

# ZHŪ DÉXĪ'S TWO CLASSES OF ADJECTIVES REVISITED\*

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## 1. Introduction

Zhū Déxī (1956/80) establishes two adjectival classes for Chinese: the 'base forms' (*jīběn xíngshì*) and the 'complex forms' (*fùzá xíngshì*) (p.3), corresponding to the semantic dichotomy between the expression of a quality (*xìngzhì*) and the description of the state or mood of that quality (*xìngzhì de zhuàngkuàng / qíngtài*) (p.6). From the point of view of general linguistics, however, it is extremely puzzling to see adjectival *phrases* (where an adverb precedes the adjective) figuring among the complex forms as well; for in general, phrasal extensions of a lexical category should not be included in a classification that aims at a further subdivision of that lexical category i.e., in a classification which is basically made in terms of parts of speech.

I will demonstrate that the main criterion underlying Zhū's classification (not spelt out in his article) is whether a given adjective is in principle acceptable in the *de*-less modification structure or not: while the base form adjectives can modify a head noun without the subordinator *de* (modulo certain constraints), the complex form adjectives always require the presence of *de*. Given that adjectival *phrases* likewise require *de*, they have been (wrongly) included in what purports to constitute a lexical class.

Once we discard adjectival phrases from the classification, it becomes evident that the base forms and the complex forms represent two morphologically distinct classes. In other words, Chinese not only

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distinguishes adjectives from stative verbs, but furthermore divides them into two different sub-classes with distinct syntactic and semantic properties.

This is roughly equivalent to Zhū's claim, with the notable difference that adjectival *phrases* are now excluded. This seemingly small difference is important, however, because to include adjectival phrases in the classification has obscured the fact that the two classes established by Zhū Déxī are in reality *morphological* classes. Given the existence of *two* adjectival classes, it is more than surprising that many more recent studies make the claim that Mandarin Chinese does not have a class of adjectives distinct from intransitive stative verbs (cf. among others McCawley 1992, Larson 1991, Tang 1998, Lin 2004).

## 2. Base forms vs. complex forms

Anyone who wants to study adjectives in Mandarin Chinese turns to Zhū (1956) and is faced with his distinction of adjectives into two classes, base forms and complex forms.

### 2.1 Base forms (*jīběn xíngshì*)

A sample of base form adjectives includes e.g. *dà* 'big', *hóng* 'red', *màn* 'slow', *rè* 'hot', *liáng* 'cool', *zāng* 'dirty', *hútu* 'confuse'; *gānjìng* 'clean', *guānju* 'well-behaved', *cōngmíng* 'intelligent', *dàfāng* 'generous'. It is important to note that Zhū (1956/80:3) explicitly includes both monosyllabic *and* disyllabic adjectives here (a fact completely neglected by Sproat & Shih (1988), Duanmu (1997), Lu & Duanmu (2002), who wrongly claim that *de*-less modification is acceptable with *monosyllabic* adjectives only; cf. section 3.1 below).

### 2.2 Complex forms (*fùzá xíngshì*)

While the class of base forms seems straightforward because it looks homogeneous, the class of complex forms is rather puzzling because it covers rather heterogeneous subclasses.

#### 2.2.1 REDUPLICATED ADJECTIVES

The first subclass is that of reduplicated adjectives, which subsumes different reduplication patterns such as AA(BB), *AliAB*, ABB etc.: *xiǎo-xiǎo* 'small', *yuǎnyuǎn* 'distant', *gāngānjìngjìng* 'clean', *lǎolǎoshíshí* 'sincere';

*húlihútu* 'muddleheaded', *mǎlimǎhu* 'careless'; *hēihūhū* 'black, dusky', *rèhūhū* 'warm' etc.

### 2.2.2. MODIFIER-HEAD COMPOUND ADJECTIVES

This class is constituted by adjectives the internal structure of which can be analysed in terms of a modifying element preceding the adjectival head. Note that this description comes from Tang (1988); Zhū only provides examples to illustrate this second class of complex form adjectives: *bīng-liáng* 'ice-cold', *xuě-bái* 'snow-white', *tōng-hóng* 'all-red' = 'scarlet', *bǐ-zhí* 'brush-straight' = 'perfectly straight', *gǔn-rè* 'roll-hot' = 'scalding hot'.

### 2.2.3. ADJECTIVAL PHRASES

Last but not least, Zhū cites adjectival phrases composed of an adverb and an adjective as the third class of complex form adjectives: *hěn dà* 'very big'; *fěicháng piàoliang* 'extremely pretty', *tíng hǎo* 'very good', *nàme cháng* 'so long'; *yòu gāo yòu dà* 'both tall and big'.

## 3. The heterogeneity of the 'complex form' class

As evidenced by the examples constituting the different subclasses of complex form adjectives, this is a very heterogeneous class.

### 3.1. Reduplicated adjectives and modifier-head compound adjectives

Besides the inclusion of adjectival *phrases* among the complex forms (cf. 3.2 below), the inclusion in this class of modifier-head adjectival compounds such as *xuě-bái* 'snow-white' and *bǐ-zhí* 'brush-straight' is another puzzling factor. The more so as the latter can also be reduplicated: *xuěbáixuěbái*, *bǐzhíbǐzhí*. The question which arises immediately is why these adjectival compounds do not figure under the base forms, but are instead - in their *non-reduplicated* form - grouped together with *reduplicated* adjectives.<sup>1</sup>

The key to this puzzle is the fact that both reduplicated adjectives (such as *xiǎoxiǎo* 'small', *gāngānjìngjìng* 'clean') and modifier-head adjectival compounds always require *de* when preceding a nominal head. They thus contrast with adjectives classified as 'base forms' which under certain conditions may simply be juxtaposed with the head noun, without the

<sup>1</sup> Unlike the other adjectives, modifier-head compounds 'AB' do not reduplicate as 'AABB', but as 'ABAB'. Lǚ et al. (2000:719) note this latter pattern as 'BABA' in order to distinguish it from the repetition of the verb as a whole 'AB AB', e.g. *tǎolùn tǎolùn* 'discuss discuss' = 'discuss a bit'. For the semantic and syntactic differences between the repetition of the verb and adjectival reduplication, cf. Paul (2004) and references therein.

subordinator *de* (cf. Paul 2005 for a detailed account of *de*-less modification):

- |      |  |      |   |
|------|--|------|---|
| (1a) | gānjìng (de) yīfu <sup>2</sup><br>clean SUB clothes<br>'clean clothes' | (1b) | gāngānjìngjìng *(de) yīfu<br>clean SUB clothes<br>'(thoroughly) clean clothes'  |
| (2a) | bái (de) zhǐ<br>white SUB paper<br>'white paper'                       | (2b) | báibái/xuě -bái / xuě -bái -xuě-bái *(de) zhǐ<br>white/snow-white/snow-wh.-sn.-wh. SUB paper<br>'(snow-) white paper' |
| (3a) | hóng (de) chènshān<br>red SUB shirt<br>'a red shirt'                   | (3b) | tōnghóng/hóng-hóng *(de) chènshān<br>all.red / red -red SUB shirt<br>'a scarlet shirt'                                |

*De*-less modification is possible provided the resulting NP provides a natural, plausible classification, with the modifier presented as a defining property. Naturally, this is a somewhat flexible notion as evidenced by the 'gaps': *cōngmíng háizi* 'intelligent child(ren)' vs. \**cōngmíng dòngwù* 'intelligent animal(s)'; *bái zhǐ* 'white paper' vs. \**bái shǒu* 'white hand(s)'. In this respect, Chinese *de*-less modification is on a par with modification by a prenominal adjective in English (cf. Bolinger 1967) where similar semantico-pragmatically motivated 'gaps' are observed: *a nearby building* vs. \**a nearby bus*; *a home-loving husband* vs. \**a mistake erasing secretary*. Given that disyllabic adjectives (cf. (1a)) as well as complex modifiers are allowed in *de*-less modification ([*yìng sùliào*] *yǐzi* 'hard plastic chair') and that the *de*-less modification structure is a phrase (as evidenced e.g. by the accessibility of the head noun to syntactic processes such as deletion:

[<sub>NP</sub> *huáng méiguī*] *bǐ* [<sub>NP</sub> *hóng de* Ø] *hǎokàn* 'Yellow roses are prettier than red ones.'). we cannot adduce prosodic reasons in terms of a ban against polysyllabic adjectives in the *de*-less modification structure or alleged wordhood of the sequence 'adjective N' as possible explanations for the unacceptability of reduplicated adjectives in *de*-less modification (contra Sproat & Shih 1988, Duanmu 1997, Lu & Duanmu 2002).

Instead, we propose an account in semantic terms. As noted by Zhū himself (p. 5-6), reduplicated adjectives introduce the speaker's subjective evaluation of the property expressed by the adjective rather than solely referring to that property (as base form adjectives do) (also cf. Tang 1988). Accordingly, reduplicated adjectives cannot be interpreted as defining properties and are excluded from the *de*-less modification structure, because

<sup>2</sup> The following abbreviations are used in glossing examples: CL classifier; NEG negation; PART sentence-final particle; PL plural (e.g. 3PL = 3rd person plural); SG singular; SUB subordinator.

the resulting NP does not satisfy the condition of a plausible, natural classification. The same reasoning applies to modifier-head compounds such as *xuě-bái* 'snow-white' (cf. (2b)), *bǐ-zhí* 'brush-straight': as their internal structure shows, these adjectives provide a description of a property ('as white as snow', 'as straight as a brush') rather than purely referring to it.

### 3.2. Adjectival phrases

As noted above, including adjectival *phrases* among the subclasses of adjectives is very puzzling. This is because phrasal extensions of a lexical category should not be included in a classification that aims at further subdividing that lexical category, i.e., in a classification which basically is one in terms of parts of speech. The key to understanding Zhū's motivation for subsuming adjectival phrases under complex form adjectives again is the presence of *de*.

It is a well-known fact that in general *de* is obligatory when the adjective is modified by an adverb (cf. Fan Jiyan 1958: 214; Xiao Fu 1956 among others). This shows that there are not only semantic constraints on the *de*-less modification structure (it must result in a natural, plausible classification), but also syntactic ones. Apparently, only heads, but not adjectival phrases are allowed as modifiers in *de*-less modification (cf. Paul 2005 for further discussion):

- (4a) yī-tiào dà (de) gǒu  
 1 -CL big SUB dog  
 'a big dog'
- (4b) yī-tiào tèbié dà \*(de) gǒu  
 1 -SUB especially big SUB dog  
 'an especially big dog'
- (5a) yī-ge cōngmíng (de) rén /háizi  
 1 CL intelligent SUB person/child  
 'an intelligent person/child'
- (5b) yī-ge fēicháng cōngmíng \*(de) rén /háizi  
 1 CL extremely intelligent SUB person/child  
 'an extremely intelligent person/child'
- (6a) yī-ge xiǎo (de) chábēi  
 1 -CL small SUB teacup  
 'a small teacup'

- (6b) yī-ge hěn xiǎo \*(de) cháběi  
 1 -CL very small SUB teacup  
 'a very small teacup'

The otherwise observable dichotomy between base forms (conditioned optionality of *de*) and complex forms (overall obligatoriness of *de*) disappears when the adjective is the head of a larger phrase (including e.g. an adverb). Accordingly, it is completely misleading to include adjectival *phrases* under the class of complex form adjectives; for this amounts to claiming a change of class membership for base form adjectives when co-occurring with an adverb.

#### 4. *Base forms vs. complex forms as two distinct morphological classes*

So far we have demonstrated that the two classes established by Zhū (1956/80) are founded on the availability of *de*-less modification for the base form adjectives vs. the impossibility of *de*-less modification with complex form adjectives. Having discarded adjectival phrases, we obtain two plausible classes. We would like to go a step further now and postulate that base form adjectives and complex form adjectives represent two different *morphological* classes. For this claim to hold, we need to demonstrate that each class is associated with a predictable set of syntactic and semantic properties.

##### 4.1. *General properties of complex form adjectives*

Reduplicated adjectives (cf. (7) - (8), (11) - (12)) and modifier-head compounds (be it in the simple (9) or the reduplicated form (10)) belong to the same complex form class whose set of properties clearly distinguishes it from base form adjectives. In general, complex forms have *all* of the following three functions: attributive, predicative, and adverbial (with the exception of reduplicated modifier-head compounds which cannot function as adverbs):<sup>3</sup>

<sup>3</sup> Unlike complex form adjectives, base form adjectives - besides their attributive function - cannot always serve as predicates and adverbs. There is e.g. the well-known class of so-called *non-predicative adjectives* which need *shì...de* in order to constitute the predicate of a sentence (cf. Lü & Rao 1981, Paris 1979 among others):

- (i) Zhèxiē zhēnzhū \*(shì) tiānrán \*(de)  
 these pearl be natural DE  
 'These pearls are natural.'

Since non-predicative adjectives may modify a noun without *de*, they belong to the base forms: *tiānrán (de) zhēnzhū* 'natural (SUB) pearls', *fāng (de) pánzi* 'square plate' etc. (cf. Paul

- (7a) gāogāoxìngxìng de háizi  
happy SUB child  
'happy children'
- (7b) Tā gāogāoxìngxìngde  
3SG happy  
'He is happy.'
- (7c) Tā gāogāoxìngxìngde chàng gē  
3SG happy sing song  
'He is singing happily.'
- (8a) hǎohǎode yì-zhī bǐ  
good 1 -CL pen  
'a perfectly good pen'
- (8b) Wǒ zuótiān hái hǎohǎode, jīntiān jiù bìngdǎo le  
1SG yesterday still good today then be.ill PART  
'Yesterday, I still felt ok, but today I'm ill.'
- (8c) Nǐ hǎohǎode gēn tā shuō, bié shēng qì  
2SG good with 3SG talk not produce air  
'Talk to him nicely and don't get angry.'
- (9a) bǐzhí de shù-gàn  
perfectly.straight SUB tree-trunk  
'perfectly straight tree trunks'
- (9b) Gōnglù bǐzhí  
highway perfectly.straight  
'The highway is perfectly straight.'
- (9c) Tā bǐzhíde zhàn zài lǎoshī de qiánmiàn  
3SG perfectly.straight stand at teacher SUB front  
'He is standing perfectly straight in front of the teacher.'
- (10a) tōnghóng-tōnghóng de liǎn  
all.red SUB face  
'a scarlet face'

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2005 for extensive discussion). As noted by Paris (1979:87), absolute i.e., non-predicative adjectives cannot be reduplicated.

As far as the adverbial function is concerned, for base form adjectives it is far from being as regular and predictable as in the case of complex form adjectives (also cf. section 5 below).

- (10b) Ta -de liǎn tōnghóng-tōnghóng-de  
3SG-SUB face all.red  
'His face was scarlet.'
- (11) Liǎn chángchángde, yáchǐ yě chángchángde Zhū Déxī (1956/80:11)  
face long tooth also long  
'The face is long, and the teeth are long, too.'
- (12) Tiān yǐjīng hēihūhūde le  
sky already dark PART  
'The sky is already dark.'

#### 4.2. Compatibility with adverbs and the comparative construction

Unlike base form adjectives, complex form adjectives cannot appear in the comparative construction and are incompatible with degree adverbs such as *fēicháng* 'very' etc. Adverbs such as *tài* 'too' and *zhème* 'so, such' are, however, acceptable for some native speakers:

- (13) Tā -de yīfu bǐ nǐ -de  
3SG-SUB clothes compared.to 2SG-SUB  
gèng bái / gèng gānjìng /\*báibáide/\*gāngānjìngjìngde/\*xuě -báide  
even white/ even clean / white / clean snow-white  
'His clothes are (even) cleaner/whiter than yours.'
- (14) Tā fēicháng pàng/\*fēicháng pàngpàngde /\*tài pàngpàngde  
3SG very fat / very fat / too fat  
'He is very/too fat.'
- (15) \* Tā -de liǎnsè tèbié (tōnghóng)tōnghóngde  
3SG-SUB face particularly scarlet  
'(His face is particularly scarlet.)'
- (16a) Lǎo zhème màntēngtēngde kě bù xíng  
always so sluggish really NEG possible  
'It's impossible to be always so sluggish.'
- (16b) Tā -de liǎnsè wèishénme nàme tōnghóngtōnghóngde ?  
3SG-SUB complexion why so scarlet  
'Why is his face so red?'

Reduplicated adjectives and modifier-head compounds cannot be negated by *bù*:



- (17) Tā bù pàng /\*bù pàngpàngde  
 3SG NEG fat / NEG fat  
 'He is not fat.'
- (18) Tā -de yīfu bù gānjìng /\*bù gāngānjìngjìngde /\*bù (xuěbái) xuěbáide  
 3SG-SUB clothes NEG clean / NEG clean / NEG s-white s-white  
 'His clothes are not clean/snow-white.'

As we have seen in (7) - (12) above, complex form adjectives can function very well as predicates on their own and can be modified by VP-level adverbs such as *yǐjīng* 'already', *yě* 'also'. Their incompatibility with *bù*, which only negates predicative elements, and degree adverbs which are equally typical of predicative elements, cannot therefore be a matter of syntax, but must have semantic reasons.

The unacceptability of complex form adjectives in the comparative construction allows us to determine the semantic problem at stake: complex form adjectives are not admitted (cf. (13)), because a (quantitative) judgement with respect to the presence of a property is asked for, not a description of this property. The predominance of the descriptive component is particularly visible in the case of modifier-head compounds:

- (19) Tā -de yīfu bù shì xuě -bái, \*(ér shì bǐ xuě hái bái)  
 3SG-SUB clothes NEG be snow-white but be compared.to snow still white  
 'Her dress is not as white as snow, but even whiter than snow.'

The continuation in (19) is obligatory, because it makes explicit that it is the descriptive component which is negated, not the property itself. The latter cannot be negated, hence the incompatibility with *bù* (cf. (17) - (18)).

This line of reasoning is corroborated by the compatibility of complex form adjectives with adverbs of intensity such as *zhème* 'so, such' (cf. (16)). Consequently, complex form adjectives are not on a par with absolute adjectives, which do not allow these adverbs because they are situated at the end point of a (property) scale. Also note that absolute adjectives - being non-predicative adjectives - need *shì...de* in order to form a predicate (cf. footnote 3), another contrast with respect to the systematically predicative complex form adjectives.

##### 5. Productivity of the 'AABB' derivation pattern

The systematic syntactic and semantic differences between base form and complex form adjectives discussed so far justify their analysis as two separate morphological classes, the relation between them being one of derivation. Among the different processes deriving the class of complex

form adjectives (modifier-head compound formation, total or partial reduplication etc.), the 'AABB' reduplication represents the productive and regular pattern. This is evidenced by the fact that the derivation of AABB reduplicates applies to all kinds of morphemes and is not limited to cases where a corresponding base form adjective 'AB' exists. Importantly, the resulting AABB reduplicates once again have all of the three functions typical of the complex form class: predicative ((20b), (21b)), attributive ((20c), (21c)), and adverbial ((20d), (21d)) (some reduplicates only function as adverbs, though; cf. (22) - (23)).

- (20a) pó- -pó -mā -mā 'womanish, fussy, sentimental, '  
old.lady-old.lady-mother-mother  
(N.B. There exists no "corresponding" *pó-mā*)
- (20b) Zhè-ge rén pó-pó-mā-mā-de  
this-CL person fussy  
'This person is fussy.'
- (20c) Wǒ bù xǐhuan zhè-ge pó-pó-mā-mā de rén  
1SG NEG like this-CL fussy SUB person  
'I don't like this fussy person.'
- (20d) Tā pó-pó-mā-mā de shuō-le yī dà duī  
3SG fussy talk -PERF 1 big heap  
'He fussily talked a lot.'
- (21a) guǐ -guǐ -suì -suì 'furtive, stealthy, sneaky'  
ghost-ghost-evil.spirit-evil.spirit  
(N.B. There exists no "corresponding" *guǐ-suì*)
- (21b) Zhè jiāhuo guǐ-guǐ-suì-suì-de  
this guy stealthy  
'This guy is stealthy.'
- (21c) yī -ge guǐ-guǐ-suì-suì de xiǎotōu  
1 -CL stealthy SUB thief  
'a stealthy thief'
- (21d) Zhè-ge xiǎotōu guǐ-guǐ-suì-suì-de pǎo dào wūzi -li lái  
this-CL thief stealthy run to house-inside come  
'This thief ran stealthily into the house.'
- (22a) kū -kū -tí -tí 'with sobs and tears, weeping and wailing'  
cry-cry-weep.aloud-weep.aloud

- (22b) Tā kū-kū -tí-tí-de pǎo-guò -lái  
 3SG weeping.and.wailing run-pass-come  
 'He came running over weeping and wailing.'
- (23a) sān-sān-liǎng-liǎng 'by two's and three's'  
 3 3 2 2
- (23b) Tāmen sān-sān-liǎng-liǎng-de zǒujìn-le jiàoshì  
 3PL 3 3 2 2 enter -PERF classroom  
 'They entered the classroom by two's and three's.'

These cases present the derivative nature of reduplication in a particular clear fashion, the output being the same, independently of the category identity of the input.<sup>4</sup>

### 6. Conclusion

In the present article, we have made explicit the main criterion underlying Zhū's classification of adjectives into 'base forms' (*jīběn xíngshì*) vs. 'complex forms' (*fùzá xíngshì*), namely the possibility of *de*-less modification for the base forms ('base-Adj (*de*) N') vs. the obligatoriness of *de* for the complex forms ('complex-Adj. \*(*de*) N'). Furthermore, the two classes, which in the subsequent literature have been taken up under their corresponding semantic labels 'adjectives of quality' (*xìngzhì xíngróngcí*) vs. 'descriptive adjectives' (*zhuàngtài xíngróngcí*), can be shown to represent two morphological classes with distinct syntactic and semantic properties. This is somewhat different from Zhū (1956/80:6) for whom these two classes are the grammatical forms rendering two different concepts within the *same* grammatical category. While it is true that adjectival reduplication has been studied in great detail in the Chinese literature, the descriptions hardly ever go beyond the point of simply listing the semantic and syntactic properties of simple vs. reduplicated adjectives. In particular, the semantic and syntactic differences observed have not been interpreted as providing evidence for separate *morphological* classes of adjectives.

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<sup>4</sup> Incidentally, these cases equally remove any doubt about the word ( $X^0$ ) status of reduplicates. If a reduplicate were a phrase, its category identity would - in accordance with X-bar theory - depend on the category of its head and we would therefore wrongly predict NP status both for *pó-pó-mā-mā* 'womanish, fussy' in (20) and *guǐ-guǐ-suì-suì* 'furtive, stealthy' in (21), and VP status for *kū-kū-tí-tí* 'with sobs and tears' in (22). In the case of (23), we would be quite at a loss to determine what kind of phrase a number projects to, numbers in Chinese forming phrases in combination with classifiers only. Besides, unlike adjectival phrases, reduplicates cannot be negated (cf. (17) - (18)) and are not acceptable in the comparative construction (cf. (13)).

As a consequence, Chinese, a language reputed to lack adjectives altogether as a part of speech different from stative verbs, turns out to have as many as *two* classes of adjectives. To acknowledge adjectives as a lexical category distinct from that of state verbs is not just a terminological detail. On the contrary, it reflects the result of an analysis demonstrating adjectives to behave differently from verbs with respect to a fixed, predictable set of properties. This is equally important for cross-linguistic studies, because only a consistently applied terminology can guarantee that the phenomena compared are really commensurate. Ultimately, the situation in Chinese described here might stimulate us to revise our preconceived ideas about the typological characteristics of so-called 'isolating' languages.

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