The *YUE*-Construction in Mandarin Chinese[1]

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The *yue*-construction in Mandarin Chinese contains an antecedent and a consequent constituent, with the morpheme *yue* [越] embedded in both clauses. By referring to a previous analysis proposed by Tsao and Hsiao (2002), I discuss the syntactic and semantic interdependence between the two *yue*-constituents. After arguing against the approach treating the antecedent *yue* clause as an adjunct to the second *yue* clause, I propose an alternative analysis in which the Correl(ative)P selects for two IPs, each containing a *yue* constituent. Structurally, the degree-denoting morpheme *yue* is the head of Deg(ree)P preceding the predicate it modifies. Moreover, certain example sentences featuring topicalization lead to discussion of the interaction between the *yue*-construction and the topic-comment structure in Mandarin grammar.

1. Introduction

The comparative correlative construction exists crosslinguistically (McCawley, 1988; Beck, 1997; Culicover and Jackendoff, 1999; Abeillé and Borsley, 2008; den Dikken, 2005, 2009; Lin, 2007). An English example is given in (1):

(1) The more you want, the busier you will be.

Structurally, this construction consists of two clauses, with the comparative constituents *more/er* fronted to the clause-initial position following the determiner *the*. In addition to the specific syntactic structure, there is semantic interdependence between the two clauses. Mandarin Chinese exhibits similar syntactic and semantic properties in its comparative correlative construction. The morpheme *yue* 'the more' is contained in the antecedent and the consequent constituent, as shown in (2):

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(2) 天氣越熱，他越想吃冰

    tienqi   **yue**   re,   ta   **yue**   xiang chi bing

    weather the.more hot, he   the.more feel.like eat   ice cream

    'The hotter the weather is, the more he feels like eating ice cream.'

      This paper has three goals. The first concerns the distribution of the degree-denoting morpheme *yue* in the Chinese comparative correlative construction (in the following discussion, the term '*yue*-construction' is used for short). Broadly speaking, the position of *yue* is right before predicates; it can modify verbal phrases, negation, adjectives, and adverbs. The second goal is to propose a syntactic structure of the *yue*-construction, which takes into consideration the semantic and syntactic interdependence of the two *yue*-constituents. Moreover, in addressing the problem that some example sentences of the *yue*-construction show a weird word order, I discuss the interaction of the *yue*-construction with the topic-comment structure in Mandarin grammar.
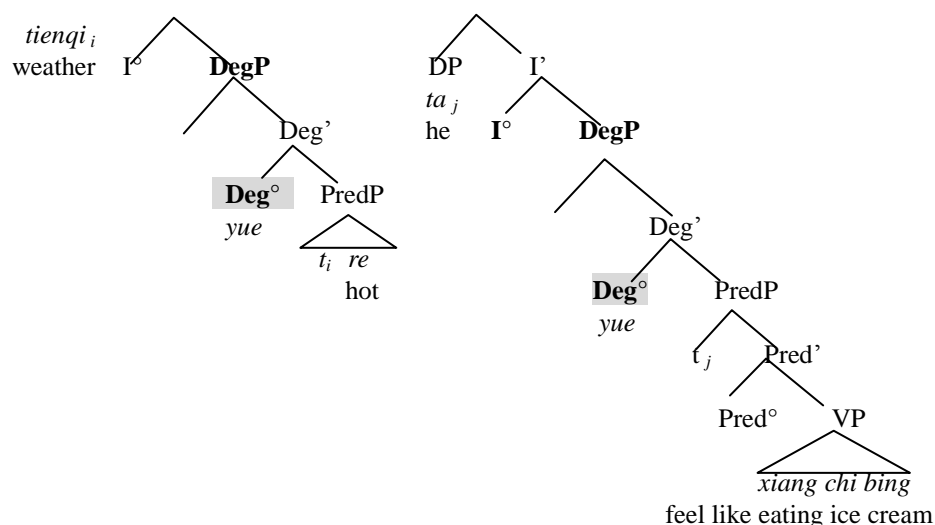
      In my analysis, I borrow Beck's (1997) idea of Deg(ree)P, and propose that its head is realized by *yue*[2]. The antecedent DegP and the consequent DegP are selected together under the functional category Correl(ative)P, and there exists syntactic and semantic interdependency between the two Deg phrases. The structure I propose for the example of (2) is illustrated in (3) in next page. In this proposed structure, the CorrelP selects for two IPs, and each IP contains a *yue* phrase. The degree-denoting *yue*, preceding the predicate, is the head of DegP. Furthermore, instead of little *v*P, I assume PredP (i.e. Predicate Phrase), a more general version of little *v*P from Bowers (1993)[3]. The reason lies in the fact that the morpheme *yue* can modify all kinds of predicates, not just verbal ones.

(3)

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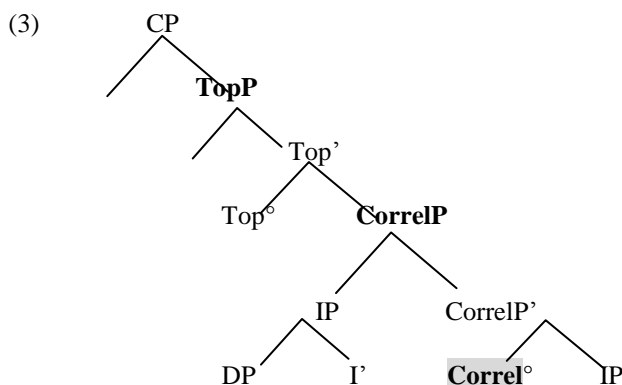
[2] In dealing with English comparative correlative constructions, Beck (1997) proposes the head of DegP is the comparative morpheme er/more while for den Dikken (2005), DegP is headed by '*the*'.

[3] Bowers (personal conversation) states that the category Pred shares many properties with little v. The main difference is that Pred projects a small clause when it selects AP, PP or DP. In his article (2001), he proposed to clarify this by treating little v as a particular lexical instantiation of the category Pred.

tienqi ᵢ weather I° **DegP**

Deg'

Deg°
yue   PredP

tᵢ re
hot

DP I'
ta ⱼ
he   **I°**   **DegP**

Deg'

Deg°   PredP
yue

t ⱼ   Pred'

Pred°   VP

xiang chi bing
feel like eating ice cream

In addition, another functional category Top(ic)P is included. The main function of TopP is to host a topic in its specifier position, and the head of this category may be empty or realized by topic-particles such as *dehua, ne, a,* etc. The Top(ic)P is optional and can be recursive; in later discussion, we will see that the TopP can help account for some word-order problems like the example in (4), which involves a topicalized NP *ta* 'he'. A more complicated example in (5) involves two topicalized elements: the NP *ta* 'he' and the clause *tienqi yue re* '(if) the weather is hotter'.

(4) 他天氣越熱,越想吃冰
    ta   tienqi   yue   re,   yue   xiang chi bing
    he weather the.more hot, the.more   feel.like eat   ice cream
    'For him, the hotter the weather is, the more he feels like eating ice cream.'

(5) 他啊/呢，天氣越熱,越想吃冰
    ta   (a/ne), tienqi **yue**   re (dehua), **yue**   xiang chi bing
    he   PART   weather the.more hot PART   the.more   feel.like eat   ice cream
    'For him, the hotter the weather is, the more he feels like eating ice cream.'

To account for sentences like (4) and (5), where there is interaction between the *yue*-construction and topicalization, the topic-comment approach is considered significant in the analysis. I propose that the example in (5) has a structure in which the first *yue*-clause is the topic and the second *yue*-clause is the comment.

2. The *yue*-constructions
2.1. yue as a degree-denoting modifier
    In the *yue*-construction, both the antecedent and the consequent constituent contains

the morpheme *yue* 'the more' as a modifier of the predicate. In the following discussion, I refer to the antecedent unit as the "*yue*₁-constituent" and the consequent unit as the "*yue*₂-constituent." The examples in (6a) and (6b) illustrate that the degree-denoting morpheme *yue* precedes the predicate it modifies. Another crucial point is that fronting of the comparative constituents is obligatory in English, but prohibited in Mandarin[4], as demonstrated by the ungrammatical sentence in (6c).

(6) a. 蘋果越甜越好吃

[CP[IP pingguo [DegP **yue**   tian]] [*pro* IP[DegP **yue**   haochi]]]
        apple   the more sweet   the more   delicious
   'The sweeter an apple is, the tastier it is'.

  b. 你越逼我，我越不說實話

[CP[IP ni [DegP **yue**   bi wo]], [IP wo [DegP **yue**   bu   shuo shihua]]]
     you   the more force me,   I   the more NEG   tell   truth
'The more you force me, the less willing I will be to tell the truth'.

 c. * **越**逼我你，**越**不說實話我

  * [CP **yue** ᵢ [IP ni   *t* ᵢ   bi wo],   **yue** ⱼ   [IP   wo   *t* ⱼ bu   shuo shihua]]
      the more   you   force me , the more   I   NEG   tell   truth
     'The more you force me, the less willing I will be to tell the truth'.

The degree-denoting *yue* can also modify negated predicates by preceding it. For instance, in (7a) and (7b), *bu* is a negation marker and modifies the predicate following it while *yue* modifies the whole negated predicate phrase. This suggests that *yue* needs to be in a higher position than NegP so as to have a scope over the whole negated predicate phrase:

(7) a. 蘋果越不甜，越不好吃

[CP[IP pingguo [DegP **yue**   **bu**   tian]], [IP [DegP **yue**   **bu**   hauchi]]]
        apple   the.more NEG sweet   the.more NEG   tasty
   'The less sweet an apple is, the less tasty it is.'

 b. 你越不喜歡我去跳舞，我越要去跳(舞)

   [CP [IP ni [DegP **yue**   **bu** [PrP xihuan wo qu tiaowu]]], [IP wo [DegP **yue** iao qu tiao(wu)]]]

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[4] A potential topic for future research is to discuss whether this has to do with the wh-in-situ nature of Mandarin. One point that deserves notice concerns the crosslinguistic variation in fronting of the correlative constituent in both clauses (e.g. *the*-phrases in English). Abeillé and Borsley (2008) point out that in both English and French, fronting is obligatory in both clauses. They propose an account within P&P which claims that the C⁰ which heads the clauses has certain features which requires its specifier position to be filled by a correlative phrase.

you the more NEG.   like   I   go dance,   I   the more want go dance

'The more you dislike that I go dancing, the more I would like to go (dancing).'

What needs to be noted is the position of *yue* 'the more' and *bu* 'not' when the modal *huei* 'will, may' is present in the same clause. The following examples (8a) and (8b) show that in an IP structure, *yue* appears in a lower position than the modal but precedes the negated/assertive predicate *bu hao/hao* respectively. That is, in both (8a) and (8b), the modal *huei*, which indicates future tense, is in a higher position.

(8)

    a. 你越不用功, 成績會越不好

    [$_{CP}$ [$_{IP}$ ni [$_{DegP}$ yue   bu   yonggong]], [$_{IP}$ chengji [**huei** [$_{DegP}$yue   [bu   hao]]]]

       you   the.more NEG   study.hard,   grade   MOD   the.more NEG good

      ''The less hard you study, the worse your grade will/may be.'

    b. 你越用功, 成績會越好

    [$_{CP}$ [$_{IP}$ ni [$_{DegP}$ yue   yonggong]], [$_{IP}$ chengji [**huei** [$_{DegP}$ yue   [hao]]]]

       you   the.more study.hard,   grade   MOD   the.more   good

      ''The harder you study, the better your grade will/may be.'

From the above description, we have seen that, *yue* can modify both negated and asserted predicates. Nevertheless, there is restriction on the type of predicates that it can modify in terms of *telicity*. In the example in (9), the two verbs *xiang* 'think' and *danxin* 'worry' can be interpreted as both present or past tense, depending on the prior discourse. However, when aspectual particles[5] such as *le* (indicating perfectiveness) and *guo* (indicating experience) and *wan* (indicating completion) are attached to the verbs, the sentence becomes unacceptable, as illustrated in the following:

(9)   我越想*了/*過, 越擔心*了/*過

    wo yue   xiang *le/*guo/*wan*, pro   yue danxin *le/*guo/*wan*.

    I the more think,   PART   the more worry   PART

    'The more I thought about it, the more I worried about it.'

I assume that semantically *yue* requires an unbounded scale to operate on, so its complement needs to be interpreted atelically. The bounded aspectual particles *le/guo/wan* impede this and thus cause uninterpretability[6]. In other words, (9) is ruled out

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[5] I would like to thank Prof. Andrew Carnie for raising this interesting question about the aspect marker.

[6] I am indebted to Heidi Harley for her elucidation for the telicity problem in the example (9). She further point out the difference between English and Mandarin with respect to telic interpretation in comparative correlative construction. Unlike its Mandarin equivalent sentence, the English sentence, as shown below in (i), is entirely acceptable; the past tense doesn't prevent atelic reading with predicates like *think* or *worry*, which are regarded as atelic verbs:
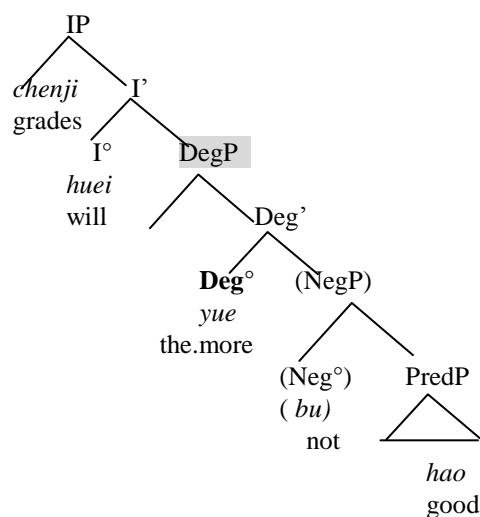
    (i) The more I thought about it, the more I worried about it.

However, both English and Mandarin get a similar effect with telic predicates such as *break* or *notice*—it's not that it's ungrammatical exactly, but we need to understand the predicate as happening repeatedly:

because the *yue*-construction entails an atelic interpretation.

Based on the above discussion about the distribution of *yue*, the structure in (10) in the next page demonstrates the position of *yue* in the IP. One might consider the DegP an adjunct, having an adjacency relationship with the predicate it modifies. However, I argue against taking the DegP as an adjunct. My argument is based on an observation: adjuncts are optional constituents whereas the occurrence of the DegP, headed by the morpheme *yue,* is conditioned by the co-occurrence of another DegP within the same CP. In the following section, it is further discussed why the DegP is not an adjunct.

(10)

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              IP
             /  \
        chenji   I'
        grades  /  \
              I°    DegP
            huei    /  \
            will   /   Deg'
                  /   /    \
               Deg°   (NegP)
               yue    /    \
           the.more  (Neg°)  PredP
                    ( bu)     /\
                     not     /  \
                           hao
                           good
```

2.2 The interdependence of yue$_1$ and yue$_2$

2.2.1. A previous analysis

To argue against taking DegP as an adjunct, I would like to refer to Tsao and Hsiao's analysis (2002), in which they apply the topic-comment approach to the *yue-* construction. They argue that the *yue*$_1$-clause functions as topic and the *yue*$_2$-clause as comment, as illustrated by the two ovals in (11). In other words, the *yue*$_1$-clause is the topic of the yue$_2$-clause and is realized as an IP-adjunct. Moreover, there can be another higher topic, as produced in (11a). They argue that for a sentence like (11a), the NP *ta* 'he', as the topic of the whole CP, is base-generated in [Spec, CP] and co-indexed with the empty category *pro* in [Spec, IP] while the lower topic, i.e. the *yue*$_1$-clause, is an IP adjunct to the comment-IP. The structure proposed by Tsao and Hsiao (ibid.) is illustrated in (11b):

(11) a.　　他天氣越熱越吃不下
　　　　　ta　tianqui　yue　　re,　yue　　　chi bu　　xia

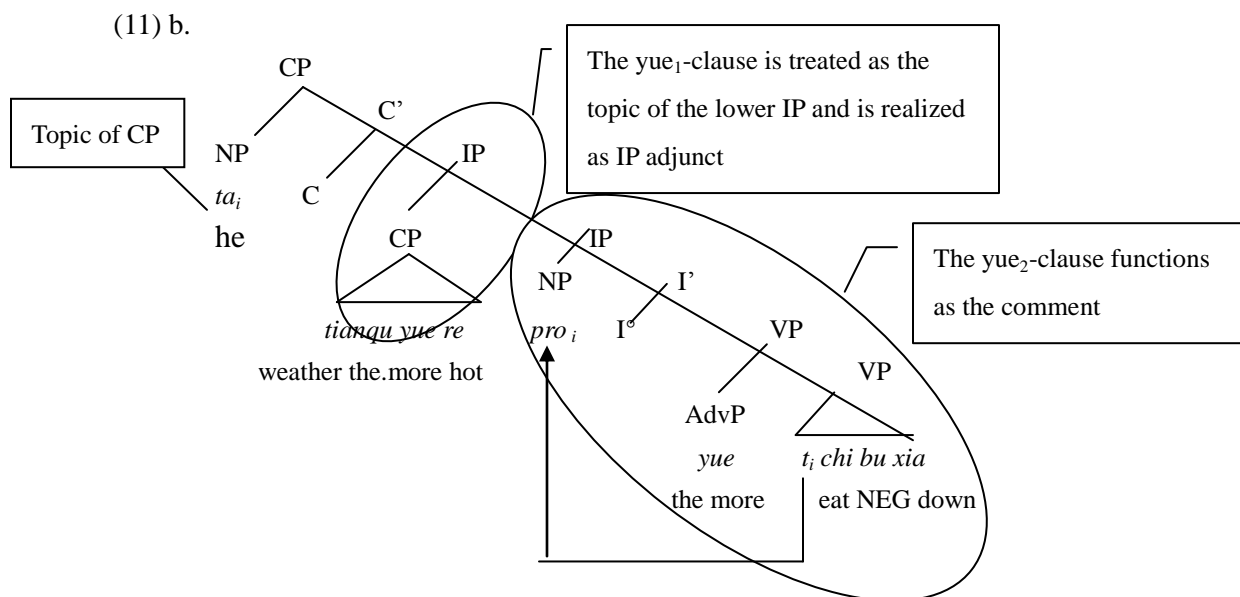*(ii) #The more I broke the glass, the more I laughed*.
Similarly
　　　(iii) #The more I noticed the difference, the more surprised I got.
But the repetition coercion still cannot save a sentence like the example of (9).

he   weather the more hot   the more   eat NEG down
'For him, the hotter the weather is, the less he would like to eat.'

(11) b.

| Topic of CP |
| The yue₁-clause is treated as the topic of the lower IP and is realized as IP adjunct |
| The yue₂-clause functions as the comment |

2.2.2. The yue_1-clause as an IP-adjunct?

In fact, the above structure in (11b) fails to capture a major trait of the *yue*-constructions: the interdependence between the yue_1 and yue_2-constituent. It is problematic to treat the yue_1-constituent as an adjunct. If the yue_1-clause, based on the structure in (11b), were an IP adjunct to the yue_2-clause, then we would expect the yue_1-clause would be optional and the yue_2-clause could be an independent clause. Nevertheless, it is not the fact. It is observed that yue_1-constituent and yue_2-constituent appear in two separate non-coordinated clauses, as shown in (12). However, unlike coordinate clauses, the two *yue* clauses in Mandarin cannot be switched in order; otherwise the meaning will be changed or cannot be interpreted, e.g. (13a). Moreover, neither of the two clauses can be interpreted without co-occurrence of the other, e.g. (13b) and (13c):

(12) Two non-coordinate clauses:
　　你越緊張，他越不能專心
　　ni　yue　　jinzhang,　ta yue　　　bu neng　zhuanxin
　　you the.more nervous,　he the.more　　not can　concentrate
　　'The more nervous you are, the less he can concentrate.'

(13) a. *他越不能專心，你越緊張

      ta   yue   bu neng zhuanxi,   ni yue   jinzhang.

      he the.more not can concentrate, you the.more nervous

      'The less he can't concentrate, the more nervous you are'.

      (The meaning is different from that of the original sequence in (12).)

   b. *你越緊張

      ni   yue   jinzhang.

      you the.more   nervous

  c. *他越不能專心，

      ta   yue   bu neng zhuanxi.

      he   the more not can concentrate

The examples in (12) and (13) provide evidence showing that the two *yue* clauses are mutually interdependent syntactically and semantically. Moreover, a typical adjunct does not select for specific types of clauses which it adjoins to; by contrast, there is restriction on the selection of the component clause in the *yue-* constructions. For instance, in the examples in (14), the *yue*-clause combines with an independent clause instead of a *yue* contained, and this results in ungrammaticality (Tsao and Hsiao 2002; Abeillé and Borsley 2008).

  (14) a. *蘋果越甜，我喜歡吃蘋果

      pingguo **yue**   tian,   wo xihuan chi   pingguo

      apple   the more sweet,   I   like   eat   apple

    '* The sweeter an apple is, I like eating apples.'

   b. * 他很擔心，我越隱瞞事實

      ta   hen   danxin,   wo   **yue**   yingman shishi

      he very.much worry,   I   the more conceal   truth

    '* He is worried, the more I conceal the truth.'

The above examples demonstrate the interdependence between the two *yue*-clauses in the syntactic structure; the first one relies on the second one and vice versa. Therefore, the adjunct approach as demonstrated in (11b) is not proper.

3. An alternative analysis

3.1 The Correl(ative)P

Since the two *yue*-clauses rely on each other and since the adjunct approach fails to demonstrate this absolute co-occurrence, an alternative analysis is needed to account for the syntactic and semantic bond between the antecedent and the consequent clause. In the following discussion and presentation, I propose Corrl(ative)P, a functional category. The CorrelP is stipulated to select for two IPs: One is in the specifier position and contains the yue_1-constituent, and the other is in the complement position and contains the yue_2-constituent. It needs to be noted that the two IPs, by virtue of containing a predicate

modified by the DegP, denote a degree while CorrelP denotes a truth value. That is, the CorrelP is 'true' if the degree of yue_1-constituent is correlated with the degree of yue_2-constituent. I propose that sentences of the *yue*-construction, like the example in (2), repeated here in (15a), has the structure shown in (15b).

(15) a. 天氣越熱, 他越想吃冰

     tienqi   yue   re, ta   yue   xinag chi bing

     weather the.more hot he the.more want   eat ice.cream

     'The hotter the weather is, the more he feels like eating ice cream.'

(15) b.
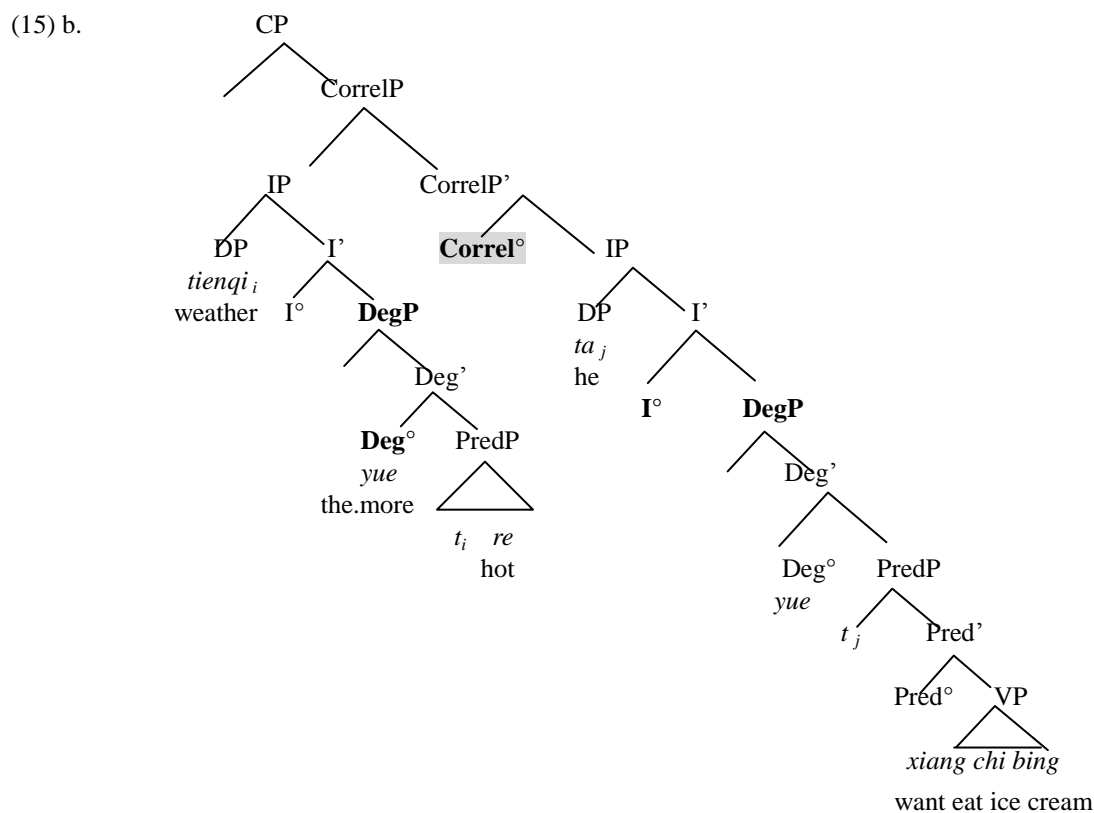
3.2 Topicalization and the yue-constructions

After proposing the CorrelP to analyze the *yue*-construction, I would like to draw attention to a variant of the *yue*-construction. In addition to the basic sentence structure like (15b), there are such sentences with unusual word orders like the examples in (16), where the topic particles *dehua/ne/a* [的話/呢/啊] are optional. In (16a) and (16b), arguments in the second clause are topicalized and appear in the sentence-initial position, preceding an optional pakkrticle like *dehua, ne*, and a[7]. Either via movement or via

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[7] The three particles listed here are taken as markers of topichood. They can appear in general

base-generation, both the topicalized element and the particle are in a position in the left periphery.

(16) a. 他的話/呢/啊, 天氣越熱, 越想吃冰

    ta$_i$ (dehua/ ne/ a) tienqi yue   re,   *pro*$_i$ yue   xiang chi bing

    he PART   weather the.more hot,   the.more want eat ice.cream

    'For him, the hotter the weather is, the more he feels like eating ice cream.'

  b. 冰的話/呢/啊, 天氣越熱, 他越想吃

    bing$_i$ (dehua/ ne/ a), tienqi   yue   re,   ta yue   xiang chi *pro*$_i$

    ice.cream PART,   weather the.more hot, he the.more want eat

    'As for ice cream, the hotter the weather is, the more he feels like eating it.'
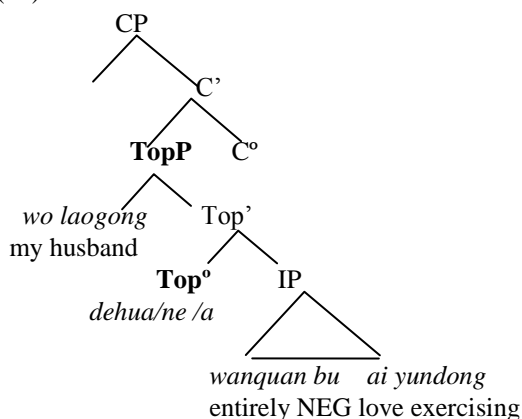

A possible account for the problem of word order in (16) is that there is an XP, higher than IP and lower than CP . The position [Spec, XP] can help host the topicalized NP. For this functional XP, I will borrow the idea of the functional category TopicP (Gasde and Paul,1996; Rizzi, 1997) and Gasde and Paul's (1996) assumption that the topic-particle *dehua, ne,* and *a* in Mandarin is realized as the head of the TopP . In an ordinary subject-predicate sentence, the TopP is absent, but when there is a topicalized element, the TopP is the complement of Cº, and the topic will be in the position of [Spec, TopP] with the head realized by a topic particle or being empty. In the following example (17a), the second part of the utterance illustrates the usage of the topic-particle *dehua, ne*, or *a*. The structure of the second clause is presented below in (17b) (cf. Gasde and Paul, 1996):

(17) a. 我自己很喜歡運動,

    wo ziji hen   xihuan yundong;

    I   self very   like   exercising;

    我老公的話/呢/啊, 完全不愛運動

    wo laogong$_i$ *dehua/ne/a*, p*ro*$_i$ wanquan   bu ai yundong

    my husband   PART   entirely   NEG love exercising

---

sentences, not just in comparative correlative constructions, and their presence is optional. When present, they can be attached to nominal, phrasal and clausal constituents, as illustrated in (i),(ii), and (iii):

(i)   qian (dehua/ne/a), wo hui xiang   banfa

       money PART,   I will figure.out solution

       'As for money, I will figure out a solution.'

(ii)   qian han fanzi (dehua/ne/a), wo hui xiang   banfa

       money and house PART,   I will figure.out solution

       'As for money and the house, I will deal with them.'

(iii)   ruguo ni xiuiao zhe bi qian   (dehua), wo hui jie ge ni.

        If   you need   this CL money PART,   I will lend to you

       'If you need the money, I will lend it to you.'

'I like exercising very much. As for my husband, he entirely doesn't like exercising.'

(17) b.

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              CP
             /  \
                 C'
                / \
            TopP   C°
           /    \
   wo laogong   Top'
   my husband  /    \
            Top°     IP
       dehua/ne /a   /\
                    /  \
          wanquan bu    ai yundong
          entirely NEG love exercising
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In the above structure (17b), I assume the hierarchy of functional categories CP>TopP>IP (Gasde and Paul, 1996: 270 ff.; Rizzi, 1997). CP and IP are both obligatory. By contrast, Topic°, only projects a TopP when its specifier is filled with a topic no matter whether its head is empty or overtly filled by a topic-particle *dehua/ne/a*; otherwise, TopP will be absent. In addition, TopP can be reiterated if there is more than one topic in the sentence, as shown in (18):

(18) 他**呢**, 如果心情不好**的話,** 就抽菸

    ***ta**_i* (ne),   ruguo   xinqing   bu   hao   (dehua),   ***pro**_i*   jiu   chouian

    he PART   if   mood   not good PART ,   then   smoke.cigarette

    'For him, if he is in a bad mood, he smokes.'

If the specifier of CP were the topic-position, a sentence with more than one topic in the sentence-initial position, like (18), could not be accounted for. Moreover, as we can see in (18), not only arguments may be topicalized, but a clause can also be realized as a topic when a topic-particle is attached to the end of it. Similarly, the yue$_1$-clause is also likely to be topicalized if a topic-particle is present in the end of it, as illustrated in (19):

(19) a. 他的話/呢/啊, 天氣越熱, 越想吃冰

    ***ta**_i* (dehua/ ne), tienqi   yue   re (ne/dehua), ***pro**_i* yue   xinag chi   bing

    he   PART   weather the.more hot PART   the.more   want   eat   ice.cream

    'For him, the hotter the weather is, the more he feels like eating ice cream.'

Now we need to figure out how topicalization can fit into the *yue*-construction. Before we move on to further discuss the interaction between the topicalization and the *yue*-construction, we need to take a look at the syntactic traits of topic in Mandarin. This has bearing on the proposed analysis of the *yue*$_1$-clause's position in the structure. In the

following section, whether topic is moved or base generated is discussed.

3.3 Base-generated Topic

Chao (1968:69) claimed that "the grammatical meaning of subject and predicate in a Chinese sentence is topic and comment, rather than actor and action" (cf. Li and Thompson, 1989; Huang, 1984; Tsao 1987, 1990; and Shi, 2000, for more detailed discussion about topic-comment constructions in Chinese syntax). In Chinese linguistics, topic is treated with two approaches: the movement approach and the base-generation approach. In my analysis, I adopt the assumption that topic in Mandarin is base generated[8] (Huang, 1984; Gasde and Paul, 1996). In a normal topic-chain sentence like (20a), the topic *zhe ben xiaoshuo* 'this novel' is co-indexed with the object *pro* in the two consequent comment clauses. In a sentence of the *yue*-construction like (22b)[9], in addition to the object *pro* in the third and the fourth comment clause, the topic is also co-indexed with a subject *pro* in the first comment clause (Huang 1984, for more discussion about *pro* and base-generated topic).

(20)a. 這本小說, 我很喜歡, 讀了很多次

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[8]In a sentence like (i), the NP *zhe ben shu* 'this book' may be considered to be moved from the object position following the verb *kan* 'read', as indicated by the trace in (ii). An alternative approach is that the topic is considered to be base generated and coindexed with the *pro* in the object position, as shown in (iii):

(i)   zhe ben shu$_i$,   wo   kan   le
          this CL book,   I   read   perfect.tense.marker
       'This book, I have read it.'

(ii)   zhe ben shu$_i$,   wo   kan t_i le

(iii) zhe ben shu$_i$,   wo   kan   *pro*$_i$ le

In fact, there exists another type of topics which "bear no anaphoric relationship to a constituent in the comment sentence" (Gasde and Paul, 1996: 267). The existence of these types of topics calls the movement analysis of gapped topics into question. An example is presented by Li and Thompson (1989: 462):

(iv) na-chang huo, xinkui   xiaofangdui   lai   de   kuai
     That-CL   fire   fortunately   fire-brigade   come   adv.PART   quick
       ''That fire (topic), fortunately the fire-brigade came quickly.

In addition, as a discourse-oriented language, Mandarin has 'zero topic', that is, a discourse topic which is not overtly indicated. The example in (ii) shows that in object-drop constructions, an empty category can be licensed by a zero topic, which refers to an element in previous discourse (Huang, 1984.)

(v) [$_{Top}$ e$_i$], [Zhangsan shuo   [Lisi bu   renshi e$_i$]]
                    Zhangsan say   Lisi NEG know   '
       '*[Him$_i$], Zhangsan say Lisi didn't know e$_i$'

[9] For most native speakers, when the topic *zhe ban xiaoshuo* 'this novel' appears in the sentence initial position, the redundant pronounced pronoun *ta* 'it' in the *pro* positions makes both sentences at least weird, if not entirely unacceptable.

zhe ben xiaoshou*i*, wo*j* hen   xihuan *pro*_{i,} *pro*_j *du*   *le*   *pro*_i *henduo ci*
this CL   novel   I   very   like   read PART[10]   many times
'As for this novel, I like it very much and have read it many times.'

   b. 這本小說，很有趣，我閱讀越喜歡

zhe ban xiaoshuo*i*, pro*i* hen youqu,   wo*j* yue   du pro*i*   pro*j* yue   xihuan pro*i*
this CL   novel   very interestingI the.more read   the.more like
'As for this novel, it's interesting; the more I read it, the more I like it.'

If we adopted the movement approach, we would need to explain how a NP could be moved across clauses, from an object position, stopping by another object position and then a subject position, and finally to the sentence-initial topic position. It would be costly theoretically! Therefore, the base generation approach is favored. Now with the assumption that topic in Mandarin is base generated, we can move on to the following section to explore how the *yue*-construction can interact with base generated topics in the topic-comment structure.
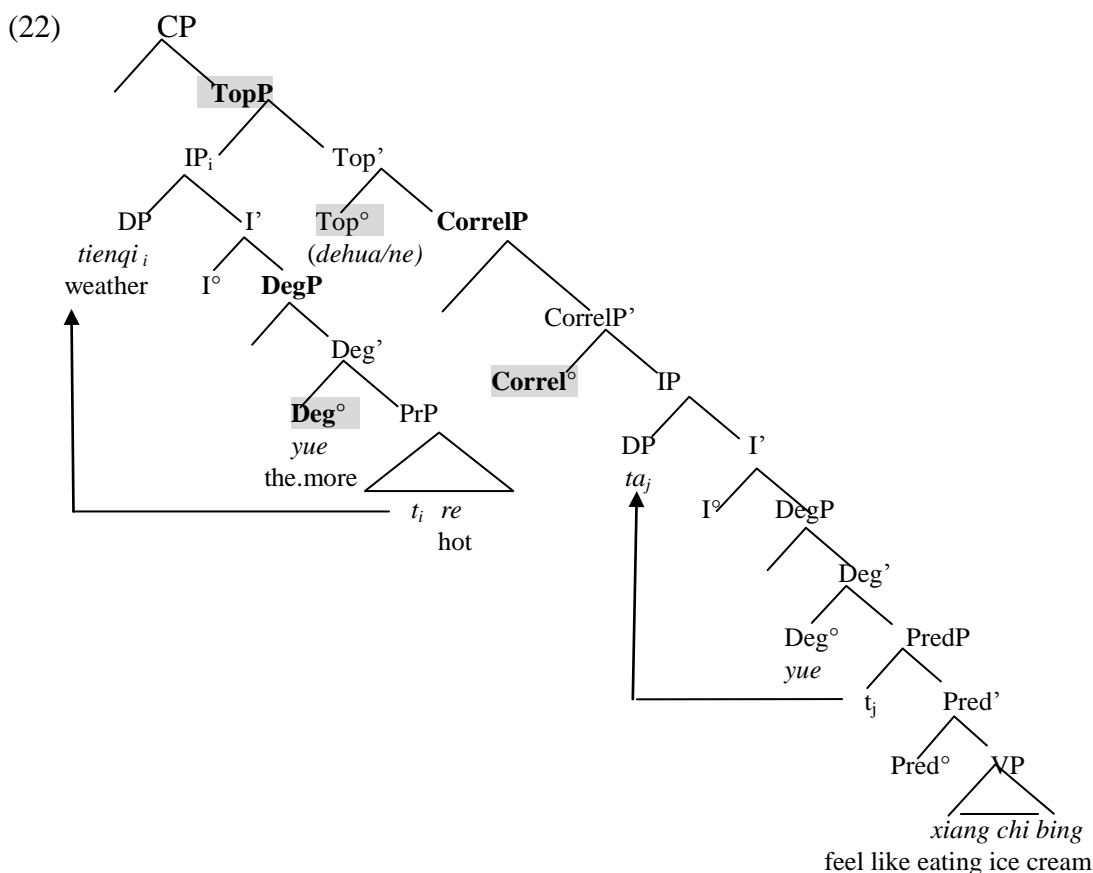
3.4 Interaction of the yue- construction and the topic-comment structure

    As a "topic prominent" language (Li and Thompson, 1989:15), Mandarin grammar has much to do with the topic-comment structure. When a sentence of the *yue*-construction is in the topic-comment structure, like the example in (21), the *yue*$_1$-clause is treated as the topic of the *yue*$_2$-clause and is based generated in [Spec, TopP].

    (21)   tienqi yue   re *(dehua/ ne/ a)*, *ta* yue   xiang   chi   bing
            weather the.more hot   PART   , he the.more want   eat   ice.cream
            'The hotter the weather is, the more he feels more like eating ice cream.'

In the present analysis, when the topic particle is not present, the *yue*$_1$-clause is proposed to be in the position of [Spec, CorrelP], as proposed in the structure in (15b). However, when the *yue*$_1$-clause is stressed with a topic-particle or interpreted as a topic of the discourse, it is base-generated in the specifier position of the TopP while *yue*$_2$-clause remains in the complement of Correl^0, as illustrated in (22):
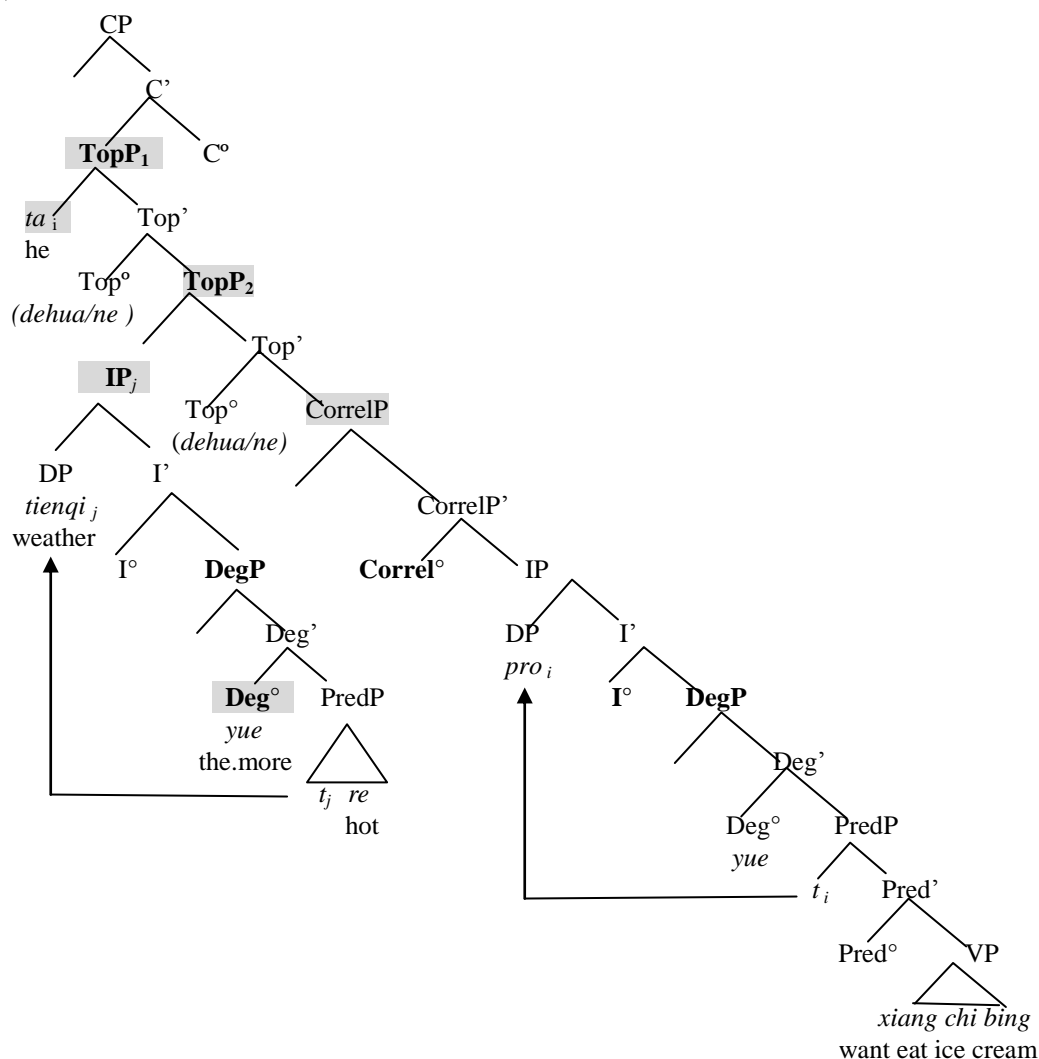
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[10] The particle *le* is attached after verbs and indicates the perfective tense.

(22)

[Tree diagram:]

CP
- TopP
  - IP$_i$
    - DP: *tienqi$_i$* weather
    - I'
      - I°
      - DegP
        - Deg'
          - Deg°: *yue* the.more
          - PrP: t_i *re* hot
  - Top'
    - Top°: (*dehua/ne*)
    - CorrelP
      - CorrelP'
        - Correl°
        - IP
          - DP: *ta$_j$*
          - I'
            - I°
            - DegP
              - Deg'
                - Deg°: *yue*
                - PredP
                  - t_j
                  - Pred'
                    - Pred°
                    - VP: *xiang chi bing* feel like eating ice cream

In a more complicated structure, TopP is assumed to be recursive when there are multiple topics in a sentence, like the example in (23a) in the following, which is identical to (21) except that in addition to the clausal topic *tienqi yue re* 'the hotter the weather is*',* there is a higher nominal topic, i.e. *ta* 'he', coindexed with the *pro* in the subject position of the *yue$_2$*-clause. This higher NP topic is proposed to be base generated in [Spec, TopP$_1$], and the lower clausal topic is base generated in [Spec, TopP$_2$], as illustrated in (23b):

(23)a. ***ta$_{i,}$***(dehua/ne), tienqi yue re (dehua/ ne), ***pro$_i$*** yue xinag chi bing
      he PART weather the.more hot PART, the.more want eat ice.cream
      'As for him, the hotter the weather is, the more he feels like eating ice cream.'

(23) b.

CP
C'
TopP₁   C°
*ta*ᵢ   Top'
he
Top°   TopP₂
(dehua/ne)
Top'
IP_j   Top°   CorrelP
(dehua/ne)
DP   I'
*tienqi*_j   CorrelP'
weather
I°   DegP   Correl°   IP
Deg'   DP   I'
Deg°   PredP   *pro*ᵢ
yue   I°   DegP
the.more
*t*_j   *re*   Deg'
hot
Deg°   PredP
yue
*t*ᵢ   Pred'
Pred°   VP
xiang chi bing
want eat ice cream

4. Summary

In this paper, through examining the distribution of the degree-denoting morpheme *yue* and also through examining a previous analysis proposed by Tsao and Hsaio (2002) with respect to the comparative correlative constructions in Mandarin, I propose an alternative structure for the *yue*-constructions. Unlike Tsao and Hsiao's analysis, the proposed analysis in this paper does not treat the antecedent IP containing the *yue₁*-constituent as an adjunct of the consequent IP where the *yue₂*-constituent is embedded. I argue that the adjunct approach cannot explain the syntactic and semantic interdependence. With respect to this point, my main argument is that adjuncts are optional while the presence of the *yue₁*-constituent is obligatory for the syntactic presence and semantic interpretation of the *yue₂*-constituent. To account for this problem, I propose

a head-empty functional category Correl(ative)P. Its function is to select for an antecedent IP in the specifier position and a consequent IP in the complement position. Both of them contain a predicate modified by *yue,* head of the DegP.

In addition, it is observed that some examples of the *yue*-construction involve topicalization. The proposed analysis here draws on another functional category TopP, which is hierarchically under CP and above IP (Gasde and Paul, 1996; Rizz, 1997). I argue against the structure in which topic is hosted in the position of [Spec, CP]. Alternatively, [Spec, TopP] is the position for topic, and Top^0 may be empty or be realized by particles such as *dehua, ne, a,* etc. For sentences which contain more than one topic, TopP can be recursive. One thing to note about topic in Mandarin is that we adopt the base-generation approach, instead of movement, to address topic, and the main evidence is from the existence of non-gap topics and zero topics (Li and Thompson, 1989; Huang, 1984; Gasde and Paul, 1996).

In the *yue*-constructions, the topic-comment approach helps account for not only the semantic relation between the antecedent and the consequent *yue*-clause but also the pro-drop phenomenon. As I proposed above, the position of [Spec, CorrelP] is the default position for the yue_1-clause. On the other hand, the yue_1-clause is also likely to be interpreted as topic, and in that case, it is base-generated in the position of [Spec, TopP] and the optional particle *dehua/ne/a,* is realized as the head of TopP. These have been illustrated in the structure of (22) with one topic and (23b) with two topics.

REFERENCES

Abeillé, Anne and Robert Borsley. 2008. Comparative correlatives and parameters. *Lingua* 118. 1139-1157.

Beck, Sigrid. 1997. On the semantics of comparative conditionals. *Linguistics and Philosophy* 20. 229-271.

Bowers, John. 1993. The syntax of predication. *Linguistic Inquiry,* 24(4). 591-656.

Bowers, John . 2001. Predication. In Mark Baltin and Chris Collins (eds.) *The Handbook of Contemporary Syntactic Theory.* Oxford: Blackwell. 299-333.

Culicover, Peter and Ray Jackendoff. 1999. The View from the periphery: The English comparative correlative. *Linguistics Inquiry* 40. 543-71.

Dikken, Marcel den 2005. Comparative correlatives comparatively. *Linguistic Inquiry*, 36 (4). 497-532.

Dikken, M. den. 2009. Comparative correlatives and successive cyclicity.In A. Lipták (ed.) C*orrelatives Cross-linguistically*. Amsterdam: John Benjamins.

Gasde, H. and Paul, W. (1996). Functional categories, topic prominence, and complex sentences in Mandarin Chinese. *Lingustics, 34*. 263-294.

Huang, C.T. James. (1984). On the distribution and reference of empty pronouns. *Linguistic Inquiry, 15* (4), 531-544.

Li, N. C. and Thompson, A.S. 1989. Mandarin Chinese: A functional reference grammar. University ofCalifornia Press.

Lin, Jo-Wang. 2007. On the semantics of comparative correlatives in Mandarin Chinese. *Journal of Semantics*, 24. 169-213.

McCawley, James D. 1988b. The comparative conditional construction in English, German, and Chinese. In *Proceedings of the Fourteenth Annual Meeting of the Berkeley Linguistics Society, 176-187.* Berkeley Linguistics Society, University of California, Berkeley.

Shi, D. 2000. Topic and topic-comment constructions in Mandarin Chinese. *Language, 76* (2), 383-408.

Tsao, Fong-Fu, & Hsiao, S. 2002. On the syntax and semantics of two correlative constructions in mandarin chinese. [Transliterated title not available] *Language and Linguistics, 3*(4), 811-838.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In L. Haegeman (ed.) *Elements of Grammar*. Kluwer. 281-337.