

# *FROM “HEN” TO ADJECTIVAL MODIFICATION IN MANDARIN CHINESE*

FANGFANG NIU

(Queen Mary University of London)

## **Abstract**

This paper explores the question of why adjectives cannot function as predicates by themselves in Mandarin Chinese (MC). Instead, degree morphemes, question particles and other elements are required to co-occur with adjectives. Following Rooth’s (1992) and Ramchand’s (1996) discussion on focus interpretation, I propose that the function of these elements is to create a set of alternative propositions, which is needed to satisfy the [+FOC] feature of the Pred head.

## **1. Bare adjectives are highly restricted in MC**

It is an important characteristic of MC syntax that when acting as predicates, adjectives are normally accompanied by degree morphology (Sybesma 1999, Dong 2005, Huang 2006, Grano 2008, Liu 2010, Grano 2011, Zhang 2015, among others). A very common one of these degree morphemes is the adverb *hen* ‘very’:

- (1) a. ??Zhangsan gao.  
Zhangsan tall
- b. Zhangsan hen gao.  
Zhangsan very tall  
‘Zhangsan is (very) tall.’

Without the appearance of *hen* ‘very’, sentence (1a) is unacceptable under the meaning ‘Zhangsan is (very) tall’. Apart from *hen*, degree complements such as *budeliào* ‘incredibly’ can also save sentence (1a):

- (2) Zhangsan gao de<sup>1</sup> \*(budeliào).  
Zhangsan tall DE incredibly  
‘Zhangsan is incredibly tall.’

In addition to degree morphology, a variety of elements are available to rescue sentence (1a). This includes *bi* comparative phrases, question markers, negators, quantity phrases, among many others. In the following, I will give an example for each of these cases.

The *bi* phrase *bi Lisi* can appear before the adjective *gao* to form a comparative construction.

- (3) Zhangsan bi Lisi gao.  
Zhangsan BI Lisi tall  
‘Zhangsan is taller than Lisi.’

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<sup>1</sup> Here, *de* is a complement marker.

The adjective *gao* ‘tall’ can be followed by the question marker *ma* to form a yes-no question.

- (4) Zhangsan *gao ma*?  
Zhangsan tall Q  
‘Is Zhangsan tall?’

Similarly, *gao* ‘tall’ can form an A-not-A (yes-or-no) question.

- (5) Zhangsan *gao bu gao*?  
Zhangsan tall not tall  
‘Is Zhangsan tall?’

Quantity phrases (QP), which are composed of numerals and units of measure, can appear before the adjective as well:

- (6) Zhangsan *liang mi gao*.  
Zhangsan two meter tall  
‘Zhangsan is two-meter tall.’

What is more, (1a) becomes fine when it is negated:

- (7) Zhangsan *bu gao*.  
Zhangsan not tall  
‘Zhangsan is not tall.’

In the above, I illustrated a few of the range of elements that can appear with the adjective *gao* ‘tall’ in (1a) to form a well-formed subject-predicate sentence. The main concern of this paper is why bare adjectives cannot appear on their own and how these different elements turn the adjective into a legal predicate. This will be discussed in section 2 and 3. Before I move on, I would like to point out that actually, sentence (1a) is possible under a comparative reading: Zhangsan is taller than some person/people in the context. What is worth noting is that in the case, Zhangsan is necessarily focused. This is an important clue to the analysis I am going to propose, so I will focus on discussing this issue in the next section.

## 2. Cases where adjectives do stand on its own

There are only a few cases where adjectives do stand on its own. All these cases happen in a contrastive situation where one entity/feature is contrastively focused. For instance, in the following sentence, the *wh*-word *shui* ‘who’ is stressed.

- (8) Zhangsan he Lisi, *shui<sub>F</sub><sup>2</sup> gao*?  
Zhangsan and Lisi who tall  
‘Zhangsan and Lisi, who is taller?’

(8) is a *wh*-question sentence, in which the predicate is a bare adjective *gao* ‘tall’. The subject *shui* ‘who’ is stressed and the whole sentence carries a comparative reading, as

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<sup>2</sup>A small F is put after *shui* to indicate that it is stressed phonologically.

indicated by the translation. As an answer to question (8), the following sentence is possible, in which the subject *Zhangsan* is stressed:

- (9) Zhangsan<sub>F</sub> gao.  
 Zhangsan tall  
 ‘Zhangsan is taller.’

Another case is when the adjective is stressed, for example, when answering the yes-no question (4) or (5), the sentence (10) is fine.

- (10) Zhangsan gao<sub>F</sub>.  
 Zhangsan tall  
 ‘Zhangsan is tall.’

Phonologically, the adjective *gao* ‘tall’ is pronounced longer and stronger. Semantically, it has the flavor of confirming the fact that Zhangsan is tall, rather than short.

Another contrastive example is given below, in which both the adjectives *gao* ‘tall’ and *ai* ‘short’ are stressed. This sentence could also be interpreted as a contrast between the adjective ‘tall’ and its antonym ‘short’.

- (11) Zhangsan gao<sub>F</sub>, Lisi ai<sub>F</sub>.  
 Zhangsan tall Lisi short  
 ‘Zhangsan is tall while Lisi is short.’

In brief, in (8) and (9), what is in contrast is the subject, i.e., Zhangsan or Lisi, as indicated by the focus/stress marker F, whereas in (10) and (11), it is the feature ‘tall’ or ‘short’ that is contrasted. These facts suggest that the way adjectives are introduced as predicates in MC is closely related to focus interpretation.

### 3. The Pred<sub>[+FOC]</sub> analysis

#### 3.1. Focus interpretation & alternative semantics

Rooth (1992) and Ramchand (1996) argue that the notion of a set of alternatives is widespread across languages. Focus is an important mechanism of creating alternative semantics and the alternative semantics of a sentence is a set of alternative propositions created by making substitutions in the position of the focused phrase:

- (12)  $[[ [s[Mary]^F \text{ likes Sue} ] ]]^f = \{ \text{like}(x, s) \mid x \in E \}$

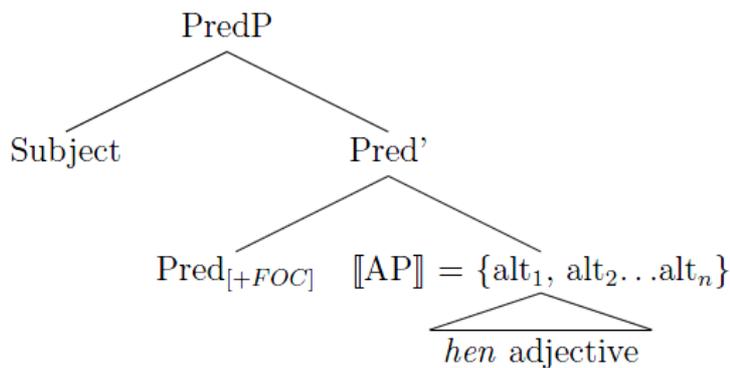
*E* represents the domain of individuals. ‘Mary’ is focused, the alternative semantics of ‘Mary likes Sue’ is the set of propositions created by substituting Mary, i.e.,  $\{ \text{like}(x, s) \mid x \in E \}$ . According to Rooth (1992), a range of linguistic elements are sensitive to alternative semantics signaled by focus, one of them is the English adverb *only*:

- (13) a. Mary only introduced Bill to [Sue]<sub>F</sub>.  
 b. Mary only introduced [Bill]<sub>F</sub> to [Sue].

Sentence (13b) is untrue in a scenario that Mary introduced both Bill and Tom to Sue.

So my claim is that in MC, bare adjectives are not predicative in nature, and they need to be turned into predicates. Following Rooth and Ramchand's idea, I propose that Mandarin adjectives are introduced as predicates by creating alternative propositions. Specifically, in predication constructions, morphemes such as *hen* and *ma* perform the function of generating alternative propositions by building contrastive pairs. Structurally, I will argue that PredP is projected in Mandarin predication constructions (Adger & Ramchand 2003) and the Pred carries a [+FOC] feature. This proposal can be formalized as the following:

(14)



The [+FOC] feature of the Pred head needs to be satisfied by a set of alternatives, therefore, elements such as *hen*, negators, question particles, etc., are required to create alternative propositions. As an illustration, in the following sentence, the *wh*-word *na* 'which' denotes the alternative semantics, which is the group of students known in the context, it could be {Zhangsan, Lisi, Wangwu...}.

(15) Na ge xuesheng (hen) gao?  
 Which CL student very tall  
 'Which student is (very) tall?'

The morpheme *hen* is optional in this case. It is worth noting that it is a standard view that there are two *hen* in MC: one has syntactic functions, which is the one discussed in this paper, while the other one purely indicates degree, and is normally stressed (Li & Thompson 1981, Chui 2000, etc.), such as the one above: *na* 'which' provides the set of alternatives, *hen* is a degree intensifier.

Under this analysis, cases where the subject or the adjective is focused follows naturally: to create a set of alternatives by building contrastive scenarios. For instance, for sentence (9), the set of alternatives could be {Zhangsan, Lisi}; for sentence (10), {tall, not tall}; and for (11), {taller than Lisi, as tall as Lisi, shorter than Lisi}.

### 3.2. The application of the Pred<sub>[+FOC]</sub> analysis

In the next, I will go through those cases where there is no focus intonation and elements such as *hen* and *ma* co-occur with the adjective, to show how the current analysis captures these data. First of all, when the adjective is accompanied by *hen* 'very':

(16) Zhangsan hen gao.  
 Zhangsan very tall  
 'Zhangsan is (very) tall.'

*hen* indicates a set of degrees such as {extremely, very, moderately, a bit}. The above sentence can be interpreted as Zhangsan is very tall, but not moderately tall or extremely tall.

More obviously, in the following *bi* comparative sentence, the *bi* phrase *bi Lisi* indicates a set of alternatives of the height difference between Zhangsan and Lisi (the stand of comparison): {Zhangsan is taller than Lisi, Lisi is taller than Zhangsan, Zhangsan is as tall as Lisi}.

- (17) a. Zhangsan *bi* Lisi gao.  
Zhangsan BI Lisi tall  
'Zhangsan is taller than Lisi.'
- b. \*Zhangsan *bi* Lisi *hen* gao.  
Zhangsan BI Lisi very tall

Even more interestingly, when *bi Lisi* is present, the degree adverb *hen* is not allowed (17b). This supports the assumption that the *bi* phrase and *hen* has the same function and therefore there is no need for them to show up at the same time in the same sentence. The following two types of yes-no questions can be analyzed in a similar way.

- (18) Zhangsan gao ma?  
Zhangsan tall Q  
'Is Zhangsan tall?'
- (19) Zhangsan gao bu gao?  
Zhangsan tall NEG tall  
'Is Zhangsan tall?'

According to Liu (2010), there exists the degree value of Zhangsan's height and the contextually determined standard degree of human height and it is the relation of these two degrees that is being asked about in the yes-no question. Alternatively, this above two sentence can be interpreted as Zhangsan's height > the standard human height or Zhangsan's height < the standard human height. In these cases, it is the question particle *ma* and the A-not-A question form that check the [+FOC] feature of the Pred head. As for the negation case, following Rooth (1992), Lee (2001) proposes that *bu* is a focus sensitive operator which introduces a set of alternatives to the part that is negated. Specifically, in (20) below, there is an alternative to 'Zhangsan is not tall', which is 'Zhangsan is tall'.

- (20) Zhangsan bu gao.  
Zhangsan NEG tall  
'Zhangsan is not tall.'

In fact, the A-not-A question in (19) can be understood in this way as well. The set of alternatives is {Zhangsan is tall, Zhangsan is not tall}.

With respect to the following case where the adjective is accompanied by a quantity phrase, it can be said that it creates a set of different quantity values (heights) {1.5 meters, 1.8 meters, 2 meters...}.

- (21) Zhangsan liang-mi gao.  
Zhangsan two-meter tall  
'Zhangsan is two-meter tall.'

The sentence below is very interesting, where the adjective co-occur with the sentence final particle *le*, denoting a change of state:

- (22) Zhangsan gao le.  
Zhangsan tall LE  
'Zhangsan got taller.'

Since this sentence denotes change from one state to another, it is very plausible to assume that the set of alternatives include the different states of the subject: {1.5 meters tall, 1.6 meters tall, 1.7 meters tall}.

As shown by the examples above, where elements such as degree morphemes, question particles, negators appear, there is indeed a set of alternatives present. It can be concluded that the function of those elements is creating alternative semantics. And this explains why they are obligatory in adjective predicates in MC: to check the [+FOC] feature of the Pred head.

#### 4. Further evidence

To restate the proposal again, the Pred head in MC carries a [+FOC] feature and this feature needs to be satisfied by a set of alternatives. Elements such as degree morphemes, question particles, negators are required to create alternative semantics. It can be seen that the alternative/contrastive semantics plays an important role in this process. Therefore, it can be predicted that when contrastive semantics cannot be built, bare adjectives must be banned.

##### 4.1. When there is no contrast

As discussed above, when there is no degree morpheme or any other elements accompanying the adjective, in a well-formed sentence such as the following, the two adjectives must form a contrast, to compose a set of alternatives.

- (23) Zhangsan gao<sub>F</sub>, Lisi ai<sub>F</sub>.  
Zhangsan tall Lisi short  
'Zhangsan is tall while Lisi is short.'

However, as pointed out by Dong (2005), unlike (23), the following sentence is unacceptable.

- (24) Zhangsan gao, Lisi gaoping.  
Zhangsan tall Lisi happy  
'Zhangsan is tall and Lisi is happy.'

The two adjectives *gao* 'tall' and *gaoping* 'happy' do not form a contrast with each other, as a result, the bare adjectives cannot act as the predicates, consequently, sentence (24) is bad.

Before turning to the next part, I would like to mention that Grano (2008) claims that if embedded, clauses with bare adjectives could be acceptable. The example he gives is below:

- (25) Wo zhidao [Zhangsan gao], dan mei xiangdao ta zheme gao.  
I know Zhangsan tall, but NEG.PRF expect he this tall  
'I knew Zhangsan was tall, but I didn't expect he was this tall.'

He argues that *hen* is only required in the matrix clause and in embedded clauses, adjectives can appear in predicate position without the presence of degree morphology. However, this is not true. For instance, if I keep the first half of the above sentence and change the second half to that in (26a), the sentence becomes unacceptable. It would be better to have *hen* ‘very’ before the adjective, as shown in (26b):

- (26) a. ?Wo zhidao [Zhangsan gao], suoyi rang ta qu da lanqiu.  
 I know Zhangsan tall, so let him go play basketball (bb)  
 ‘I know Zhangsan is very tall, so I let him play basketball.’
- b. Wo zhidao [Zhangsan hen gao], suoyi rang ta qu da lanqiu.  
 I know Zhangsan very tall, so let him go play bb  
 ‘I know Zhangsan is very tall, so I let him play basketball.’

The only difference between (25) and (26a) is the relation between the two sub-clauses: in the former, it is transitional; while in the latter, it is causal. That is to say, in causal relation, such as (26a), bare adjectival predicates are not legal in embedded clauses. This may suggest that what makes (25) grammatical is the transitional relationship between clauses, more specifically, the contrast between the speaker’s presupposed height of Zhangsan and his actual height. This supports my claim that when there is no contrast/alternative such as in (26a), bare adjectives are not permitted, while when there is a contrast, even it is clausal such as in (25), bare adjectives are acceptable. Whether it is a matrix clause or an embedded clause does not make a difference.

## 4.2. When there is no Pred

Another predication of the current proposal is that when the Pred head is absent, the degree elements and others should not appear as well. This is indeed the case.

### 4.2.1. Small clauses

The first environment where Pred is not projected is in small clauses. The sequence *Lisi ai* ‘Lisi short’ in (27) below is generally regarded as an instance of small clauses (Tang 1998).

- (27) Zhangsan xian Lisi ai.  
 Zhangsan disfavor Lisi short  
 ‘Zhangsan disfavors Lisi for being short.’

According to native speakers, this sentence is completely fine. This is captured by my assumption: since Pred head is not present in *Lisi ai*, there is no reason for the degree morpheme to show up. In fact, when the degree marker appears, the acceptability of the sentence decreases greatly, as shown below.

- (28) \*Zhangsan xian Lisi hen ai.  
 Zhangsan disfavor Lisi very short

Cases where degree elements do appear, they are just degree intensifiers.

- (29) Zhangsan xian Lisi tai ai.  
 Zhangsan disfavor Lisi too short  
 ‘Zhangsan disfavors Lisi for being too short.’

It is interesting that *tai* ‘too’ is acceptable in the above sentence but not *hen*. Semantically, *tai* is stronger than *hen* and it also carries the speaker’s dissatisfaction with the excessive degree denoted by the adjective. So I will assume that *tai* ‘too’ in the above sentence is a pure degree intensifier and does not have any influence on the syntax of the sentence (more evidence is needed for this argument).

#### 4.2.2. Pre-nominal modification

Similar reasoning applies to the modification cases in (30) where PredP does not exist.

- (30)a. hong hua  
 red flower  
 ‘a red flower’ or ‘red flowers’
- b. xiao juzi  
 small mandarin  
 ‘a small mandarin’ or ‘small mandarins’

Generally speaking, *hen* is not required when adjectives modify nominals, as shown by examples above. However, interestingly, whenever *hen* shows up, *de* must co-occur, as can be seen from the contrast between (30) and (31)<sup>3</sup>.

- (31)a. hen hong \*(de) hua  
 very red DE flower  
 ‘a flower that is very red’ or ‘flowers that are very red’
- b. hen gao \*(de) nan haizi  
 very tall DE male child  
 ‘a boy that is very tall’ or ‘boys that are very tall’

This may be because *hen hong de* in (31a) is a clause and that *hen* is obligatory to check the [+FOC] feature of the Pred head. As a matter of fact, it has been argued that phrases such as (31a) and (31b) are derived from relative clauses and *de* in these cases is a clausal marker (Larson 2009).

Moreover, in phrases where *hen* is not present, the adjective is necessarily stressed, as shown in (32), *hong de hua* ‘red flowers’ is in contrast with *huang de hua* ‘yellow flowers’:

- (32)a. Wo xihuan hong<sub>F</sub> de hua.  
 I like red DE flower  
 ‘I like red flowers (not yellow ones).’

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<sup>3</sup>Grano (2008) argues that all the above prenominal adjectives are within relative clauses, therefore, it is fine for them to show up bare (he believes elements such as *hen* are only necessary in matrix clauses). However, the general assumption is that only the *de* cases in (31) are relative clauses and in the *de*-less cases in (30) adjectives are merged with the nominals directly (Sproat and Shih 1991, Paul 2006, among others). As a result, Grano’s argument does not hold.

- b. Hong<sub>F</sub> de hua haokan.  
 red DE flower beautiful  
 ‘red flowers (not yellow ones) are beautiful.’

If we adopt Larson’s assumption that *de* is a relative clause marker, the fact that *hong* ‘red’ in (32) is stressed serves as a further argument for my Pred<sub>[FOC]</sub> proposal.

It is worth mentioning that the reduplicative form of the adjective, also known as complex adjectives (CA), can act as predicates directly:

- (33) Zhangsan gao-gao-de.  
 Zhangsan tall-tall-DE  
 ‘Zhangsan is tall.’

Compared with simple adjectives (SAs), CAs represent an intensified degree and sentence such as (33) could be viewed as a contrast between different degrees of tallness.

### 4.3. Non-gradable adjectives

Until now, all the adjectives I discussed are gradable adjectives, the other type of adjectives in MC is non-gradable adjectives such as *dui* ‘right’, *zhen* ‘authentic’, etc.. One property of these adjectives is that they normally cannot be modified by degree morphemes, however, they usually appear in *shi...de* constructions<sup>4</sup>, as shown below:

- (35)a. ??Zhe ge huaping hen jia.  
 this CL vase very fake
- b. Zhe ge huaping shi jia de.  
 this CL vase SHI fake DE  
 ‘This vase is fake.’

The *shi...de* construction is generally considered to be a focus construction in the literature. In (35b) above, the adjective *jia* ‘fake’ is focused to form a contrast with its potential antonym *zhen* ‘authentic’. The whole sentence is to emphasize that this vase is fake rather than genuine.

This fact above together with the discussion presented so far for gradable adjectives suggests that adjectives (both gradable and non-gradable) in MC are introduced as predicates by a functional projection PredP which bears an [+FOC] feature. The schema can be illustrated below:

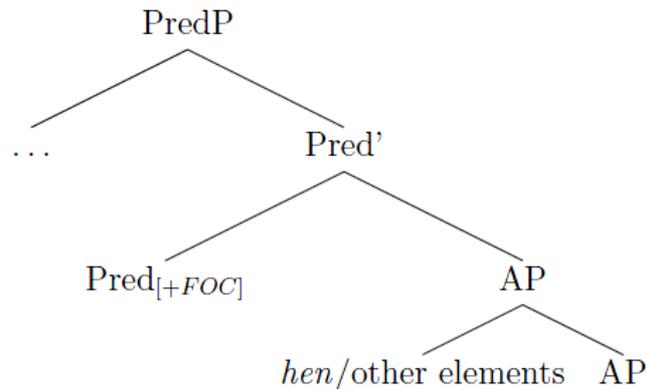
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<sup>4</sup>Gradable adjectives normally do not show up with *shi...de*:

- (34) ??Zhangsan shi gao de.  
 Zhangsan SHI tall DE  
 ‘It is true that Zhangsan is tall.’

This sentence is marginally acceptable.

(36)



Elements around the adjective, including stress intonation, degree expressions and other morphemes, perform the same role: creating a set of alternatives to satisfy the [+FOC] feature of the Pred head.

## 5. Previous analyses and their limitations

Generally speaking, there are three lines of research regarding the issue why bare adjectives are not allowed as predicates in MC.

### 5.1. The semantic type shifting approach

The semantic approach argues that adjectives are of a particular semantic type and they need the co-occurrence of other morphemes such as *hen* to convert them into the right type in predicate position, before combining with the subject (Huang 2006, Liu 2010, Zhang 2015). More specifically, it has been proposed that adjectives are of type *e* (Huang 2006) or  $\langle d, \langle e, t \rangle \rangle$  (Liu 2010), and they require the co-occurrence of degree morphology such as *hen* (type  $\langle e, \langle e, t \rangle \rangle$ ) or an operator POS (type *d*), respectively, to be converted into type  $\langle e, t \rangle$  in predicate position. Following Kennedy (1997) and Liu (2010), Zhang (2015) also argues that *hen* is a POS marker based on the fact that it occurs in positive constructions only. It is of semantic type  $\langle \langle d, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle$  and s-selects gradable adjectives which are type  $\langle d, \langle e, t \rangle \rangle$ .

However, this line of analyses fails to capture the fact that degree morphology is not needed when adjectives modify nouns attributively, unless it assumes that the semantic type of adjectives changes in modification constructions such as the ones below:

- (37) xiao (de) juzi  
Small DE orange  
'small oranges'

Moreover, Liu, Huang and Zhang's analyses cannot explain why morphemes such as question marker *ma*, etc. can save sentences without the appearance of *hen*.

### 5.2. The syntactic category shifting approach

Dong (2005) analysis *hen* as the aspectual marker for adjectives in stand-alone sentences, just as *le* for verbs in independent sentences. According to him, in MC, *le* is a

perfective marker, while the reduplicative form of adjectives AABB-*de* and *shi...de* sequence are imperfective markers. Based on the fact that *hen* cannot co-occur with the above elements, as shown below, Dong (2005) draws the conclusion that *hen* is also an aspectual marker.

- (38) \*Ta de lian hen hong le.  
 she DE face very red LE  
 ‘Her face turned very red.’
- (39) \*Ta de lian hen hong-hong de.  
 she DE face very red-red DE  
 ‘Her face is red.’
- (40) \*Ta de guandian shi hen cuowu de.  
 She DE opinion SHI very wrong DE  
 ‘Her opinion is wrong.’

As for why degree morphemes can be aspect marker, Dong’s explanation is that since degree morphemes involve comparing the degree of the state of the object indicated by the adjective with that of the standard of comparison (Kennedy 2007), the state of the object must be existent in the span of the time that includes the time of the comparison. However, this explanation is very stipulative.

Also, the author’s grammatical judgements of the sentences are problematic. Sentence (38) is fine in the context below, though there is a slight change in meaning:

- (41) Ta de lian hen hong le, bie zai rang ta hejiu le.  
 She DE face very red LE don’t again let her drink LE  
 ‘Her face is already very red, do not let her drink wine anymore.’

The following sentence is completely fine, too.

- (42) Ta de guandian shi hen zhengque de.  
 She DE opinion SHI very correct DE  
 ‘Her opinion is correct.’

Since *hen* can be a real degree morpheme (Li & Thompson 1981, Chui 2000, etc.), it is possible that sentences (38), (39) and (40) are bad due to semantic reasons. For instance, *honghong de* in (39) already denotes a high degree of redness, and there is no need for the degree intensifier *hen*.

When talking about why in contrastive situations, *hen* is not needed, Dong (2005) mentions that a contrast in itself is a comparison. Following his argument that comparison is made between two degrees, the adjectives need to be imperfective in order to be existent in the span of the time that includes the time of the comparison. As a matter of fact, this idea is consistent with my proposal that the appearance of *hen* creates a set of different degrees, with the cardinality of at least 2.

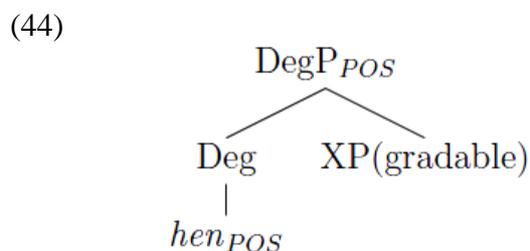
Grano (2011) proposes that degree adverbs, focus, etc., have the ability of turning adjectives into verbal categories. They are required to check the [+V] feature on T, assuming that T is always projected in clauses. According to him, the reason why *Zhangsan gao* is ungrammatical is that the adjective *gao* ‘tall’ fails to check the [+V] feature of T, by contrast, in *Zhangsan hen gao*, the use of the degree adverb *hen* ‘very’ licenses the [+V] feature, and thus enables the adjective *gao* to function as a predicate of T.

This analysis correctly captures the fact that when T is not projected, for example, in prenominal modification constructions and embedded clauses, *hen* is not obligatory. But it is not clear what the nature of the [+V] feature of T is. Also, it is not discussed how elements such as quantity phrases and *bi* phrases turn adjectives into verbal categories.

- (43) Zhangsan *bi* Lisi gao.  
 Zhangsan BI Lisi tall  
 ‘Zhangsan is taller than Lisi.’

The phrase *bi Lisi* in (43) is generally considered as a preposition phrase, it is not clear how it has the function of changing the categorial status of adjectives. Likewise, in the focus cases, it is even harder to understand how the phonological change can alter the syntactic categories of adjectives.

Syntactically, Zhang (2015) advances that *hen* is projected as the head of the functional projection DegP and s-selects a gradable phrase, either an AP or a stative VP. The structure is shown below:



She argues that *hen* is not a modifier or an adjunct but rather heads a DegP projection. Her key argument is that *hen* XP and XP have different syntactic behaviors. However, this argument is problematic. One of Zhang’s evidence is that in nominal exclusive constructions, once *hen* is added to the nominal XP, the sentence becomes unacceptable:

- (45) Wo *ba* (\**hen*) chengshi dangzuo yi zhong meide.  
 I BA very honest regard-as one CL virtue  
 ‘I regard being honest as a virtue.’

Zhang (2015) claims that this suggests that *chengshi* and *hen chengshi* are different syntactically, as the former can appear after *ba* but the other cannot. However, this argument does not make sense, because the reason why sentence (45) with *hen* is bad is that *chengshi*, in that case, is a noun, and degree words such as *hen* do not normally modify nouns. Sentence (45) should be glossed and translated in the following way instead:

- (46) Wo *ba* (\**hen*) chengshi dangzuo yi zhong meide.  
 I BA very honesty regard-as one CL virtue  
 ‘I regard honesty as a virtue.’

Another argument given by Zhang is that in nominal-exclusive positions, a bare VP is fine, but [*hen*+VP] is bad:

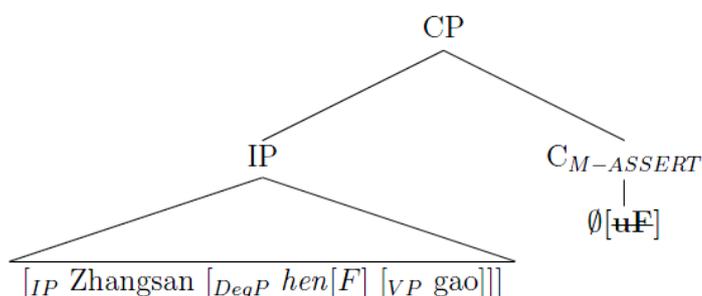
- (47) Wo *ba* (\**hen*) xihuan shige dangzuo yi zhong meide.  
 I BA very like poem regard-as one CL virtue  
 ‘I regard liking poems as a merit.’

However, as pointed out in Zhang (2015), nouns lack degree structures entirely, which means that NPs normally do not co-occur with degree words. This suggests that the reason sentence (47) is bad is not that the phrase *hen xihuan shige* cannot appear after *ba* but rather the phrase itself is illegal. It can be seen that Zhang’s two pieces of evidence for the arguments that *hen* XP and XP are syntactically different are problematic. Consequently, the proposal that *hen* heads a DegP projection does not hold.

### 5.3. The illocutionary force approach

Grano (2008) claims that degree morphology is needed only when the adjective is the entire predicate of the matrix-level declarative clause, to check the uninterpretable feature of  $C_{M-ASSERT}$ , which is the locus of the illocutionary force of the sentence. The schema is shown below.

(48)



According to Grano, the following sentence is fine because the clause *Zhangsan gao* is embedded: C is not projected, thus, no elements are required to check its feature.

(49) Wo zhidao [Zhangsan gao], dan mei xiangdao ta zheme gao.  
 I know Zhangsan tall, but NEG expect he this tall  
 ‘I knew Zhangsan was tall, but I didn’t expect he was this tall.’

However, as discussed in section 4.1, actually, sentence (49) is possible only because the two sub-clauses are connected by the contrastive coordinator *dan* ‘but’. Under the  $\text{Pred}_{[+FOC]}$  analysis, it can be said that in (49), the  $[+FOC]$  feature of the Pred head in the embedded clause is checked by the coordinator *dan* ‘but’ (the contrast between ‘tall’ and ‘extremely tall’).

To summarize, in tackling the issue of the obligatory appearance of *hen* and other elements in predication constructions in MC, existing studies have limitations in two major aspects: (i) providing an analysis that covers adjectives both in prenominal modification position and postnominal predication position; (ii) unifying degree morphemes such as *hen*, focus intonation and the range of other elements that co-occur with the adjectives in predicate position. Both of these are captured by my proposed analysis.

## 6. Conclusion remarks and thinking points

The  $\text{Pred}_{[+FOC]}$  analysis has important implications. Firstly, the contrast between (25) and (26a) above follows from this analysis. Secondly, it correctly predicts that when adjectives are used attributively or appear in small clauses, degree morphology is not needed; and conversely, when PredP is projected, adjectives should not be bare. Furthermore, this analysis coincides with the fact that non-gradable adjectives needs the accompany of the

*shi...de* sequence in predicate position, both suggesting that the claim that adjectives in MC are introduced as predicates by Pred<sub>[+FOC]</sub> is on the right track.

To conclude, adjectives in MC are introduced as predicates by a functional projection PredP which bears an [+FOC] feature. Degree morphemes, focus intonation, *shi...de* sequence and other elements are required to check the [+FOC] feature by building contrastive scenarios. As for the difference between MC and English, it can be assumed that, in English, the copular *is* checks the [+FOC] feature of Pred, and accordingly, degree elements are optional. However, for future research, I plan to conduct a systematic investigation on contrastive constructions in MC in general and then show in detail how *hen* and other elements are linked to the focus interpretation in MC<sup>5</sup>.

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*Fangfang Niu  
Department of Linguistics (SLLF)  
Queen Mary University of London  
Mile End Road  
London E1 4NS*

*nfangfang@gmail.com*