The Adjectival Intensifier hdl in Mandarin Chinese*

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Abstract: Huang (2006) argues that hdl ‘very’, the Mandarin adjective intensifier, is an obligatory type-lifter that transforms simple adjectives to complex adjectives for predicatehood, as is required by the Property Theory (Chierchia, 1984, 1985). This article studies the other cases where hdl is not obligatory and concludes that, in addition to hdl-insertion, affixation, and reduplication identified by Huang (2006), the negator bt and VP or IP movement can also function as type-lifters for simple adjectives. I further argue that only one type-lifter device is allowed per sentence.

Keywords: Mandarin Chinese, hdl, adjective, type-lifting, VP movement, IP movement

1. The usages of hdl
1.1 The obligatory hdl

(1) and (2) show that hdl is obligatory before an adjective in affirmative sentences (Lü, 1981). Li & Thompson (1981) have reported that, unless stressed, the intensifier function of hdl is bleached. Sybesma (1992) calls hdl the most neutral positive degree marker. (1) does not necessarily mean that ‘Zhangsan is very tall.’ The insertion of other degree adverbs such as fēicháng ‘extraordinarily’, tèbié ‘particularly’, shìfēn ‘quite’, and tè ‘especially’ can save (2) from ungrammaticality, but then they must contribute to degree intensification, as shown in (3):

(1) Zhāngsān  hdl  gāo.
   Zhangsan  very  tall
   ‘Zhangsan is tall.’  or ‘Zhangsan is very tall.’

(2) Zhāngsān  gāo.
   Zhangsan  tall
   ‘Zhangsan is tall.’

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The obligatory occurrence of 好 suggests that it is more than a semantic marker that specifies the degree of a gradable adjective (Doetjes, 2008). It must have some syntactic properties. One natural assumption is that 好 is the adjectival copula, a counterpart of 使 that links the subject and the nominal predicate, as shown by the contrast in (4):

(4) a. Wǒ 使 学生 b. Wǒ 学生.
I be student I student
‘I am a student.’

But an A-not-A question test will exclude such an intuition. The A in A-not-A questions can only refer to the main predicate or the auxiliary, be it a modal verb like 能 ‘can’, a stative verb like 長 ‘tall’, or an activity verb like 来 ‘to come’ (Liu, 2008; Hagstrom, 2005; Ernst, 1994; Huang, 1991) as shown in (5) through (7):

(5) Zhāngsan 能 不 能 来?
Zhangsan can not can come
‘Can Zhangsan come?’

(6) Zhāngsan 長 不 高?
Zhangsan tall not tall
‘Is Zhangsan tall or not?’

(7) Zhāngsan 来 不 来?
Zhangsan come not come
‘Does Zhangsan come or not?’

The contrast in (8) suggests that 好 cannot be identified as a main predicate as the copula 使 does:

(8) *Zhāngsan 好 不 好 高?
Zhāngsan very not very tall
‘Is Zhangsan tall or not?’

In order to explain the obligatory occurrence of 好 in affirmative sentences, Huang (2006) argues that it is a type-lifter, changing the otherwise type <e> or simple adjective 高 ‘tall’ into a type <e, t> or complex adjective 好 ‘very tall’ can appear in

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Adjectives are usually referred to as stative verbs in Mandarin linguistics (Li & Thompson, 1981), though Dixon (2004) and Xu (1998) suggest that Chinese should have adjectives as a separate part of speech. In this paper, I hold that adjectives project their own VPs, just like regular verbs.

As a reviewer points out, the shi-bu-shi ‘be-not-be’ in (8) is the A-not-A question form of the copula shi ‘to be’ used before the noun 学生 ‘student’, which is different from the shi-bu-shi that forms a B-not-B question (Wu, 1997), with shi not functioning as the copula any more, but as part of shi-bu-shi that is located in CP as illustrated in (15).
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the predicate position as required by the Property Theory (Chierchia, 1984, 1985). To account for such a predicate-type hierarchy, Partee (2004) argues that there is a general processing of languages trying lowest types of predicates first and using higher types only when they are required in order to combine meanings by available compositional rules.

1.2 The optional and the prohibited hĕn

But Huang (2006)’s generalization does not explain why hĕn is optional in negation, yes-no questions, and contrastive structures as shown in (9) through (11); and why hĕn is not allowed in comparative structures, comparative correlatives¹, A-not-A questions, or inchoative structures as shown in (12) through (16)²:

(9) Zhāngsān bù (hĕn) gāo. (optional in negation)
Zhangsan not (very) tall
‘Zhangsan is not (very) tall.’

(10) Zhāngsān (hĕn) gāo ma? (optional in yes-no question)
Zhangsan (very) tall Yes.No.Question
‘Is Zhangsan (very) tall?’

(11) Zhāngsān (hĕn) gāo, Lìsì (hĕn) ì (optional in contrastive)
Zhangsan (very) tall Lisi very short
‘Zhangsan is (very) tall, but Lisi (very) short.’

(12) Zhāngsān bǐ Lìsì (‘hĕn’) gāo. (prohibited in comparative)
Zhangsan compare Lisi (‘very’) tall
‘Zhangsan is taller than Lisi.’

(13) Zhāngsān yuè chī yuè (‘hĕn’) gāo (prohibited in comparative correlative)
Zhangsan the more eat the more (‘very’) tall
‘The more Zhangsan eats, the taller he is.’

(14) Zhāngsān (‘hĕn’) gāo bù gāo? (prohibited in A-not-A question)
Zhangsan (‘very’) tall not tall
‘Is Zhangsan tall or not?’

Compare:

(15) Zhāngsān shí-bù-shí hĕn gāo? (allowed in B-not-B question)
Zhangsan be-not-be very tall
‘Is it the case that Zhangsan is very tall?’

¹ Some linguists, e.g. Beck (1997) and McCawley (1988), use the term ‘comparative conditional’ for the corresponding ‘the Comparative…the Comparative’ structure in other languages. In this paper, I use the more Chinese-specific ‘comparative correlative’ as proposed by Liu (2008).

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(16) Zhāngsān (*'hèn') gāo le. (prohibited in inchoative)
Zhangsan (*very) tall Perfective
‘Zhangsan is now tall.’

Huang (2006) uses (17)-(19) to illustrate that only complex adjectives are allowed to appear in the predicate position without *hèn*, and complex adjectives are derived from simple adjectives by either reduplication or affixation (cf. Li & Thompson, 1981).

(17) Tā shū·shū·fū fū de
d. vs. ‘Tā shāfu.
he comfortable DE he comfortable
‘He is comfy.’ ‘He is comfortable.’

(18) Tā hēi-būliáng de.
he dark-Suffix DE he dark
‘He is pretty dark.’ ‘He is dark.’

(19) Tāde shōu bīng-liáng.
His hand ice-cold his hand cold
‘His hands are ice-cold.’ ‘His hands are cold.’

In order to explain its status as a type-lifter, Chui (2000) argues that *hèn ‘very’* is a clitic attached to the adjacent scalar stative verb, as shown in (20). Unlike its English counterpart ‘very’, for example, *hèn* cannot occur alone.

(20) Q: Tā cōngmíng ma?
he smart Yes.No.Question
A: *hèn (cōngmíng).
‘Very (smart).’

I follow Chui (2000) and expand Huang (2006)’s list of type-lifting tools from reduplication, affixation, *hèn*-cliticization to *bū*-cliticization and VP or IP movement. Not calling *hèn* a prefix is out of the concern that no adjective is formed with *hèn* in it, and later in 2, I will show that there is a distinction between a prefixal *bū* and a clitic *bū*. (21) through (23) further show the differences between *hèn*, the bound-morphemic type-lifter, and other pure adjectival intensifiers; *hèn* must be always attached to an adjective, while tébié ‘extraordinary’, for example, can reduplicate itself for intensity:

(21) Tā hēn gāo hēn gāo.
he very tall very tall
‘He is very very tall.’

(22) ‘Tā hēn hēn gāo.
he very very tall
‘He is very very tall.’

① All the reduplicated and suffixed adjectival predicates sound better with the nominalizer *de* attached (Zhu, 1982), which is not discussed in Huang (2006).
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(23) Tā tèbié tèbié gāo.  
he extraordinarily extraordinarily tall  
‘He is extraordinarily extraordinarily tall.’

If we follow Huang (2006), without *hěn*, reduplication, or affixation, the adjectives in (9) through (16) do not qualify as complex adjectives and therefore should not have acted as independent predicates. In the following sections, I will inspect what structurally (9) through (16) share in common.

A reviewer has brought to my attention a very interesting contrast. As seen from the pair of (24) and (25), only the simple stative verb *gāo* ‘tall’ can be nominalized with the suffix -*de*, but not the complex adjectival predicate *hěn*-gāo ‘very tall’:

(24) Zhāngsān de gāo duì tā dà lànqū hěn yǒu bāngzhù.  
Zhangsan ’s tall to he play basketball very helpful  
‘Zhang’s being tall/height is very helpful for his basketball-playing.’

(25) * Zhāngsān de hěn gāo duì tā dà lànqū hěn yǒu bāngzhù.  
Zhangsan ’s very tall to he play basketball very helpful  
‘Zhangsan’s being very tall is very helpful for his basketball-playing.’

I argue that first, as the Property Theory (Chierchia, 1984, 1985) specifies, the reason for type-lifting is to equip a simple adjective like *gāo* ‘tall’ with predicatehood, allowing it to surface in a sentence. Nominalizing an already valid predicate *hěn*-gāo ‘very tall’ is redundant. Another reason I suggest is that *gāo* can function as a noun in Chinese that means ‘height’, but *hěn*-gāo cannot, unable to serve as the nominal subject in (25).

2. Negation

Mandarin has four negators, which are sensitive to predicate type: *bù* for individual-level predicates (Kratzer, 1995) that consist of stative verbs, bare activity verbs, and modals, *méi* for stage-level predicates that consist of aspect-marked verbs, *bié* for imperatives, and *méiyòu* for existential subjects (Liu, 2008; Lin, 2003):

(26) Tā bù cóngmíng yě bù xiāoān wǎn.  
he not smart also not like physics  
‘He is not smart; nor does he like physics.’

(27) Wǒ méi qù guò Zhōngguó.  
I not go Experiential China  
‘I have never been to China.’

(28) Bié zǒu! ‘Don’t go’  
(bié negates imperatives)

(29) Méiyòu rén lái.  
no person come  
‘No one comes / came.’

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Upon closer investigation, *bù* can only be used to negate simple adjectives, but not complex adjectives derived from simple adjectives through reduplication or affixation, as shown in (30) through (33).\(^\text{①}\) Also, if *bù* negates an adjective modified by *hěn*, the *hěn* is no longer a type-lifter, but a degree marker, as can be seen from the translation of (33):

(30) Reduplication:

\[
\begin{align*}
\text{"Tā bù shǔ-shǔ-fu de."} & \quad \text{cf. "Tā méi shǔ-shǔ-fu de."} \\
\text{he not comfortable DE} & \quad \text{he not comfortable DE}
\end{align*}
\]

‘He was not comfortable.’

(31) Suffixation:

\[
\begin{align*}
\text{"Tā bù hēi-bū-liuqì de."} & \quad \text{cf. "Tā méi hēi-bū-liuqì de."} \\
\text{he not dark-suffix DE} & \quad \text{he not dark DE}
\end{align*}
\]

‘He is pretty dark.’

(32) Prefixation:

\[
\begin{align*}
\text{"Tāde shǒu bù bīng-liàng."} & \quad \text{cf. "Tāde shǒu méi bīng-liàng."} \\
\text{his hand not ice-cold} & \quad \text{his hand not ice-cold}
\end{align*}
\]

‘His hands are not icy-cold.’

(33) Tā bù hěn gāo.

he not very tall

‘He is not very tall.’ (‘He is not tall.’)

As shown in (34) and (35), *biē* and *méi* negate only complex adjectives but not simple ones; for example, *tāi ‘too’* can be considered a prefixal type-lifter, changing *cōng-mínɡ* ‘smart’ into a complex adjective that can be consequently negated by *biē* and *méi*.

(34) *Biē cōng-mínɡ!* Biē tāi cōng-mínɡ

don’t smart don’t too smart

‘Don’t be smart!’ ‘Don’t be too smart.’

(35) *Nǐ méi cōng-mínɡ.* Nǐ méi tāi cōng-mínɡ\(^\text{②}\).

you not smart you not too smart

‘You were not smart.’ ‘You were not too smart.’

I argue that *bù* is different from the other negators in that it can be a clitic type-lifter

\(^\text{①}\) Although the complex adjectives involving reduplication and suffixes can be negated by *méi*, those formed by a nominal-modifier prefix like *bīng* ‘ice’ cannot, unless the adjective is reduplicated. Compare (32) and below:

Tāde shǒǔ méi bīng-liàng bīng-liàng de.

his hand not ice-cold ice-cold DE

‘His hands were not ice-cold.’

\(^\text{②}\) In (35), a proper context for *nǐ méi tāi cōng-mínɡ* would be, for example, after a student shows off his tricks of cheating in an exam, his parent said this to criticize his self-deception. At any rate, *nǐ méi tāi cōng-mínɡ* sounds more natural than *nǐ méi cōng-mínɡ*.
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itself, an NPI counterpart of hĕn ‘very’, giving a simple adjective the predicate status by changing it into a complex adjective. I further argue that only one type-lifter is allowed per sentence. Such a requirement explains why (26), a negative sentence, does not require hĕn and why in (30)-(32), after reduplication and prefixation, bù is not allowed any more, and why in (33), hĕn is interpreted as an intensifier only. Actually, Huang (1988) also treats bù as a clitic, which forms an immediate constituent with the first V° element following it. Furthermore, I argue that hĕn, when used as a degree intensifier, is an NPI.

When bù and hĕn both occur, I argue that the bù will end up being the type-lifter, as in the case of (33), and hĕn is an intensifier. Actually, bù always precedes hĕn and has scope over it, unless bù prefixes some of the adjective compounds; for example, bù-cuò ‘not bad’ and bù-wěndìng ‘unstable’ are fine, but ‘bù-gāo ‘not tall’, ‘bù-piàoliàng ‘unpretty’, or ‘bù-lèi ‘untired’ are not. Compare (36) and (37):

(36) Tā hĕn bù gāo / piàoliàng / lèi.
    she very not tall / pretty / tired
    ‘She is very untall / unpretty / untired.’
(37) Tā hĕn bù -cuò / -wěndìng.
    he very not -bad / -stable
    ‘He is pretty good / very unstable.’

Such a distinction can also be seen in the comparative structure. Only a compound like bù-wěndìng ‘unstable’ can be the standard for comparison, but not a negated adjective like bù-gāo ‘not tall’. Compare (38) and (39):

(38) Wǒ bì tā gèng bù wěndìng.
    I Compare he even not stable
    ‘I am even less stable than he is.’
(39) *Wǒ bì tā gèng bù gāo.
    I Compare he even not tall
    ‘I am even more untall than he is.’

3. Movements

What do yes-no questions and contrastive structures share in common, where hĕn is also optional like in negation, as shown in (10) and (11)? Furthermore, what do comparatives, comparative correlatives, A-not-A questions, and inchoative structures share in common, where hĕn is prohibited as shown in (12) through (16)?

Judging from their underlying derivations, I argue that examples (9) through (16) each involve some kind of movement, either of the adjectival predicate, i.e. the VP, or of the IP that contains the stative VP. I argue that a movement that involves the adjective is another
way of deriving complex adjectives from simple ones.

I further propose that hĕn is prohibited when a VP movement is involved, but it is an optional NPI degree-intensifier when an IP movement is involved. The reason is that VP movement is for predicate forming, which therefore excludes hĕn as an extra type-lifter. But IP movement targets the illocutionary force, like interrogative and comparative, which either applies on the predicate or the degree of the adjectival predicate, and therefore makes hĕn optional. Now, I survey in greater detail all the cases that involve a movement.

3.1 Yes-No questions

Apparently, a yes-no question like (10) involves the movement of the whole IP, complement of CP, to [Spec, CP] to have the interrogative feature checked. In a yes-no question, what is questioned is either the truth value of the predicate or the degree of the truth value of the predicate, cf. Doetjes (2008). The IP movement, therefore, applies only to stative verbs that have achieved already predicatehood; or in other words, the movement itself is a type-lifter, giving the questioned adjective the predicatehood, no longer in need of hĕn for type-lifting. Consequently, hĕn is optional, surfacing as a degree intensifier only when the degree of the adjective is questioned.

3.2 Contrastive structures

In order to derive the English contrastive structures, Lee (2003) (see also Büring (2007a & b) and Jun, Kim, Lee et al. (2006)) proposes a Contrastive Topic (CT) that is different from Non-contrastive Topic (NCT) in that the former is both topic-marked and contains a focused item, as shown in (40):

(40) [These] [focus examples] [topic] I found [in Gundel].

Lee (2003) argues that CT construction involves some leftward movement of the topicalized nominal or predicate. According to him, while the nominal CT is located in [Spec, TopicP] in the left periphery, the predicate CPT takes a mid-sentential position, outside a VP, which accounts for the Mandarin V-shì-V structure in (41):

(41) Lái shì lái le, kěshì tā měi dài piào.
    come be come Perf. but he not bring ticket
    ‘He indeed came, but forgot to bring the ticket.’

I, however, find that the Chinese contrastive structure (11) is more complicated than (40), because it involves more than one contrast: the one between the subjects Zhāngsān and Līsì, and the one between the predicates gāo ‘tall’ and ǎi ‘short’. I argue that if the arguments, Zhāngsān and Līsì, are contrasted and one of them moves to CT-P, hĕn is needed for predicate type-lifting; but if the predicates, gāo and ǎi, are contrasted and one of them moves to CPT, hĕn is not allowed, due to the violation of the requirement that no two type-lifters can be used at the same time, in this case, VP movement and hĕn.
3.3 Comparative structures

(42) is the grammatical version of (12), which shows that although a prefix like ǹg ‘even’ or a suffix like dedu ‘a lot’ can be attached to a simple adjective in comparative structures, hên cannot.

\[
\begin{align*}
\text{Zhāngsān bi Līsī ǹg gāo.} & \quad \text{Or} \quad \text{Zhāngsān bi Līsī gāo-dedu.} \\
\text{‘Zhangsan compare Lisi even tall} & \quad \text{‘Zhangsan is even taller than Lisi.’} \\
\text{Zhāngsān bi Līsī tāll-a.lot} & \quad \text{‘Zhangsan is a lot taller than Lisi.’}
\end{align*}
\]

Bhatt & Pancheva (2004) suggest a counter cyclic derivation of English comparative structures, which solves the problem of lacking motivation for the extraposition of the degree clause ‘than…’ proposed in the classical literature, cf. Chomsky (1965) and Heim (2000). Bhatt & Pancheva (2004) argue that for the predicate ‘…taller than…’, first the quantificational DegP headed by -er undergoes rightward QP to a higher scope position, leaving a copy behind; then, the degree clause is merged as an argument to the QR-ed -er. The degree head -er is interpreted in its scope position but is pronounced from its base position. Mandarin does not have overt comparative morphology like the English -er marked on the adjectives, neither does Mandarin surface structure need to worry about motivation for extraposition of the degree clause. Instead, the adjective in a comparative structure is analytical and is interpreted for both lexical and syntactic information. I argue that, as shown in (43), the adjective in the comparative structure involves a DegP with a zero-marking head and an AdjP complement, where the adjective checks its comparative feature against Degº and later the whole DegP undergoes QR. The degree clause bi… ‘than…’ is merged to the base DegP. If the degree clause is merged to the QR-ed DegP, the surface form would be ‘A gāo guò B’, another possible comparative structure in Mandarin and other Chinese dialects:

I contend that the QR-ed simple adjective gāo ‘tall’ undergoes VP movement, through which, it becomes a complex predicate.

3.4 A-not-A questions

Regarding the derivation of an A-not-A question, Huang (1991) argues that A-not-A questions have an INFL, or a VP according Ernst (1994) and Law (2006), with an interrogative feature +Q that is realized by copying a sequence immediately following INFL and then inserting the negator either bù or méi (cf. Liu, 2008). +Q then moves to its scope position for interpretation at LF (Ernst, 1994). To pinpoint the location and capture
the derivation of +Q and to account for its sensitivity to the Aktionsart of the verb; i.e. there are A-bù and A-méi, Liu (2008) argues that the main predicate moves to NegP and form an [A-not] template, with the trace undeleted for not being strictly a head movement (cf. Fanselow, Gisbert, and Mahajan, 2000), and then the [A-not] template moves to CP to form an A-not-A question. As shown in (44), the simple adjective gāo ‘tall’ first moves to NegP to form the [gāo-bù] ‘tall-not’ template, which then further moves to CP to check the force feature of the sentence. The first-step movement of gāo has its trace remained in AdjP. Thus, the surface gāo-bù-gāo ‘tall not tall’ is achieved. A VP movement is responsible for the type-lifting of the simple adjective gāo ‘tall’ and prevents hén from surfacing:

\[
\begin{center}
\text{CP} \quad \text{gāo-bù-gāo ‘tall not tall’}
\end{center}
\]

3.5 Comparative correlatives

According to von Fintel (1994), Beck (1997), and Culicover & Jackendoff (1999), in English comparative correlatives, the’s in the antecedent and consequent clauses move to [Spec, C] with the adjective, in its comparative form, pied-piped to satisfy the [EPP] feature of C. For Mandarin comparative correlatives like (13), Liu (2006) argues that the correlative adverb yuè ‘the more’ induces comparison semantically, i.e. the two quantity or degree arguments in the antecedent and consequent clauses respectively. Semantically, Lin (2007) considers yuè as a degree adverb adjoined to a VP, which undergoes QR with the simple adjective complement, cf. Doetjes (1997) and Tsao and Hsiao (2002).

\[
\begin{align*}
\text{Zhāngsān} & \quad \text{yuè} \quad \text{chī} \quad \text{yuè} \quad (‘\text{hén}) \quad \text{gāo.} \\
\text{‘The more Zhangsan eats, the taller he is.’}
\end{align*}
\]

Similar QR in comparative correlatives is also identified by Kapetangianni & Taylor (2009) in Greek. Once again, we see the connection between the unavailability of hén and the movement of VP, in this case, again a QR type.

3.6 Inchoative structure

Lastly, in inchoative structures, it is obvious that the simple adjective has moved to the specifier position of the Currently- Relevant-Status Phrase (Li & Thompson, 1981), i.e. a CRS-P headed by le, to check its inchoative interpretation through a VP movement that is in complementary distribution with hén.
4. Conclusion

I have shown that simple adjectives in Mandarin can function as a predicate, not always with ʰĕn, the type-lifter, as argued by Huang (2006). I argue that IP and VP movements can also change a simple adjective into a complex adjective on a par with lexical reduplication and affixation. Furthermore, restricted by the constraint that no two type-lifting techniques be employed at the same time, ʰĕn is optional or banned in negation, yes-no questions, contrastive structures, comparative structures, A-not-A questions, comparative correlative structures, and inchoative structures. In negation, I argue that ʰù is the type lifter, which reduces ʰĕn only to an optional NPI adjectival intensifier. In yes-no questions and in inchoative structures, with the movement of the whole IP that involves the AdjP or VP, the simple adjective has achieved predicatehood prior to the movement, and therefore ʰĕn functions only as an optional intensifier. In the other structures, the movement of the AdjP or VP makes a simple adjective complex and therefore bans the occurrence of ʰĕn, another type-lifter.

Linguists have noticed that there is a close connection between the lexical semantics of adjectives and their degree modifiers. For example, Doetjes (2008) contends that there are restrictions over adjectival degree expressions and the categories of adjectives, as can be seen from the differences between the French trop and its English counterpart too. On the other hand, Pima, a Uto-Aztec language, has a prefix s- that is obligatory like ʰĕn in many situations and Jackson (2005) argues that it is a grammaticalized stative marker. The findings in this paper shed light on how adjectival degree modifiers can also reflect more sentential syntactic operations beyond the regional VP or AdjP syntax, to be more specific, through their relation with movements.

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