A Novel Approach to the Syntax of Chinese Adjectival Predicates: Differences between Standard Mandarin and Sichuanese Mandarin

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Abstract—In Mandarin Chinese, bare adjectives can only function as predicates when they co-occur with some other elements in certain contexts, most typically the degree adverb *hen* 'very'. This phenomenon cannot be found in other languages like English. To explain this crosslinguistic variation, researchers have developed different theories, among them the most developed theory regards *hen* 'very' as an overt positive morpheme. Previous studies have all focused on just one Mandarin variety, namely Standard Mandarin (STM). However, the present theory cannot apply to other Mandarin varieties like Sichuanese Mandarin which, as this paper demonstrates, does not have an overt positive morpheme. This paper provides new data from Sichuanese Mandarin and proposes that register grammar should be taken into consideration. A novel, hybrid approach to explain this crossdialectal variation is given in this paper.

Index Terms—Adjectival predicates, Mandarin Chinese, positive morpheme, register grammar, Sichuanese Mandarin.

I. INTRODUCTION

It is a well-observed fact that bare adjectives cannot function as predicates by themselves in certain contexts in Mandarin Chinese. Instead, they have to co-occur with some other elements, most typically the degree adverb *hen* 'very', as exemplified in (1).

(1)   *Zhangsan*(hen) gao*.   [Mandarin Chinese]
         Zhangsan very   tall
         'Zhangsan is tall.'   (from [1])

Nevertheless, there are also contexts in Mandarin Chinese where bare adjectives can occur without *hen* 'very', as exemplified in (2).

(2)   a. *Zhangsan(hen) gao   ma?*   [STM]
         Zhangsan very   tall   SFP
         'Is Zhangsan tall?' (adapted from Niu 2015: 97)
      b. *Zhangsan   (*hen) liang-mi gao.*   [STM]
         Zhangsan very   2-meters tall
         'Zhangsan is 2 meters tall.'   (adapted from [2])

In questions like (2a), the bare adjective *gao* 'tall' occurs alone, and *hen* 'very' is optional; while in (2b), when the adjective is accompanied by a quantity phrase, which is composed of a numeral and a measure word, the degree adverb *hen* 'very' is forbidden.

Here a question arises: Why is the degree adverb *hen* 'very' obligatory in some contexts but optional or even forbidden in other contexts? Many researchers have investigated this phenomenon (among others, [1]-[5]). While previous studies have examined the peculiar obligatoriness of *hen* 'very' in Chinese in depth, they have all focused on just one Chinese variety, namely Standard Mandarin (STM). They generally do not concern themselves with the comparison between STM and other Mandarin or Chinese varieties, even though there clearly is cross-dialectal variation on the matter. For example, in Chongqing Mandarin[1] (CQM), instead of the degree adverb *hen* 'very', a *hao…you* 'very…SFP' construction (I will call this structure a 'very…SFP' construction from now on) is used:

(3)   a. *Zhangsan(*hen) gao.*   [STM]
         Zhangsan   very   tall
         'Zhangsan is tall.'   (from [1])
      b. *Zhangsan(*hao) gao (*you)*   [CQM]
         Zhangsan   very   tall SFP
         'Zhangsan is very tall.'

Note that both *hao* 'very' and *you* [SFP] are obligatory in the sentence. Based on data like the above, we can see that this phenomenon in other Mandarin (or Chinese) varieties requires further research.

In this paper, therefore, I will 1) contribute new data, 2) examine the crossdialectal microvariation, 3) introduce a new approach – register grammar – to this issue and 4) propose some principles concluding from the presented new data. I will show that there is a gap between STM and Sichuanese Mandarin where Sichuanese Mandarin does not have an overt positive morpheme while STM does. And my account of this gap is that Sichuanese Mandarin does not have what is called the 'formal register' in the theory of register grammar.

II. BACKGROUND INFORMATION

This section is to clarify the two main analytical methods I use in this paper, to give the reason why I take microvariation into consideration in this paper, and to give some basic information about STM and Sichuanese Mandarin. Due to space limitations, I cannot present the whole comparison of all theories I have reviewed to show the reason of choosing

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[1] Chongqing Mandarin is a subvariety of Sichuanese Mandarin. I will introduce it later in section II. C.

these two theories.

A. Liu (2010): Hen 'Very' as Overt Positive Morpheme in STM

Liu (2010) concludes that Chinese has two positive morphemes: a covert morpheme *pos* and an overt morpheme *hen* 'very'. According to Liu, the covert morpheme, which behaves like a polarity item, only appears in a particular kind of operator domain – he describes it as "a predicate-accessible operator$_{[-wh]}$ domain contained in the smallest clause that contains the adjectival predicate and the operator" [1], as shown in Fig. 1, while the overt morpheme *hen* 'very' appears in other contexts.
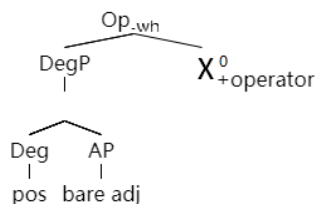

Fig. 1. Structure of the predicate-accessible operator $_{[-wh]}$ domain.

In this structure, the head X^0 carries a "predicate-accessible operator$_{[-wh]}$ feature" [1]. It "not only introduces a predicate-accessible operator$_{[-wh]}$ but also licenses the occurrence of a degree phrase headed by the covert positive morpheme" [1]. Then, this operator or this predicate-accessible operator$_{[-wh]}$ feature coerces the *pos* morpheme to be marked, and the marked *pos* morpheme further coerces the bare adjective to be marked – only when a bare adjective is marked in this way can it convey the positive degree meaning.

On Liu's theory, for example, the degree adverb in (2a) is optional because the bare adjective *gao* 'tall' is already marked by *pos*, and thus seems to appear "alone" in the sentence. The structure of this sentence is shown in (4).

(4) [Op$_{[-wh]}$ [$_{DegP}$ Zhangsan [[$_{Deg}$ *pos*][$_{AP}$ gao]]] ma$_{[+operator]}$]? [STM]
  Zhangsan *pos* tall SFP
'Is Zhangsan tall?' (from [1])

In this sentence, the sentence-final particle *ma*, which carries the operator$_{[-wh]}$ feature, not only introduces an operator but also introduces a degree phrase headed by the covert *pos*. This covert positive morpheme *pos* therefore is marked by *ma* [SFP] or the predicate-accessible operator$_{[-wh]}$ feature it carries. Then, the morpheme *pos* further coerces the bare adjective *gao* 'tall' to be marked. Thus, the adjective *gao* 'tall' conveys its positive degree meaning.

Liu also gives some further examples to testify that when *hen* 'very' **does** appear in that particular operator domain, it is an intensifier rather than a positive morpheme, as exemplified in (5).

(5) a. *Zhangsan pos gao, Lisi pos ai.* [STM]
  Zhangsan *pos* tall Lisi *pos* short
  'Zhangsan is tall, and Lisi is short.'
  b. *Zhangsan hen gao, Lisi hen ai.*
  Zhangsan very tall Lisi very short.'

'Zhangsan is very tall, and Lisi is very short.'

According to Liu, if the covert and overt morphemes are in complementary distribution in Chinese, and each clause of a contrastive focus construction like (5a) contains a covert *pos*, he would expect the degree adverb *hen* 'very' in (5b) "to function as an intensifier marker rather than as the overt positive morpheme." [1]

B. Syntactic Microvariation Matters

As I have mentioned, previous studies have examined the peculiar obligatoriness of hen 'very' in Chinese in depth, but they have all focused only on STM. However, there clearly is cross-dialectal variation on the matter. As reference [6] points out, when children are first confronted with language, what they actually acquire are the dialects. On the other hand, they learn the standardized language often only during school days. Thus, comparing with standardized languages, dialects are more natural.

Furthermore, since dialects are more natural than standardized languages, they may show some syntactic phenomena that are hard or even impossible to find in standardized language. Therefore, dialects are the only applicable resources where such phenomena can be studied. For example, reference [7] studies the West Flemish and Zürich German, where syntactic phenomenon like verb raising and verb projection raising cannot be found in Standard German.

Another reason why the dialects should be taken into account is that, as reference [8] mentions, slight morphosyntactic differences between closely related language varieties can cause syntactic variation. Precisely, reference [9] gives the Minimalist Program. Under this program, it is the morphosyntactic properties of individual morphemes (i.e. lexicon) that result in much of syntactic variation. Slight morphosyntactic differences are expected to affect the syntax structure.

C. Register Grammar of Chinese

The basic register structure of Chinese, as reference [10] points out, can be measured from two perspectives: the first perspective is the degree of formality, and the second perspective is the degree of elegance. The relationship between the two perspectives can be shown in Fig. 2.
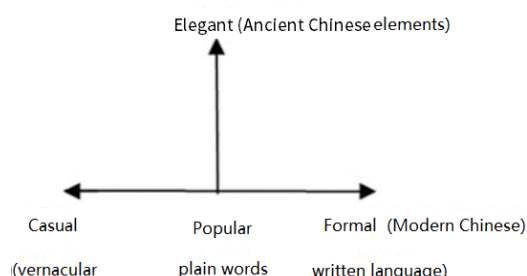

Fig. 2. Relationship between the formality and the elegance perspective.

Note that the two pairs (formal-casual, elegant-popular) are not only contrastive, but also relative. In other words, there are different degree of formality and elegance.

What really matters in register grammar is the particular situation where language is used. In real life, people would automatically change their word choices, sentence patterns

and structures according to different situations. Thus, as reference [11] states, there are different grammatical rules and word choices for different situations.

D. STM and Sichuanese Mandarin: Basic Information

STM$_2$ is the main official language of China. It is a standardised language with its pronunciation based on the Beijing dialects, its vocabulary based on Mandarin dialects and its grammar based on written vernacular Chinese [12].

Sichuanese Mandarin [3] is a branch of Southwestern Mandarin spoken mainly around the Sichuan Basin, in Sichuan province and Chongqing city, as in Fig. 3 and Fig. 4.

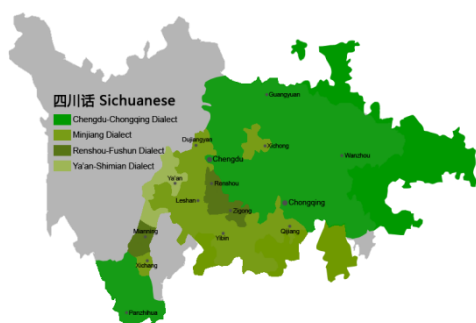Fig. 3. Sichuanese in China.

Fig. 4. Locations of Chengdu and Chongqing.

There are two main varieties of Sichuanese Mandarin called Chengdu Mandarin (CDM) and Chongqing Mandarin (CQM), and there are many minor phonological or morphosyntactic differences between the two varieties. Further details will be given in III.

III. THE OBLIGATORY 'VERY…SFP' CONSTRUCTION IN SICHUANESE MANDARIN

Instead of *hen* 'very', native speakers of Sichuanese mandarin would use a 'very…SFP' construction in bare adjectival predicates, as exemplified in (6).

(6)   a. *Hua *(hen) hong.*   [STM]
    flower very red
    'The flower is red.'
    b. *Hua *(hao) hong *(you)* [CQM]
    flower very red SFP
    'The flower is very red.'
    c. *Hua *(hao) hong*(ou)* [CDM]
    flower very red SFP
    'The flower is very red.'

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[2] also known as Putonghua

[3] also called Szechwanese Mandarin

    d. Hua *(duo) hong*(lei)   [CDM]
    flower very red SFP
    'The flower is very red.'

Note that both *hao*/*duo* 'very' and *you*/*ou*/*lei* [SFP] are obligatory in the sentence, which is different from STM. As for the semantic perspective of *hen* 'very', there is a huge difference between STM and the intuition of native Sichuanese speakers, as exemplified in (7).

(7)   a. *Hua hen hong, dan bushi tebie hong.* [STM]
    Flower very red, but not extremelyred
    'The flower is red, but it is not extremely red.'
    b. **Hua hao hongyou, dan bushi tebie hong.* [CQM]
    Flower very red SFP,but not extremelyred
    '*The flower is red, but it is not extremely red.'
    c. **Hua duo hong lei, dan bushi tebie hong.* [CDM]
    Flower very red SFP,but not extremelyred
    '*The flower is red, but it is not extremely red.'

From the native Sichuanese speakers, the 'very…SFP' construction cannot be added into the above sentence. Moreover, they even regard the STM *Hua hen hong, dan bushi tebie* hong 'The flower is red, but it is not extremely red' as ungrammatical. In their opinion, the degree adverb *hen/hao/duo* 'very' and *tebie* 'extremely' are basically the same in syntactic function.

IV. DATA ANALYSIS

A. A Challenge to hen as an Overt pos Morpheme

Following Liu's theory, the degree adverb *hen* 'very' in adjectival predicates functions as an overt positive morpheme in STM. However, since the native Sichuanese Mandarin speakers regard the degree adverb *hen/hao/duo* 'very' as basically the same syntactic function as *tebie* 'extremely', both *hen* 'very' and *hao/duo* 'very' are intensifier in their intuition.

Moreover, if *hen* 'very' can function as an overt positive morpheme, there should exist a context where 'the flower is red, but it is not extremely red' in STM using this overt positive morpheme in the first clause and an intensifier in the other clause, so (7a) is grammatical. However, the difference between (7a) and (7b-c) shows that the 'very…SFP' construction is not the counterpart of the covert positive morpheme *hen* 'very'. Since 1) there is no adverb *hen* 'very' in adjectival predicates in Sichuanese Mandarin and 2) the 'very…SFP' construction is not an overt positive morpheme, there seems to be a gap between STM and Sichuanese Mandarin in that Sichuanese Mandarin **does not** have an overt positive morpheme. In order to find out a possible cause of this gap, I will apply register grammar to the present theory in the next section.

B. The Proposal

In order to quantify the register of each sentence, I will use the frame proposed by reference [10]. Since this paper is only

about spoken Chinese, and that the elegance of all spoken Chinese belong to level zero [10], I will not apply the perspective of elegance to this paper. I choose to use the perspective of formality (the formal-informal pair) only to analyse the data, as shown in Fig. 5.
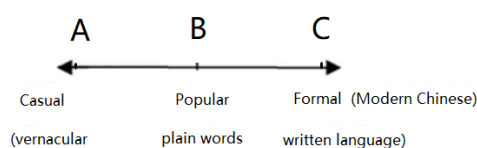

Fig. 5. Level of formality.

In fact, native Sichuanese Mandarin speakers would use both 'very…SFP' construction and *hen* 'very' in their daily life, but these two expressions are used in different circumstances. In other words, these two expressions belong to different register. Here are some examples:

(8)   casual register (formality level A)
    a. Ni   guo-de hao   hao   you.   [CQM]
    you live-N very   nice   SFP
    'Your life is very nice.'
    b. Wo guo-de duo   hao   lei.   [CDM]
    I   live-N very   nice   SFP
    'My life is very nice.'
  c. Basi de-hen!   [CQM]
    nice DE-very
    '(My life is) very nice!'
    d. Kan (mah), wo guo-de duo   anyi   (lei).
    [CDM]
      Look   SFP I live-N very   nice   SFP
    'Look, my life is very nice.'

(9)   popular register (formality level B)
    a. Women   guo-de hao de-hen.   [CQM]
    we   live-N nice DE-very
    'Our life is very nice.'
    b. Wo guo-de haikuoyi.   [CDM]
    I   live-N well enough
    'My life is well enough.'

(10)   formal register (formality level C)
    a. Women   chi-de hao, chuan-de hao, hai zhu-dao
    gao-lou   le. [(mixed)CQM⁴]
      we   eat-DE nice wear-DE nice and live-to
    tall-buildings   SFP
      'Our food is nice; our clothing is nice, and we live in tall
    buildings.'
      b. Women   shenghuo hen   fuzu, hen meiman.
    [CDM/STM]
      we   life   very   well-off very happy
    'Our life is very happy and well-off.'

The interviewees report that they regard both the *de-hen* 'DE-very' structure and the degree adverb *hen* 'very' as intensifiers. And, when they use these two expressions, they feel like speaking STM in a Sichuanese Mandarin tone. Therefore, it can be concluded that Sichuanese Mandarin, as

⁴ This means a mixed middle-way variety between CQM and STM

a non-standardised language, has no formal (or rather, bookish) register. This can explain the reason why there is a gap between STM and Sichuanese Mandarin in that Sichuanese Mandarin does not have overt *pos* morpheme: overt positive morpheme *hen* 'very' only appears in formal (or bookish) register, whereas Sichuanese Mandarin does not have the bookish register.

These sentence-final particles (*you, ou* and *lei*) only appear in casual register as in (8ab), while *hen* 'very' appears in all the three registers. However, the bare adjective *basi* 'nice' in (8c) is a very colloquial word. It can only be used in casual circumstance. Interviewees also report that *hen* 'very' in this sentence can be replaced by a more colloquial adverb, namely *ban* 'very', as shown in (11), which forms a little vulgar expression.

(11)   *Basi   de ban!*   [CQM]
    Nice   DE   very
    '(My life is) very nice!'

The interviewees say that they would only use such an expression with their closest friends. Thus, the adverb *ban* 'very' should belong to a very casual register, which is even to the left of point A of Fig. 5. (I would use A-minus to represent this register.)

As for (9a), the adverb *hen* 'very' also occurs in the *de-hen* 'DE-very' structure, but this time it does not co-occur with any casual expression and the sentence belongs to popular register. Also, the register of (8c) is the same as the register of *basi* 'very', but not the *de-hen* 'DE-very' structure, and the register of (11) is the same as *de-ban* 'DE-very', but not *basi* 'nice'. Therefore, I claim that the register of a sentence is determined by the word of the lowest formality.

As for (8d), the sentence-final particle *mah* in the very…SFP construction become non-obligatory. Since (8d) belongs to the casual register and both SFP and adjective *anyi* 'nice' belongs to the casual register, and the register of a sentence is determined by the word of the lowest formality, it can be inferred that the sentence-final particle in this very…SFP construction is not needed because there are already word to imply the register of this sentence.

Based on the above, I propose that there are some rules to follow when register is taken into consideration, as summarised in (12).

(12) Register Principles of the Smallest Clause with Adjectival Predicates of Sichuanese Mandarin
    a. In clauses with adjectival predicates, the adjective, the degree adverb/ structure, the sentence-final particle or some other expression carries register.
    b. The register of the adjective, degree adverb/structure, sentence-final particle or other expressions in one sentence can be the same or different, but the register of the whole clause is determined by the word/structure of the lowest level of formality.
    c. A word is not obligatory when i) it is not grammatically needed and ii) it is not the only word with the smallest clause's register.
    d. Some adverbs have a fixed SFP to co-occur with them, and different language varieties may have different fixed pairs. The fixed SFP can be deleted rather than be changed. In

other words, one can delete this fixed SFP but he cannot change the fixed pair.

According to these four principles, I further claim that in the very…SFP construction, only the fixed SFPs are casual. This is because the degree adverbs like *hao* 'very' and *duo* 'very' can also appear in STM, but as long as the fixed SFPs are added in, the whole expression becomes colloquial.

V. CONCLUSION AND FURTHER DISCUSSION

In Standard Mandarin, bare adjectives cannot appear without positive morphemes. These positive morphemes can either be covert (*pos*) or overt (*hen* 'very'). However, there is clearly a gap between STM and Sichuanese Mandarin where Sichuanese Mandarin does not have an overt positive morpheme. This is because overt positive morpheme only appears in a bookish register. STM has the bookish register, but Sichuanese Mandarin does not have it, hence the gap occurs. On this basis, I proposed that register grammar should be taken into consideration. I also proposed four register principles to develop the present theory.

There are also some issues for further discussion. Firstly, there are only four interviewees in this research, which is not a big sample. Secondly, although register grammar is taken into consideration in this research, it still cannot explain why certain degree adverbs require particularly fixed SPFs. In my opinion, it may be related with phonology, since for the same *duo* 'very', both CQM *you* [SFP] and CDM *ou* [SFP] have the vowel 'ou'. So, there may be some connections between the vowel of the degree adverb and the SFP that make it a fixed pair. However, due to space limitations I must leave this issue to future research.

CONFLICT OF INTEREST

The author declares no conflict of interest.

AUTHOR CONTRIBUTIONS

Fu Haoyue conducted the whole research, including the interview and data analysis, and wrote the paper. She had approved the final version.

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