Adjectival Predicates and the Aspectual Suffix *–le* in Chinese

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Since containing a gradable adjective, the X A-*le* D construction not only implies a comparison between the standard value of comparison and the degree value derived by mapping the adjective's argument into the scale associated with the adjective, but also idiosyncratically requires this comparing event to be completed. The realization aspect marker *–le*, which provides a default standard value of comparison for the comparing event, cooperates with the differential pseudo-object to guarantee completeness of the comparing event implied by the X A-*le* D construction. Our proposal on the X A-*le* D construction provides further support for Liu's (2005) study on how Chinese constructs a sentence containing an adjectival predicate; namely, a grammatical mechanism is needed to make the comparing event implied by a gradable adjective possible.

Key words: gradable adjective, realization, comparison, the standard value of comparison

1. Introduction

Zhu De-Xi (1982: 55-57) formulates condition (1a-b) to distinguish Chinese verbs from adjectives:

(1) a. Whether can it take any degree modifier like *hen* 'very'?
b. Whether can it take any object?

The object in (1b), as Zhu suggests, is further limited to the genuine object rather than the pseudo-object (*zhun binyu*) such as *shi-liang* 'measure phrases of time', *dong-liang* 'measure phrases of verbs', *chengdu zhun binyu* 'measure phrases of degree functioning as a pseudo-object', the locative NP and the 'object' of existential verbs, as shown by (2a-e), respectively.[1]

(2) a. Xiuxi-le yi-hui-er.
Rest-ASP one-moment
'Take rest for a moment.'
b. Xing-le liang-hui.
Revive-ASP two-time
'Someone has revived two times.'
c. Da-le yi-dian-er le.
Big-ASP a-little SFP
'(Something) has gotten a little bit bigger than the norm size.'
d. Fei Kunming.
Fly Kunming
'This flight is to Kunming.'

[1] Abbreviations used in this paper are as follows: A: adjectives; ASP: aspect markers; CL: classifiers; D: the differential pseudo-object; DE: verbal suffix or marker for modifying phrases like genitive phrases, relative clauses, and noun complement clauses; Deg: degree modifiers; *-le*: the suffixal realization aspect; SFP: sentence final particles.

e. Lai-le ge keren.
Come-ASP CL guest
'Here comes a guest.'

Assuming such a definition to identify the category of adjectives, Zhu (1982) points out that a Chinese adjective can serve as predicate only in the following five types of sentence patterns:[2]

(3) a. Zhe-duo hua hong, na-duo huang.
This-CL flower red that-CL yellow
'This flower is red, but that one is yellow.'
b. Zhe-duo hua hen/feichang hong.
This-CL flower very/very red
'This flower is very red.'
c. Zhe-duo hua honghong-de.
This-CL flower red-red-DE
'This flower is really red.'
d. Zhe-duo hua hong-le yi-dian-er.
This-CL flower red-ASP a-little
'This flower is a little redder than before/the standard value of redness assumed by people for the flower.'
e. Zhe-duo hua hong le.
This-CL flower red SFP
'This flower has gotten red. (The speaker announces a new 'discovery' of the redness of the flower.)'

The purpose of this paper is to study the syntax and semantics of sentences like (3d), especially the function that the aspectual suffix *–le* plays in this type of construction, (henceforth we shall use the X A-*le* D construction to represent this type of sentences by having A represent adjective, -*le* the aspect marker *–le*, and D the differential between the two compared items such as *three centimeters* in *John is three centimeters taller than Bill*), and the question of why the differential (i.e., the post-adjectival quantifier) is obligatory for the X A-*le* D construction.

This paper proceeds as follows. In section 2, we shall discuss the syntactic and semantic characteristics of the X A-*le* D construction, and this discussion will help us to crystallize the questions that this paper addresses. Next, some previous literature on the X A-*le* D construction will be discussed in section 3. In section 4, we shall first introduce Kennedy & McNally's (2004) theory on the typology of adjectives and Xun-Ning Liu's (1988) analysis on the nature of Chinese aspectual suffix *–le* as preliminary; following this is our proposal along with some theoretical and empirical consequences. Finally, the concluding remark will be stated in section 5.

2. The Syntactic and Semantic Properties of X A-*le* D Construction

The X A-*le* D construction has the following syntactic and semantic characteristics: First, this type of construction, according to Lu et al. (1984, 317), might

[2] Examples like (i) and (3b), as Zhu (1980) as well as Liu (2005) suggests, are the same type.
(i) Zhe-ke shu you gao you da.
This-CL tree again tall again big
'This tree is both tall and big.'

have a dynamic or a stative interpretation, depending on whether the subject has the ability of changing along the scale associated with the adjective involved, as illustrated by (4a-b), respectively.

(4) a. Toufa bai-le yi-dian-er.
Hair white-ASP a-little
"The hair becomes a little grayer than before/the standard value of gray assumed by people for the hair.'
b. Zhe-shuang xiezi da-le yi hao.
This-CL shoe big-ASP one number
'This pair of shoes is one-number bigger than the normal size assumed by people.'

Namely, in addition to the stative reading (i.e., the hair is a little grayer than the standard value of gray assumed by people for the hair), example (4a) has the other interpretation, indicating that the color of the hair changes along the scale of gray and the differential between the current degree of gray and that before is expressed overtly (i.e., *yi-dian-er* 'a-little'). Since this reading denotes a changing process along the scale of gray, a dynamic sense comes out naturally. In contrast, (4b) simply denotes a state, meaning that the size of that pair of shoes is one-grade bigger than the standard size of human being's shoes assumed by people.

Second, if an appropriate context is provided, the X A-*le* D construction (e..g, (5a)), besides the dynamic and the stative reading, might have a third interpretation similar to that denoted by (5c). However, for the same sentence, if the aspectual suffix *–le* is deleted, ambiguity will disappear, as the contrast between (5a) and (5b) shows.

(5) a. Zhe-duo hua hong-le yi-dian-er.
This-CL flower red-ASP a-little
'This flower becomes a little redder than before/the standard value of redness assumed by people for the flower/some specific flower.'
b. Zhe-duo hua hong yi-dian-er.
This-CL flower red a-little
'This flower is a little redder than some specific flower.'
c. Zhe-duo hua (bi na-duo hua) hong-le yi-dian-er.
This-CL flower (than that-CL flower) red-ASP a-little
'This flower is a little redder than that one.'

That is to say, (5a), besides the dynamic and the stative reading, also conveys a meaning, expressing that this flower is redder than some specific flower. However, example (5b), which differs from (5a) in having the aspect marker *–le* deleted, can only have the meaning expressed by (6).

(6) Zhe-duo hua (bi na-duo hua) hong yi-dian-er.
This-CL flower (than that-CL flower) red a-little
'This flower is a little redder than that one.'

Third, the differential pseudo-object (i.e., D in the X A-*le* D construction), for example *san gongfen* 'three centimeters' in (7b), cannot be omitted; otherwise, the sentence will be ungrammatical, as the contrast between (7a) and (7b) show.

(7) a. *Zhe-ge haizi gao-le. (with the meaning of (7b))
This-CL child tall-ASP
b. Zhe-ge haizi gao-le san gongfen.
This-CL child tall-ASP three centimeter
'This child is three centimeters taller than before/the standard value of height assumed by people/some specific person.'

Fourth, example (8a) has a variant like (8b), in which the pseudo-object *Lisi* is deleted; however, the X A-*le* D construction does not tolerate insertion of a pseudo-object like *Lisi* in the position between the inflected adjective and the differential pseudo-object, as the ungrammaticality of (9b) illustrates.

(8) a. Zhangsan gao Lisi shi gongfen.
Zhangsan tall Lisi ten centimenter
'Zhangsan is ten centimeters taller than Lisi.'
b. Zhangsan gao shi gongfen.
Zhangsan tall ten centimeter
'Zhangsan is ten centimenters taller.'
(9) a. Zhangsan gao-le yi-dian-er.
Zhangsan tall-ASP a-little
'Zhangsan is a little taller than before/the standard value of height assumed by people/some specific person.'
b. ?*Zhangsan gao-le Lisi yi-dian-er.
Zhangsan tall-ASP Lisi a-little

This phenomenon can be rephrased as follows: Occurrence of the aspectual suffix *–le* in the X A-*le* D construction prevents a referential expression like *Lisi* from serving as the differential pseudo-object (cf. (9b)).

Fifth, absolute (or non-gradable) adjectives, like *zhen* 'true', *jia* 'fake', *dui* 'right', *cuo* 'wrong', *heng* 'athwartship', *shu* 'acock', *wen* 'warm', and *zi* 'purple', are not allowed in the X A-*le* D construction, as (10a-h) illustrate (cf. Zhu (1980)).[3]

(10) a. *Ta-de shoufa zhen-le yi-dian-er.
His saying true-ASP a-little
b. *Zhe-ge Gucci de shoubiao jia-le yi-dian-er.
This-CL Gucci DE watch fake-ASP a-little
c. *Ni-de da'an dui-le yi-dian-er.
Your answer right-ASP a-little
d. *Ni-de da'an cuo-le yi-dian-er.
Your answer wrong-ASP a-little

[3] As native speakers' judgment indicates, (10a-h) are not quite consistent on acceptability, especially (10f-g). So, it is arguably true that, in some sense, absolute adjectives like *wen* 'war,' and *zi* 'purple' allow an imprecise use that reflects a semantic shift away from 'default' absolute quality meaning toward a purely relative one. This phenomenon might imply that *wen* 'warm' and *zi* 'purple' are not typical absolute adjectives. Or, following Kennedy & McNally (2004), we might claim that the felicity and informativity shown by (10f-g) can be explained in terms of general pragmatic principles governing the interpretation of 'loose talk', for example Lasersohn's (1990) theory of pragmatic halos, which provides a framework for determining how much deviation from what is actually true still counts as 'close enough to the truth'.

e. *Zhe-tiao xian heng-le yi-dian-er.
This-CL line athwartship-ASP a-little
f. ??Zhe-bei shui wen-le yi-dian-er.
This-CL water warm-ASP a-little
g. ?Zhe-kuai bu zi-le yi-dian-er.
This-CL cloth purple-ASP a-little
h. *Zhe-ke shu shu-le yi-dian-er.
This-CL tree acock-ASP a-little

Sixth, as mentioned above, a Chinese adjective can serve as predicate only in sentence patterns like (3a-e), repeated as (11a-e).[4]

(11) a. Zhe-duo hua hong, na-duo huang.
This-CL flower red that-CL yellow
'This flower is red, but that one is yellow.'
b. Zhe-duo hua hen/feichang hong.
This-CL flower very/very red
'This flower is very red.'
c. Zhe-duo hua honghong-de.
This-CL flower red-red-DE
'This flower is really red.'
d. Zhe-duo hua hong-le yi-dian-er.
This-CL flower red-ASP a-little
'This flower is a little redder than before/the standard value of redness assumed by people for the flower/some specific flower.'
e. Zhe-duo hua hong le.
This-CL flower red SFP
'This flower has gotten red. (The speaker announces a new 'discovery' of the redness of the flower.)'

An important question begged by this empirical fact is why a Chinese adjective can serve as predicate only in these sentence patterns. It is plausible for us to assume that (11a-d) must share some common property that allows them to take an adjective as predicate. Hence, the question can be narrowed down as what is 'this common feature'.

Seventh, as Chao (1968: 69), Zhu (1982: 68-69), Lu et al. (1984: 317) and many others suggest, the aspect marker *–le* in Chinese always denotes perfectivity; namely, it indicates an event is viewed in its entirety or as a whole, as shown below.

(12) Wo yijing wen-le Laowang.
I already ask-ASP Laowang
'I have already asked Laowang (something).'

Hence, *-le* is always considered a perfective aspect marker; however, Zhu (1982: 69) as well Lu et al. (1984: 317) points out this claim is challenged by examples like (13a-b).

[4] Given the scope of this paper, we shall not discuss examples like (11e), which contains the sentence final particle *le*, in the reminder of this paper.

(13) a. Duan-le yi-cun.
Short-ASP one-inch
'(Something) is one inch shorter.'
b. Toufa bai-le yi-dian-er.
Hair white-ASP a-little
"The hair becomes a little grayer than before/the standard value of gray assumed by people for the hair/some specific person.'

Since an adjective denotes a state that can never be bounded temporarily, spatially or conceptually, example (13a-b) immediately question the claim that *–le* is a perfective aspect marker (cf. Chao (1968) and Li and Thompson (1981)). Given examples like (13a-b), Zhu (1982: 69) hence suggests that whenever an adjective takes the aspectual suffix *–le*, a post-adjectival pseudo-object like *hen duo* 'very much', *hao duo* 'many', or *bu shao* 'much' is obligatorily required. Such a construction (i.e., the X A-*le* D construction), as Zhu (1982: 69) further suggests, expresses realization of the state denoted by the adjective.

Having looked at the characteristics shown by the X A-*le* D construction, we are going to deal with the following questions that any theories about this construction has to address: (A) What kind of function does the aspectual suffix *–le* play in the X A-*le* D construction? This question in fact can be reinterpreted as what is the syntactic and semantic nature of *–le*. (B) Why is the aspect marker *–le* obligatory in the X A-*le* D construction? (C) Why is the differential pseudo-object obligatory (cf. (7a-b))? (D) How do the X A-*le* D construction get those three possible interpretations (cf. (5a))? And (E) why can a Chinese adjective serve as predicate only in sentences like (11a-d)?

3. Previous Analyses

Zhu (1982: 69) points out that whenever an adjective takes the aspectual suffix *–le*, a post-adjectival quantifier denoting the differential between the two compared items is obligatorily required. Such a construction (i.e., the X A-le D construction), as Zhu (1982) further argues, always expresses realization of the state denoted by the adjective, for example (14).

(14) Duan-le yi-cun.
Short-ASP one-inch
'(Something) is one inch shorter than before/the standard value of length assumed by people.'

There is no denying that Zhu (1982) gives a precise description for the syntax and semantics of the X A-*le* D construction, but in the same section of his (1982) book, Zhu also points out that *–le*, when suffixing to an action verb, expresses prefectivity. Hence, Zhu (1982) simply gives us a taxonomic description rather than a unified analysis for the nature of the aspectual suffix *-le*. Furthermore, Zhu (1982) neither touches the question of why the differential pseudo-object is obligatory for the X A-*le* D construction nor provides any answer for the question of what kind of role the aspectual suffix *–le* plays in the X A-*le* D construction.

Lu et al. (1984) clearly point out that the X A-*le* D construction might have two different interpretations: a dynamic and a stative one, as illustrated by (15a-b) respectively.

(15) a. Toufa bai-le xuduo.
Hair white-ASP some
'The hair is a little grayer than before/the standard value of gray assumed by people for the hair/some specific person.'
b. Zhe-shuang xiezi da-le yi-hao.
This-CL shoe big-ASP one-grade
'This pair of shoes is one-number larger.'

Like Zhu (1982), they simply give a description instead of an analysis with explanatory adequacy for the X A-*le* D construction.

K.-M. Sung (2004), based on his taxonomic description for the properties shown by the X A-*le* D construction, argues that, besides *–le*$_1$ (i.e., the verbal suffix *–le*) and *le*$_2$ (i.e., the sentence final particle *le*), we need another *le* (i.e., *le*$_3$). Quite obviously, Sung's (2004) proposal is also a taxonomic one, and this way of analysis also fails to explain the four questions aroused by the X A-*le* D construction.

4. Analysis: *-le* Realizes the Comparing Event Implied by Degree Adjectives

For the sake of reader-friendliness and ease of exposition, we shall briefly introduce our proposal first. Following this are two empirical and theoretical preliminaries of our analysis. Finally, details of the proposal and its empirical and theoretical consequences will be provided.

In a nutshell, our proposal aiming on accounting for the questions aroused by the X A-*le* D construction is as follows: Since a gradable adjective like *red* in (16a) implies a comparison between the standard value of comparison and the degree value derived by mapping the adjective's argument into the scale associated with that adjective, the X A-*le* D construction, in which the adjective must be gradable, hence implies a comparing event (cf. (16b-c) and Kennedy & McNally (2004)).

(16) a. This flower is red.
b. $[[_{A}\ \text{red}]] = \lambda d\ \lambda x\ \text{red}(x) \geq d$
c. $[[_{AP}\ \text{red}]] = \lambda x.\ \exists d\ [C(d) \wedge \text{red}(x) \geq d]$

Furthermore, the X A-*le* D construction idiosyncratically requires the comparing event to be completed. Since an adjective denotes a state that is never bounded temporally, spatially or conceptually, the aspect marker *–le*, which, as Xun-Ning Liu (1988) argues, is a realizational aspect (or realizational operator in terms of Lin (2003)) rather than a perfective aspect, only helps realize (or initiate) the comparing event implied by the adjective. The aspectual suffix *–le* therefore simply functions to initiate but does not guarantee completeness of the comparing event implied. Semantically, completeness of a comparing event implies that the differential between the two compared items must be gotten. Hence, obligatory requirement of a differential pseudo-object by the X A-*le* D construction functions to guarantee completeness of the comparing event. Simply put, in the X A-*le* D construction, the aspectual suffix *–le* cooperates with the differential pseudo-object in completing the comparing event implied by the gradable adjective.

In the following, we shall briefly introduce Kennedy & McNally's (2004) theory on the typology of adjectives and Xun-Ning Liu's (1988) proposal on the nature of Chinese aspectual suffix *–le* as preliminaries of our analysis for the X A-*le* D construction.

4.1. The Semantic Typology of Gradable Adjectives

Kennedy & McNally (2004) argue for the linguistic relevance of a semantic typology of gradable predicates by demonstrating that the distribution and interpretation of degree modifiers is sensitive to the following two major classificatory parameters: (A) Whether a gradable modifiers is associated with what we call an OPEN or CLOSED scale, and (B) whether the standard of comparison for the applicability of the predicate is ABSOLUTE or RELATIVE to a context (cf. Kennedy (2001)). Kennedy & McNally (2004: 9-12) highlight the first parameter (i.e., the open/closed distinction) by providing linguistic data involving PROPORTIONAL MODIFIERS like *completely*, *partially*, and *half*, which are acceptable with some gradable adjectives but unacceptable with others, as illustrated by the contrast between (17a-c) and (18a-c) in acceptability.

(17) Closed Scale Adjectives
  a. completely {empty, full, open, closed}
  b. partially {empty, full, open, closed}
  c. half {empty, full, open, closed}

(18) Open Scale Adjectives
  a. ??completely {long, short, interesting, inexpensive}
  b. ??partially {long, short, interesting, inexpensive}
  c. ??half {long, short, interesting, inexpensive}

Namely, adjectives in (17) appear to involve properties that have both the maximal and the minimal value, but those in (18) have neither the maximal nor the minimal value on the scale. In light of this contrast, Kennedy & McNally (2004: 9-10) call adjectives like those in (17) the closed scale adjectives while adjectives like those in (18) the open scale adjectives.

Seen in this way, Kennedy & McNally (2004: 9-10) predict that there are four logically possible variations to consider: (A) A scale may have neither the minimal nor the maximal element, (B) it may have the minimal but no maximal element, (C) it may have the maximal but no minimal element, or (D) it may have both the maximal and the minimal element. These expected patterns in fact are empirically justified by examples involving the maximizing modifier *absolutely*, as shown by (19a-e)-(22a-e), respectively.

(19) Open Scale Adjectives
  a. ??absolutely {tall, deep, expensive, likely}
  b. ??absolutely {short, shallow, inexpensive, unlikely}
  c. ??completely {long, short, interesting, inexpensive}
  d. ??partially {long, short, interesting, inexpensive}
  e. ??half {long, short, interesting, inexpensive}

(20) Lower Closed Scale Adjectives
  a. ??absolutely {possible, bent, bumpy, wet}
  b. absolutely {impossible, straight, flat, dry}

(21) Upper Closed Scale Adjectives
  a. absolutely {certain, safe, pure, accurate}
  b. ??absolutely {uncertain, dangerous, impure, inaccurate}

(22) Closed Scale Adjectives
  a. absolutely {full, open, necessary}
  b. absolutely {empty, closed, unnecessary}
  c. completely {empty, full, open, closed}

d. partially {empty, full, open, closed}
e. half {empty, full, open, closed}

Kennedy & McNally (2004: 12-15) introduce the second parameter (i.e., the relative/absolute distinction) by pointing out the following fact: There are adjectives that are demonstrably gradable but whose standards are not context-dependent. For example, adjectives in (23) simply require their arguments to possess some minimal degree of the gradable property they introduce.

(23) Minimum standard
a. The baby is awake.
b. The table is wet.
c. The door is open.
d. The rod is bent.

In contrast, adjectives in (57) require their arguments to possess a maximal degree of the property in question.

(24) Maximal standard
a. The glass is full.
b. The road is flat.
c. The door is closed.
d. The rod is straight.

Based on the contrast between (23a-d) and (24a-d), Kennedy & McNally (2004: 13), following Unger (1975), refer to adjectives like those in (23)-(24) as ABSOLUTE LIMIT (gradable) adjectives, and suggest that if the standards associated with absolute adjectives involve endpoints, then the denotations of the predicates they head should be as in (25a-b).[5]

(25) a. $[[_{AP}\ adj_{min}]] = \lambda x.\ \exists d[d > min(S_{adj}) \wedge adj(x) \geq d]$
b. $[[_{AP}\ adj_{max}]] = \lambda x.\ \exists d[d = max(S_{adj}) \wedge adj(x) \geq d]$

In contrast with absolute limit gradable adjectives, gradable adjectives like *expensive* or *tall*, as Kennedy & McNally (2004: 5-6) argue, have their (semantic) interpretation vary from context to context, as shown by (26a-b).

(26) a. The international space station is very expensive. (for space projects; large increase in the standard)
b. The coffee at the airport is very expensive. (for coffee; smaller increase in the standard)

One way to account for this variation, as Kennedy & McNally (2004: 12-15) argue, is to characterize the truth conditions of a sentence containing a gradable adjective in terms of a contextually defined STANDARD OF COMPARSION. That is to say, the standard of

[5] Here 'min' means the minimal degree of the scale, and 'max' the maximal degree of the scale. The term adj_{min} means that the adjective has a minimal amount of '*adj-ness*' while adj_{max} means the adjective has a maximal amount of '*adj-ness*'.

comparison is itself determined relative to a COMPARISON CLASS of objects similar in some way to whatever is being discussed. As a result, the truth conditions of sentences may vary. This explains why the standard boosting effect of *very* in (26a) is much higher than that in (26b), meaning that the standard boosting effect of *very* depends on how high the initial standard is (i.e., the increase in the standard of (26a) is larger than that of (26b)). Assuming this, Kennedy & McNally (2004: 6), following Cresswell (1977), Hellan (1981), von Stechow (1984), Heim (1985), Bierwisch (1989), Klein (1991), and Kennedy (2001), propose that a relative gradable adjective like *expensive* has the denotation like (27), where *expensive* is a measure function that maps its argument into the scale associated with the adjective, in this case a scale of cost.

(27) $[[_{A}$ expensive$]] = \lambda d.\ \lambda x$ expensive$(x) \geq d$

The adjective *expensive* thus denotes a relation between object *x* and degrees of cost *d* such that the cost of *x* is at least as great as *d*. Assuming that the value of degree argument is determined by degree morphology like comparatives, degree modifiers and measure phrases, Kennedy & McNally (2004: 6) further suggest that for predicates formed out of unmodified gradable adjectives like *expensive* in (28a), the degree argument is bound by a default existential quantifier with an unspecified restriction C, as illustrated in (28b), and this quantifier is introduced by whatever mechanism that handles implicit arguments in general.

(28) a. The international space station is expensive.
b. $[[_{AP}$ expensive$]] = \lambda x.\ \exists d\ [C(d) \wedge$ expensive$(x) \geq d]$

The domain restriction hence determines the standard of comparison (in this case, the 'cutoff points' for things that are definitely *expensive*) by defining an appropriate property of degrees (e.g., the property of being significantly greater than average for some comparison class). In postulating that the value of C is fixed contextually, like other implicit quantifier domain restrictions, the standard of comparison is allowed to vary across different contexts of use. So, sentences like (26a-b) may be true in some situations and false in others.

To sum up, regardless of whether the standard value of comparison of a gradable adjective is absolute or relative, a gradable adjective always implies a comparison between the standard value of comparison and the degree value derived by mapping the argument of the adjective into the scale associated with the adjective, and this comparing event must be realized or completed.

4.2. The Suffix *–le* as a Realization Aspect Marker

Since Chao (1968) and work dating back to the 1960's, the semantic nature of aspectual suffix *–le* has been a hot debate issue among Chinese linguists (cf. Rohsenow (1978), Li & Thompson (1981), Zhu (1982), M.-J. Huang (1987), Liu, Y.-H. (1988), Liu, X.-N. (1988), Shi (1990), Dai (1994), Sybesma (1997), and many others). Chao (1968) and Li & Thompson (1981) suggest that *–le* is a verbal suffix expressing perfectivity; however, such a view keeps being questioned due to examples like (29).

(29) Zhangsan xie-le yi-feng xin, danshi mei xie wan.
Zhangsan write-ASP one-CL letter but not write finish
'Zhangsan wrote a letter, but he did have it finished.'

If the aspectual suffix *–le*, as Chao (1968) as well as Li & Thompson (1981) suggests, is a perfective aspect marker, they would expect (29) to be ungrammatical, contrary to fact. Besides, the claim that *–le* is a perfective aspect marker is further challenged by its compatibility with an adjective, as illustrated by (30).

(30) Zhe-duo hua hong-le yi-dian-er.
This-CL flower red-ASP a-little
'This flower is a little redder than before/the standard value of redness assumed by people for the flower/some specific flower.'

Given space limit, we shall not pay any further attention to reviewing previous literature on the aspectual suffix *–le* in the remainder of this paper; instead, we shall briefly introduce as preliminary Xun-Ning Liu's (1988) insightful and convincing work on the semantic nature of *–le* (Also see Rohsenow (1978) and Shi (1990)).

Liu (1988) suggests that the aspectual suffix *–le* is better to be analyzed as a realization rather than a perfective aspect marker. As he argues, if *–le* is regarded as a perfective aspect marker, it will be difficult for us to explain the following phenomena: First, we would incorrectly predict that the entailment relation like that between (31a) and (31b) can be gotten, by analogy, from each of the following two pairs, namely (32a-b) and (33a-b).

(31) a. Chi-le fan qu.
Eat-ASP rice go
'We shall leave for some place after completing our meal.'
b. Chi-wan fan qu.
Eat-finish rice go
'We shall leave for some place after completing our meal.'

(32) a. Di-le tou zou.
Down-ASP head walk
'Someone walks with his head down.'
b. *Di-wan tou zou.
Down-finish head walk

(33) a. Zhe cai tongyi-le wo-de kanfa.
This then agree-ASP my idea
'So, (he) agrees with me.'
b. *Zhe cai tongyi-wan wo-de kanfa.
This then agree-finish my idea

Second, if examples like (32a-b)-(33a-b) are considered cases that need special treatment simply because of some specific properties of adjectives and idiosyncratic characteristics of verbs like *tongyi* 'agree', we would run into difficulty in explaining why (34a-b) and (35a-b) conflict with each other in the notion of 'perfectivity'.

(34) a. Chi-le jiu zou.
Eat-ASP then go
'We will leave for some place after completing our meal.'
b. Rangrang-le yi-zhenzi jiu mei sheng le.
Shout-shout-ASP a-while then not sound SFP
'After shouting for a while, he gets silent.'

(35) a. Chi-le zheme chang shijian, hai zai chi.
Eat-ASP such long time still at eat
'After having been eating for such a long time, he still keeps eating.'
b. Rangrang-le kuai yi-xiaoshi le, hai you wan mei wan.
Shout-shout-ASP quick one-hour SFP even have finish not finish
'After having been shouting for an hour, it is better for you to shot up.'

Third, Liu (1988) points out that, in Contemporary Chinese, it is the V-*wan* 'V-finish' rather than the V-*le* construction that signals perfectivity. What the V-*le* construction denotes in fact is 'realization' (or initiation) of an action or a state, as illustrated by examples below.

(36) a. Chi-wan cai juede you-dian-er xiangwei.
Eat-finish then feel a-little fragrant
'After finishing eating it, we come upon finding it delicious.'
b. Chi-le cai juede you-dian-er xiangwei.
Eat-ASP then feel a-little fragrant
'When eating it, we come upon finding it delicious.'
(37) a. Jian-wan ta hai zhen you-dian-er haipa ne.
See-finish he even really a-little scare SFP
'After meeting with that person, we all feel a little scared.'
b. Jian-le ta hai zhen you-dian-er haipa ne.
See-ASP he even really a-little scare SFP
'We feel a little scared as we are meeting with that person.'

(36a) conveys that the state of deliciousness comes out as result of the implicit agent's thoroughly completing the eating event; that is, at the moment when the eating event is realized (or initiated), it (e.g., the meal) might not taste delicious. However, (36b) expresses that the implicit agent (i.e., the eater) comes upon with the sense of deliciousness as he starts or initiates the eating event. The same contrast also obtains between (37a) and (37b).

Fourth, if the V-*le* construction denotes completeness of the process of an action and has *meiyou* 'not' as its negative counterpart, *meiyou* 'not' would simply function to negate the 'completeness' conveyed by the V-*le* construction. This expectation in fact is contrary to fact, as the contrast below shows.

(38) a. Chi-le fan lai de
Eat-ASP rice come DE
'those who have eaten their meal completely and came'
b. Mei chi fan lai de
Not eat rice come DE
'those who did not have their meal but come'
(39) a. Zuo-le zhunbei de
Do-ASP preparation DE
'those who have prepared.'
b. Mei zuo zhunbei de
Not do preparation DE
'those who did not prepare'

What (38b) conveys is ‘those who did not have their meal’ but not ‘those who did not have their meal completed thoroughly’. A similar way of contrasting also obtains between (39a) and (39b).

Based on these empirical facts, Xun-Ning Liu (1988) proposes that the aspectual suffix *–le* in fact is a realization rather than a perfective aspect marker. Realizing of an action or a state, as Liu suggest, means that an action or a state is initiated, whereas completing an action (i.e., the notion of perfectivity) means that the process of an action is thoroughly completed or viewed in its entirely or as a whole. Hence, realization does not guarantee the whole process of an action is completed.

Having as preliminaries the assumption that a gradable adjective always implies a comparison between the standard value of comparison and the degree value derived by mapping its argument into the scale associated with the adjective, and Xun-Ning Liu’s (1988) proposal that the aspectual suffix *–le* is a realization aspect marker, we shall propose an analysis for the X A-*le* D construction in the subsequent section.

4.3. Analysis: Realization and Completeness of the Comparing Event

Since a gradable adjective always implies a comparison between the standard value of comparison and the degree value derived by mapping its argument into the scale associated with the adjective involved, the gradable adjective *hong* ‘red’ in (40a) hence implies a comparison between the standard value of redness assumed by people for the flower and the degree value derived by mapping the subject *zhe-duo hua* ‘this flower’ into the scale of redness (cf. (40b-c)).

(40) a. Zhe-duo hua hong-le yi-dian-er.
This-CL flower red-ASP a-little
‘This flower is a little redder than before/the standard value of redness assumed by people for the flower/some specific flower.’

b. $[[_{A}$ hong$]] = \lambda d.\ \lambda x\ \text{hong}(x) \geq d$

c. $[[_{AP}$ hong$]] = \lambda x.\ \exists d\ [C(d) \wedge \text{hong}(x) \geq d]$

Likewise, the gradable adjective *hong* ‘red’ in (41) (henceforth the X A *le* construction) implies a comparing event, too.

(41) Zhe-duo hua hong le.
This-CL flower red SFP
‘This flower has gotten red. (The speaker announces a new ‘discovery’ of the redness of the flower.)’

Significantly here is the fact: Examples like (41) differ from (40a) in that the former obligatorily requires a differential pseudo-object in the post-adjectival position while the latter can never take a post-adjectival nominal expression denoting the differential. If the differential pseudo-object of the X A-*le* D construction is optionally required, people would run into difficulty in distinguishing an X A-*le* D construction from the X A *le* construction when the differential pseudo-object of the X A-*le* D construction is deleted. In other words, occurrence of the differential pseudo-object in the X A-*le* D construction helps distinguish an X A-*le* D construction from the X A *le* construction (cf. (7a-b)). Semantically, occurrence of the differential pseudo-object implies completeness of the comparing event. So, we suggest that the X A-*le* D construction differs from the X A *le* construction in that the former requires the comparing event implied to be completed

while the latter does not. Moreover, since a gradable adjective denotes a state that is not bounded temporally, spatially, or conceptually, the marker *–wan* of the completeness-denoting V-*wan* 'V-finish' construction, therefore, cannot be added to the end of a gradable adjective to make the comparing event implied by a gradable adjective completed. [6] Given this, we suggest that in the X A-*le* D construction the aspectual suffix *–le* cooperates with the differential pseudo-object in completing the comparing event implied by gradable adjectives. More precisely, Chinese allows a gradable adjective to take the realization aspect *–le*, and *–le* simply functions to initiate the comparing event. Given that realization of a comparing event implies appearance of the default standard value of comparison, we suggest that the default standard value of comparison for the X A-*le* D construction occurs as an empty degree pronominal (i.e., Pro_{deg}) in the specifier position of adjective phrase.[7] As we know, a calculating event, like *1 + 1 = 2*, can never be completed unless the sum *2* is produced; by analogy, we can say that a comparing event can never be completed unless the differential between the compared items comes out. Hence, adding the realization aspect *–le* to the end of a gradable adjective only helps realize but does not guarantee completeness of a comparing event. Hence, we suggest that occurrence of the differential pseudo-object guarantees completeness of the comparing event. This immediately explains why the differential pseudo-object is obligatory for the X A-*le* D construction, as the contrast between (42a) and (42b) illustrates.

(42) a. Zhe-duo hua hong-le yi-dian-er. (with the meaning of (40a))
This-CL flower red a-little
b. *Zhe-duo hua hong-le. (with the meaning of (40a))
This-CL flower red-SFP

That is to say, in the X A-*le* D construction, the aspectual suffix *–le* cooperates with the differential pseudo-object to guarantee completeness of the comparing event implied. In other words, without the differential pseudo-object, an X A-*le* D construction like (42b) cannot get an interpretation like that expressed by (42a). Assuming this way of analysis, example (43a) will have a syntactic representation like (43b).

(43) a. Zhangsan gao-le san gongfen.
Zhangsan tall-ASP three centimetre
'Zhangsan is three centimeters taller than before/the standard value

[6] As Liu (1988) points out, in contemporary Chinese, the construction that expresses perfectivity is the V-*wan* 'V-finish' construction rather than the V-*le* 'V-ASP' construction. So, one might wonder why we do not have a construction in the form A-*wan* 'A-finish' to denote completeness of the comparing event implied by gradable adjectives. Since the notion of perfectivity means that the whole process of an action is completed, an adjective denotes a state rather than an action so that the A-*wan* 'A-finish' construction is impossible.

[7] Given examples like (i)-(ii), M.-J. Huang (1987), without distinguishing the suffixal *–le* from the sentence final *le*, suggests that the marker *le* is a boundary marker.

(i) Lisi gao-le san-cun.
Lisi tall-ASP three-inch
'Lisi is three inches taller than before/the standard value of height assumed by people/some specific person.'
(ii) Zhe-shuang xiezi xiao-le yi-dian-er, wo yao qi-hao.
This-CL shoe small-ASP a-little I want seven-number
'This pair of shoes is a little smaller than my size, I want size seven.'

Under our analysis, the notion of *boundary* suggested by Huang (1987) in fact is the default standard value of comparison provided by the aspectual suffix *–le*. Hence, unlike Huang (1987), we will not say that a state denoted by adjectives like *gao* 'tall' is bounded.

of height assumed by people/some specific person.'

b. [Zhangsan [$_{AsP}$ [[$_{Aspect}$ –le] [$_{AP}$ Pro$_{deg}$ [[$_{A}$ gao-le] [$_{NP}$ san gongfen]]]]]]

Following Chomsky (1995), we suggest that in the numeration of (43b) the adjective is selected from the lexicon in its inflected form, namely *gao-le* 'tall-ASP'. The covert aspectual head *–le* in (43b) does not dominate any inflectional morphology; instead, it dominates a bundle of formal features which need checking in the course of computation (or form a probe-goal relation with the adjective *gao-le* 'tall-ASP' (cf. Chomsky (2001))). More significantly here is how to determine the semantic content of the empty degree pronominal Pro$_{deg}$ that denotes the standard value of comparison for the comparing event. We suggest that the semantic content of Pro$_{deg}$ in the X A-*le* D construction might be determined either by being 'controlled' by the subject *Zhangsan* or being interpreted arbitrarily.[8] When Pro$_{deg}$ is interpreted as a degree value related to *Zhangsan's* height, (43a) expresses that *Zhangsan* is taller than before (i.e., a dynamic reading), meaning that the height of *Zhangsan* has changed and the differential between *Zhangsan's* current height and his previous height is *three centimeters*. In contrast, when the empty degree pronominal Pro$_{deg}$ is interpreted arbitrarily, it is natural for us to regard Pro$_{deg}$ as the standard value of height assumed by people; therefore, (43a) conveys a stative reading, meaning that *Zhangsan is three centimetres taller than the standard value of height assumed by people*. It is this characteristic (i.e., the aspectual suffix *–le* provides a default standard value of comparison for the X A-*le* D construction) that distinguishes the X A-*le* D construction from the X A D construction (cf. (8b)). So, we would expect that an X A-*le* D construction with a subject NP that does not have the ability of changing along the scale associated the adjective involved can only get a stative reading, and this expectation in fact is borne out by (43).

(44) Zhe-shuang xiezi da-le yi-hao.
This-CL shoe big-ASP one-number
'This pair of shoes is one-number larger than the standard size assumed by people.'

Our analysis has the following empirical and theoretical consequences. First, our analysis provides a natural account for the question of why a referential expression like *Lisi* cannot occur as the differential pseudo-object in the X A-*le* D construction, as the ungrammaticality of (45) illustrates.

(45) ???Zhangsan gao-le Lisi yi-dian-er.
Zhangsan tall-ASP Lisi a-little

As we have argued, example (46a) has a syntactic representation like (46b), in which the standard value of comparison occurs as the empty degree pronominal Pro$_{deg}$ in the specifier position of adjective phrase.

(46) a. Zhangsan gao-le yi-dian-er.
Zhangsan tall-ASP three a-little
'Zhangsan is a little taller than before/the standard value of tallness assumed by the speaker.'

[8] As we have suggested, Pro$_{deg}$ is an empty degree pronominal so that (47c) will not violate binding conditions or theories of control such as the Minimal Distance Principle (cf. Huang (1992)).

b. [Zhangsan [$_{AsP}$ [[$_{Aspect}$ –le] [$_{AP}$ Pro$_{deg}$ [[$_{A}$ gao-le] [$_{NP}$ yi-dian-er]]]]]]

The semantic content of Pro$_{deg}$, as we have argued, is determined either by being 'controlled' by the subject *Zhangsan* or by being interpreted arbitrarily. The assumption that Pro$_{deg}$ is an empty pronominal denoting a degree value immediately excludes the possibility of having the standard value of comparison occur as *Lisi*, a non-degre-denoting referential expression, in the specifier position of adjective phrase; hence, (45) is ungrammatical.

Second, as we have pointed out, examples like (40a), repeated as (47a), might have a third reading similar to that denoted by (47b)

(47) a. Zhe-duo hua hong-le yi-dian-er.
This-CL flower red-ASP a-little
'This flower is a little redder than before/the standard value of redness assumed by people for the flower/some specific flower.'

b. Zhe-duo hua (bi na-duo hua) hong-le yi-dian-er.
This-CL flower (than that-CL flower) red-ASP a-little
'This flower is a little redder than that one.'

c. [Zhe-duo hua [$_{AsP}$ … (bi na-duo hua) … [[$_{Aspect}$ –le] [$_{AP}$ Pro$_{deg}$ [[$_{A}$ hong-le] [$_{NP}$ yi-dian-er]]]]]]

According to our analysis, (47b) has a syntactic representation as in (47c). Given structural parallelism between (47c) and (48), it is plausible for us to say Pro$_{deg}$ in (47c) can refer to a degree value related to either *zhe-duo hua* 'this flower' or *na-duo hua* 'that flower'.

(48) [Zhangsan$_i$ [… (bi Lisi$_j$) … [$_{VP}$ geng [[$_{V}$ xihuan] [$_{NP}$ ta$_{i/j}$-de meimei]]]]]
Zhangsan than Lisi more like his sister
'Compared with Lisi$_j$, Zhangsan$_i$ likes his$_{i/j}$ sister more.'

The latter option, meaning that Pro$_{deg}$ refers to a degree value related to *na-duo hua* 'that flower', in fact is the third reading.

Third, let us back to the issue of how (5a-b), repeated as (49a-b), differ from each other in syntax and semantics.

(49) a. Zhe-duo hua hong-le yi-dian-er.
This-CL flower red-ASP a-little
'This flower becomes a little redder than before/the standard value of redness assumed by people for the flower/some specific flower.'

b. Zhe-duo hua hong yi-dian-er.
This-CL flower red a-little
'This flower is a little redder than some specific flower.'

The aspectual suffix *–le*, as we have argued, helps realize the comparing event implied by the X A-*le* D construction, and the default standard value of comparison provided by *–le* is realized as Pro$_{deg}$ in the specifier position of adjective phrase. We further suggest that ambiguity shown by an X A-*le* D construction like (49a) results from different ways of interpreting the empty degree pronominal Pro$_{deg}$. Since the X A D construction like (49b) is not ambiguous, it is difficult for us to assume that (49b) is derived from (49a) by having the aspectual suffix *–le* deleted. Instead, we shall argue that examples like (49b) are

derived from sentences like (50) by having the degree modifier such as *shaowei* 'rather', *duoshao* 'ratherish', and *lyuewei* 'slightly' deleted.

(50) Zhe-duo hua shaowei/duoshao/lyuewei hong yi-dian-er.
This-CL flower rather/ratherish/slightly red a-little
'This flower is rather/ratherish/slightler redder.'

According to Lu & Ma (1985), Chinese degree modifiers (or degree adverbs) can be divided into three types, depending on their compatibility with the following types of comparative constructions.[9]

(51) Type I Xiang-bi zhixia, X + F + AP
Compare-with under X + F + AP
Type II Bijiao qilai, X + F + AP
Compare arise-come X + F + AP
Type III Gen Y xiang-bi, X + F + AP
With Y compare-with X + F + AP
Type IV Bi-qi Y lai, X + F + AP
Compare-arise Y come X + F + AP
Type V Zai … zhong/shang, X + F + AP
At among/upside X + F + AP
Type VI X + bi Y + F + AP
X compare Y + F + AP

Each type of degree adverbs, according to its high- or low-level on the scale related, can be further divided into a strong and a weak subgroup. Degree adverbs, belonging to the strong group of the first type, include *hen* 'very', *ting* 'very', *shifen* 'rather', *wanfen* 'ten-thousand', *feichang* 'very', *ji* 'extremely' and *jiduan* 'extremely' while those, belonging to the weak group, include *you-dian-er* 'a little' and *you-xie* '-ish'. Lu & Ma (1985) further suggest that degree adverbs of this type cannot occur in any of the six types of comparative constructions listed above, as shown below.

(52) a. *Xiang-bi zhixia, zhe-jian jiaoshi hen/you-dian-er da.
Compare-with under this-CL classroom very/a little big
'*Under comparison, this class room is very/a little bigger.'
b. *Bi-jiao qilai, Zhangsan hen/you-dian-er gao.
Compare arise-come Zhangsan very/a little tall
'*Under comparison, it seems that Zhangsan is very/a little taller.'
c. *Gen Lisi xiang-bi, Zhangsan hen/you-dian-er gao.
With Lisi compare-with Zhangsan very/a little tall
'*Being compared with Lisi, Zhangsan is very/a little tall.'
d. *Bi-qi Lisi lai, Zhangsan hen/you-dian-er gao.
Compare-arise Lisi come Zhangsan very/a little tall
'*Being compared with Lisi, Zhangsan seems to be very/a little tall.'
e. *Zai wo-men dangzhong, Zhangsan hen/you-dian-er gao.
At we among Zhangsan very/a little tall
'*Among us, Zhangsan is very/a little tall.'

[9] Here F represents the degree modifier.

f. *Zhangsan bi Lisi hen/you-dian-er gao.
Zhangsan compare Lisi very/a little tall
‘*Zhangsan is very/a little taller than Lisi.’

The second type of degree adverbs only occurs in comparative constructions with the character *bi* ‘than’, namely Type I-IV and Type VI. Among adverbs of this type, those, belonging to the strong group, include *geng*, ‘more’, *gengjia* ‘more’, *gengwei* ‘more’, *yuefa* ‘more’, and *yuejia* ‘more’; whereas the weak group has *shaowei* ‘rather’, *duoshao* ‘ratherish’ and *lyuewei* ‘slightly’ as members. Interestingly, members of the weak group must take a quantifier like *yi-xie* ‘some’ or *yi-dian-er* ‘a little’ as post-adjectival pseudo-object.

(53) a. Xiang-bi zhixia, zhe-jian jiaoshi geng da/shaowei da *(yi-xie).
Compare-with under this-CL classroom more big/rather big (a little)
‘Under comparison, this class room is more/a little bigger.’
b. Bi-jiao qilai, Zhangsan geng gao/shaowei gao *(yi-xie).
Compare arise-come Zhangsan more tall/rather tall (a little)
‘Under comparison, it seems that Zhangsan is more/a little taller.’
c. Gen Lisi xiang-bi, Zhangsan geng gao/shaowei gao *(yi-xie).
With Lisi compare-with Zhangsan more tall/rather tall (a little)
‘Being compared with Lisi, Zhangsan is more/a little taller.’
d. Bi-qi Lisi lai, Zhangsan geng gao/shaowei gao *(yi-xie).
Compare-arise Lisi come Zhangsan more tall/rather tall (a little)
‘Being compared with Lisi, Zhangsan seems to be more/a little taller.’
e. *Zai wo-men dangzhong, Zhangsan geng gao/shaowei gao yi-xie.
At we among Zhangsan more tall/rather tall a-little
‘*Among us, Zhangsan is more/a little taller.’
f. Zhangsan bi Lisi geng gao/shaowei gao *(yi-xie).
Zhangsan compare Lisi more tall/rather tall (a little)
‘Zhangsan is more/a little taller than Lisi.’

Moreover, occurrence of this type of degree adverbs, either strong or weak, always implies a definite or specific compared item (e.g., *Lisi* in (54b)) which is compared with the subject NP along the scale associated with the adjective involved; in other words, (54a) can be understood as (54b).

(54) a. Zhangsan geng/shaowei gao yi-dian-er.
Zhangsan more/rather tall a-little
‘Zhangsan is more/a little taller (than someone).’
b. Zhangsan (bi Lisi) geng/shaowei gao yi-dian-er.
Zhangsan than Lisi more/rather tall a-little
‘Zhangsan is more/a little taller than Lisi.’

For the third type of degree adverbs, the strong group includes *zui* ‘most’ and *ding* ‘top’, while the weak group has adverbs like *bijiao* ‘more’, *jiao* ‘more’, and *hai* ‘even’ as members. Degree adverbs belonging to this type can only occur in Type I-V comparative constructions, but comparative sentences containing this type of degree adverbs cannot take any post-adjectival quantifier as pseudo-object, as illustrated below.

(55) a. Xiang-bi zhixia, zhe-jian jiaoshi zui/jiao da (*yi-xie).
Compare-with under this-CL classroom most/more big (a little)
'Under comparison, this class room is the biggest.'

b. Bi-jiao qilai, Zhangsan zui/jiao gao (*yi-xie).
Compare arise-come Zhangsan most/more tall (a little)
'Under comparison, it seems that Zhangsan is the tallest.'

c. Gen Lisi xiang-bi, Zhangsan zui/jiao gao (*yi-xie).
With Lisi compare-with Zhangsan most/more tall/rather tall (a little)
'Being compared with Lisi, Zhangsan is the tallest.'

d. Bi-qi Lisi lai, Zhangsan zui/jiao gao (*yi-xie).
Compare-arise Lisi come Zhangsan most/more tall (a little)
'Being compared with Lisi, Zhangsan seems to be more/a little taller.'

e. Zai wo-men dangzhong, Zhangsan zui/jiao gao (*yi-xie).
At we among Zhangsan most/more tall/rather tall a-little
'*Among us, Zhangsan is most/more tallest.'

f. *Zhangsan bi Lisi zui/jiao gao (yi-xie).
Zhangsan compare Lisi most/more tall (a little)
'*Zhangsan is a little tallest than Lisi.'

Based on Lu & Ma's (1985) classification of Chinese degree adverbs, now let us go back to the question of how (49a-b), repeated as (56a-b), differ from each other syntactically and semantically.

(56) a. Zhe-duo hua hong-le yi-dian-er.
This-CL flower red-ASP a-little
'This flower is a little redder than before/the standard value of redness assumed by people for the flower/some specific flower.'

b. Zhe-duo hua hong yi-dian-er.
This-CL flower red a-little
'This flower is a little redder than some specific flower.'

c. *Zhe-duo hua hong.
This-CL flower red

Significantly here is that the post-adjectival pseudo-object *yi-dian-er* 'a little' in (56b) cannot be deleted; otherwise the sentence will be ungrammatical (cf. (56c)). As we have pointed out, a post-adjectival differential pseudo-object cannot be deleted (A) when it occurs in the X A-*le* D construction, or (B) when the adjectival predicate is modified by the weak group of the second type of degree adverbs like *shaowei* 'rather', *duoshao* 'ratherish' and *lyuewei* 'slightly'.

(57) a. Zhe-duo hua hong-le *(yi-dian-er). (with the meaning of (40a))
This-C flower red-ASP a-little
'This flower is a little redder than before/the standard value of redness assumed by people for the flower/some specific flower.'

b. Zhe-duo hua shaowei/duoshao/lyuewei hong *(yi-dian-er).
This-CL flower rather/ratherish/slightly red a-little
'This flower is a little redder than some specific flower.'

Due to the semantic parallelism between (56b) and (57b), it is plausible for us to say that (56b) is derived from (57b) by having the degree adverb *shaowei* 'rather', *duoshao* 'ratherish', or *lyuewei* 'slightly' deleted.[10]

Finally, a question yet to be answered is why a Chinese adjectival predicate serves as predicate only in sentences like (11a-d), repeated as (58a-d).

(58) a. Zhe-duo hua hong, na-duo huang.
This-CL flower red that-CL yellow
'This flower is red, but that one is yellow.'
b. Zhe-duo hua hen/feichang hong.
This-CL flower very/very red
'This flower is very red.'
c. Zhe-duo hua honghong-de.
This-CL flower red-red-DE
'This flower is really red.'
d. Zhe-duo hua hong-le yi-dian-er.
This-CL flower red-ASP a-little
'This flower is a little redder than before/the standard value of redness assumed by people for the flower/some specific flower.'

We would expect there exists some common characteristic among (58a-d), and it is this property that limits a Chinese adjective to occur as predicate only in these four types of sentence patterns. Since a gradable adjective always implies a comparison between the standard value of comparison and the degree value derived by mapping its argument into the scale associated with the adjective, we suggest that the aspect *–le* helps realize the comparing event implied and occurrence of the differential pseudo-object further guarantees completeness of the comparing event. In other words, co-occurrence of the aspect *–le* cooperates with the differential pseudo-object in fulfilling the semantic requirement of gradable adjectives, namely completing the comparing event. This way of thinking in fact matches with C.-S. Liu's (2005) study on how Chinese constructs a sentence with an adjectival predicate. According to Liu (2005), languages might differ from each other in the way(s) of making the comparison implied by gradable adjectives possible. In languages with grammatical tense, interaction between the grammatical tense and the predicate formed out of the unmodified gradable adjective gives a guarantee to make the comparing event possible, whereas in languages without grammatical tense like Chinese, they might adopt the following three strategies to make the comparison implied by gradable adjectives possible: (A) by constructing a specific syntactic construction where the contrastive reading is possible, (B) by inserting a degree modifier, and (C) by using a reduplicated adjective. For example, the proportional degree adverb like *ban* 'half' combines felicitously with totally closed-scale adjectives like *touming* 'transparent'

[10] In fact, not all sentences with a phonetic form like that of the X A D construction can be analyzed as a variant of sentences like (57b) (henceforth the X Deg A D construction) by having the weak group of the second type of Chinese degree adverbs deleted; otherwise, we cannot explain why we have examples like (i), but do not have sentences like (ii).

(i) Zhangsan gao san gongfen.
Zhangsan tall three centimeter
'Zhangsan is three-centimeter taller that some specific person.'
(ii) *Zhangsan shaowei/duosho/lyuewei gao san gongfen.
Zhangsan rather/ratherish/slightly tall three centimeter

Behind this claim is the idea that not all X A D constructions have the X Deg A D construction as their origin.

only, as the contrast between (59a) and (59b) illustrates.

(59) a. Zhe-pian boli ban touming.
This-CL glass half transparent
'This piece of glass is half transparent.'
b. *Zhe-pian boli hen touming.
This-CL glass very transparent

The totally closed-scale adjective *touming* 'transparent' has the minimal and the maximal value on the scale of transparency so that the standard value of comparison of it is absolute. Furthermore, the interaction between the proportional degree adverb ban 'half' and the adjective *touming* 'transparent', as Liu (2005) argues, not only helps identify the maximal value as the standard value of comparison for the comparing event implied by (59a), but also makes the comparing event possible by indicating that for the glass the degree value of transparency is the half of the standard value. So, the answer for the question of why a Chinese adjectival predicate is only allowed in sentence patterns like (58a-c) is quite straightforward: They all have some (syntactic) mechanism to make the comparing event implied by gradable adjectives possible.

6. Concluding Remarks

Since containing a gradable adjective, the X A-*le* D construction not only implies a comparison between the standard value of comparison and the degree value derived by mapping the adjective's argument into the scale associated with the adjective, but also idiosyncratically requires this comparing event to be completed. The realization aspect marker *–le*, which provides a default standard value of comparison for the comparing event, cooperates with the differential pseudo-object to guarantee completeness of the comparing event implied by the X A-*le* D construction. Our proposal on the X A-*le* D construction provides further support for Liu's (2005) study on how Chinese constructs a sentence containing an adjectival predicate; namely, a grammatical mechanism is needed to make the comparing event implied by a gradable adjective possible.

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