

(1) the Case filter

*_[NP e]
where NP has phonetic content but not Case

The function of (1) is to ensure that noun phrases appear in the appropriate positions structurally, such as the object position of verbs and prepositions and the subject position

² Nominal expressions in argument positions will be labeled as NPs in this work, with reference to the classic terms such as Complex NP constraint, the Case filter applying to NPs. The distinction between NPs and DPs is not relevant in this work. As will be clear in the text, the question of whether Chinese distinguishes tensed clauses from infinitives would not be resolved in this paper because both do not occur in Case-marked positions.

¹ Following a widely adopted convention, we use the capitalized “Case” to refer to the notion of abstract Case in Case theory.

of tensed clauses in English — right next to the Case assigners, V, P and Tense.³ The Case filter (and the more general Case theory) was further connected to the Theta theory: Case must be present when a theta-role is assigned — the Visibility Condition on theta-role assignment. Every theta-role must be assigned to an argument and every argument must be assigned a theta-role.⁴ The requirement of Case is therefore reduced to the need of theta-roles to be properly assigned to arguments and arguments properly receiving theta-roles. Nonetheless, the NP Case filter and the Visibility condition have different empirical coverage. The former applies to NPs; whereas the latter is relevant to all the complements assigned thematic-roles, including clauses. To determine if clauses can indeed be reduced to the Visibility condition, it is important to determine if clauses are subject to the Case filter. Stowell (1981) extensively discusses this issue and argues that different types of clauses should be distinguished according to their Case properties: (i) tensed clauses need Case but cannot appear in Case position, (ii) infinitival clauses (having a tense feature but not \pm past, i.e., not having lexical content) are intrinsically Case-marked, just like PPs, (iii) certain predicates allow their tensed clausal complements to be assigned thematic roles without Case, and (iv) gerundival clauses, not specified for Tense, are assigned Case. In other words, only gerundival clauses in (iv) occur in the positions where Case is assigned. Infinitives are not relevant because they are Case-marked intrinsically. Tensed clauses are most interesting because of the following condition proposed by Stowell (1981:146):

- (2) The Case-Resistance Principle (CRP)⁵
Case may not be assigned to a category bearing a Case-assigning feature.

Tense is a Case assigner (assigning Case to the subject of the clause), making tensed clauses unable to stay in Case positions, according to the CRP. When assigned Case,

³ Not all Case markers are overt. For instance, Larson (1985) suggests that bare NP adverbs of time, location like *tomorrow*, *now*, *here*, *someplace warm and sunny* and a limited set of bare NP adverbs of manner are inherently Case marked.

⁴ A common assumption is that only subcategorized complements are assigned thematic roles. However, a more inclusive view has also been proposed, such as the following condition on adverbial theta-role assignment (Larson 1985:606):

(i) *Adverbial θ -Role Assignment*
Assign an adverbial θ -Role to α , where α is any phrase.
If this is adopted, the Visibility condition does not exempt adverbial NPs from the Case filter.
⁵ Li (1985, 1990) suggests that the Chinese data favor the Thematic Resistance Principle as in Koopman (1984) over Stowell's CRP, because thematic and Case positions are not identical in this language.

clauses⁶ need to be moved away from the Case-marked position via extraposition or topicalization. This accounts for why the sentences in (3a-c), are not acceptable, where tensed clauses appear in Case-marked positions, in contrast to (3d-e), where the tensed clause has been vacuously moved away from the subject and object position:

- (3) a. *He blamed it [on [that Bill was too strict]].
b. *I consider [[that John came home] to be fortunate].
c. *John wondered [how [that Bill arrived late] to upset Mary].
d. [That he is here] is important.
e. I know [that he is the best].

In contrast to English clauses, Li (1985, 1990) notes that clauses in Chinese behave like nominal phrases and occur in Case-marked positions. Tsai (1995) further explored the similarity between clauses and nominal phrases with respect to their sensitivity to the Case requirement. The following examples are from Tsai (1995:282-285),⁷ illustrating the relevance of Case to clauses as well as to NPs.

- (4) wo [* (dui) [Akiu weishenme bu lai]] hen guanxin.
I about Akiu why not come very care
'I care about why Akiu will not come.'
(5) wo [* (dui) [Akiu bu lai]] hen zaiyi.
I about Akiu not come very mind
'I do mind Akiu will not come.'
(6) wo [* (dui) zhe-jian shi] hen guanxin.
I about this-CL matter very care
'I care about this matter.'
(7) wo [* (dui) zhe-jian shi] hen zaiyi.
I about this-CL matter very mind
'I do mind this matter.'

⁶ We will simply use "clauses" as abbreviation for "tensed clauses" in the rest of this work, because tensed clauses present most interesting complications regarding Case requirements: they cannot be in case-assigned positions in English.

⁷ Tsai's (1995) translation includes the intensifier *do*: *I do care about...* The *hen* here need not be interpreted as a real intensifier, as the deletion of *hen* makes the sentence unacceptable (see, for instance, Li & Thompson 1981 for *hen* without its intensifier interpretation).

These examples show that a complement clause and a complement NP in the preverbal position equally require a Case-marker *dui* (also see Paul 2002:699).⁸ Postverbally, either a clause or an NP complement is assigned Case by the verb; therefore, the Case-marking *dui* does not appear:

- (8) wo hen guanxin [(*)*dui*] [Akiu weishenme bu lai] / zhe-jian shi].
I very care about Akiu why not come / this-CL matter
'I care about why Akiu will not come/this matter.'
- (9) wo hen zaiyi [(*)*dui*] [Akiu bu lai] / zhe-jian shi].
I very mind about Akiu not come / this-CL matter
'I do mind Akiu will not come/this matter.'

Other prepositions behave like *dui*:

- (10) a. cong [Akiu jinlai zheji] dao [ta likai],
from Akiu enter here to he leave
Lisi yi-ju hua dou mei shuo.
Lisi one-CL word all have-not speak
'From the moment Akiu entered here to the moment he left, Lisi did not say a word.'

⁸ Chinese allows SOV word order without a Case marker preceding the O, especially when the preposed object has a special discourse function (such as contrast, focus):

- (i) wo ji bu chi.
I chicken not eat
'I don't eat chicken.'
- (ii) ta zhe-jian shi zhidao le.
he this-CL matter know le
'He knows about this matter.'

Unexpectedly, a clause generally is not quite natural in such an object position:

- (iii) ??ta ni bu neng lai zhidao le.
he you not can come know le
'He knows that you cannot come.'

Dui is not possible when the verb is *zhidao* and some others (which might easily take *ba*):

- (iv) *ta dui ni bu neng lai zhidao le.
he to you not can come know le
- (v) ta ba/**dui* haizi da le ji ci.
he child hit le several times

This suggests that *dui* is not simply a Case marker for a preverbal object.

- b. cong [Akiu shenmeshihou qichuang] dao [ta zai nali chifan],
from Akiu when get-up to he at where eat
Lisi dou dating-de yiqingerchu.
Lisi all investigate thorough
'From the question of when Akiu wakes up to the question of where he eats, Lisi made a thorough investigation.'

The following examples, with sentential subjects inside relative clauses, illustrate the possibility of a clause staying in subject positions.

- (11) a. [henduo [[Akiu neng huo-zhe hui-lai]
many Akiu can live-Dur back-home
shi tamen; jingya] de ren;] dou mei lai.
make them surprised de people all have-not come
'[Many people to whom it is surprising [that Akiu can come back alive]] did not come.'
- b. [henduo [[Akiu neng-bu-neng huo-zhe hui-lai]
many Akiu can-not-can live-DUR back-home
gen tamen; wuguan] de ren;] dou mei lai.
to them irrelevant de people all have-not come
'[Many people to whom it is irrelevant [whether Akiu can come back alive or not]] did not come.'

The similarity in the positions where clauses and NPs are possible suggests that clauses are assigned Case and the Case filter can be appropriately reduced to the Visibility condition on theta-assignment.

Unfortunately, the data are more complicated. The parallelism in distribution between NPs and clauses fails in the following instances, where a clausal complement is acceptable postverbally but not an NP complement (Tsai 1995:301-302, ex.(51)-(52)).

- (12) *wo hen haoqi [zhe-jian shi de qiyin].
I very curious this-CL matter de cause
'I am curious about the cause of this matter.'
- (13) wo hen haoqi [Akiu weishenme bu lai].
I very curious Akiu why not come
'I am curious why Akiu will not come.'

Tsai suggests that the Visibility condition is obeyed consistently, i.e., both clausal and NP complements should be assigned Case in order to receive theta-roles. The difference in the above examples is simply that *haoqi* selects a clause, not an NP.⁹ In other words, *haoqi* specifies a categorial selection requirement (c-selection): the complement following *haoqi* must be a clause (or a PP, see note 9). C-selection is arbitrary: the c-selection requirement for each lexical item must be listed. This contrasts with Pesetsky's (1982) proposal that c-selection should follow from the semantic selection (s-selection) properties of lexical heads and the abilities of specific heads to assign Case. According to Pesetsky, the following contrasts show that the verb *ask* in English assigns Case to its complement, not *wonder*, even though they both require a question complement:

- (14) a. John asked the question.
 b. John asked what the time was.
- (15) a. *John wondered the question.
 b. John wondered what the time was.

These pairs of sentences demonstrate that not all verbs in English assign Case and accept NPs as their complements. Clauses do not need Case; therefore, they can be complements of the verbs unable to assign Case.

If, according to Tsai, Chinese does not derive complement selection from s-selection interacting with Case and must rely on c-selection, we seem to be missing a generalization: it generally is impossible to find the type of verbs opposite of the Chinese *haoqi* 'curious', labeled as *HAOQI*, which s-selects a proposition but only c-selects an NP. That is, we do not seem to have such a hypothetical *HAOQI* that can appear in (a), but not in (b).

- (16) a. wo hen HAOQI [zhe-jian shi / zhe-ge wenti].
 I very curious this-CL matter / this-CL question
 'I am curious about this matter.'

⁹ Tsai (1995) notes that *haoqi* can also select a PP, although he does not discuss further why PPs appear preverbally (see Li 1985, 1990 for the split between the Case directionality requirement and the head parameter, which would need to be recast in different terms in the current framework):

- (i) wo [**(dui) [Akiu weishenme bu lai] / na-jian shi hen haoqi.
 I about Akiu why not come that-CL matter very curious
 'I am curious why Akiu will not come.'

¹⁰ If a verb s-selects an individual, only an NP is a possible complement.

- b. *wo hen HAOQI [Akiu weishenme bu lai].
 I very curious Akiu why not come
 'I am curious why Akiu will not come.'

In this respect, it is interesting to point out that in English, even though argument NPs always require Case, it is not the same with complement clauses. In discussing the Case requirement of clauses in English, Stowell observes that some heads license their clausal complements without Case assignment.

- (17) a. Mary is happy that Charles is leaving home.
 b. Kevin is certain that the tent is in the car.
 c. Neil is afraid that the computer will break down.
 cf.
- (18) a. Kevin is [certain of Ray's genius].
 b. Neil is [afraid of Constable O'Malley].
- (19) a. *Kevin is certain Ray's genius.
 b. *Neil is afraid Constable O'Malley.

The English translations for (12)-(13) also show that the clausal complement in the English sentence corresponding to (13) is not assigned Case. Stowell (1981:204) suggests that "these psychological-state-denoting adjectives have a special property that excludes them from the general requirement that theta-roles can only be assigned to A'-chains headed by PRO or Case ... the adjective phrases [in these cases] instantiate a special case of theta-role assignment, which is limited to relations of awareness or recognition of the propositional content of a complement clause." It is proposed that theta-roles can be assigned to clauses when the head has a lexical feature [+R]. Nonetheless, the postulation of [+R] has the same effect as saying that clauses are not assigned Case in these instances.¹¹

With respect to Chinese, the following generalization has been put forward in Li (2005, 2007) on empty categories: in Chinese, when a verb allows a nominal object, it also accepts a null object; when a verb only allows a clausal object, it does not accept a null object.

¹¹ Stowell notes that these clauses cannot be topicalized, leaving variables, which require Case.

(i) a. *[That Charles is leaving], I believe that Mary is [happy ____].
 b. *[That the computer will break down], I know that Neil is [afraid ____].

- (20) a. If a verb is subcategorized for a nominal object, the object can be empty.
 b. If a verb is subcategorized for a clausal object only, the object cannot be empty.

Verbs allowing a nominal object and a null object:

- (21) a. wo tingdao-le na-jian shi.
 I hear-*le* that-CL matter
 'I heard that matter.'
 b. wo tingdao ta de-le da jiang le; ta ye tingdao-le.
 I heard he get-*le* big prize *le* he also hear-*le*
 'I heard that he got a big prize; he also heard.'

Verbs disallowing a nominal object and a null object. *Zheme(yang)* 'so' must appear:

- (22) a. *wo renwei/yiwei na-jian shi.
 I think/think that-CL matter
 'I thought/thought that matter.'
 b. wo renwei/yiwei ta hen congming; tamen ye *(zheme(yang))
 I think/think he very smart they also so
 renwei/yiwei.
 think/think
 'I thought that he was smart; they also thought.'

- (23) a. *wo cai na-jian shi.
 I guess that-CL matter
 'I guess that matter.'
 b. wo cai ta hen congming; tamen ye *(zheme(yang)) cai.
 I guess he very smart they also so
 'I guess that he is smart; they also guess.'

- (24) a. *wo dasuan na-jian shi.
 I plan that-CL matter
 '**I planned that matter.'

- b. wo dasuan mingtian qu; tamen ye *(zheme(yang)) dasuan.¹²
 I plan tomorrow go they also so
 'I planned to go tomorrow; they also planned.'

This correlation can be subsumed under the following condition.

- (25) The Visibility Condition on empty categories:
 Empty categories in argument positions should be assigned Case or be in a chain containing Case.

This condition means that a null object is possible only if Case is assigned to the position and it may capture the different possibilities of a null object between English and Chinese. As is well-known, Chinese, not English, allows its object to be null:

- (26) a. John saw him. *Mary saw, too.
 b. I like him. *She doesn't like.
 cf.
 (27) a. John kanjian-le ta; Mary ye kanjian-le.
 John see-*le* him Mary also see-*le*
 'John saw him; Mary also saw.'
 b. wo xihuan ta; ta bu xihuan.
 I like him he not like
 'I like him; he doesn't like.'

This contrast can be captured by an adapted inverse Case filter in Bošković (1997: 134-142).

- (28) English, not Chinese, requires Case to be realized on a lexical item.

The obligatoriness of overtly realizing Case features and the requirement on null arguments to be Case marked conspire to rule out any null objects in English. In this language, if a Case feature is available, it must be overtly realized on a lexical item; if such a feature is not available, a null argument is not licensed. These considerations also capture the fact that the object CPs in the following instances cannot be "deleted" (cf. Lobeck 1995, Merchant 2001 for the impossibility of CP deletion in English). The

¹² If *dasuan* is only subcategorized for an infinitival clause, it would not affect the discussion on the Case status of clauses in this work, as infinitivals are not assigned Case, as in Stowell (1981).

relevant object positions are not assigned Case.

- (29) a. *Mary was afraid that the idea wouldn't work and Bill was [_{AP} [happy [_{CP} e]]].
 b. *I suppose that he will come and they suppose [_{CP} e], too.

The facts presented so far reveal two conflicting generalizations: those in (4)-(11) show that clauses are like NPs and are Case-marked in Chinese. In contrast, other facts, such as those related to the generalization in (20), suggest that clauses in Chinese, as in English (14)-(19), are not like NPs and are not Case-marked. How can this conflict be resolved? Three logical options suggest themselves:

- (30) a. Clauses must always be assigned Case in Chinese but not in English.
 (20) should not be accommodated by Case.
 b. Different types of clauses must be recognized in Chinese. That is, we need to recognize finer peripheral structures for clauses (Cinque 1999, 2002, Rizzi 1997, 2004). A clause may have some or all of the following projections at the left periphery: Force Phrase, Topic Phrase, Operator Phrase, etc. Case is required with certain projections but not the others.
 c. Clauses in Chinese are not in Case positions, just as in English. The occurrence of clauses in Case-marked positions is only apparent.

In the following discussions, let us, for the sake of convenience, refer to the complement positions of the verbs in (22)-(24) as non-Case positions and those in (21), together with the objects of prepositions and subjects, as Case positions. It will be shown that the option in (30c) is more adequate than the other two, contra the observations and analyses in Li (1985, 1990) and Tsai (1995).

3. Different types of clauses?

As noted, the lack of inflectional morphology in Chinese makes it more difficult to identify distinct categories. For instance, the tensed clausal complements in (31a-b) and (33a-c) can all be translated as clauses in Chinese ((32), (34) respectively), even though only the verbs in (31) and (32) can assign Case to the complements.

- (31) a. I know [that he does his work]/it.
 b. I like his/him doing this work/it.

- (32) a. wo zhidao [ta zuo zhe gongzuo] / zhe-jian shi.
 I know he do this work / this-CL matter
 'I know that he does this work/this matter.'

- b. wo xihuan [ta zuo zhe gongzuo] / zhe-jian shi.
 I like he do this work / this-CL matter
 'I like his/him doing this work/this matter.'

- (33) a. He is curious (about) who is doing this work.¹³
 He is happy that he is doing this work.
 He prefers for him to do this work.

- (34) a. ta hen haoqi shei zuo zhe gongzuo.
 he very curious who do this work
 'He is curious who is doing this work.'

- b. ta hen gaoxing ta zuo zhe gongzuo.
 he very happy he do this work
 'He is happy that he is doing this work.'

- c. ta ningyuan ta zuo zhe gongzuo.
 he prefer he do this work
 'He prefers for him to do this work.'

¹³ An important difference between tensed clauses headed by *wh*-words and other tensed clauses is that the former seem to optionally appear in Case-marked positions, but the latter generally do not (except some limited cases such as *except that*: "It would be funny *except that it's not*"): (i) a. It's the question of whether God Himself operates outside His own law.
 b. The question of whether Abrams' STAR TREK is truly canon has been answered.
 (ii) a. The question whether Obama is black enough should end.
 b. On the question whether temperature determines the distribution of marine species of animals in depth.

Chinese also allows questions in both contexts:

- (iii) a. ni renwei ta weishenme mei lai/ta lai-bu-lai?
 you think he why not come/he come-not-come
 'Why do you think he didn't come/Do you think he will come or not?'
 b. wo hen haoqi shei mei lai.
 I very curious who not come
 'I am curious who did not come.'
 (iv) a. wo [dui [ta yuan-bu-yuanyi lai]] hen haoqi.
 I to he willing-not-willing come very curious
 'I am curious about whether he is willing to come.'
 b. wo juede [shei yinggai lai] bu shi zhongyao de wenti.
 I feel who should come not be important *de* question
 'I feel who should come is not an important question.'

Even without overt morphological markings, the question can still be asked: does Chinese distinguish different types of clauses in the relevant contexts? Might different types of clauses be responsible for the seemingly contradictory patterns: some clauses appear in Case-marked positions and some others do not? The data for the clauses in Case and non-Case positions seem to suggest that both allow the same type(s) of clauses. They can be *wh*-questions, as demonstrated earlier. In addition, topic and focus (indicated by the focus marker *shi* 'be' or *daodi* 'on earth') elements are also allowed in both contexts.

- (35) a. wo zhidao na-jian shi.
I know that-CL matter
'I know that matter.'
- b. wo dui na-jian shi hen haoqi.
I to that-CL matter very curious
'I am curious about that matter.'
- c. *wo yiwei na-jian shi.
I thought that-CL matter
- (36) a. wo zhidao shi ta na-le na-ben shu.
I know be he take-*le* that-CL book
'I know that *he* took that book.'
- b. wo dui ta daodi bu yuanyi zuo shenme hai mei gao qingchu.
I to he to-end not willing do what still not make clear
'I am still not clear what on earth he is not willing to do.'
- c. wo yiwei shi ta na-le na-ben shu.
I thought be he take-*le* that-CL book
'I thought that *he* took that book.'
- (37) a. wo zhidao na-ben shu, ta na-le.
I know that-CL book he take-*le*
'I know that book, he took.'
- b. wo dui na-jian shi shei yuanyi zuo hen haoqi.
I to that-CL matter who willing do very curious
'I am curious about, that matter, who will do (it).'
- c. wo yiwei na-ben shu ta na-le.
I thought that-CL book he take-*le*
'I thought that book, he took.'

This suggests that the typical left-peripheral elements such as question operators, topic and focus elements are allowed in the complement positions of Ps and verbs assigning Case and the non-Case-assigning verbs. What is left is the option of tense: could it be that Chinese does distinguish tensed clauses from non-tensed ones and that verbs like *renwei* 'think', *cai* 'guess' require tensed clausal complements but Case-marked positions are occupied by non-tensed clauses?

The answer to this question is dependent on the availability of a syntactic representation of tense in Chinese. Tsang (1981), Huang (1982[1998]), Li (1985, 1990), among others, argue that Chinese distinguishes infinitival clauses from tensed clauses and modal-like words such as *hui* can serve as a tense marker. In contrast, Hu, Pan & Xu (2001) argue that Chinese does not make such a distinction. Lately, Lin (2003a, 2003b, 2006), Sybesma (2007) and Tsai (2008) revisited the issue of whether Chinese has a tense projection syntactically. In the following paragraphs, we show that even if we follow the claim by Sybesma and Tsai that Chinese does express tense syntactically and accept all their arguments for the claim, such tensed clauses seem to still appear in the typical Case-marked positions.

Let us illustrate this point with the most recent work, Tsai (2008). According to Tsai, there is some "incompleteness" effect observed in Chinese for sentences like the following:

- (38) a. %Akiu pao-zhe.
Akiu run-DUR
b. %Akiu kan-zhe dianshi.
Akiu watch-DUR TV

- (39) %Akiu na-le shu.
Akiu take-PRF book
'Akiu took books.'

Tsai claims that these cases sound incomplete because of their failure in tense anchoring, i.e., to guarantee a proper temporal reference of a given sentence through syntactic measures. He analyzes tense anchoring as a process of spelling out an underlying event argument by a variety of morpho-syntactic means. This process may involve event coordination, event subordination, event modification, event quantification, or verb raising to *v/T*.

- (40) a. Akiu yizhi pao-zhe.
Akiu continuously run-DUR
'Akiu is running continuously.'

- b. Akiu yibian kan-zhe dianshi, yibian
 Akiu on.the.one.hand watch-DUR TV on.the.other
 xie-zhe baogao.
 write-DUR report
 'Akiu is watching TV and writing the report at the same time.'
- c. Akiu na-le san-ben shu.
 Akiu take-PRF three-CL book
 'Akiu took three books.'
- d. Akiu yinggai/mei na shu.
 Akiu should/have.not take book
 'Akiu should take/have not taken books.'
- e. Akiu na-le shu jiu pao.
 Akiu take-PRF book then run
 'Akiu ran away immediately after taking the book.'
- f. Akiu na-le shu le.
 Akiu take-PRF book PRT
 '(As for now,) Akiu has taken the book.'

Regardless of the mechanisms to encode the notion of tense, what is pertinent to our discussion is that even if we follow Tsai's arguments and agree that Chinese expresses tense syntactically (tense anchoring), these "tensed clauses" seem to comfortably appear in typical Case positions, including the object of Case-assigning verbs and the object of prepositions:

- (41) a. wo zhidao [Akiu yizhi pao-zhe].
 I know Akiu continuously run-DUR
 'I know that Akiu is running continuously.'
- b. wo zhidao [Akiu na-le shu jiu pao].
 I know Akiu take-PRF book then run away
 'I know that Akiu ran away immediately after taking the book.'
- c. wo zhidao [Akiu name kuai jiu na-le shu le].
 I know Akiu that fast then take-PRF book PRT
 'I know that Akiu has taken the book that fast.'

- (42) a. wo [dui [Akiu yizhi pao-zhe] hen bu gaoxing.
 I to Akiu continuously run-DUR very not happy
 'I am not happy that Akiu is running continuously.'

- b. wo [dui [Akiu yibian kan-zhe dianshi, yibian
 I to Akiu on.the.one.hand watch-DUR TV on.the.other
 xie-zhe baogao]] hen bu gaoxing.
 write-DUR report very not happy
 'I am not happy that Akiu is watching TV and writing the report at the same time.'
- c. wo [dui [Akiu na-le san-ben shu]] hen bu gaoxing.
 I to Akiu take-PRF three-CL book very not happy
 'I am not happy that Akiu took three books.'
- d. wo [dui [Akiu yinggai/mei na shu]] hen bu gaoxing.
 I to Akiu should/have.not take book very not happy
 'I am not happy that Akiu should take/have not taken books.'
- e. wo [dui [Akiu na-le shu jiu pao]] hen bu gaoxing.
 I to Akiu take-PRF book then run very not happy
 'I am not happy that Akiu ran away immediately after taking the book.'
- f. wo [dui [Akiu name kuai jiu na-le shu le]] hen bu gaoxing.
 I to Akiu that fast then take-PRF book PRT very not happy
 'I am not happy that Akiu has taken the book that fast.'

The range of possibilities shown above is similar to that for the patterns with verbs not allowing NP complements, such as *renwei/yiwei/cai* 'think/guess'.

- (43) a. wo yiwei [Akiu yizhi pao-zhe].
 I think Akiu continuously run-DUR
 'I thought that Akiu was running continuously.'
- b. wo yiwei [Akiu yibian kan-zhe dianshi,
 I think Akiu on.the.one.hand watch-DUR TV
 yibian xie-zhe baogao].
 on.the.other write-DUR report
 'I thought that Akiu was watching TV and writing the report at the same time.'
- c. wo yiwei [Akiu na-le san-ben shu].
 I think Akiu take-PRF three-CL book
 'I thought that Akiu took three books.'
- d. wo yiwei [Akiu yinggai/mei na shu].
 I think Akiu should/have.not take book
 'I thought that Akiu should take/had not taken books.'

- e. wo yiwei [Akiu na-le shu jiu pao].
I think Akiu take-PRF book then run
'I thought that Akiu ran away immediately after taking the book.'
- f. wo yiwei [Akiu name kuai jiu na-le shu le].
I think Akiu that fast then take-PRF book PRT
'I thought that Akiu had taken the book that fast.'

The lack of contrast in acceptability between (41)-(42) and (43) shows that, if indeed there is tense anchoring, distinguishing tensed clauses from non-tensed ones, the types of clauses grouped under the tensed ones can appear in those positions allowing NPs (Case-marked positions), as well as the positions not allowing NPs.

A cautionary remark should be made concerning cases like (41), those with verbs allowing both a postverbal nominal and clausal complement. Although we recast this pattern in terms of Case marking — the verbs in this pattern can assign Case, it should be noted that the complement clause might not always be in Case positions, as such a clause might be extraposed (Stowell 1981). Therefore, we will focus on the patterns in (42) and (43).

Even though (42) and (43) show that the same types of clauses can appear in clearly Case marked positions (prepositional object) and non-Case marked positions (those disallowing NPs), the two patterns do not share the entire range of possibilities. For instance, the focus marker *shi* is quite natural in the clausal complements of the verbs disallowing NP complements (44); whereas the sentences in (45) show that the focus marker *shi* is much less acceptable in clearly Case-marked positions:

- (44) wo yiwei [Akiu shi yizhi pao-zhe].
I think Akiu be continuously run-DUR
'I thought that Akiu indeed was running continuously.'
- (45) a. wo [dui [Akiu (*shi) yizhi pao-zhe]] hen bu gaoxing.
I to Akiu be continuously run-DUR very not happy
'I am not happy that Akiu indeed was running continuously.'
- b. wo [ba [Akiu (*shi) yizhi pao-zhe]] dangzuo shi hen
I ba Akiu be continuously run-DUR regard be very
zhongyao de shi.
important *de* matter
'I took it as important that Akiu indeed was running continuously.'
- c. wo [bei [Akiu (*shi) yizhi pao-zhe]] fansi le.
I bei Akiu be continuously run-DUR annoyed
'I was annoyed by Akiu's indeed running continuously.'

The unacceptability of (45) is interesting. Have we finally found a clue to distinguishing the type of clauses that does occur in Case marked positions and the other type that does not? The answer to this question will be shown to be negative. Indeed, the next section will show that the fact from conjunction argues for a nominal structure for the clauses in the object position of prepositions. Together with the fact regarding the overt co-occurrence of nouns (phrases) with clauses, it will be proposed that clauses in prepositional object positions are actually nominal expressions. Accordingly, there is no compelling reason to recognize the occurrence of clauses in prepositional object positions; there is no support for the claim that clauses themselves are assigned Case, governed by the Case filter.

4. Surprising conjunction facts

As mentioned, the relative paucity of inflectional morphology in Chinese makes it challenging to distinguish categories. Indirect evidence is necessary to help with the task. The choice of conjunction words provides such help (see Aoun & Li 2003, Huang 2006, Li 2008 and Zhang 2009). Pertinent to this work is the fact that the conjunction words *erqie* 'and' and *he/gen* 'and' are used to conjoin different categories of phrases: *he* and *gen* conjoin nominal phrases and *erqie*, non-nominal constituents such as clauses. The distinction is illustrated below.

- (46) Zhangsan he/gen/*erqie Lisi dou hen congming.
Zhangsan and Lisi all very smart
'Zhangsan and Lisi are both smart.'
- (47) Zhangsan hen congming erqie/*he/*gen Lisi ye hen congming.
Zhangsan very smart and Lisi also very smart
'Zhangsan is smart and Lisi is also smart.'
- (48) wo renwei/yiwei/cai Zhangsan hen congming erqie/*he/*gen Lisi
I think/thought/guess Zhangsan very smart and Lisi
ye hen congming.
also very smart
'I think/thought/guess Zhangsan is/was smart and Lisi is/was also smart.'

Importantly, not all clauses require *erqie* as the conjunction word. The nominal conjunction words, *hen* and *gen*, are possible in such contexts as the object of some verbs, the object of P, and the subject of a sentence.¹⁴

¹⁴ *Erqie*, not *he/gen*, seems to require the occurrence *ye* 'also' in the second conjunct.

- (49) wo xiang-zhidao Zhangsan zuole shenme he/gen/erqie Lisi (ye)
I want-know Zhangsan did what and Lisi also
zuole shenme.
did what
'I want to know what Zhangsan did and what Lisi (also) did.'
- (50) a. Zhangsan neng-bu-neng lai he/gen Lisi neng-bu-neng lai
Zhangsan can-not-can come and Lisi can-not-come come
dou bu shi wenti.¹⁵
all not be question
'Whether Zhangsan can come and whether Lisi can come are not
questions.'
- b. Zhangsan de da jiang he/erqie Lisi ye de da jiang shi hen
Zhangsan get big prize and Lisi also get big prize be very
zhongyao de.
important *de*
'That Zhangsan gets a big prize and Lisi also gets a big prize are very
important.'

- (51) wo dui Zhangsan keyi lai erqie/he/gen Lisi ye keyi lai mei yijian.
I to Zhangsan can come and Lisi also can come not opinion
'I have no opinion on (the fact) that Zhangsan can come and Lisi can come too.'

¹⁵ If *erqie* conjoins clauses, *dou* is not possible.

- (i) Zhangsan bu lai erqie Lisi ye bu lai (*dou) shi wenti.
Zhangsan not come and Lisi also not come all be problem
'That Zhangsan can come and Lisi can also come is a problem.'

Erqie conjoins two CPs to make one CP. The entire CP can still be a clause followed by a singular noun:

- (ii) wo dui Zhangsan bu lai erqie Lisi ye bu lai zhe-ge wenti
I to Zhangsan not come and Lisi also not come this-CL problem
hen danxin.
very worried
'I am worried about the problem that Zhangsan cannot come and Lisi cannot come
either.'

Indeed, a noun phrase expressing plural entities seems impossible:

- (iii) *wo dui Zhangsan bu lai erqie Lisi ye bu lai zhe-liang-ge
I to Zhangsan not come and Lisi also not come this-two-CL
wenti hen danxin.
problem very worried
'I am worried about the two problems that Zhangsan cannot come and Lisi cannot
come either.'

- (52) wo ba Zhangsan keyi lai he/gen Lisi ye keyi lai dangzuo shi
I ba Zhangsan can come and Lisi also can come regard be
hen zhongyao de shi.
very important *de* matter
'I take the fact as important that Zhangsan can come and Lisi can come too.'
- (53) wo bei Zhangsan keyi lai he/gen Lisi ye keyi lai xiadao le.
I bei Zhangsan can come and Lisi also can come shocked
'I was shocked by the fact that Zhangsan can come and Lisi can come too.'
- (54) [cong [[Zhangsan jinlai] he/gen [Lisi jinlai]] dao [xianzai]],
from Zhangsan enter and Lisi enter to now
wo dou mei shuo hua.
I all have-not speak word
'From the time Zhangsan entered and Lisi entered till now, I did not say a
word.'

Why is it that the nominal conjunction is possible with (49)-(54) but not (46)-(48)? The translation of (54) provides a clue: it requires the use of nominal expressions like *time*, *moment*. The obligatory use of time expressions in the translation for (54) makes sense because the object for the preposition *cong* 'from' and *dao* 'to' should not be a proposition. Rather, the relevant objects should express temporal points. (54) is synonymous with the one below, which contains nominal temporal expressions (even though the repetition of *na shihou* 'that time' sounds somewhat redundant):

- (55) [cong [[Zhangsan jinlai] (na shihou) he/gen [Lisi jinlai] na shihou]
from Zhangsan enter that time and Lisi enter that time
dao [xianzai]], wo dou mei shuo hua.
to now I all have-not speak word
'From the time Zhangsan entered and (the time) Lisi entered till now, I did
not say a word.'

Indeed, the instances possible with *he/gen* as the conjunction word can all have the addition of a noun phrase: [Clause + Noun Phrase].

- (56) wo xiang-zhidao Zhangsan zuole shenme he/gen Lisi (ye) zuole
I want-know Zhangsan did what and Lisi also did
shenme zhe liang-jian shi.
what these two-CL matter
'I want to know the two questions of what Zhangsan did and what Lisi (also)
did.'

(57) Zhangsan neng-bu-neng lai he/gen Lisi neng-bu-neng lai
 Zhangsan can-not-can come and Lisi can-not-can come
 zhe liang-ge wenti dou bu zhongyao.¹⁶
 these two-CL questions all not important
 'The questions of whether Zhangsan can come and whether Lisi can come are not important.'

(58) wo dui Zhangsan keyi lai he/gen Lisi ye keyi lai
 I to Zhangsan can come and Lisi also can come
 zhe liang-jian shi mei yijian.
 these two-CL matter not opinion
 'I have no opinion on the two matters that Zhangsan can come and Lisi can also come.'

(59) wo ba Zhangsan keyi lai he/gen Lisi ye keyi lai zhe liang-jian
 I ba Zhangsan can come and Lisi also can come these two-CL
 shi dangzuo shi hen zhongyao de shi.
 matter regard be very important de matter
 'I take the two matters as important that Zhangsan can come and Lisi can also come.'

(60) wo bei Zhangsan keyi lai he/gen Lisi ye keyi lai zhe
 I bei Zhangsan can come and Lisi also can come these
 liang-jian shi xiadao le.
 two-CL matter shocked
 'I was shocked by the two matters that Zhangsan can come and Lisi can come too.'

In contrast, those clauses not allowing *he/gen* as conjunction words do not accept an accompanying noun phrase:

¹⁶ The two occurrences of *wenti* 'question' in the following example sound redundant:
 (1) Zhangsan neng-bu-neng lai he/gen Lisi neng-bu-neng lai zhexie wenti
 Zhangsan can-not-can come and Lisi can-not-come come these questions
 dou bu shi wenti.
 all not be question
 'The questions of whether Zhangsan can come and whether Lisi can come are not questions.'

- (61) a. wo renwei/yiwei/cai Zhangsan keyi lai erqie Lisi ye keyi lai
 I think/thought/guess Zhangsan can come and Lisi also can come
 (*zhe liang-jian shi).
 the two-CL matter
 'I think/thought/guess (*the (two) matter(s)) that Zhangsan can come and Lisi can also come.'
- b. wo zhidao Zhangsan keyi lai he/gen Lisi ye keyi lai
 I know Zhangsan can come and Lisi also can come
 (zhe liang-jian shi).
 the two-CL matter
 'I know (the two matters) that Zhangsan can come and Lisi can also come.'

These contrasts suggest that what appears as a clause in a Case position might actually be a more complex nominal structure containing a clause and a covert noun (phrase), equivalent of the overt expression '(the) question', '(the) matter', 'the time', etc. The relation between the clause and the noun (phrase) might be an apposition or a noun complement structure. We will not pursue in this work the precise characterization of the nature of the covert noun (phrase) and its relation with the clause but simply refer to the nominal clausal structure as a complex NP structure. What is important is that recognizing a clause in Case positions as having a more complex structure provides a better understanding of the facts discussed so far in this work and other related phenomena.

5. Complex NP structures

Adopting a complex NP structure for the clauses in Case positions accommodates the facts described so far. First, because what are conjoined are noun phrases, it is expected that the nominal conjunction word *he* or *gen* is used. Two entities are conjoined; therefore, the distributive marker *dou* is possible, as in (50a). Note that the use of *erqie* indicates that the conjunction creates one CP, which can be accompanied by a noun phrase expressing single, not plural entities. The occurrence of *dou* is impossible (see note 15):

- (62) Zhangsan bu-neng lai erqie Lisi ye bu-neng lai (*dou)
 Zhangsan not-can come and Lisi also not-come come all
 bu shi wenti.
 not be question
 'Whether Zhangsan can come and whether Lisi can come are not problems.'

- cf. (63) Zhangsan bu-neng lai he/gen Lisi bu-neng lai dou bu shi wenti.
 Zhangsan not-can come and Lisi not-come come all not be question
 'Whether Zhangsan can come and whether Lisi can come are not problems.'

In addition, it is expected that the focus marker *shi*, glossed as 'be', does not appear within a complex NP, illustrated below:

- (64) a. [[Akiu (*shi) yizhi pao-zhe] zhe-jian shi]
 Akiu be continuously run-DUR this-CL matter
 'the matter that Akiu is indeed running continuously'
 b. [[Akiu (*shi) neng-bu-neng lai] zhe wenti]
 Akiu be can-not-can come this question
 'the question whether Akiu indeed can come'

The distribution of the focus marker *shi* is sensitive to island conditions, which is expected if the focus marker *shi* needs to be raised to the matrix clause at LF, which cannot cross island boundaries (complex NP constraint in this case — no extraction crossing the boundary of a complex NP, one of the island constraints as in Ross 1967, Chomsky 1981).

The island effects created by the complex NP structure are manifested not only in where the focus marker *shi* can appear but also in the constructions involving overt extraction.¹⁷ Consider the patterns containing a clause assigned Case by *dui* 'to', *ba* and *bei*. Extraction of the subject from within such a clause is not possible as in (65), in contrast to (66), which allows the embedded subject to be topicalized:

- (65) a. Lisi, wo [dui [*ta] bu hui lai] hen bu gaoxing.
 Lisi I to he not will come very not happy
 'Lisi, I am not happy that (he) will not come.'
 b. Lisi, wo [ba [*ta] bu hui lai] dangzuo shi hen zhongyao de shi.
 Lisi I ba he not will come regard be very important *de* matter
 'Lisi, I took it as important that (he) was not coming.'
 c. Lisi, wo [bei [*ta] yizhi ku-zhe] fansi le.
 Lisi I bei he continuously cry-DUR annoyed
 'Lisi, I was annoyed by (his) crying continuously.'

¹⁷ It is not possible to extract from within an appositive clause, either, even though the term 'complex NP constraint' generally is not used to accommodate apposition cases.

- (66) Lisi, wo renwei/yiwei/cai (ta) bu hui lai.
 Lisi I think/thought/guess he not will come
 'Lisi, I think/thought/guess that (he) would not come.'

In addition, only argument question words can appear inside a clause in the relevant Case positions and be interpreted as having scope outside the clause. Adjunct question words are not possible.

- (67) ta dui shei hui bei qing lai yanjiang hen gaoxing ne?
 he to who will *bei* invite come speak very happy Q
 'Who(x) is he happy (x) will speak?'
- (68) a. *ta dui ni weishenme yao yanjiang hen gaoxing ne?
 he to you why will speak very happy Q
 'Why(x) is he happy he will speak (x)?'
 cf. b. ta dui ni weishenme yao yanjiang hen haoqi ma?
 he to you why will speak very curious Q
 'Is he curious about why you will speak?'
- (69) a. *ta dui ni yao-bu-yao yanjiang hen gaoxing ne?
 he to you will-not-will speak very happy Q
 cf. b. ta dui ni yao-bu-yao yanjiang hen haoqi ma?
 he to you will-not-will speak very curious Q
 'Is he curious about whether you will speak?'
- (70) ta ba shei yao yanjiang kande hen yanzhong ne?
 he to who will speak regard very serious Q
 'Who(x) does he take seriously (x) will speak?'
- (71) a. *ta ba ni weishenme yao yanjiang kande hen yanzhong ne?
 he to you why will speak regard very serious Q
 'Why(x) does he take seriously he will speak (x)?'
 cf. b. ta dui ni weishenme yao yanjiang kande hen yanzhong ma?
 he to you why will speak regard very serious Q
 'Does he take seriously about why you will speak?'
- (72) a. *ta ba ni yao-bu-yao yanjiang kande hen yanzhong ne?
 he to you will-not-will speak regard very serious Q
 cf. b. ta ba ni yao-bu-yao yanjiang kande hen yanzhong ma?
 he to you will-not-will speak regard very serious Q
 'Does he take seriously whether you will speak?'

These patterns demonstrate that the clauses following *dui/ba/bei* behave like islands, which seems to support the proposal that these clauses are not what they appear to be. The structures are more complicated: there is a covert noun (phrase) — complex NP structures. Unfortunately, resorting to the complex NP constraint is not the only possibility. The unacceptable patterns discussed above involve extraction from a constituent on the left branch of the tree structures. Even though the nature of the left-branch condition is not clear (e.g., see Kennedy & Merchant 2000 for the claim that the left-branch condition is a PF phenomenon and see the variations regarding the relevance of left-branch condition in different types of languages such as Bošković 2005, Corver 1990, 1992, among many others), it is still a possible factor. Therefore, we can only claim that the facts regarding extraction are compatible with a complex NP structure but do not exclusively argue for it.¹⁸ Still, there is some evidence from postverbal clausal complements that supports the more complex structure. Recall that some verbs can assign Case to their clausal complements and the nominal conjunction word *he* or *gen* can conjoin such clausal complements, as in (61b), repeated below:¹⁹

- (61) b. wo zhidao Zhangsan keyi lai he/gen Lisi ye keyi lai
I know Zhangsan can come and Lisi also can come
(zhe liang-jian shi).
the two-CL matter
'I know (the two matters) that Zhangsan can come and Lisi can also come.'

The complex NP analysis would predict that the *shi* focus is not possible in this pattern, nor an adjunct *wh*-question or A-not-A (alternative) question in the clausal complement but with scope outside the clause. These predictions are born out:

¹⁸ Nonetheless, it is relevant to point out that the constituents following *dui*, *ba* and *bei* are all arguments (thematically-marked). Tsai (1995) notes that the *dui* phrase is selected by the verb or adjective. The object of *ba/bei* are both arguments among the layers of structures constituting the predicates of sentences (for the details of possible analyses on *ba/bei*, see Li 2006 on *ba*, Huang, Li & Li 2009 on *ba* and *bei*). Chinese may be considered as a head-final language (Li 1985, 1990). It would be important to investigate the nature of the Left Branch Condition in head-final languages.

¹⁹ The postverbal position can be ambiguous: Case marked or non-Case marked. A verb can optionally assign Case in Chinese, as suggested in Li (1985, 1990). An extraposition option might also be entertained.

- (73) *wo zhidao Zhangsan shi keyi lai he/gen Lisi ye shi keyi lai
I know Zhangsan be can come and Lisi also be can come
(zhe liang-jian shi).
the two-CL matter
'I know (the two matters) that Zhangsan indeed can come and Lisi indeed can also come.'

- (74) a. *ni xiangxin Zhangsan weishenme keyi lai he/gen Lisi
you believe Zhangsan why can come and Lisi
ye weishenme keyi lai (zhe liang-jian shi) ne?
also why can come the two-CL matter Q
'Why(x) you believe Zhangsan can come(x) and Lisi can also come(x)?'
b. *ni xiangxin Zhangsan ke-bu-keyi lai he/gen Lisi
you believe Zhangsan may-not-may come and Lisi
ke-bu-keyi lai (zhe liang-jian shi) ne?
may-not-may come the two-CL matter Q
'You believe Zhangsan may or may not come and Lisi may or may not come?'

6. Conclusion

Case-marked positions allow NPs and NPs are assigned Case. The question is whether clauses in Case positions are indeed what they are: are they really assigned Case by the relevant Case assigners? We argued that such instances of clauses in Case-marked positions actually are deceptive. The tools available from the study of conjunction and null objects helped to make the discovery. The relevant clauses have more complex structures. They are complex nominals and Case is assigned to the nominal. The clause itself is not assigned Case, which is why clauses are possible in the positions where Case is not assigned and NPs are not possible. This amounts to saying that it is still possible to consider C-selection as derivative of s-selection interacting with Case, as proposed by Pesetsky.²⁰ The Case filter applies to NPs, not to clauses.²¹ To complete the paradigm, we should point out that, just like their English counterparts, non-Case marked

²⁰ Our work focuses on the role played by Case and clauses. However, the general issue of whether c-selection can be completely derived from a very well articulated theory of s-selection (such as the work on lexical semantics by Levin & Rappaport Hovav 1996, 2005 and many others) is still debatable. Further discussion on this issue is beyond the scope of this paper.

²¹ Li (1985, 1990) argues that non-argument NPs such as duration phrases also receive Case. Some languages overtly case mark such NPs, such as Korean.

clauses in Chinese cannot undergo A'-movement, leaving variables in need of Case. Recall that the complement clauses of *happy/afraid* in the English sentences (75a-b) are not assigned Case, as illustrated by the unacceptability of topicalization in (76a-b), in contrast to the possibility of topicalizing the clausal complement when Case is available as in (78a-b).²²

- (75) a. I believe that Mary is happy that Charles is leaving.
 b. I know that Neil is afraid that the computer will break down.
- (76) a. * [That Charles is leaving], I believe that Mary is happy ____.
 b. * [That he computer will break down] I know that Neil is afraid ____.
- (77) a. [That Charles is leaving], I believe that Mary knows ____.
 b. [That the computer will break down] I know that Neil understands ____.

The same contrast is found in Chinese:

- (78) a. ta shuo [tamen renwei/cai ta hui lai].
 he say they think/guess he will come
 'He said they thought/guessed that he would come.'
 b. *ta shuo, [ta hui lai, tamen renwei/cai].²³
 he say he will come they think/guess
- (79) a. ta shuo [tamen zhidao/bu xiangxin ta hui lai].
 he say they know/not believe he will come
 'He said they knew/did not believe that he would come.'

²² We should make a cautionary note about the possibility of inferences from the discourse when a complement is not present syntactically. For instance, even though the example in (i) seemingly has the reading according to which John's curiosity is about his not being selected. However, if a reflexive is used, which favors a syntactic position in the complement position, the sentence becomes much less acceptable:

- (i) ni weishenme mei bei xuanshang, wo zhidao ni hen haoqi.
 you why not be.elected I know you very curious
 'Why you were not elected, (I) know that you are curious.'
 (ii) *ziji, weishenme mei bei xuanshang, wo zhidao ni, hen haoqi.
 self why not be.elected I know you very curious
 'Why self was not elected, I know you are curious.'

²³ A more complex sentence is created here to avoid the possibility that 'they/think/guess' is used as an afterthought remark.

- b. ta shuo, [ta hui lai, tamen zhidao/bu xiangxin].
 he say he will come they know/not believe
 'He said, that he would come, they knew/did not believe.'

These generalizations suggest that among the three options in (30a-c), only (30c) is adequate empirically — Case is relevant to NPs, not clauses, and the occurrence of clauses in Case-marked positions is only apparent.

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