Optional projections in the left-periphery in Mandarin Chinese

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1. Introduction

In the "Split-CP" hypothesis (Rizzi 1997, Cinque 1999), functional projections that appear in the left-periphery do not have the same status: some form the "core" of the left periphery, such as ForceP, FinP etc. and the others are optional, such as TopP and FocusP (Rizzi 1997, Boeckx 2008). Pan (2015a) proposes the following order for the core projections in Chinese: (TP) < **S.AspP** (Sentential aspect) < ***Only*P** (*Only*-type exclusive focus particles) < **iForceP** (Illocutionary force) < **SQP** (Special questions) < **AttP** (Attitude particles). These projections host either sentence-final particles or null operators. In this paper, I will concentrate on optional projections in the left-periphery such as TopP, Cleft FocusP and *even*-type FocusP.

2. Ex-situ cleft FocusP

Pan (2014, 2015a, b) examines in great detail four types of A'-fronted elements in Chinese, one of which is called "ex-situ cleft foci". This type of cleft focus can either be derived by movement as in (1a) or be base-generated in the left-periphery as in (1b).

(1) a. 是[你的态度]ⱼ，公司的老板不欣赏 tⱼ。

    Shi [ni-de taidu]ⱼ, gongsi-de   laoban bu   xinshang   tⱼ.
    be   your attitude company-DE boss   Neg appreciate
    'It is your attitude that the boss doesn't appreciate.'

   b. 是大象，鼻子很长。

    Shi [daxiang], bizi   hen   chang.
     be   elephant   nose very long
    'It is elephants that (their) noses are long.'

Ex-situ clefts are different from in-situ clefts from many aspects. Syntactically, an ex-situ clefted DP is located in the left periphery, thus outside the TP; by contrast, an in-situ clefted element still remains inside the TP. An in-situ cleft construction is also known as *shi* 'be'…*de* construction, which attracts the attention of many scholars (cf. Teng 1979, Paris 1979, Tang 1983, Cheng 2008, Paul & Whitman 2008). Paul & Whitman (2008) also discuss in great detail the so-called bare *shi* 'be' construction. For instance, in (2a), *shi* 'be' scopes over the TP by emphasizing the fact that it is raining; by contrast, in (2b), *shi* 'be' only focalizes on the plural subject instead of the entire TP. The interpretative difference between these two sentences can be observed through their English translation.

(2) a. 是下雨了，不骗你。

    [Shi [TP xia yu le]], bu   pian ni.   (Lü 2000: 500)
     be   fall rain SFP Neg trick 2SG
    'It is really the case that it is raining, I'm not kidding you.'

   b. 是阿 Q 和小 D 喝了红酒。

    [TP [Shi [Akiu he Xiao-D]] he-le   hongjiu].   (Tsai 2004: 99-100)
       be   Akiu and Xiao-D   drink-Perf red.wine
    'It's Akiu and Xiao-D who drank red wine.'

However, neither of the sentences in (2) involves a dislocated XP marked as clefted focus, which is clearly different from the case in (1). In this article, I will only focus on ex-situ clefted foci.

2.1 Previous analyses

Let us begin by comparing the following pair. Pan (2014) presents (3a) as a case of topic structure and (3b) as a case of ex-situ cleft focus structure by insisting that these are two different structures that cannot be analyzed uniformly (*contra* Cheung 2008, 2014).

(3) a. Topicalization
 你的态度 $_j$ 呢，公司的老板不欣赏 t_j。
 Ni-de taidu$_j$ **ne**, gongsi-de laoban bu xinshang t_j.
 your attitude Top company-DE boss Neg appreciate
 'As for your attitude, the boss doesn't appreciate.'

 b. Ex-situ cleft-focus structure
 是[你的态度]$_j$，公司的老板不欣赏 t_j。
 Shi [ni-de taidu]$_j$, gongsi-de laoban bu xinshang t_j.
 be your attitude company-DE boss Neg appreciate
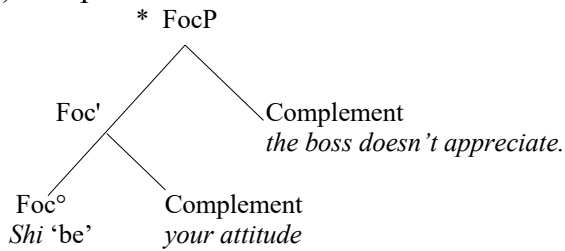 'It is your attitude that the boss doesn't appreciate.'

(3a) is derived by fronting the DP *ni-de taidu* 'your attitude' to the sentence-initial topic position and the topic DP can be optionally followed by the so-called topic markers, such as *ne* or *a*. Scholars such as Paul (2002, 2005, 2014, 2015), Badan (2007), Pan (2014, 2015a) treat these topic markers as heads projecting TopP in Chinese. A topic DP occupies the [Spec, TopP] position and TopP takes a TP as complement. Following this analysis (3a) has the structure presented in (4).
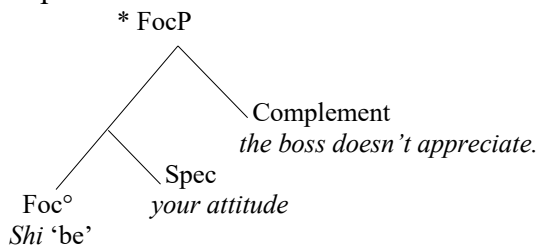
(4)
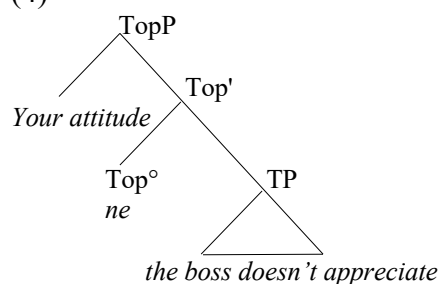
 There are two different existing analyses on ex-situ cleft-focus structures in (3b). One is based on the view that the copula *shi* 'be' can be analyzed as a focus marker on a par with the particles *ne* or *a* that are treated as topic makers (cf. Xu 2004). However, this analysis encounters many difficulties when applied to ex-situ cleft-focus structures. If the copula *shi* 'be' is treated as a focus marker, configurationally, there is a serious problem due to the fact that *shi* 'be' always precedes the focus element and never follows it. Obviously, *shi* 'be' cannot take the focus DP as complement because otherwise, *shi* 'be' will not be able to take the TP as another complement, which creates an impossible structure as illustrated in (5).

(5) * Impossible tree 1:

```
              * FocP
             /    \
          Foc'     Complement
         /   \     the boss doesn't appreciate.
      Foc°    Complement
     Shi 'be'  your attitude
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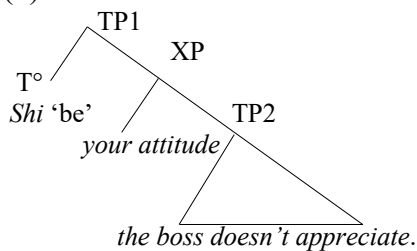
The clefted DP *ni-de taidu* 'your attitude' cannot be positioned in [Spec, FocP] either because this will create a linearization problem, as shown in (6).

(6) * Impossible tree 2:

```
              * FocP
             /    \
            /      Complement
           /       the boss doesn't appreciate.
          /    Spec
      Foc°     your attitude
     Shi 'be'
```

For these technical reasons, it is not a good idea to treat the copular *shi* 'be' as a focus marker. Another possibility is that *shi* 'be' can be treated as the main verb of the entire sentence and *shi* takes the clause that follows it as complement. In this analysis, the clefted constituent is located in the left periphery of the complement clause (i.e. indicated as XP in (7)) but not in the periphery of the matrix clause. A natural implication of such an analysis is that there is no cleft focus projection in the matrix left periphery in Chinese.

(7)

```
       TP1
      /  \
     /    XP
    T°    /  \
  Shi 'be' /  TP2
     your attitude /
              /
        the boss doesn't appreciate.
```

There are two potential problems with this analysis. Treating the copula *shi* 'be' as the main predicate will necessarily imply that it scopes over the whole sentence (i.e. XP in (7)); however, semantically, it is not the case. In ex-situ cleft focus cases, it is the clefted DP that receives a contrastive focus interpretation but not the entire sentence. For instance, in (8a), the contrastive reading is only realized on the DP *ni-de taidu* 'your attitude', which is evidenced by the fact that the sentence remains grammatical when a contrastive focus DP *ni-de yizhuo* 'your way of dressing' is inserted. However, (8b) shows that the TP cannot be contrasted since the insertion of another contrastive TP *it is your way of dressing with which the client is not at all satisfied* makes the entire sentence ungrammatical. This pair of examples show that in an ex-situ cleft focus structure, the copular *shi* 'be' only scopes over the DP that immediately follows it and that *shi* 'be' cannot scope over the entire TP.

(8) a. 是[你的态度]，公司的老板不欣赏，不是[你的衣着]。
    Shi [ni-de taidu], gongsi-de   laoban bu
    be   your attitude company-DE boss   Neg
    xinshang, bu   shi [ni-de   yizhuo].
    appreciate Neg be   your   dressing
    'It is [your attitude] that the boss doesn't appreciate, not [your way of dressing].'

    b. * 是[你的态度，公司的老板不欣赏]，不是[你的衣着，客戶很不满意]。
      * ***Shi*** [ni-de taidu, gongsi-de   laoban bu   xinshang],
        be   your attitude company-DE boss   Neg appreciate
        bu   shi [ni-de yizhuo, kehu   hen bu   manyi].
        Neg be   your   dressing client very Neg satisfied
        (*'[It is your attitude that the boss doesn't appreciate]; not [it is your way of dressing
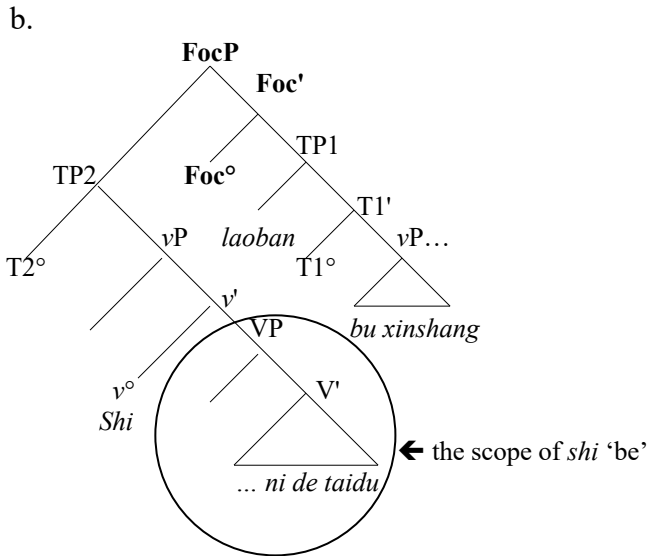   with which the client is not satisfied at all].')

In the tree diagram presented in (7), it seems difficult to argue why the contrastive reading must be realized on *ni-de taidu* 'your attitude' but not on the entire XP since XP is also under the scope of *shi* 'be'. Another problem is that it is somehow difficult to determine the nature of XP whose specifier is occupied by *ni-de taidu* 'your attitude'. Recall that XP is in the left-periphery of the embedded TP. Logically, we have two options: one is to say that XP is actually a TopP and the other is to say that XP is a FocP. Clearly, XP cannot be TopP; otherwise, there is no way to explain why it will get an exclusive focus reading when preceded by the copula *shi* 'be'. Semantically, it will be difficult to argue that the copula *shi* 'be' can transform a topic structure into an ex-situ cleft focus structure. Alternatively, if we argue that XP is a FocP, such an assumption will lead to a false prediction that the sentence in (9) is ambiguous between two structures: one is a topic structure and the other one is a focus structure. However, *ni-de taidu* 'your attitude' in (9) can only be interpreted as topic but not as focus and therefore, (9) cannot imply a focus structure. Even if we can successfully prove that XP is a FocP, then it will still be difficult to argue why (9) needs the main copula *shi* 'be' at all since under such an assumption, *ni-de taidu* 'your attitude' is already interpreted as a contrastive focus. Also note that the fact that (9) does not give any exhaustivity effect strongly suggests that the dislocated DP is analyzed as a topic not as a focus.

(9) 你的态度 ⱼ，公司的老板不欣赏 tⱼ。
    Ni-de taiduⱼ, gongsi-de   laoban bu   xinshang tⱼ.
    your attitude company-DE boss   Neg appreciate
    'Your attitude, the boss doesn't appreciate.'

2.2 My analysis
In this section, I will propose my own analysis of ex-situ cleft focus structures in Chinese. I assume that there is a matrix Focus projection headed by a null Foc°. The clefted focus phrase marked by *shi* 'be' is a TP occupying the specifier position of FocP and the FocP takes another TP as complement, as shown in (10).

(10) a. 是[你的态度]ⱼ，公司的老板不欣赏 tⱼ。
    [FocP [TP2 ***Shi*** [ni-de taidu]ⱼ], [Foc' [Foc° ∅] [TP1 gongsi-de laoban bu   xinshang tⱼ]]].
        be   your attitude   company-DE boss   Neg appreciate
    'It is your attitude that the boss doesn't appreciate.'

b.

FocP
Foc'
TP2
Foc°
TP1
T2°
vP
laoban
T1'
v'
T1°
vP…
VP
v°
Shi
V'
bu xinshang
... *ni de taidu*
← the scope of *shi* 'be'

One immediate consequence of this analysis is that the copula *shi* 'be' does not scope over the entire sentence but only scopes over the clefted DP, which is consistent of what has been observed earlier. One of the advantages of this analysis is that it can nicely account for the fact that only the clefted DP *ni-de taidu* 'your attitude' receives a contrastive focus interpretation but not the entire sentence. Thus this analysis confirms the intuition that there is an adjacent relation between *shi* 'be' and the clefted DP. A second advantage is that it clearly points out that the nature of [*shi* 'be' + DP] is focus and avoids the awkward assumption that (9) is ambiguous between a topic structure and an ex-situ cleft focus structure. In my analysis, the fronted DP *ni-de taidu* 'your attitude' can only be interpreted as topic and not as focus. The sequence [*shi* 'be' + DP] is placed in the [Spec, FocP] position and FocP is headed by a null Foc°, which thus ensures its focus status. Importantly, *shi* 'be' is analyzed as a normal verb but not as the so-called focus marker. In the following paragraphs, I will present arguments in favor of the verbal status of *shi* 'be' in cleft focus structures.

First, *shi* 'be' can be modified by different adverbs, such as *jiu* 'exactly' and negative adverb *bu* 'not'. In both cases, adverbs only modify the sequence [*shi* + DP] but not the entire sentence.

(11) [就是昨天那顿饭]，大家吃得都很不开心 。
　　[FocP [TP2 Jiu　　shi　zuotian　　na-dun fan],
　　　　　exactly be　yesterday that-Cl dinner
　　[Foc' [Foc° ∅] [TP1 dajia　　　dou chi de hen　bu　　kaixin]]].
　　　　　　　　　everyone all　eat DE very Neg happy
　(i) 'It was exactly the dinner of yesterday that everyone was not very happy about (, not for the dinner of the day before yesterday).'
　(ii) (* 'It is exactly the case that it was the dinner of yesterday that everyone was not very happy about (, but not the case that it was the service of yesterday that everyone was very happy about).')

(12) [不是你的态度 j]，公司的老板不欣赏 tj。
　　[FocP [TP2 Bu shi ni-de taiduj], [Foc' [Foc° ∅] [TP1 gongsi-de
　　　　　not be your　attitude　　　　　　　　company-DE
　　laoban bu　　xinshang　tj]]].

boss   Neg appreciate

    (i) 'It is not your attitude that the boss doesn't appreciate (, in fact, it is your way of dressing).'

    (ii) (* 'It is not the case that it is your attitude that the boss doesn't appreciate (, but the case that it was your way of dressing that the client likes very much).')

In (11), the adverb *jiu* 'exactly' can only scope over TP2 *shi zuotian de na-dun fan* 'it was the dinner of yesterday' but not over TP1 and therefore, in the paraphrase (11i), the contrastive reading can only be realized on TP2. If the adverb *jiu* 'exactly' also scopes over TP1, then the paraphrase with the contrastive reading on the entire sentence should be correct; however, this is not the case as illustrated in (11ii). Similarly, negation only scopes over TP2 in (12) but not over TP1, which is demonstrated by the fact that the paraphrase in (12i) with the contrastive reading on TP2 is the only possible interpretation. The paraphrase in (12ii) with the contrastive focus on the entire sentence is illicit. The same observation goes for other types of adverbs, such as adverbs of probability in (13). The structure given under (14) shows that these adverbs are generated as adjuncts to *v'* headed by *shi* 'be' inside the TP.

(13) {肯定／一定／绝对} 是张三的态度，老板很不喜欢。
    {Kending / yiding / juedui}   shi Zhangsan de   taidu,
    definitely/certainly / absolutely   be Zhangsan DE attitude
    laoban hen   bu   xihuan.
    boss   very Neg like
    'It is {definitely/certainly/absolutely} Zhangsan's attitude that the boss does not like.'

(14)
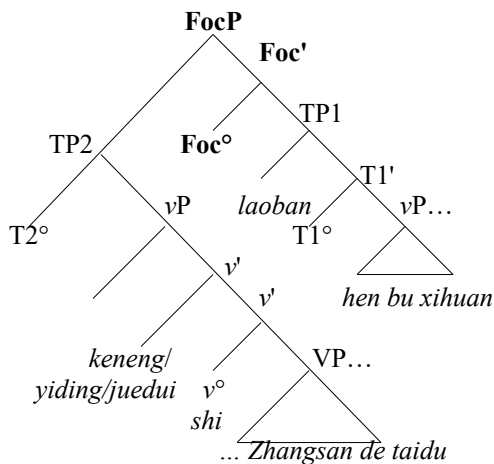
The sequence [*shi* 'be' + DP] can even receive more complex adverbial modifications, as indicated in (15).

(15) a. 可能不是张三的态度，老板很不喜欢。
    [FocP [TP2 [vP Keneng   bu [v° shi] [DP Zhangsan de   taidu]]],
          probably Neg   be   Zhangsan DE attitude
    [Foc' [Foc° ∅] [TP1 laoban hen   bu   xihuan]]].
             boss   very Neg like
    'It is possibly not Zhangsan's attitude that the boss does not like.'

    b. 不太可能是张三的态度，老板很不喜欢。

[FocP [TP2 [vP Bu   tai   keneng [v° shi] [DP Zhangsan   de   taidu]]],
          Neg too probably   be   Zhangsan DE attitude
[Foc' [Foc° ∅] [TP1 laoban hen   bu   xihuan]]].
               boss   very Neg like
    (Lit.) 'Probably, it is not Zhangsan's attitude that the boss does not like.'

Again, it is important to note that complex adverbials *bu tai keneng* 'not probably' in (15b) cannot scope over the entire sentence, but only over *shi* 'be' + DP.

    Furthermore, [*shi* 'be' + DP] can even be embedded under modal verbs. From the interpretation of the sentence in (16), the sequence [Negation + Modal verbs] only scopes over [*shi* 'be' + DP] but not over the entire sentence, as indicated in (17).

(16) {不应该／不会} 是张三的态度，老板很不喜欢。
    {Bu yinggai / bu hui}   shi Zhangsan de   taidu,
     Neg should   Neg could be   Zhangsan DE attitude
    laoban hen   bu   xihuan.
    boss   very Neg like
    (i) 'It {should not/ could not} be Zhangsan's attitude that the boss does not like.'
    (ii) (* 'It {should not/could not} be the case that it is Zhangsan's attitude that the boss
        does not like.')
(17)

← the scope of *shi* 'be'
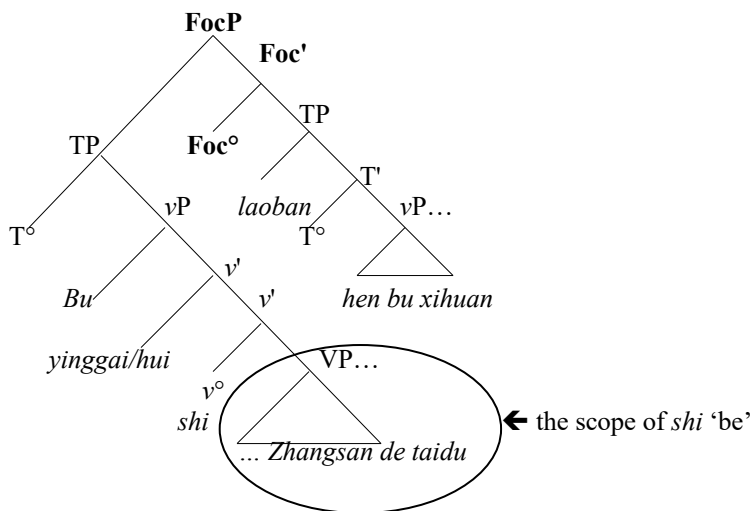
Importantly, it is worthwhile pointing out that *shi* 'be' in ex-situ cleft focus structures (cf. 16) is a true copula that should not be analyzed as an auxiliary used for emphasis (cf. 18).

(18) 我是很不喜欢张三。
    Wo shi hen   bu   xihuan Zhangsan.
    I   be   very Neg like   Zhangsan
    'I do dislike Zhangsan."

In (18), *shi* 'be' can be followed by the main predicate; however, in an ex-situ cleft focus structure, the copula *shi* 'be' can never be immediately followed by another predicate (cf. 19).

(19) * 是很不喜欢张三的工作态度，老板把他开除了。
   * Shi hen bu   xihuan Zhangsan de gongzuo taidu,
    be very Neg like   Zhangsan DE work   attitude
    laoban ba ta   kaichu-le.
    boss   BA him fire-Perf
    ('Not appreciating Zhangsan's attitude in his work, the boss fired him.')

If we embed the predicate *not appreciating Zhangsan's attitude in his work* within a causal adverbial clause, the sentence becomes grammatical, as shown in (20).

(20) 是[因为很不喜欢张三的工作态度]，老板最后决定把他开除了。
    Shi [yinwei hen bu   xihuan Zhangsan de gongzuo taidu],
    be   because very Neg like   Zhangsan DE work   attitude
    laoban zuihou jueding ba ta   kaichu-le.
    boss   finally decide   BA him fire-Perf
    'It is because of not at all appreciating Zhangsan's attitude in his work that the boss
     finally fired him.'

One will also notice that a causal clause cannot be raised from a position lower than the consequent clause due to the lack of reconstruction effects. For instance, in (21), *ta* 'he' cannot refer to *Zhangsan*; however, such a co-reference would be expected if the causal clause originates in a position lower than the consequent clause.

(21) *是[因为很不喜欢他的工作态度]，老板最后决定把张三开除了。
    * Shi [yinwei hen bu   xihuan ta$_j$-de gongzuo taidu],
     be   because very Neg like   his   work   attitude
     laoban zuihou jueding ba Zhangsan$_j$ kaichu-le.
     boss   finally decide   BA Zhangsan fire-Perf
     ('It is because of not appreciating his$_j$ attitude in the work that the boss finally fired
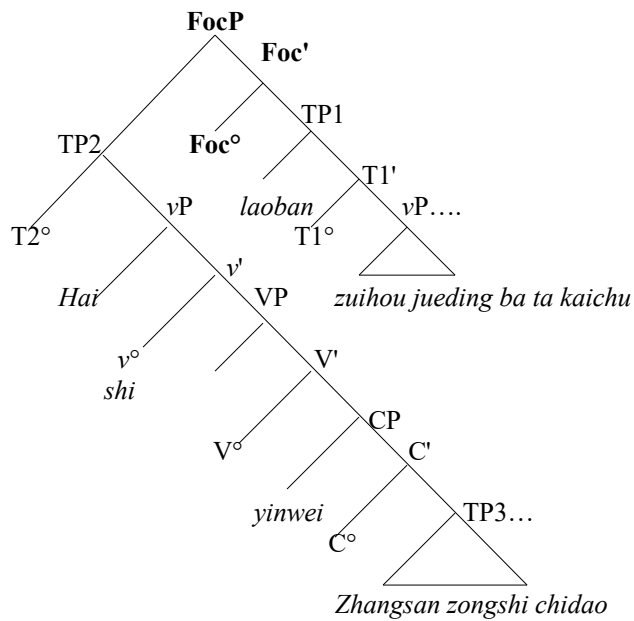   Zhangsan$_j$.')

Along this line of reasoning, *shi* 'be' preceding the causal clause can even be preceded by other adverbs, such as *hai* 'still' (cf. 22), and the scope of *hai* 'still' is limited to the causal clause, as demonstrated in (23).

(22) 还是[因为张三总是迟到]，老板最后决定把他开除。
    Hai shi [yinwei   Zhangsan zongshi chidao],
    still be   because Zhangsan always   arrive.late
    laoban zuihou jueding ba ta   kaichu.
    boss   finally decide BA him fire
    'It is still because Zhangsan is always late that the boss finally decided to fire him. (Not
     because of other things.)'

(23)

There are indeed cases that *shi* 'be' precedes immediately a VP in an ex-situ cleft focus structure, such as in (24).

(24) a. 是看这本书，张三还不行。
　　　Shi kan　zhe-ben shu,　Zhangsan　hai　bu-xing.
　　　be read this-Cl book　Zhangsan　still　not-capable
　　　(Lit.) 'It is reading this book that Zhangsan is not yet capable of.'

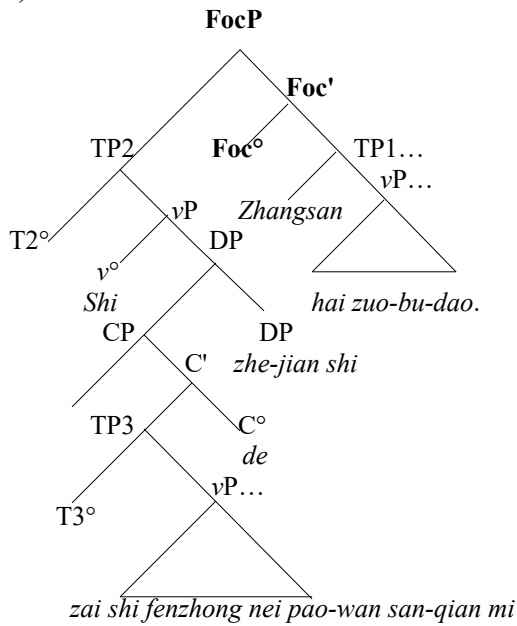　　b. 是在十分钟内跑完三千米，张三还{不行／做不到}。
　　　Shi zai shi fenzhong nei　　pao-wan　san-qian-mi,
　　　be in ten minutes interior run-finish three-thousand-meters
　　　Zhangsan hai　{bu　xing　/ zuo-bu-dao}.
　　　Zhangsan still　Neg capable　do-Neg-can
　　　(Lit.) 'It is running three thousand meters in ten minutes that Zhangsan is not yet
　　　　　capable of.'

There are two possible analyses. The first one is treating *run three thousand meters in ten minutes* as a CP functioning as the complement of a null head noun NP or DP. Such a null DP can be eventually replaced by nouns such as *zhe-jian shi* 'this thing', as shown in (25).

(25) 是在十分钟内跑完三千米的这件事，张三还 {不行／做不到}。
　　[TP Shi　[DP [CP [TP zai shi fenzhong nei　　pao-wan　san-qian-mi]
　　　be　　　　　in ten minutes interior run-finish three-thousand-meters
　　de] [DP zhe-jian shi]]], Zhangsan　hai　{bu xing　　/ zuo-bu-dao}.
　　DE　this-Cl thing Zhangsan　still　Neg capable　do-Neg-can
　　'It is (the task of) running three thousand meters in ten minutes that Zhangsan is not yet
　　capable of.'

(26)

FocP

TP2   Foc'

Foc°   TP1…

vP…

Zhangsan

T2°   *v*P

DP

v°   *hai zuo-bu-dao.*

Shi

CP   DP

C'   *zhe-jian shi*

TP3   C°

de

T3°   *v*P…

zai shi fenzhong nei pao-wan san-qian mi

The other way is to treat *run three thousand meters in ten minutes* as a CP functioning as the complement of the verb *shi* 'be', as shown in (27).

(27) 是在十分钟内跑完三千米，张三还做不到。
     [TP1 [vP1 Shi [CP [TP2 *pro* [vP2 zai shi fenzhong nei   pao-wan
       be   in ten minutes interior run-finish
     san-qian-mi]]]]],   Zhangsan hai   zuo-bu-dao.
     three-thousand-meters Zhangsan   still   do-Neg-can
     'It is (the thing of) running three thousand meters in ten minutes that Zhangsan is not
      yet capable of.'

When the clefted DP is extracted from a sentential subject, such as in (28), under the generalized control rule (cf. Huang 1982; Huang, Li & Li 2009), the sentence is still grammatical. The object *this story* that is extracted out of a sentential subject can be marked by *shi* 'be', as shown in (28b).

(28) a. 妈妈讲这个故事最好听。
     [Mama jiang zhe-ge gushi] zui   haoting.
      mum   tell   this-Cl story   most   interesting
   'Mum tells this story best.'

    b. 是这个故事，妈妈讲，最好听。
     Shi [zhe-ge   gushi]j [[mama jiang tj] zui   haoting]].
     be   this-Cl story   mum   tell   most   interesting
     'It is this story that Mum tells (it) best.'

There are two possibilities to analyze the resulting sentence. One is to treat the entire sentence as TP1 whose specifier is occupied by a FocP and this FocP takes the original sentential subject TP3 as complement. The object *this story* extracted from inside TP3 joins the copula

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shi 'be' to form TP2. As a result, TP2 occupies the specifier position of the FocP, as indicated in (29-30).

(29) [$_{TP1}$ [$_{FocP}$ [$_{TP2}$ Shi [$_{DP}$ zhe-ge gushi$_j$]] [$_{Foc'}$ [$_{TP3}$ mama jiang t$_j$]]]
　　　　　　　be　　this-Cl story　　　　mum　tell

　　zui　haoting].
　　most　interesting
　　'It is this story that Mum tells (it) best.'

(30)
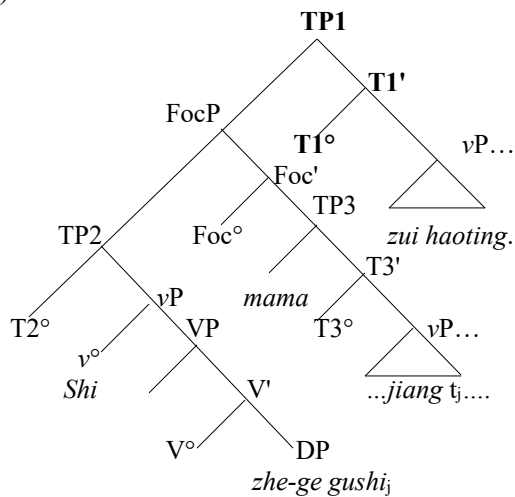
Note that in this analysis, the ex-situ cleft FocP is located in the periphery of TP3 but not in the periphery of the entire sentence TP1. In contrast to this analysis, an alternative one is to position the ex-situ FocP in the periphery of the entire sentence TP1, as in (31-32).

(31) [$_{FocP}$ [$_{TP2}$ Shi [$_{DP}$ zhe-ge gushi$_j$]] [$_{Foc'}$ [$_{TP1}$ [$_{TP3}$ mama jiang t$_j$]
　　　　　　be　　this-Cl story　　　　mum　tell

　　zui　haoting]]].
　　most　interesting
　　'It is this story that Mum tells (it) best.'

(32)
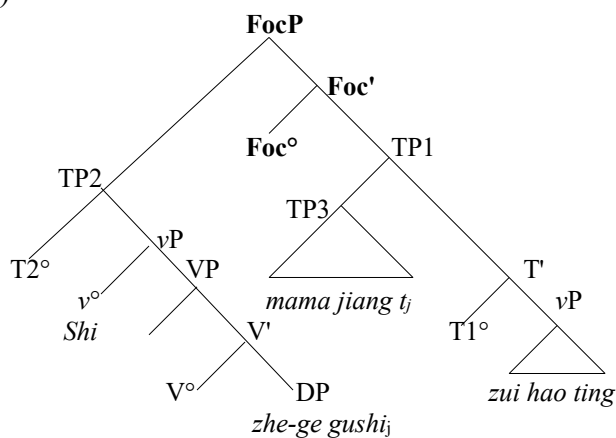
In this analysis, the object *this story* is extracted from the sentential subject TP3 to join the copula *shi* 'be' inside the TP2. TP2 occupies the specifier position of the FocP and FocP takes the original TP1 as complement.

3. Topic structures
### 3.1 Sentence-final particles and topic markers
In the previous section, I presented my bi-clausal analysis of ex-situ cleft focus structures. A potential trouble case is that the clefted [*shi* 'be' + DP] is somehow compatible with the so-called topic markers, such as *ne*, *a* and *ba*, as shown in (33).

(33) 是张三的态度{呢／吧}，老板很不喜欢。
    Shi Zhangsan de taidu {ne ／ba}, laoban hen bu xihuan.
    be Zhangsan DE attitude NE BA boss very Neg like
    'It is Zhangsan's attitude that the boss does not like.'

If we maintain the "topic marker" status of these particles, we have to place these "topic markers" under Top° and [*shi* 'be' + DP] under the specifier of TopP, as shown in (34-35). However, such an analysis cannot be correct.

(34) * [TopP [TP2 Shi Zhangsan de taidu] [Top' [Top° ne / ba]
             be Zhangsan DE attitude   NE BA
    [TP1 laoban hen bu xihuan]]].
       boss   very Neg like
    'It is Zhangsan's attitude that the boss does not like.'

(35) *
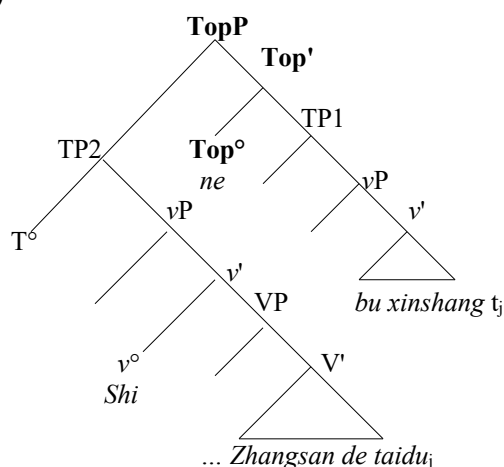
Another similar scenario is that [*shi* 'be' + DP] is generated first under the FocP as a clefted focus and then moves to the specifier position of TopP, as shown in (36-37).

(36) * [TopP [TP2 Shi Zhangsan de taidu]j [Top' ne /a / ba
            be Zhangsan DE attitude   NE A   BA
    [FocP tj [TP1 laoban hen bu xihuan]]]].
         boss   very Neg like
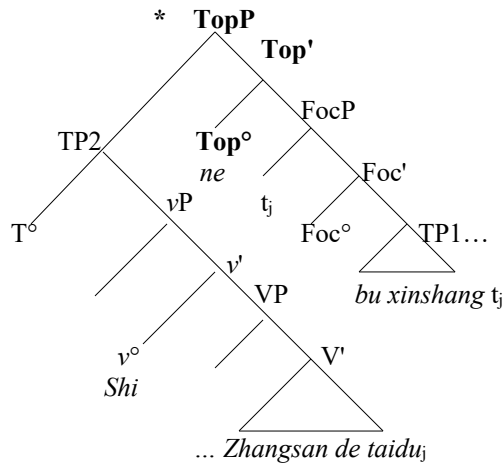   'It is Zhangsan's attitude that the boss does not like.'

(37)

```
                    *   TopP
                   /        \
                  /          Top'
                 /          /    \
               TP2        Top°    FocP
              /   \        ne    /    \
            T°    vP       tⱼ   Foc'
                 /  \          /    \
                /    v'      Foc°   TP1…
               /    /  \     /        \
              /   v°   VP   bu xinshang tⱼ
                 Shi  /  \
                     /    V'
                    /    /  \
                   … Zhangsan de taiduⱼ
```

As will be detailed later, a cleft focus structure is different from a topic structure in that the former always gives rise to exhaustivity effects but not the latter (Zubizarreta & Vergnaud 2006). Under the scenario presented in (34-37), the original clefted sequence [*shi* 'be' + DP] must be interpreted as a topic rather than a focus. However, this type of analysis cannot be correct given that [*shi* 'be' + DP] always gives rise to exhaustivity effects even if when it is marked by so-called topic markers (cf. 38). Accordingly, [*shi* 'be' + DP] must be analyzed as a cleft focus.

(38) 是张三的态度{呢／啊}，老板很不喜欢，(# 也是他的衣着)。
    Shi Zhangsan de taidu {ne /a}, laoban hen bu   xihuan.
    be Zhangsan DE attitude NE A   boss   very Neg like
    (# ye   shi tade yizhuo.)
       also be his   dressing
    'It is Zhangsan's attitude that the boss does not like, (# it is also his way of dressing).'

In fact, sentence-final particles such as *ne*, *ba*, *a* and *ya* are related to the speaker's mood, subjective opinion or attitude and they occupy the head position of the highest functional projection AttitudeP in the left-periphery (Paul 2015, Pan 2015a, Pan & Paul 2016, Paul & Pan *to appear*). It is well known, both in the generative grammar and in the traditional grammar, that these particles can also be used to mark dislocated elements, which leads people to analyze them as "topic markers". However, analyzing particles such as *a*, *ne*, *ba*, *ya* and *ma* as topic markers pose certain problems. First, if these particles are true topic markers, it is difficult to explain why their presence in topic structures is never obligatory. True topic markers in languages such as Japanese are never optional and their co-occurrence with a topic phrase is always required. The simple fact that particles like *ne* or *ba* are compatible with topic phrases does not necessarily endow them with the nature of topic markers. Second, when a topic phrase is marked by one of these particles, such a topic can always have additional semantic interpretation related to each particle, which means that the interpretation of a topic phrase changes according to the particle that follows it. Importantly, the function of these particles seems not to mark an XP as topic but provide this XP with an additional concrete interpretation. Accordingly, I do not think that it is due to a pure co-incidence that the same type of particle that marks the speaker's attitude at the sentence-final position also marks topics. In Chinese, topics are not limited to nominals; in (39), the TP *ni wen wo zhe-*

ben shu 'asking me about this book' is in the topic position. Therefore, we can assume that a nominal topic, such as *this book* in (40) can be treated as the short form of a TP, such as the one in (39). It is always possible to provide a semantically plausible TP to complete a nominal topic.

(39) 你问我这本书 ｛啊／吧／呀｝， 写得还不错。
    [TopP [AttP [TP2 Ni   wen wo zhe-ben shu] [Att° a/ ba/ ya]],
              you ask me this-Cl book   SFP
     [Top' [Top° ∅] [TP1 xie   de   hai bucuo]]].
                  write DE still not.bad
    '(Asking me about) this book, it is well written.'

(40) 这本书 ｛呢／啊／吧／嘛｝，写得还不错。
    [TopP [AttP [DP Zhe-ben shu] [Att° ne / a / ba / ma]], [Top' [Top° ∅] [TP xie   de   hai bucuo]]].
             this-Cl   book   SFP   write DE still not.bad
    'As for this book, it is well written.'

The analysis that I propose for (39) and (40) is that particles *a, ba* and *ma* are still analyzed as sentence-final particles occupying the head position of the Att(itude)P. This AttP takes TP2 as complement. Under such a consideration, it is the AttP that functions as topic and TP2 is only a part of the topic; as a result, sentence-final particles are no longer analyzed as topic markers, as demonstrated in (41).

(41)
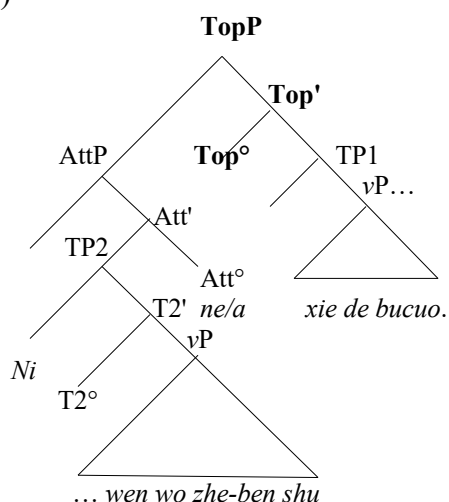
Based on this analysis of topics, let us come back to the focus case presented in (38) where the ex-situ cleft focus element can also be marked by sentence-final particles. I suggest that these particles should also be analyzed as true sentence-final particles but not as topic markers and that they occupy the head position of AttP. The entire AttP is located in the specifier position of FocP, as shown in (42-43).

(42) 是张三的态度｛呢／吧｝，老板很不喜欢。
    [FocP [AttP [TP2 Shi Zhangsan de   taidu] [Att° ne /ba]]
                be Zhangsan DE attitude   NE BA
    [Foc' [Foc° ∅] [TP1 laoban hen   bu xihuan]]].
                   boss   very Neg like

'It is Zhangsan's attitude that the boss does not like.'

(43)

```
                        FocP
                       /    \
                      /    Foc'
                     /    /    \
                 AttP  Foc°     TP1
                /  \   /   \    /   \
              /    Att' laoban  vP…
           TP2    /    \         /\
          /  \  vP   Att°       /  \
        T2°   \  \   ne/a   hen bu xihuan.
               \  v'
                \ / \
              v°    VP
             Shi    /\
                   /  \
              …Zhangsan de taidu
```
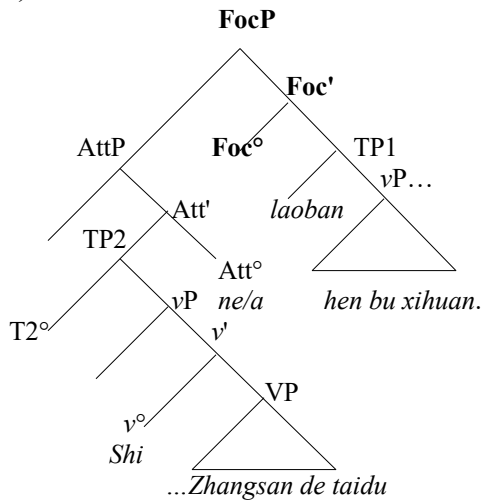
My analysis can be supported by the evidence that the particles that follow the TP2 [*shi* 'be' + DP] are not restricted to *ne*, *a* or *ba*; other attitude-related sentence-final particles also function here (cf. 44).

(44) 可不就是张三的态度嘛，大家都不怎么喜欢。
   [_FocP_ [_AttP_ [_TP2_ Ke bu   jiu   shi Zhangsan de taidu] [_Att°_ ma]]
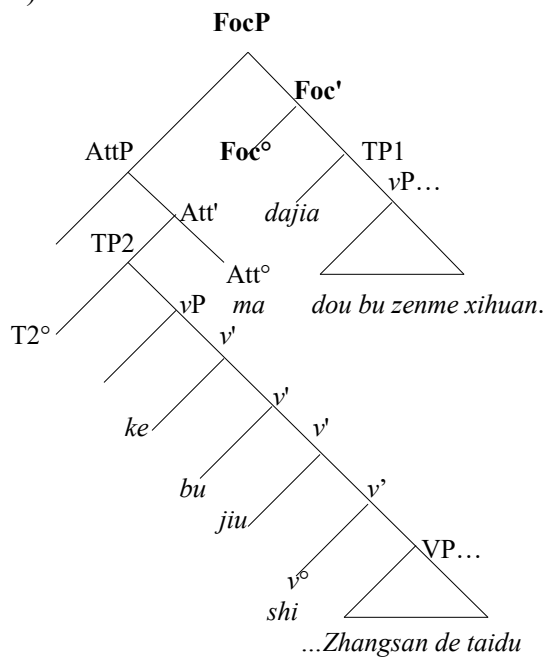   KE Neg exactly be Zhangsan DE attitude   Att
   [_Foc'_ [_Foc°_ ∅] [_TP1_ dajia   dou bu   zenme   xihuan]]].
                        everyone all   Neg how   like
   'It surely is Zhangsan's attitude that everyone does not appreciate much.'

(45)

```
                        FocP
                       /    \
                      /    Foc'
                     /    /    \
                 AttP  Foc°     TP1
                /  \   /   \    /   \
              /    Att' dajia   vP…
           TP2    /    \         /\
          /  \  vP   Att°       /  \
        T2°   \  \   ma   dou bu zenme xihuan.
               \  v'
                \  \
                 v'
                / \
              ke   v'
                  / \
                bu   v'
                jiu  / \
                    v°   VP…
                   shi   / \
                        /   \
                  …Zhangsan de taidu
```

3.2 Differences between cleft focus and topic

If sentence-final particles *ne, ba, ma* are no longer analyzed as topic markers, then the Topic head is morphologically null. Thus, one question is how we can make a distinction between a topic structure in (46) and a focus structure in (47)?

(46) Topicalization

你的态度 ⱼ 吧，老板不欣赏 tⱼ。

[TopP [AttP [DP Ni-de taiduⱼ] [Att° ba]], [Top' [Top° ∅] [TP laoban bu xinshang tⱼ]]].
　　　　　　　your attitude　　SFP　　　　　　　　　boss　Neg appreciate

'As for your attitude, the boss doesn't appreciate.'

(47) Ex-situ cleft focus structure

是[你的态度]ⱼ 吧，公司的老板不欣赏 tⱼ。

[FocP [AttP [TP2 Shi [DP ni-de taidu]ⱼ] [Att° ba]], [Foc' [Foc° ∅] [TP1 laoban bu xinshang tⱼ]]].
　　　　　　be　　your attitude　　SFP　　　　　　　　　boss　Neg appreciate

'It is your attitude that the boss doesn't appreciate.'

Pan (2014) discusses in great detail several syntactic and semantic distinctions between topic structures and cleft focus structures. First, an important property of ex-situ cleft focus structures is that the presence of the copula *shi* 'be' is obligatory and can never be optional (*contra* Cheung 2008, 2014). In other words, it is precisely the presence or absence of the copular *shi* 'be' that makes a distinction between a cleft focus structure and a topic structure and these two structures cannot be analyzed uniformly as a single by assuming that the presence of the copula *shi* 'be' is optional. Topic structures and ex-situ cleft-focus structures behave differently in that they are not subject to the same constraints. Specifically, there are several important restrictions on the use of ex-situ cleft focus structures. For instance, a fronted *wh*-phrase without being preceded by *shi* 'be' is analyzed as a topic and allows a list of answers, as shown in (48); by contrast, a fronted *wh*-phrase preceded by *shi* 'be' is analyzed as a cleft focus structure and does not permit any list of answers, as shown in (49).

(48) *Wh*-topicalization: list-answer (no exhaustivity effect)

A: 哪部电影， 很多人都看过？

[Na-bu dianying]ᵢ, hen duo ren dou kan-guo tᵢ ?
which-Cl movie　　very many people all see-Exp

'Which movieᵢ, many people have seen itᵢ?'

B: 《爱在黎明破晓前》，很多人都看过；《爱在日落余晖时》，很多人也都看过。

Ai Zai Liming Poxiao Qian hen duo ren dou kan-guo; *Ai Zai Riluo Yuhui Shi* hen duo ren ye dou kan-guo.

'*Before Sunrise,* many people have seen; *Before Sunset,* many people have seen as well.'

(49) *Wh*-ex-situ cleft-focus structure: single answer (exhaustivity effect)

A: 是哪部电影， 很多人都看过？

Shi [na-bu dianying]ᵢ, hen duo ren dou kan-guo tᵢ ?
be which-Cl movie　　very many people all see-Exp

'Which movieᵢ is it that many people have seen itᵢ?'

B: # 是《爱在黎明破晓前》，很多人都看过；也是《爱在日落余晖时 》，很多人也都看过。

Shi *Ai Zai Liming Poxiao Qian*, hen duo ren dou kan-guo; ye shi *Ai Zai Riluo Yuhui Shi*, hen duo ren dou kan-guo.

(*'It is *Before Sunrise* that many people have seen; it is also *Before Sunset* that many people have seen.')

C: 是《爱在黎明破晓前》，很多人都看过。

Shi *Ai Zai Liming Poxiao Qian*, hen duo ren dou kan-guo.

'It is *Before Sunrise* that many people have seen.'

Importantly, (48A) is a case of topicalization that does not show any exhaustivity effect; whereas (49A) is an ex-situ cleft focus structure that gives rise to exhaustivity effects. This contrast clearly shows that *wh*-topicalization and *wh*-ex-situ cleft-focus structures are two different constructions and they cannot be analyzed in the same way.

Furthermore, Pan (2014) shows that a topic-extraction and a cleft-extraction are very sensitive to the type of predicate from which the relevant elements are extracted. The extraction of a constituent from a predicate encoding an episodic eventuality to form an ex-situ cleft-focus structure will render the relevant sentence ungrammatical (cf. 50-52 b); by contrast, a topicalization from the same type of predicate is possible, as shown in (50-52 a).

(50) a. Topicalization

你的钥匙，我在花园里找到了。

[Ni-de yaoshi]$_j$, wo zai huayuan-li zhaodao-le t$_j$.

your key 1Sg at garden-in find-Perf

'Your key, I found (it) in the garden.'

   b. Cleft-focus structure

* 是你的钥匙，我在花园里找到了。

* **Shi** [ni-de yaoshi]$_j$, wo zai huayuan-li zhaodao-le t$_j$.

be your key 1Sg at garden-in find-Perf

('It was your key that I found in the garden.')

(51) a. Topicalization

词典(呢)，她昨天买了。

Cidian$_j$ (ne), ta2 zuotian mai-le t$_j$.

dictionary Top 3FSg yesterday buy-Perf

'As for the dictionary, she bought (it) yesterday.'

   b. Ex-situ cleft-focus structure

* 是词典，她昨天买了。

* Shi [cidian]$_j$, ta2 zuotian mai-le t$_j$.

be dictionary 3FSg yesterday buy-Perf

('It was a dictionary that she bought.')

(52) a. Topicalization

巴黎(啊)，他去年去了。

Bali$_j$ (a), ta1 qunian qu-le t$_j$.

Paris Top 3MSg last.year go-Perf

('As for Paris, he went (there) last year.')

   b. Ex-situ cleft-focus structure

*是巴黎，他去年去了。
    Shi Bali_j, ta1   qunian   qu-le   t_j.
    be Paris 3MSg last.year go-Perf
    ('It was Paris that he went to last year.')

In the above sentences, when an action verb, such as *zhao* 'look for', *mai* 'buy' or *qu* 'go', is used alone and marked by the perfective aspectual marker *le*, the predicate encodes an episodic eventuality (cf. Zhang 2002 for the semantics of the episodicality). From inside an episodic predicate, topicalization is allowed and cleft focalization is prohibited.

Under the analysis presented in this study, particles such as *ne*, *ba* and *a* are not treated as topic markers generated under the topic head. Both Topic head and Focus head are morphologically null; however, there are still many crucial differences between topic structures and cleft structures.

4. A possible extension to *lian* 'even'…*dou* 'all' structure
Another type of focus structure involves *lian* 'even'…*dou* 'all' construction. The focus marked by *lian* 'even' can be fronted to the sentence initial position as shown in (53). I will extend my bi-clausal analysis of ex-situ cleft focus structure to *lian* 'even'…*dou* 'all' construction. The sequence [*lian* 'even' + XP-focus] can be treated as a part of a TP that is generated in the specifier position of the FocP whose head is morphologically null (cf. 54).

(53) 连这本书，张三都看不懂。
    [_{FocP} [_{TP2} Lian zhe-ben shu], [_{Foc'} [_{Foc°} ∅] [_{TP1} Zhangsan dou kan bu   dong]]].
        even this-Cl   book   Zhangsan all   read Neg understand
    (Lit.) 'Even for reading this book, Zhangsan is not capable of.'

(54)
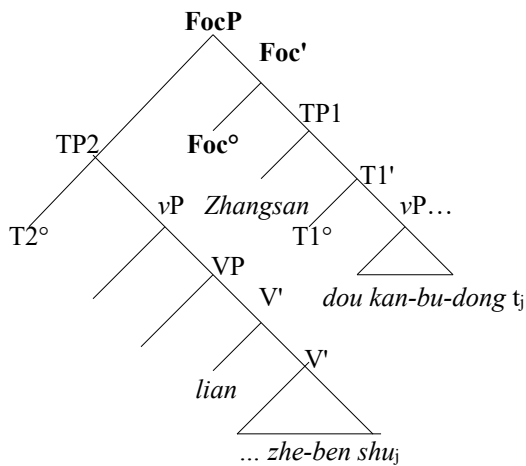
Importantly, *lian* 'even' can also focalize a VP and the resulting structure [*lian* 'even' + VP] can be base-generated in the Spec of FocP. For instance, in the following sentence, the VP *read this book* is not the direct object of the main clause verb *xing* 'be capable of' and therefore, the VP *read this book* is base-generated in the Spec of TopP position.

(55) 连看这本书，张三都不行。
    [_{FocP} [_{TP2} Lian kan zhe-ben shu], [_{Foc'} [_{Foc°} ∅] [_{TP1} Zhangsan dou bu   xing]]].
        even read this-Cl book   Zhangsan all   Neg capable
    'Even for reading this book, Zhangsan is not capable of.'

Several similarities are observed between the cleft structure [*shi* 'be' + XP] and [*lian* 'even' + XP]. First, both of them can be preceded by adverbs and adverbials, such as *jiu* 'only' (cf. 56).

(56) 就连看这本书，张三都不行。

[FocP [TP2 Jiu   lian   kan   zhe-ben shu], [Foc' [Foc° ∅] [TP1 Zhangsan dou   bu   xing]]].
          only even read this-Cl book   Zhangsan all   Neg capable
'Even for reading this book, Zhangsan is not capable of.'

Second, [*lian* 'even' + XP] can also be followed by sentence-final particles, such as in (57).

(57) 就连看这本书 呢／吧，张三都不行

[FocP [AttP [TP2 Jiu   lian   kan   zhe-ben shu] [Att° ne/ ba]],
            only even read this-Cl book   SFP
[Foc' [Foc° ∅] [TP1 Zhangsan dou   bu   xing]]].
             Zhangsan all   Neg capable
'Even for reading this book, Zhangsan is not capable of.'

Third, the dislocated XP can be a full TP whose specifier position can host a subject different from that of the main clause, as in (58). This is a very important argument in favor of the idea that [*lian* 'even' + XP] should be analyzed as a TP irrespective of the syntactic category of the focalized XP.
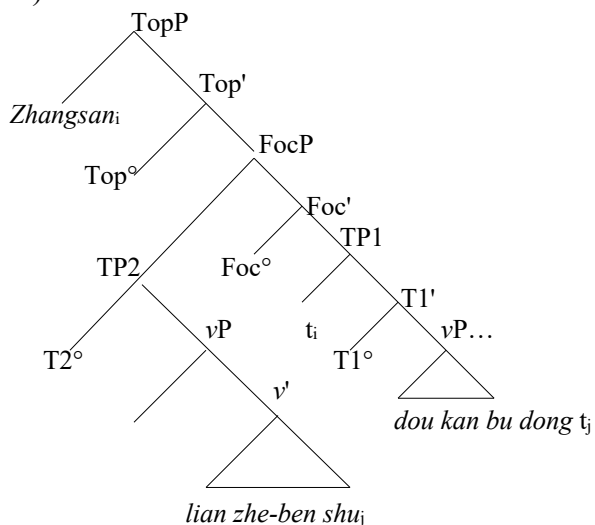
(58) 张三连打会儿游戏，他爸爸都不准。

[FocP [AttP [TP2 Zhangsan lian da   huir   youxi],
             Zhangsan even play a.little.while game
[Foc' [Foc° ∅] [TP1 ta   baba dou   bu   zhun]]].
             his   dad   all   Neg allow
'Even for Zhangsan to play video games for a while, his father does not allow.'

A [*lian* 'even' + XP] pattern can also appear in a post-subject preverbal position, such as in (59). I assume that *zhe-ben shu* 'this book' first moves from its post-verbal base-position to join *lian* 'even' and the sequence [*lian* 'even' + *this book*] is located in the specifier position of FocP. The subject *Zhangsan* raises from the specifier of TP1 to the specifier of TopP.

(59) 张三连这本书都看不懂。

[TopP Zhangsan_i [Top' [Top° ∅] [FocP [TP2 lian   zhe-ben shu_j]
      Zhangsan   even this-Cl   book
[Foc' [Foc° ∅] [TP1 t_i dou kan bu   dong   t_j]]]]].
                all   read Neg understand
'As for Zhangsan, even for this book, (he) is not capable of reading.'

(60)

TopP
  Zhangsan$_i$ Top'
    Top° FocP
      TP2 Foc'
        T2° vP Foc° TP1
          v' t$_i$ T1'
            lian zhe-ben shu$_j$ T1° vP…
              dou kan bu dong t$_j$*

5. Syntactic hierarchy

Previous work (cf. Gasde and Paul 1996, Badan 2007, Pan 2014) identifies that TopP is always higher than *lian* 'even'-focus. In fact, the relevant order between TopP and FocP is not that strict; the following examples show that *lian* 'even'-foci can be higher than topics.

(61) 连去菜场买个菜吧，老王啊，他都不会。
    [FocP [AttP [TP2 lian qu caichang mai ge cai]   [Att° ba]] [Foc' [Foc° ∅]
               even go market   buy Cl vegetables   SFP
    [TopP [AttP Lao Wang [Att° a]] [Top' [Top° ∅] [TP1 ta dou bu hui]]]]].
               Lao Wang   SFP   he all Neg can
    'Even for buying vegetables in the market, Lao Wang, he cannot (do it).'

(62) 老王啊，连去菜场买个菜吧，他都不会。
    [TopP [AttP Lao Wang [Att° a]] [Top' [Top° ∅] [FocP [AttP [TP lian qu caichang
               Lao Wang   SFP   even go market
    mai ge cai]   [Att° ba]] [Foc' [Foc° ∅] [TP ta dou bu hui]]]]].
    buy Cl vegetables   SFP   he all Neg can
    'Lao Wang, even for buying vegetables in the market, he cannot (do it).'

My bi-clausal analysis presented in this study precisely predicts this relevant free order between the two projections, i.e. TopP and FocP. Furthermore, the similar observation goes for ex-situ cleft focus, as shown in (58-59). Topics are not necessarily higher than ex-situ foci.

(63) 昨天的比赛呢，是姚明，表现很不错。
    [TopP [AttP Zuotian   de bisai [Att° ne]], [Top' [Top° ∅]
               yesterday DE match SFP
    [FocP [TP2 shi Yao Ming], [Foc' [Foc° ∅] [TP1 biaoxian   hen bucuo]]]]]]
               be Yao Ming   performance very not.bad
    'The match of yesterday, it is Yao Ming that (his) performance is great!'

(64) 是姚明，昨天的比赛呢，表现很不错。

[FocP [TP2 Shi Yao Ming], [Foc' [Foc° ∅] [TopP [AttP zuotian   de   bisai [Att° ne]],
      be Yao Ming   yesterday DE match SFP
[Top' [Top° ∅] [TP1 biaoxian   hen bucuo]]]]]
            performance very   not.bad
(Lit.) 'It is Yao Ming, the match of yesterday, that (his) performance is great!'

6. Conclusion

In this paper, I propose a bi-clausal analysis of ex-situ cleft focus structures in Chinese. Importantly, the copula *shi* 'be' is not analyzed as a focus marker but as a normal verb and the verbal status of *shi* 'be' is supported by the fact that it can be preceded by (complex) adverbials and modal auxiliaries. The clefted focus TP [*shi* 'be' + XP] occupies the specifier position of the FocP whose head takes a morphologically null form; the Spec of FocP can host different types of XPs, i.e. DP or TP. I then extended such an analysis to topic structures by assuming that so-called topic markers *ne* or *ba* in Chinese are not real topic markers; instead, they are analyzed as ordinary sentence-final particles that project an Att(itude)P that take a TP as complement. The AttP occupies the specifier position of the TopicP. I also extend this analysis to *lian* 'even'…*dou* 'all' type of focus by proposing that ex-situ [*lian* 'even' + XP] is in fact a TP which can further merge with sentence-final particles to form an AttP. The order between TopP and FocP is relatively free.

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