Adjectives in Mandarin Chinese
The rehabilitation of a much ostracized category*

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The present paper examines the syntax and semantics of adjectives in Mandarin Chinese and argues that adjectives have to be recognized as a separate part of speech in Mandarin. I show that adnominal adjectives introduced by de should not be analysed as reduced relative clauses or small clauses, since adjectives that cannot be used predicatively can be used adnominally in conjunction with de. For adjectives in direct juxtaposition with the noun, evidence from N-subdeletion and multiple adjective ordering shows that the [A N] sequence has to be analysed as a noun phrase, not as a compound. Accordingly, both types of modification structures, ‘A de N’ and ‘A N’ need to be taken into account by typological studies. Finally I provide evidence for the existence of two morphologically different classes of adjectives with distinct semantic and syntactic properties, i.e. ‘simple’ adjectives and ‘derived’ adjectives.

1. Introduction

During the last decades adjectives in Mandarin Chinese have been rather neglected by more theoretically oriented studies. This is partly due to the (erroneous) assumption that they are conflated with intransitive stative verbs (cf. e.g. McCawley 1992). Interest in the status of adjectives in Mandarin has been revived, however, by the growing number of typological studies of adjectival modification in the recent past. More precisely, adjectival modification has regained theoretical importance due to the claim made by Cinque (1994) and elaborated by e.g. Scott (2002a,b), Chao et al. (2001),

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Laenzlinger (2000) that the functional hierarchies in the clause proposed for adverbs (Cinque 1999 & Tenny 2000) might be observable in the DP as well. Before these and related claims can be examined for Chinese, however, it is necessary to first address the following basic issues.

1. Do adjectives constitute a part of speech distinct from intransitive stative verbs in Chinese?
2. If this is the case, do we observe different semantic types such as scalar vs. absolute adjectives, intersective vs. non-intersective adjectives? Do these semantic differences correlate with syntactic differences (as known from other languages)?
3. Does Chinese display different modification structures, as e.g. Romance and Germanic languages, which place adjectives in prenominal or postnominal position? What – if any – are the semantic properties associated with the different modification structures?

To answer these and related questions is precisely the purpose of this paper. We will provide extensive evidence for adjectives as a separate part of speech in Mandarin. In fact, we will go a step further and demonstrate that Chinese has as many as two morphologically different classes of adjectives with distinct semantic and syntactic properties: simple adjectives and derived adjectives (including e.g. reduplicated adjectives). Furthermore, we argue that typological studies have to take into account both types of modification structures available in Mandarin Chinese: that where the subordinator de intervenes between the adjective and the head noun, ‘A de N’, and the case of simple juxtaposition of the adjective and the noun ‘A N’. To acknowledge adjectives as a distinct part of speech not only allows us to correct the typological picture we have of so-called “isolating” languages, but also challenges current proposals where all adnominal modifiers subordinated by de are either analyzed as relative clauses (Sproat & Shih 1988, 1991; Duanmu 1998; Simpson 2001) or as small clauses (Den Dikken & Singhapreecha 2004).

Since most of the data are inaccessible to the non-sinologist, we will give numerous examples and provide the reader with a detailed picture of the situation in Chinese and the possibility to judge for her/himself. At the same time, taking into account a more representative array of data than has been done in previous works is often sufficient to invalidate some of the current misconceptions concerning the syntax and semantics of adjectives in Chinese.

The paper is organized as follows. Section 2 provides ample evidence for adjectives as a part of speech distinct from intransitive stative verbs. In Section 3, the existence of two modification patterns is established: one where the subordinator de intervenes between the adjective and the head noun, ‘A de N’, and the case of simple juxtaposition of the adjective and the noun ‘A N’. Section 4 once again takes up the issue of adjectives as a separate part of speech and argues that in fact two morpho-syntactically different classes of adjectives have to be postulated for Chinese. Section 5 concludes the article.
2. Adjectives as a separate part of speech

Many studies (McCawley 1992; Larson 1991; Tang Sze-Wing 1998; Lin 2004 *inter alia*) hold that adjectives are to be conflated with intransitive stative verbs in Chinese and accordingly analyse ‘adjective *de* N’ as involving a relative clause modifying the head noun. This widespread assumption is, however, clearly invalidated when a more representative array of data is taken into account:

- non-predicative adjectives such as *yuánlái* ‘original’, *gòngtóng* ‘common’ cannot be analysed as relative clauses when subordinated to the head noun by *de*
- adjectives are reduplicated according to a pattern different from that for verbs
- under certain conditions, an adjective can modify a noun without the subordinator *de*; by contrast, for relative clauses *de* is obligatory.

2.1 Non-predicative adjectives vs. predicative adjectives

The idea of conflating adjectives with stative verbs relies on the fact that adjectives such as *cōngmíng* ‘intelligent’ function as a predicate without the copula *shi* ‘be’:

(1) Zhāngsān zhēn cōngmíng
    Zhangsan really intelligent
    ‘Zhangsan is really intelligent.’

When functioning as an adnominal modifier, the adjective is subordinated to the head noun by *de*:

(2) yī-ge cōngmíng de rén
    1-cl intelligent sub person
    ‘an intelligent person’

Since the same subordinator *de* also appears between a relative clause and the head noun (cf. (3)), it has been suggested that a prenominal adjective followed by *de* should be analyzed as a relative clause (see among others Sproat & Shih 1988, 1991; Duanmu 1998; Simpson 2001):

(3) [DP yi-ge [IP tǐ xīhuān xiào ] de rén
    1-cl like laugh sub person
    ‘a person who likes laughing’

1. The following abbreviations are used in glossing examples

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>classifier</td>
</tr>
<tr>
<td>PERF</td>
<td>perfective aspect</td>
</tr>
<tr>
<td>NEG</td>
<td>negation</td>
</tr>
<tr>
<td>PART</td>
<td>sentence-final particle</td>
</tr>
<tr>
<td>PL</td>
<td>plural (e.g. 3PL = 3rd person plural)</td>
</tr>
<tr>
<td>SG</td>
<td>singular</td>
</tr>
<tr>
<td>SUB</td>
<td>subordinator.</td>
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</tbody>
</table>
According to this scenario, *yī-ge cōngmíng de rén* in (2) would represent a head noun modified by a relative clause and hence should be translated as ‘a person who is intelligent’ rather than as ‘an intelligent person’. This is precisely the view adopted by Sproat & Shih (1988, 1991), Duanmu (1998), and Simpson (2001) for whom all sequences ‘adjective de’ are equated with relative clauses. Their analysis, however, does not bear further scrutiny.

Chinese has a large class of so-called *non-predicative* adjectives which cannot function as predicates on their own, but only as modifiers (cf. Lù & Rao 1981). When in a predicative function (cf. (4a), (5a)), the copula *shi* and the particle *de* are obligatory (Paris 1979: 61). Crucially, *shi…de* is excluded from the modification structure in the DP (cf. (4b), (5b)):

\[
\begin{align*}
(4) & \quad \text{a. } \text{ Zhèi-ge pánzi } *(\text{shì}) \text{ fāng } *(\text{de}) \ \\
& \hspace{1cm} \text{this } \text{-cl} \text{ plate be square } \text{DE} \ \\
& \hspace{1cm} \text{‘This plate is square.’} \\
& \hspace{1cm} \text{b. } \text{Tā mǎi-le } [_{\text{DP}} \text{ yī-ge } *(\text{shì}) \text{ fāng } \text{de}_{\text{sub}} \text{ pánzi }] \ \\
& \hspace{1cm} 3\text{sg buy-perf 1-cl be square sub plate} \ \\
& \hspace{1cm} \text{‘He bought a square plate.’} \\
(5) & \quad \text{a. } \text{ Zhèixiē wénjiàn } *(\text{shì}) \text{ juémì } *(\text{de}) \ \\
& \hspace{1cm} \text{these document be top-secret } \text{DE} \ \\
& \hspace{1cm} \text{‘These documents are top-secret.’} \ \\
& \hspace{1cm} \text{b. } \text{Tā diū-le } [_{\text{DP}} \text{ yīxiē } *(\text{shì}) \text{ juémì } \text{de}_{\text{sub}} \text{ wénjiàn}] \ \\
& \hspace{1cm} 3\text{sg lose-perf some be top-secret sub document} \ \\
& \hspace{1cm} \text{‘He lost some top-secret documents.’}
\end{align*}
\]

As can be seen from the data provided here, the class of non-predicative adjectives in Chinese includes both intersective adjectives ((4), (5)) as well as non-intersective adjectives ((6)–(7)); the latter – like their counterparts in Western languages – are completely excluded from the predicative function, irrespective of *shi…de* ((6a), (7a)).

\[
\begin{align*}
(6) & \quad \text{a. } \text{ *Zhèi-ge yǔyán } \text{shì gòngtóng } \text{de} \ \\
& \hspace{1cm} \text{this } \text{-cl} \text{ language be common } \text{DE} \ \\
& \hspace{1cm} \text{(*‘This language is common.’)} \ \\
& \hspace{1cm} \text{b. } \text{gòngtóng } \text{de}_{\text{sub}} \text{ yǔyán} \ \\
& \hspace{1cm} \text{common sub language} \ \\
& \hspace{1cm} \text{‘a common language’}
\end{align*}
\]

2. Note that *de* in the *shi…de* construction with non-predicate adjectives is different from the subordinator *de* in the DP (cf. Paris 1979: 60ff). They are therefore glossed differently as *DE* and *SUB*, respectively. Furthermore, the subordinator *de* is indexed with *SUB* in order to facilitate parsing of the examples.
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(7) a. *Zhèi-ge yìsi shì yuánlái de
   this-cl meaning be original de
   (*‘This meaning is original.’)
b. yuánlái de_sub yìsi
   original sub meaning
   ‘the original meaning’

Furthermore, predicative adjectives coincide with scalar, gradable adjectives, whereas non-predicative intersective adjectives coincide with absolute adjectives (cf. Paris 1979 for an extensive discussion). (For additional data, cf. Section 2.3 below.)

Given that non-predicative adjectives are unable to function as predicates, they clearly challenge an overall analysis of attributive adjectives as relative clauses, as proposed by Sproat & Shih (1988, 1991), Duanmu (1998), Simpson (2001) (the latter implementing Kayne 1994), Liu Danqing (2005), as well as analyses deriving every modifier from an underlying predicate (Den Dikken & Singhapreecha 2004). In any case, as discussed in detail in Paul (2005, 2007), the wide range of non-predicative modifiers (DPs, NPs, PPs, adverbs) subordinated to the head noun by de presents a general problem for the derivation of all modifiers from underlying predicates. (Also cf. Tang C.-C. 2007 for a critique of Simpson’s 2001 uniform analysis of modifiers as relative clauses.)

(8) [DP Mĕil / tāmen] de_sub pengyou
    Mary/ 3PL sub friend
    ‘Mary’s/their friend’

(9) [NP bōli] de_sub zhuōzi
    glass sub table
    ‘a glass table’

    towards problem sub opinion
    ‘an opinion about the problem’

    always sub habit in.case sub occasion
    ‘an old habit/a rare occasion’

3. Based on the class of non-intersective non-predicative adjectives (‘original’, ‘former’ etc., (cf. (6), (7)), Aoun & Li (2003: 148) likewise conclude that not all prenominal adjectives can be derived from relative clauses. However, they do not discuss intersective non-predicative adjectives (cf. (4), (5)) and accordingly fail to see the correlation between presence vs. absence of shi…de and predicative vs. attributive function.
2.2 Verbal vs. adjetival reduplication

While both transitive and intransitive verbs are repeated as a whole (cf. (12a–b)), each syllable is iterated with adjectives (cf. (13)) i.e. for a disyllabic verb noted as ‘AB’, we obtain ‘[V₀ AB] [V₀ AB]’, but ‘[A₀ AABB]’ for a disyllabic adjective:

(12) a. Ràng ta zhídào zhídào/*zhízhídáodào wǒ -de lihài
   let 3sg know know 1sg-sub (dis)advantages
   ‘Let him know my advantages and disadvantages.’ (Meng et al. 1984: 918)

   b. Nǐ chàng ge gē ràng dàjiā huánxǐ huánxǐ/*huánhuánxǐxǐ
      2sg sing cl song let everybody enjoy enjoy
      ‘Sing a song for everybody to enjoy.’

(13) a. gānjìng / gāngānjìngjìng /*gānjìng gānjìng de
      clean / clean clean clean sub clothes
      ‘(thoroughly) clean clothes’

   b. Zhèi-jiàn yīfu gāngānjìngjìngde /*gānjìng gānjìng
      this-cl clothes clean / clean clean
      ‘This piece of clothing is (thoroughly) clean.’

In the case of monosyllabic adjectives and verbs, no difference can be discerned on the segmental level between adjectival reduplication and repetition of the verb. On the suprasegmental level, however, these two phenomena can clearly be distinguished: while the second syllable in adjectival reduplication carries the first tone, irrespective of its original tone (cf. (14a–b)), the repeated verb (cf. (15a–b)) is in the neutral tone (signaled by the absence of a tone mark) (cf. Dragunov 1952/1960: 175):

(14) a. xiǎo ‘small’ > [ₐ₀ xiǎoxiǎo]

   b. kuài ‘fast’ > [ₐ₀ kuāikuài]

(15) a. kàn ‘look’ > [ₐ₀ kàn] [ₐ₀ kan]

   b. zǒu ‘walk’ > [ₐ₀ zǒu] [ₐ₀ zou]

The formal difference between adjectival reduplication pattern and repetition of the verb is accompanied by an interpretational difference, indicating that two completely different processes are involved here. Whereas the repetition of the verb ‘[V₀ AB] [V₀ AB]’ gives rise to the so-called “tentative aspect” (Chao 1968: 204), reduplication of adjectives ‘[A₀ AABB]’ is said to involve a higher degree of liveliness or intensity (Chao 1968: 209; Tang Ting-chi 1988; Zhu Dexi 1956). This shows clearly that adjectives and intransitive stative verbs (such as huánxǐ ‘enjoy’) cannot be conflated into a single class. (For further discussion of adjectival reduplication, cf. Section 4 below).  

4. Given that Francis and Matthews (2005) do not take into account the dichotomy scalar vs. absolute adjectives nor the dichotomy intersective vs. non-intersective adjectives, the conflation
2.3 De-less modification

Besides the modification structure with the subordinator de, ‘A de N’, there also exists the possibility of simply juxtaposing the adjective and the noun: ‘A N’, where ‘A N’ is a noun phrase, not a compound (as to be demonstrated in Section 3.3 below). The syntactic and semantic constraints on this de-less modification structure and the differences between the modification structure with and without de have been a longstanding issue in Chinese linguistics, as witnessed by the lively debate among Chinese linguists in the 1950s and 1960s (see Paris 1980 for a collection containing the translations of the most influential articles from that period).

The existence of the de-less modification structure is important because – in addition to the arguments provided above – it once again emphasizes the fact that not all adnominal modifiers can be analysed as relative clauses, the latter always requiring de. Furthermore, the acceptability of the de-less modification pattern again allows us to distinguish between (predicative) adjectives and stative verbs, because only the former, but not the latter, can modify a head noun without de. Last, but not least, the (im)possibility of de-less modification pattern serves as one of the diagnostics to distinguish between the two different classes of adjectives to be postulated for Chinese (cf. Section 4 below).

A rich array of data is given below in order to illustrate the properties of the de-less modification structure and to correct some misconceptions prevalent in the literature.

First, the de-less modification structure is acceptable for mono- and disyllabic adjectives alike as well as for complex modifiers (cf. (19–20)); this invalidates Sproat & Shih’s claim (1988: 466, 474; 1991: 566) that the de-less modification structure is acceptable only for monosyllabic “light” adjectives:

(16) yī-jiàn zāng/ piàoliang/ gānjìng yīfu
    1-cl dirty/ pretty / clean dress
    ‘a dirty/pretty/clean dress’

(17) yī-ge qíguài xiànxiàng
    1-cl strange phenomenon
    ‘a strange phenomenon’

they propose of adjectives with verbs in Cantonese must be considered with caution, because it might turn out to be incorrect. Cf. Lau (1999) for evidence in favour of adjectives as a part of speech distinct from verbs in Cantonese.

5. Apparently, this idea has been around for a long time, because it is explicitly corrected by e.g. Fan Jiyan (1958: 213) and Zhu Dexi (1956/80: 3). Fan Jiyan (1958: 213) even goes as far as providing a list giving the possible combinations of monosyllabic or polysyllabic head nouns with monosyllabic or polysyllabic adjectives in the de-less modification structure.
Second, predicative adjectives as well as non-predicative adjectives can appear in both types of modification structures, the one with and the one without the subordinator de. If the relative clause analysis of adnominal modifiers were correct, we would expect a completely different scenario: predicative adjectives would be predicted to exclusively occur in the modification structure with de (de being obligatory for relative clauses), whereas non-predicative adjectives would be predicted to be limited to the de-less modification structure and to be excluded from the modification structure with de (the latter being likened to a relative clause).

Non-predicative (absolute) adjectives with and without de:

(21) yī-ge fāng (de) pánzi (cf. (4) above)
1-cl square sub plate
'a square plate'

(22) tiānrán (de) zhēnzhū
natural sub pearl
'natural pearls'

(23) juémì (de) wénjiàn (cf. (5) above)
top-secret sub document
'top-secret documents'

Predicative adjectives with and without de:

(24) yī-ge pàng / lăoshí / cōngmíng / (de) rén
1-cl fat / honest / intelligent / sub person
'an honest/intelligent/fat person'

(25) yángé (de) guiding
strict sub rule
'strict rules'

6. The complex modifier in (13) and (14) is itself a de-less modification structure 'A N', viz. yīng sùliào ‘hard plastic’ and hēi qī ‘black lacquer’, respectively.
(26)  yi-jiàn zāng/ piàoliang/ gānjìng (de) yīfu
     1-cl dirty/ pretty / clean sub dress
     ‘a dirty/pretty/clean dress’

(27)  yī-tiào dà / hēi (de) gŏu
     1-cl big / black sub dog
     ‘a big/black dog’

Third, acceptability in the de-less modification structure is another criterion – besides
the separate reduplication patterns for adjectives vs. verbs (cf. Section 2.2 above) – to
distinguish between predicative adjectives on the one hand, and stative verbs, on the
other. At first sight, these two classes seem to be difficult to tell apart, both e.g. being
compatible with degree adverbs such as hĕn ‘very’ in predicative function:

(28)  Tā hĕn cōngmíng / hĕn dānyōu
     3sg very intelligent / very worry
     ‘He is very intelligent/worry a lot.’

However, in contrast to adjectives, stative verbs – like verbs in general – are excluded
from the de-less modification structure and can only modify a head noun by virtue of
being in a relative clause, which always requires de (cf. (29)).

(29)  dānyōu *(de sub) rén
     worry sub person
     ‘persons who worry’

7. As pointed out by an anonymous reviewer, this statement must be somewhat relativized
insofar as VPs may modify a head noun without the subordinator de:

(i)  [VP xià yŭ] tiān
     fall rain day
     ‘a rainy day’

(ii) #qiĕ cài băn
     cut vegetable board
     ‘a chopping board’

(iii) #dānyōu rénmìng
     worry life
     ‘a life of worries’

The absence of de seems to induce a semantic effect similar to that observed in the simple
juxtaposition ‘adjective noun’ (cf. Section 3.1 immediately below) where a new subcategory is
created: ‘rainy day’ rather than ‘a day when it was raining,’ ‘chopping board’ rather than ‘a board
for chopping vegetables’.

A first small survey shows that in the majority of the cases ‘VP N^0’ the noun plays the role
of an adjunct with respect to the VP, (cf. (i), (ii) above and (iv)–(vi) below), that the VP must
The difference between verbs and adjectives is particularly clear in the case of predicative adjectives that have an inchoative verbal counterpart, identifiable by its compatibility with the perfective aspect suffix -le; while the adjective can simply be juxtaposed with the head noun (cf. (24), (26) above), the corresponding verb requires the presence of de ((30), (31)):

(30) pàng -le *(de) rén
    become.fat-PERF SUB person
    'the person who has put on weight'

(31) zāng -le *(de) yīfu
    become.dirty-PERF SUB dress
    'the dress which has become dirty'

While so far we have concentrated on the aspects of the de-less modification structure that allow us to distinguish between adjectives and verbs, we will now turn

be a bare VP (cf. (viii)–(ix)), and that acceptability judgements may vary considerably: only (i), (iv), and (v) were unanimously accepted by all our informants (’#’ indicates diverging acceptability judgements):

(iv) tíng chē dìdiăn
    stop car place
    'parking lot'

(v) bào mínɡ riqí
    report name date
    'registration deadline'

(vi) #kāi huì shíjiān
    hold meeting time
    'the time of the meeting'

(vii) #bàokăo xuéshēnɡ
    register.for.exam student
    'students registering for the exam'

(viii) kĕyĭ bào mínɡ *(de) riqí
    can report name SUB date
    'the date until one can register'

(ix) yĭjīng xúnluó *(de) dìqū
    already patrol SUB area
    'already patrolled areas'

More research is needed in order to determine whether these de-less structures are compounds or phrases. For first attempts at summarizing some of the relevant data, cf. Lü et al. (1980/2000: 158), Liu Danqing (2005: 8), Shi Dingxu (2005).
to its semantic properties and compare it with the modification structure where \textit{de} is present.

3. The typology of adjectival modification

3.1 De-less modification vs. modification with de

The absence or presence of \textit{de} is associated with an interpretational difference. To make a rather complicated story short (cf. Paul (2005) for a detailed discussion), with the \textit{de}-less modification structure, a new subcategory is established, which must present a natural, plausible class in the sense of Bolinger (1967) (cf. Section 3.2 below). The modifier serves to single out the relevant subset of objects denoted by the NP, i.e. the modifier is presented as a defining property of the \textit{resulting} new subcategory: \textit{cōngmíng háizi} ‘intelligent children’, \textit{fāng pànzi} ‘square plate’.

This explains why modifiers referring to an intrinsic property of the noun are excluded from the \textit{de}-less modification structure: it is impossible to establish a new subcategory by using an intrinsic property of the category concerned, this intrinsic property holding for the hyperonym and for any of its subcategories alike:

\begin{enumerate}
\item[(32)]
\begin{enumerate}
\item a. *tián fēngmì
  sweet honey
\item b. *gāo mótiānlóu
  high skyscraper
\end{enumerate}
\end{enumerate}

When it does not indicate an intrinsic property of the head noun, the same adjective can be perfectly acceptable in the \textit{de}-less modification structure:

\begin{enumerate}
\item[(33)]
\begin{enumerate}
\item a. Wŏ zuì xǐhuan tián mántou bù tài xǐhuān xián-de
  \textsubscript{1PL} most like sweet steamed.bun \textsubscript{NEG} too like salty-\textsubscript{SUB}
  ‘I prefer sweet buns, I don’t really like salty ones.
\item b. gāo jiānzhùwù / shuǐpíng
  high building / standard
  ‘a high building/standard’
\end{enumerate}
\end{enumerate}

No such constraint holds for the modification structure with \textit{de} where adjectives are acceptable regardless of whether they denote an intrinsic propriety of the head noun or not:

\begin{enumerate}
\item[(34)]
\begin{enumerate}
\item a. tài tián de fēngmì / mántou
  too sweet \textsubscript{SUB} honey / steamed.bun
  ‘too sweet honey/buns’
\item b. zuì gāo de mótiānlóu / jiānzhùwù
  most high \textsubscript{SUB} skyscraper/ building
  ‘the highest skyscraper/building’
\end{enumerate}
\end{enumerate}
The interpretational properties of the *de*-less modification structure in Chinese thus differ from the semantics associated with prenominal adjectives in Romance languages “where the property of the adjective is asserted to be part of the defining features of the object in question. […] For instance, in *tes lisses cheveux* [‘your sleek hair’; WP], the hair is not merely described as sleek, it is defined as sleek, as if it could not be otherwise.” (Bouchard 1998: 145). Accordingly, adjectives referring to an inherent property typically occur in the prenominal position: French *la blanche neige* ‘the white snow’ vs. *la voiture blanche* ‘the white car’; Italian *dolce miele* ‘sweet honey’ vs. *vino dolce* ‘sweet wine’ (cf. Klein-Andreu 1983).

The interpretation of the sequence ‘adjective noun’ is thus more than a simple intersective one. For example, *hēi tóujīn* ‘black scarf’ is not meant to describe a scarf that happens to be black, but rather presents *hēi* ‘black’ as the defining property of the resulting subcategory of scarves. In *hēi de tóujīn*, however, the interpretation is purely intersective and *hēi* ‘black’ suggests a contrast with other modifiers as for example *bái* ‘white’ in *bái de tóujīn* ‘a white scarf’. This difference is admittedly a very subtle one and accordingly, most contexts allow both types of modification structures (cf. (35)). But as Fu Jingqi (1987) has shown, there also exist a few diagnostic contexts where only the *de*-less modification structure is allowed, as for example the identification context in (36):

(35) Tā bā hēi (de) tóujīn sòng rén le

3SG BA black sub scarf give people part

‘He gave black scarves to people (as a present).’ (Fu Jingqi 1987: 302)

(36) Zhè shì hēi (*de*) tóujīn

This be black sub scarf

‘This is a black scarf.’ (Fu Jingqi 1987: 302)

The examples by Tang Ting-chi (1979) and Zhu Dexi (1984) illustrate the same contrast (where the presence of *de* in e.g. (37b) implies the contrast with a stupid person, who would be expected to act in a muddle-headed way):

(37) a. Nǐ shì ge cōngmíng rén, wǒ bù bǐ duō jiēshì

2SG be cl intelligent person 1SG NEG must much explain

‘You are somebody intelligent, I don’t need to explain a lot.’ (Tang T.-C. 1979: 147)

b. Yī-ge cōngmíng de rén bù huì zuò zhèyàng

1-cl intelligent sub person neg will do such

hútu de shìqíng

muddle-headed sub matter

‘An intelligent person would not do such a muddle-headed thing.’
(38) a. Xuéxiào yǒu yángé guīdìng
    school have strict rule
    ‘The school has strict regulations.’
    (Zhu Dexi 1984: 11, 15, 16)

b. Xuéxiào yǒu jǐ -xiàng yángé de_{sub} guīdìng
    school have several-cl strict sub rule
    ‘The school has several strict regulations.’

In the modification structure with *de*, a property is encoded as an accessory one, in the sense that this property is presented as not instrumental in establishing a new subcategory of N. It is important to note that this is not to imply that a property *presented* as accessory cannot be stable through time (in e.g. (35), *hēi-de tóujīn*, the scarf does not change its black color and in (38b) the regulations remain strict). This point is especially clear in the case of modifiers referring to material, which in Chinese are nouns and which – like adjectives – may appear in the *de*-less modification structure:

(39) Zhāngsān yīgerén yī-tiān kĕyĭ zuò sān-zhāng mùtóu (*de*) zhuōzi
    Zhangsan alone 1-day can make 3-cl wood sub table
    ‘Zhangsan on his own can make three wooden tables a day.’
    (Fu Jingqi 1987: 292)

(40) Tā bă mùtóu (de) zhuōzi sòng rén le
    3sg ba wood sub table give people part
    ‘He gave wooden tables to people.’
    (Fu Jingqi 1987: 302)

It would not make sense to state that to be made of wood is a transient property of a table. To state that in the modification structure with *de*, a property is encoded as an accessory one is just meant to capture the fact that this property is not chosen by the speaker as one singling out a subcategory. Accordingly, individual-level as well as stage-level predicates are acceptable in both modification structures, with and without *de* (cf. (16)–(27)); it is the absence or presence of *de* which determines the interpretation of a given property as an accessory or rather a defining one. Also note that the *de*-less modification structure can refer to a token of the new subcategory (cf. (41)–(42)) and hence cannot be claimed to exclusively refer to kinds ((43)–(44)) (also cf. the discussion in Section 3.4 below):

(41) yī-jiàn zāng/ piàoliang/ gānjìng yīfu (= (16) above)
    1-cl dirty/ pretty / clean dress
    ‘a dirty/prettty/clean dress’

(42) yī-ge qíguài xiànxiāng (= (17) above)
    1-cl strange phenomenon
    ‘a strange phenomenon’
(43) juémì (de) wénjiàn (cf. (5) above)
    top-secret sub document
    'top-secret documents'

(44) yángé (de) guīdìng
    strict sub rule
    'strict rules'

To summarize, unlike verbs (of any class), adjectives and nouns can function as modifiers in the de-less modification structure. Furthermore, adjectives are different from nouns in that they do not appear in the copulative structure.

3.2 Constraints governing the de-less modification structure

Clearly, we do not want to imply that any property can be presented as a defining characteristic via de-less modification, because the semantic properties of the head noun likewise play a role, as observed by Zhu Dexi (1956/80: 9–10) and many others after him:

(45) a. cōngmíng rén / háizi
    intelligent person/ child
    b. *cōngmíng dōngwù
    intelligent animal

(46) a. zāng yīfu
    dirty clothing'
    b. *zāng táng
    dirty candy

(47) a. bái zhǐ / tóufa
    white paper / hair
    b. *bái shŏu
    white hand

(48) a. guì dōngxī
    expensive thing
    b. *guì dàngāo
    expensive cake

But for most dimensions ranging from e.g. material, color, shape to size etc. there exists a choice as to whether they can be encoded as defining or rather accessory properties. Recall that the de-less modification structure gives rise to the interpretation of the ‘A/N N’ sequence as (a designation for) a newly created subcategory, in other words, the ‘A/N N’ sequence has to result in a natural, plausible classification. In our opinion, it is this constraint which explains why de-less modification is not always possible.
This state of affairs is reminiscent of the restrictions governing the distribution in prenominal vs. postnominal position for adjectives in English investigated by Bolinger (1967). Provided that both positions are potentially available for a given adjective, the adjective is interpreted as a characteristic property in the prenominal position, and as an occasional, temporary property in the postnominal position:

\[
\begin{align*}
(49) & \quad \text{a. the only navigable river} \\
& \quad \text{b. the only river navigable}
\end{align*}
\]

\[
\begin{align*}
(50) & \quad \text{a. Who were the guilty people?} \\
& \quad \text{b. Who were the people guilty?} \\
& \quad \text{(Bolinger 1967: 4)}
\end{align*}
\]

As Bolinger (1967: 4) states "[...] the only river navigable is unambiguously occasion, the only navigable river unambiguously characteristic. Similarly with Who were the guilty people?, which characterizes and classifies, vs. Who were the people guilty?, which relates the guilt to an occasion."

Bolinger (1967) also comments extensively on the fact that the acceptability of an adjectival phrase in the prenominal position is difficult to predict, because it largely depends on pragmatic factors i.e. on whether the resulting NP is conceived of as a (culturally) relevant characterization. Discussing the reason why unlike ill-behaved child and home-loving man, *mistake-erasing secretary and *husband-waking wife are unacceptable, he says: “These must wait the day when we have some interest in characterizing secretaries as mistake-erasing and wives as husband-waking.” (Bolinger 1967: 7). Accordingly, there exist numerous “irregularities”: e.g. your absent friend is acceptable, while *your present friend is not; the same holds for deposited money vs. *withdrawn money (ibid., p. 9, 11). Conversely, it is not excluded that a former exclusively temporary modifier becomes acceptable in the prenominal position, “if the situation is such that nouns are distinguished by it” (ibid., p. 11): the then president vs. *the now president, or a nearby building vs. *a nearby bus.\(^8\)

The same unpredictability as to what counts as a natural, plausible classification stated for English by Bolinger equally holds for Chinese and explains the “gaps” observed for de-less modification: bái tóufa ‘white hair’, but not *bái shŏu ‘white hand’,

\(^8\) Taking up Ziff’s (1960) concept of “natural kind” as further developed by Chierchia (1998), Bouchard (2005) equally concludes to a pragmatic constraint determining the well-formedness of adjective-noun combinations. He demonstrates how allegedly devious adjective orderings as the one illustrated in (ii) (where the adjective indicating the ‘origin’ is farther away from the noun than the colour adjective) in fact correspond to a specific context. In the example at hand e.g. different techniques of obtaining the colour blue in pottery are discussed and consequently blue vases constitute a “natural kind”, which is modified by Chinese (ii):

\[
\begin{align*}
\text{(i) blue Chinese vases} \\
\text{(ii) Chinese blue vases}
\end{align*}
\]
cōngmíng rén/háizi ‘intelligent person/child’, but not *cōngmíng dòngwù ‘intelligent animal’, pàng rén ‘fat person’, but not *shòu rén ‘skinny person’, etc.\(^9\)

3.3 The phrasal status of the de-less modification structure

The requirement to obtain a natural, plausible classification and the resulting impossibility of predicting the acceptability for a given de-less modification structure, as well as the special semantics associated with the de-less modification structures have often been misinterpreted as arguments for compound status i.e., for ‘A N’ being a word, N\(^0\), rather than a noun phrase (cf. among others Sproat & Shih 1988, 1991; Duanmu 1998; Aoun & Li 2003: 149). It is true that Chinese displays a large number of ‘A-N’ and ‘N-N’ compounds such as xiăo-fèi ‘small-cost’ = ‘tip’, dà-yī ‘big-coat’ = ‘overcoat’, hónghuā ‘red-flower’ = ‘saflower’ (plant used in traditional Chinese medicine), chá-huā ‘tea-flower’ = ‘camelia’, lóng-tóu ‘dragon-head’ = ‘tap’, huŏ-chē ‘fire-vehicle’ = ‘train’ etc. However, there are several tests to show that de-less modification structures possess clearly different properties from compounds and must be analyzed as phrases.

First, it is well-known that the internal structure of compounds, i.e. of words, is inaccessible to syntactic rules (Lexical Integrity Hypothesis (LIH)).\(^{10}\) This is illustrated

---

\(^9\) The unpredictability of what counts as a natural, plausible classification and hence, the unpredictability of whether a given de-less modification structure will be judged acceptable or not, probably explains the comments by two anonymous reviewers that they do not always accept the examples of de-less modification structures cited in the literature or given in the text. The following observation made by Monique Hoa (p.c.) sheds some light on the role that context may play here as a means of establishing a new subcategory whose relevance might not be immediately accessible to other speakers (thereby confirming Bolinger’s (1967) and Bouchard’s (2005) views). Commenting on the unacceptability of (45b) above, *cōngmíng dòngwù ‘intelligent animals’, she notes that this sequence might become acceptable after the difference between intelligent animals (cōngmíng de dòngwù) and non-intelligent animals (bù cōngmíng de dòngwù) has been introduced in the preceding discourse; to continue with cōngmíng dòngwù as a new subcategory relevant in the given situation then becomes possible.

\(^{10}\) As shown by Huang (1984: 60ff), Chinese (cf. (i), (ii)) – unlike German (cf. (iii)) – does not allow subparts of a word to be conjoined:

\[(i) \ [_{N^0}huŏ-chē ] \ gēn \ [_{N^0}qi-chē ] \ "train(s) and car(s)"
\]
\[(ii) *\[huŏ gēn qi ] \ chē \ "fire and gas vehicle"
\]
\[(iii) Filz- und Stroh-hüte \ "felt hats and straw hats"
\]
in (51)–(54) where the head noun inside the ‘A N’ compound (e.g. chá ‘tea’ in (51)) is not visible for the rule operating on the phrasal level and allowing an empty head noun in the subsequent NP:

(51) a. *Wŏ xĭhuān [Nₐ lǜ -chá], [NP hóng de_{sub} Ø] yĕ kĕyĭ
   1sg like green-tea red _sub also possible
b. Wŏ xĭhuān [Nₐ lǜ -chá], [Nₐ hóng-chá] yĕ kĕyĭ
   1sg like green-tea red -tea also possible
   ‘I like green tea, but black tea is also ok.’

(52) a. *Wŏ xĭhuān chī [N₂ xiăo -báicài ], yĕ xĭhuān [NP dà de_{sub} Ø]
   1sg like eat small-Chin.cabbage also like big _sub
b. Wŏ xĭhuān chī [N₂ xiăo -báicài ], yĕ xĭhuān [N₀ dà -báicài ]
   1sg like eat small-Chin.cabbage also like big-Chin.cab.
   ‘I like to eat pakchoi (= a variety of Chinese cabbage), and I also like to eat Chinese cabbage.’

(53) a. *Wŏ yĭjīng măi-le [Nₐ xiăo-cōng], hái yào măi [NP dà de_{sub} Ø]
   1sg already buy-perf small-onion still want buy big _sub
b. Wŏ yĭjīng măi-le [Nₐ xiăo-cōng], hái yào măi [N₀ dă- cōng]
   1sg already buy-perf small-onion still want buy big-onion
   ‘I already bought shallots, I still want to buy Chinese onions.’

(54) *Amēi bù xiăng chī [Nₐ hóng-huā ], [NP huáng de_{sub} Ø] hái kĕyĭ
   Amei neg want eat red -flower yellow _sub still acceptable
   (‘Amei doesn’t want to take safflower [as medicine], yellow ones are still ok.’)

Importantly, the LIH holds regardless of whether the meaning of the compound is (relatively) compositional (cf. (51)) or completely opaque (cf. (54)); it is therefore not feasible to reduce the effects of the LIH observed above to the semantic opacity of the compounds at hand.

Huang (1984: 61) equally observes that subparts of a word are not visible to interpretation rules; accordingly, (iv) is not rejected as contradictory:

(iv) yī-kuài lūsè -de [Nₐ hēi -băn ]
    1 -cl green-sub black-board
    ‘a green blackboard’

Lu Zhiwei (1975: 32) makes the same observation; he states that the acceptability of (v) forces us to conclude that xiăo-hái ‘small-child’ = ‘child’ is a word, N₀. Also note that -hái- ‘child’ is a bound morpheme.

(v) dà [N₀ xiăo -hái ]
    big small-child
    ‘a big child’
In noun phrases, however, the head noun is visible to phrase-level rules and accordingly, an identity relation can be construed with the head noun in a subsequent NP, thus licensing an empty head in the latter. Note that *de* is obligatory in a modified NP lacking an overt head (cf. Li 2007):\(^{11}\)

(55) Wŏ juédé [\(\text{NP} \text{huáng chènshān} \) bǐ [\(\text{NP} \text{hóng } -\text{de}_{\text{sub}} \text{Ø} \) ] hăokăn 1sg think yellow shirt compared:to red -sub Ø pretty 'I think that yellow shirts are prettier than red ones.'

(56) Wŏ bù xĭhuān [\(\text{NP} \text{yuán pánzi} \) ], [\(\text{NP} \text{fāng } -\text{de}_{\text{sub}} \text{Ø} \) ] hái kĕyĭ 1sg NEG like round plate square-sub still acceptable 'I don’t like round plates, square ones are still ok.'

(57) Bù măi [\(\text{NP} \text{dă pángxiè} \) ], măi [\(\text{NP} \text{xıăo } -\text{de}_{\text{sub}} \text{Ø} \) ] hăokăn neg buy big crab buy small-sub 'Don’t buy a big crab, buy a small one.'

Examples (55)–(57) are thus on a par with (60): the subordinator *de* being optional in the case of pronouns as modifiers of kinship terms (cf. (58) vs. (59)), there is no *de* in the first NP; in the second NP, by contrast, *de* is obligatory due to the empty head.

(58) Tā / wŏ (de) gēgē 3sg/ 1sg sub younger.brother ‘his/my younger brother’

(59) Zhāngsān *(de) gēgē Zhangsan sub younger.brother ‘Zhangsan’s younger brother’

(60) Tā gēgē bĭ [ wŏ *(de) Ø ] găo 3sg younger.brother compared:to 1sg sub tall 'His younger brother is taller than mine.'

The (un-)acceptability of an empty head noun allows us to distinguish between the ‘A N’ sequences in (51)–(54), on the one hand, and those in (55)–(57), on the other: lú-chá ‘green tea’, xiăo báicài ‘a variety of Chinese cabbage’, xiăo-cōng ‘shallots’, hóng-huā ‘safflower’ are shown to be compounds, whereas huáng chènshān ‘yellow shirt(s), yuán pánzi ‘round plate(s)’, dă pángxiè ‘big crab(s)’ are clearly phrases.

Another difference between ‘A-N’ compounds and ‘A N’ phrases is provided by the fact that ‘A-N’ compounds are not subject to the constraint observed for *de*-less modification structures, viz. to result in a natural, plausible classification. Thus,

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Compounds with three modifiers are well attested and do not result in divergence of judgments (cf. (61)–(63)).

(61) \([N^e_0 yōu-liáng-zhōng-chéngjī]\)  
    \(\text{excellent-good-average-result}\)  
    ‘excellent, good and average results’

(62) \([N^e_0 dà-zhōng-xiăo-xué]\)  
    \(\text{big-middle-small-school}\)  
    ‘educational institutions (i.e. primary school, middle school and university)’

(63) \([N^e_0 guān-yà-jì-jūn]\)  
    \(\text{best-second-third-rank}\)  
    ‘the first, second and third rank’

By contrast, de-less modification structures with more than two modifiers are very rare and are not uniformly judged acceptable. Whereas according to Xu & Liu (1999), (64) is well-formed, several native speakers rejected (64) as soon as the third modifier hēi ‘black’ was added. This is due to the fact that a natural, plausible classification is the more difficult to obtain the more modifiers are present:

(64) \([NP_0 xiăo shòu (??hēi) gēbo]\)  
    \(\text{small skinny black arm}\)  
    ‘a small skinny black arm’

Note that in the phrasal de-less modification structure the modifiers are interpreted as stacked.

Finally, adjective ordering restrictions (cf. Sproat & Shih 1988, 1991) may also serve as a diagnostic to distinguish between ‘A-N’ compounds such as \([N^e_0 dà-guàr]\) ‘unlined long gown’, on the one hand, and the phrasal de-less ‘A N’ modification structures such as \([NP_0 dà páńzi]\) ‘big plate’, on the other. Feng Shengli (2001) observes that when a modifier such as e.g. bái ‘white’ is added, different ordering patterns obtain:

(65) a. \([NP_0 dà bái páńzi]\)  
    \(\text{big white plate}\)  
    ‘a big white plate’

   b. *bái \(dà pánzi\)  
    \(\text{white big plate}\)

(66) a. bái \([N^e_0 dà- guàr]\)  
    \(\text{white big-gown}\)  
    ‘a white unlined long gown’

   b. *dà- bái guàr  
    \(\text{big white gown}\)
Given that the ordering restrictions for modifiers apply word-externally and that a modifier relating to color must be nearer to the head noun than a modifier relating to size, he concludes that dà-guàr ‘unlined long gown’ is a compound. Its internal structure is invisible to the ordering restrictions, hence the acceptability of (66a); (66b), on the other hand, is ungrammatical due to a violation of the Lexical Integrity Hypothesis. The NP dà bái pánzi ‘big white plate’ in (65a), however, obeys the ordering restrictions ‘size > color’ applying in syntax and therefore must be distinguished from compounds like dà-guàr. His observation thus confirms the contrast established between A-N compounds, on the one hand, and phrasal de-less ‘A N’ modification structures, on the other.

3.4 Intermediate summary

In the preceding sections, we have argued that the de-less modification structure is a phrase, not a compound (contra among others Sproat & Shih 1988, 1991, Duanmu 1998, Aoun & Li 2003: 149). This result is important insofar as it leads to the conclusion that both types of modification, with and without de, have to be taken into account for typological studies of adjectival modification, contra Sproat & Shih’s (1988, 1991) claim that only the de-less modification structures are relevant.12

The constraint governing the acceptability of a de-less modification structure and giving rise to unpredictable “gaps” – an issue having preoccupied Chinese linguists since the 1950’s – has turned out to be of a semantico-pragmatic nature similar to the constraint observed for English by Bolinger: a de-less modification structure must result in a natural, (culturally) plausible classification. Since the de-less modification structure establishes a new subcategory (with the modifier presented as its defining property), it is evident that intrinsic properties are excluded here, because they hold both for the hyperonym and any of its subcategories. In this respect, Chinese de-less modification structures clearly differ from structures with prenominal modifiers in Romance languages.

12. As discussed in detail in Paul (2005), Sproat & Shih (1988: 474, 477) apparently do not see any contradiction between assigning compound i.e. word status to de-less modification structures and their claim that ordering restrictions only apply to de-less modification structures. If Sproat & Shih were right and the de-less ‘A (A) N’ sequences were really words, i.e. N0, the impossibility of inverting the order of the adjectives would simply be due to the fact that word-internal structure is inaccessible to phrase level rules, and accordingly would not reveal anything about the (non-) existence of ordering restrictions in Chinese. For evidence in favour of the view that adjective ordering restrictions operate above the word level (a view contested by an anonymous reviewer), cf. inter alia Scott (2002a,b), Laenzlinger (2000), Cinque (2005) and references therein.
Furthermore, the fact that predicative adjectives as well as non-predicative adjectives can appear in both types of modification structures challenges those proposals that derive all modifiers from underlying predicates. For if this approach were correct, we would expect predicative adjectives to exclusively occur in the modification structure with *de* (*de* being obligatory for relative clauses), whereas non-predicative adjectives would be predicted not to function as modifiers at all, a prediction not borne out by the Chinese data.

As we have already pointed out, there exists no correlation between one type of modification structure and a particular type of predicate. On the contrary, individual-level as well as stage-level predicates (e.g. *cōngmíng* ‘intelligent’, *gānjìng* ‘clean’) are acceptable in both types of modification structures with and without *de*. This situation in Chinese is problematic for Cinque (1994, 2005) who – based on Romance languages – proposes a correlation between defining, non-restrictive, individual-level predicates and designated specifier positions (for prenominal adjectives in Romance), on the one hand, and between restrictive, stage-level predicates and relative clause source (for postnominal adjectives in Romance), on the other.

If the correlation obtained by Cinque equally held for Chinese, we would e.g. not expect stage-level predicates in the *de*-less modification structure (cf. (67)), where the modifier encodes a defining property of the resulting subcategory:

(67) yī-jìàn zāng/ piàoliang/ gānjìng yīfu
1-cl dirty/prettyspace / clean dress
’a dirty/prettyspace/clean dress’

Note in this context that the possible interpretation of the *de*-less modification structure as referring to an individual token does not hinge on the presence of the classifier phrase, as witnessed by the following sentence:

(68) Ba zāng/ gānjìng yīfu fàng zài zhèr
BA dirty/ clean dress put at here
‘Put the dirty/clean dress here.’

Non-intersective adjectives such as *yǐqián* ‘former’, *jiānglái* ‘future’ etc. likewise do not behave as expected, because they always require the presence of *de*:

(69) a. běnlái *(de) yìsi
original subj meaning
‘the original meaning’

b. yǐqián /jiānglái *(de) xiáozhāng
former/future subj school.president
‘the former/future school president’

c. mùqián *(de) qíngkuàng
present subj situation
‘the present situation’
According to Cinque (2005: 31) attributive-only adjectives are functional. Given that for Cinque, the modifiers in the de-less modification structure occupy dedicated functional projections, non-intersective non-predicative adjectives such as běnlái ‘original’ etc. should therefore be acceptable in the modification structure without de. This is, however, not borne out by the Chinese data above, where in fact the exact opposite of Cinque’s claim is observed.

4. Two classes of adjectives

Having established adjectives as a distinct part of speech in Chinese allows us to take a fresh look at reduplicated adjectives (e.g. gāngānjìngjìng ‘really clean’) and to acknowledge them as a second class of adjectives distinct from simple adjectives (e.g. gānjìng ‘clean’). While adjectival reduplication has been described in great detail in the literature in Chinese, these descriptions have mainly concentrated on simply listing the properties of simple vs. reduplicated adjectives. Accordingly, the semantic and syntactic differences observed have not been interpreted as what they really are, i.e. as arguments in favour of reduplication of adjectives as a genuine morphological process resulting in a new class of derivatives. Instead, Zhu Dexi (1956/80: 6) in his still influential article on adjectives explicitly subsumes – under one and the same grammatical category – the so-called “base forms”, instantiated by simple adjectives such as gānjìng ‘clean’, and the so-called “complex forms”, instantiated by e.g. reduplicated adjectives such as gāngānjìngjìng ‘really clean’. To postulate the existence of two morphologically separate classes of adjectives in Chinese is therefore not as uncontroversial as an anonymous reviewer claims.

Furthermore, none of the typologically oriented studies (cf. a.o. Tang Sze-Wing 1998; Lin 2004; Scott 2002b) ever takes reduplicated adjectives into account, which does not prevent Tang (1998) and Lin (2004) to make the farreaching – and for that matter wrong – claim that adjectives and stative verbs are to be conflated into one class in Chinese. Finally, the recent monograph on morphology in Chinese, Packard (2000), does not examine reduplication of adjectives either, but only mentions it in passing (p. 249).

As we will demonstrate in the remainder of the article, not only are adjectives a separate part of speech from (stative) verbs, but within the category of adjectives, simple adjectives and reduplicated adjectives belong to two distinct morphological classes, each of which is associated with a predictable set of semantic and syntactic properties.

4.1 Reduplication as a morphological process

As to be expected from a morphological process, adjectival reduplication is sensitive to word-internal structure. Thus, while the general reduplication pattern for a bisyllabic adjective noted as ‘AB’ is $[A^0AABB]$ (cf. (70)), it is $[A^0ABAB]$ for ‘modifier-adjectival head’ compounds such as xuĕ-bái ‘snow-white’ = ‘as white as snow’ (cf. (71)).

\[(70) \quad AB \Rightarrow AABB: \]
\[\begin{array}{ll}
    a. & \text{piàoliang ‘pretty’} \Rightarrow \text{piàopiàoliangliang} \\
    b. & \text{gāoxìng ‘happy’} \Rightarrow \text{gāogāoxìngxìng} \\
    c. & \text{qīngchu ‘clear’} \Rightarrow \text{qīngqīngchuchu} \\
\end{array}\]

\[(71) \quad AB \Rightarrow ABAB: \]
\[\begin{array}{ll}
    a. & \text{xuĕ-bái ‘snow-white’} \Rightarrow \text{xuĕ-bái-xuĕ-bái ‘snow-white’}; *\text{xuĕ-xuĕ-bái-bái} \\
    b. & \text{bǐ-zhí ‘brush-straight’ = ‘perfectly straight’} \Rightarrow \text{bǐ-zhí-bǐ-zhí}; *\text{bǐ-bǐ-zhí-zhí} \\
    c. & \text{gŭn-rè ‘roll-hot’ = ‘scalding hot’} \Rightarrow \text{gŭn-rè-gŭn-rè}; *\text{gŭn-gŭn-rè-rè} \\
    d. & \text{tōng-hóng ‘all-red’ = ‘very red, scarlet’} \Rightarrow \text{tōng-hóng-tōng-hóng}; *\text{tōng-tōng-hóng-hóng} \\
\end{array}\]

Furthermore, reduplication is blocked in the cases of monomorphemic disyllabic adjectives (cf. Tang Ting-chi 1997: 320). This holds both for ‘native’ adjectives (cf. (72)) and for phonetic borrowings from other languages (cf. (73)):

\[(72) \]
\[\begin{array}{ll}
    a. & \text{yăotiăo ‘graceful, gentle’} \Rightarrow *\text{yăoyăotiăotiăo} \\
    b. & \text{línglóng ‘exquisite’} \Rightarrow *\text{línglínglónglóng} \\
    c. & \text{tángtū ‘brusque’} \Rightarrow *\text{tángtángtūtū} \\
    d. & \text{míaotiao ‘slender’} \Rightarrow *\text{míáomiáotiaotiao} \\
\end{array}\]

14. Reduplicated adjectives are different from onomatopoeia, where the original form is repeated as a whole, in general two to three times (cf. Chao 1968: 210):

\[ \begin{array}{ll}
    (i) & \text{pūtōng, pūtōng (pūtōng . . .) ‘splash, splash’} \\
    (ii) & \text{dìngdìng, dìngdìng (dìngdìng . . .) ‘ding-dong’} \\
    (iii) & \text{dā dā (dā) ‘hammering, pounding sound’ (e.g. of a typewriter, machine guns etc.)} \\
\end{array} \]

15. The reduplication pattern for ‘modifier-adjectival head’ compounds deriving an adjective of the form $[A^0ABAB]$ is not to be confused with the repetition of a disyllabic verb as a whole in syntax: $[V^0AB] [V^0AB]$ (cf. Section 2.2 above). In the latter case, the first verb can e.g. be suffixed with the perfective aspect $-le$:

\[ \begin{array}{ll}
    (i) & \text{Zhèi-ge wèntí , wŏmen yánjìu-le yánjìu} \\
        & \text{this -CL problem 1PL study -PERF study} \\
        & \text{This problem, we have studied it a bit.} \\
\end{array} \]

16. Naturally, the reduplication as $[A^0ABAB]$ is equally excluded for all of these disyllabic monomorphemic adjectives (e.g. *$[A^0yăotiăoyăotiăo]$ ‘graceful’), because reserved for adjectives which do have a word-internal structure.
(73)  a. módēng ‘modern’ => * mómodēngdēng
    b. yōumò ‘humourous’ => * yōuyōumomò

When an initially monomorphemic disyllabic adjective has been reanalyzed as consisting of two morphemes (“backformation”), reduplication is possible. Again, backformation and the ensuing possibility of reduplication is available both for ‘native’ adjectives (cf. (74a)) and for phonetic borrowings (cf. (74b)):

(74)  a. hútu ‘confused, bewildered’ => húhútutu (cf. Lu Zhiwei 1975: 18)
    b. làngmàn ‘romantic’ => lànglàngmàn màn
    (= phonetic borrowing of romantic)

Besides the AABB and ABAB reduplication pattern, there are other patterns of partial reduplication, associated with a special type of connotation. The pattern ‘AliAB’ always carries a negative connotation (cf. (76)), whereas the (total reduplication) patterns ‘AA’ and ‘AABB’ can be associated with either a positive, neutral, or negative connotation (cf. (75)):

(75)  a. luàn ‘chaotic’ => luànlùn ‘chaotic’ (but less so than luàn)
    b. bái ‘white’ => bábái ‘(thoroughly) white’
    c. bèn ‘dull, foolish, clumsy’ => bènbèn ‘very foolish, clumsy’

(76)  a. hútu ‘confused, bewildered’ => húlihútu ‘muddle-headed’
    (vs. => húhútutu ‘confused, bewildered’)
    b. măhu ‘casual, careless’ => mălimăhu ‘careless, sloppy’
    (vs. => mămăhuhu ‘not bad, still ok’)

In the reduplication pattern ‘A-BB’, ‘BB’ provides a metaphoric description of the property denoted by the adjective (cf. Karl: 287ff):

(77)  a. bái-huā-huā ‘white-flower-flower’ = ‘shining white’
    b. bái-xuĕ-xuĕ ‘white-snow-snow’ = ‘as white as snow’

(78)  a. hēi-yóu-yóu ‘black-oil-oil’ = ‘jet-black, shiny black’
    b. hēi-yā-yā ‘black-press-press’ = ‘dense, dark’ (said of e.g. people in a crowd)

4.2  Derived adjectives as a distinct class

In order to obtain the full picture, another fact needs to be taken into account, viz. that modifier-head adjectival compounds such as xuĕ-bái ‘snow-white’ = ‘as white as snow’ – in their non-reduplicated form – pattern with reduplicated adjectives, and not with simple adjectives. As will however emerge from the ensuing discussion, this is in fact the expected result, given the syntactic and semantic properties of modifier-head
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17. In the remainder of the present text, we will therefore use the label *derived adjectives* for the class comprising reduplicated adjectives (with total or partial reduplication) as well as modifier-head compounds (be they reduplicated or not), in contrast to the class of *simple adjectives*.

In general, derived adjectives can have all of the following three functions: attributive, predicative, and adverbial (with the exception of reduplicated modifier-head compounds which cannot function as adverbs): 18

(79) a. gāogāoxìngxìng de háizi
    happy sub child
    ‘happy children’

b. Tā gāogāoxìngxìngde
    3sg happy
    ‘He is happy.’

17. Chinese linguists (e.g. Zhu Dexi 1956/80) have always subsumed reduplicated adjectives and head-modifier adjectives (both in their non-reduplicated and reduplicated form) under the same class of ‘complex forms’, without however giving an explicit motivation for this at first sight surprising classification. Cf. Paul (2006) for demonstrating that it is the unacceptability of both reduplicated and head-modifier adjectives in the *de*-less modification structure (cf. Section 4.4 below) that constitutes the reason for including them in the same class.

18. As noted by Paris (1979), absolute (i.e. intersective non-predicative) adjectives never reduplicate: fāng ‘square’, but not *fāngfāng.

19. Note that in the case of reduplicated adjectives, *de* is part of the reduplicated form itself; accordingly, sentences (79b)–(81b), (83)–(84) where the reduplicated form functions as a predicate cannot be analysed as cases of predication with *shi…de* (cf. (4a), (5a) above) from which *shi* would have been dropped. When a reduplicated adjective functions as a modifier as e.g. in (79a), we assume haplogy between the *de* of the reduplicated adjective and the subordinator *de* into one surface *de*, similar to the generally acknowledged haplogy of the sentence-final complementizer *le* with the perfective verbal suffix -*le* in case the verb occupies the sentence-final position: V-*le* le # => V le # (cf. Chao 1968: 247). Evidence for the haplogy of the reduplication *de* with the subordinator *de* comes from Chinese dialects where these two *de’s* are phonologically different and can hence co-occur (cf. Zhu Dexi 1993).

The exact role and distribution of *de* in the reduplicates is far from clear. Lü Shuxiang et al. (1980/2000) only note that *de* is optional for ‘AABB’ reduplicates when functioning as the so-called descriptive complement introduced by *de* (Note that this *de* is different from those already encountered and has so far not been satisfactorily analysed):

(i) Tā shōushi de zhēngzhēngqíqí(de) (Lü et al. 1980/2000: 719)
    3sg tidy de neat
    ‘He tidied up very neatly.’
c. Tā gāogāoxingxingde chàng gē
3sg happy sing song
‘He is singing happily.’

(80) a. yì-zhī hăohăode bǐ
1-cl good pen
‘a perfectly good pen’
b. Wǒ zuótiān hái hăohăode, jìntiān jiù bìngdăo le
1sg yesterday still good today then be.ill part
‘Yesterday, I still felt ok, but today I’m ill.’
c. Nǐ hăohăode gēn tā shuō, bié shēng qì
2sg good with 3sg talk not produce air
‘Talk to him nicely and don’t get angry.’

(81) a. tōng -hóng (-tōng -hóng) de liăn
thorough-red -thorough-red sub face
‘a scarlet face’
b. Ta -de liăn tōng -hóng (-tōng -hóngde)
3sg-sub face thorough-red -thorough-red
‘His face was scarlet.’

(82) a. bĭ -zhí de shù-gàn
brush-straight sub tree-trunk
‘perfectly straight tree trunks’
b. Gōnglù bĭ -zhí
highway brush-straight
‘The highway is perfectly straight.’
c. Tā bĭ -zhíde zhàn zài lăoshī de qiánmiàn
3sg brush-straight stand at teacher sub front
‘He is standing perfectly straight in front of the teacher.’

(83) Liăn cháng-chángde, yáchĭ yĕ chăng-chángde Zhu Dexi (1956/80: 11)
face long -long tooth also long -long
‘The face is long, and the teeth are long, too.’

(84) Tiān yĭjīng hēi -hūhūde le
sky already dark-huhu part
‘The sky is already dark.’

The data furthermore suggest that non-reduplicated modifier-head adjectival compounds such as xuĕ-bái ‘snow-white’ preferably appear without de, though this cannot be generalized and also varies from speaker to speaker.

20. No meaning is associated with hūhū on its own.
Unlike simple adjectives, derived adjectives cannot appear in the comparative construction and are incompatible with degree adverbs such as *fēicháng ‘very’, *tèbié ‘particularly’ etc. Adverbs such as zhème, nàme ‘this/that way; so, such’ are, however, acceptable (and for some native speakers also tài ‘too’, cf. (86)):

(85) Tā -de yīfu bǐ nǐ -de
clothes compared.to clothes
3sg 2sg

gèng bái / gèng gānjìng / *báibáide/*gāngānjìngjìngde/*xuĕ -bái
even white / even clean / clean / s-white
white / clean / clean snow-white

‘His clothes are (even) cleaner/whiter/*more snow-white than yours.’

(86) Tā fēicháng pàng/*fēicháng pàngpàngde/#tài pàngpàngde
very fat / very fat / too fat
3sg

‘He is very/too fat.’

(87) *Tā -de liănsè tèbié tōnghóng(-tōnghóngde)
face particularly scarlet
3sg-sub

(’His face is particularly scarlet.’)

(88) Tā -de liănsè wèishénme nàme tōnghóng-tōnghóngde ?
complexion why that.way scarlet
3sg-sub

‘Why is his face so red?’

(89) Lăo zhème màn-tēngtēngde kĕ bù xíng21
always this.way slow-tēngtēng really neg possible

‘It’s impossible to be always so sluggish.’

Derived adjectives cannot be negated by bù:

(90) Tā bù pàng /*bù pàngpàngde
not fat / not fat
3sg

‘He is not fat.’

(91) Tā -de yīfu bù gānjìng /*bù gāngānjìngjìngde /*bù
clothes not clean / not clean / not s-white
3sg-sub / s-white

‘His clothes are not clean/snow-white.’

As illustrated in (79)–(84) above, derived adjectives can very well function as predicates on their own and be modified by VP-level adverbs such as hai ’still’, yě ’also’ yĭjīng ‘already’ which only precede predicative elements (cf. (80b), (83), (84)). The incompatibility with

21. No meaning is associated with tēngtēng on its own.
negation and with degree adverbs, which are equally typical of predicative elements, can therefore not be due to syntax, but must have semantic reasons.

The unacceptability of modifier-head compounds in the comparative construction (cf. (85) above) allows us to determine the semantic problem at stake. Derived adjectives are not admitted here because in a comparison, 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 in derived adjectives is particularly visible in the case of modifier-head compounds:

(92) Tā -de yīfu bù shì xuě-bái , érshǐ bí xuě hái bú 3sg-sub clothes neg be snow-white but compared.to snow still white  
'Her dress is not as white as snow, but even whiter than snow.'

The second clause in (92) 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. (91)). Negation of the adjective with bù shì functioning as metalinguistic negation, however, is possible, because bù shì can bear on a subpart of the compound only.

This line of reasoning showing the incompatibility of derived adjectives with negation to be of a semantic, not a syntactic nature is corroborated by the acceptability of derived adjectives with adverbs of intensity such as zhème, nàme ‘so, such’ (cf. (98), (99)). Consequently, derived adjectives are not on a par with absolute adjectives; the latter do not allow these adverbs, because they are essentially binary. Also recall that absolute adjectives – being non-predicative adjectives – need shì…de in order to form a predicate (cf. Section 2.1 above), another contrast with respect to the systematically predicative derived adjectives.

Besides their systematic ability to function as predicates, attributes and adverbs, derived adjectives also behave alike with respect to two other phenomena, viz. compound formation and de-less modification.

4.3 The unacceptability of derived adjectives in verbal compounds

As has been observed in the literature, reduplicated adjectives – unlike their simple counterparts – are excluded from the formation of resultative verb compounds of the form ‘verb-adjective’ where the adjective indicates the result of the action expressed by the verb:

(93) a. Tā bā zhuōzi cā -gānjìng le 3sg ba table wipe-clean part  
'He wiped the table clean.'

b. *Tā bā zhuōzi cā -gāngānjìngjìng le 3sg ba table wipe-clean part
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(94) a. Tā bă chuángdān dié -zhĕngqí le
   3SG BA sheet fold-neat PART
   ‘He folded the sheets neatly.’

   b. *Tā bă chuángdān dié -zhĕngzhĕngqíqí le
      3SG BA sheet fold-neat PART
      (Sybesma 1991: 133, (13/14))

(95) a. Wūzi de qiáng dōu shuā-baí le
      room SUB wall all paint-white PART
      ‘The walls of the room have all been painted white.’

   b. *Wūzi de qiáng dōu shuā-baíbaí le
      room SUB wall all paint-white PART

(96) a. Lúzǐ shāo-rè le
      stove burn-hot PART
      ‘The stove has burnt itself hot.’

   b. *Lúzǐ shāo-rèrè le
      stove burn-hot PART

Since disyllabic adjectives ((93a), (94a)) are as acceptable in these compounds as monosyllabic ones ((95a), (96a)), the unacceptability of the ‘AA’ reduplicates in examples (95b) and (96b) cannot be reduced to a phonotactic constraint sensitive to the number of syllables.

As demonstrated below, the same constraint equally holds for (non-reduplicated) ‘modifier-head’ adjectival compounds, i.e. like reduplicated adjectives, they cannot enter into the formation of resultative verbal compounds:

(97) a. Tā kū -hóng-le yănjing
       3SG cry-red -perf eye
       ‘He cried his eyes red.’

   b. *Tā kū -tōnghóng-le yănjing
      3SG cry-scarlet -perf eye

(98) a. Tā shŏu dòng-hóng le
      3SG hand freeze-red PART
      ‘His hands were red-frozen.’

   b. *Tā shŏu dòng-tōnghong le
      3SG hand freeze-scarlet PART

(99) a. Wūzi de qiáng dōu shuā-baí le (= (95a) above)
      room SUB wall all paint-white PART
      ‘The walls of the room have all been painted white.’

   b. *Wūzi de qiáng dōu shuā-xué -bāí le
      room SUB wall all paint-snow-white PART
The general ban on derived adjectives to enter into the formation of resultative verb compounds clearly sets them apart from the class of simple adjectives. It also further corroborates our claim that modifier-head compounds – both in their non-reduplicated as well as in their reduplicated form – belong to the same class as reduplicated adjectives.

4.4 The unacceptability of derived adjectives in the de-less modification structure

Another important characteristic of derived adjectives is their unacceptability in the \textit{de}-less modification structure (cf. Lü et al. 1980/2000: 719):

\begin{enumerate}
\item[(101)]
\begin{enumerate}
\item a. gānjìng (de\textsubscript{sub}) yīfu
\textit{clean sub clothes} ‘clean clothes’
\item b. gāngānjìngjìng *(de\textsubscript{sub}) yīfu
\textit{clean sub clothes} ‘(thoroughly) clean clothes’
\end{enumerate}
\item[(102)]
\begin{enumerate}
\item a. bái (de\textsubscript{sub}) zhĭ
\textit{white sub paper} ‘white paper’
\item b. báibái/xuēbái / xuēbái xuēbái *(de\textsubscript{sub}) zhĭ
\textit{white /snow-white/ s-white s-white sub paper} ‘(snow-) white paper’
\end{enumerate}
\item[(103)]
\begin{enumerate}
\item a. hóng (de\textsubscript{sub}) chènshān
\textit{red sub shirt} ‘a red shirt’
\item b. tōnghóng/ hóng-hóng *(de\textsubscript{sub}) chènshān
\textit{all.red / red -red sub shirt} ‘a scarlet shirt’
\end{enumerate}
\end{enumerate}

As argued for at length in Sections 2.3 and 3.3 above, this unacceptability cannot be reduced to a prosodic ban against non-monosyllabic adjectives in the \textit{de}-less modification structure nor to alleged wordhood of the sequence ‘adjective N’ (contra Sproat & Shih 1988; Lu & Duanmu 2002).
Instead, we propose an account in semantico-pragmatic terms. As noted by Zhu Dexi (1956/80: 5–6) and subsequent authors (cf. e.g. Tang T.-C. 1988), reduplicated adjectives introduce the speaker’s subjective evaluation of the property expressed by the adjective rather than solely refer to that property (as is the case with simple adjectives). Accordingly, reduplicated adjectives cannot be interpreted as defining properties and are excluded from the de-less modification structure, because the resulting NP does not satisfy the condition of a plausible, natural classification. The same reasoning applies to modifier-head compounds such as xuē-bái ‘snow-white’ = ‘as white as snow’, bi-zhí ‘brush-straight’ = ‘perfectly straight’ etc.: as their internal structure shows, these adjectives provide the description of a property (‘as white as snow’, ‘as straight as a brush’) rather than purely refer to it. It is this semantic component of evaluating, describing a property, in contrast to referring to a property, which is shared by reduplicated adjectives and modifier-head compounds and which explains their belonging to the same class.22

4.5 The productivity of the ‘AABB’ reduplication pattern

The systematic syntactic and semantic differences between simple and derived adjectives discussed so far justify their analysis as two separate morphological classes, the relation between them being one of derivation. Among the different derivation processes (modifier-head compound formation, total or partial reduplication), the ‘AABB’ reduplication represents the productive and regular pattern. This is evidenced by the fact that the derivation of ‘AABB’ reduplicates is not limited to cases where a corresponding simple adjective ‘AB’ exists, but applies to all kinds of morphemes. Importantly, the resulting ‘AABB’ reduplicates once again have all of the three functions typical of the class of derived adjectives: attributive, predicative and adverbial (some reduplicates only function as adverbs, though; cf. (106)–(107)).

(104) a. pó- pó- mà- mà ‘womanish, fussy, sentimental,’
old.lady-old.lady-mother-mother
(N.B. There exists no “corresponding” pó-mà)
b. Zhè-ge rén pó-pó-mà-mà-de
this-cl. person fuzzy
‘This person is fussy.’

Note that encoding the speaker’s subjective evaluation via a derived adjective should not be confounded with whatever subjective connotation may enter into the meaning of (stage-level predicate) adjectives such as gānjìng ‘clean’, piàoliang ‘pretty’, qíguài ‘bizarre’. The fact that the latter are acceptable in the de-less modification structure (cf. (10), (11) above), whereas derived adjectives are not, clearly shows that the grammar of Chinese makes this distinction.
c. Wǒ bù xǐhuan zhè-ge pò-pò-mà-mà de rén  
   1sg neg like this-cl fussy sub person  
   ‘I don’t like this fussy person.’

d. Tā pò-pò-mà-mà de shuō-le yì dà duì  
   3sg fussy talk perf 1 big heap  
   ‘He fussily talked a lot.’

(105) a. guǐ -guǐ -suì -suì ‘furtive, stealthy, sneaky’  
   ghost-ghost-evil.spirit-evil.spirit  
   (N.B. There exists no “corresponding” guǐ-suì)

b. Zhè jiāhuo guǐ-guǐ-suì-suì-de  
   this guy stealthy  
   ‘This guy is stealthy.’

c. yì-ge guǐ-guǐ-suì-suì de xiăotōu  
   1-cl stealthy sub thief  
   ‘a stealthy thief’

d. Zhè-ge xiăotōu guǐ-guǐ-suì-suì-de păo dào wūzi -li lái  
   this-cl thief stealthy run to house-inside come  
   ‘This thief ran stealthily into the house.’

(106) a. kū -kū -tí -tí ‘with sobs and tears, weeping and wailing’  
   cry-cry-weep.aloud-weep.aloud

b. Tā kū-kū-tí-tí-de păo-guò -lái  
   3 sg weeping.and.wailing run-pass-come  
   ‘He came running over weeping and wailing.’

(107) a. sān-sān-liăng-liăng ‘by two’s and three’s’  
   3 3 2 2

b. Tāmen sān-sān-liăng-liăng-de zŏujìn-le jiăoshì  
   3 pl 3 3 2 2 enter perf classroom  
   ‘They entered the classroom by two’s and three’s.’

These cases put forward the derivational nature of reduplication in a particular clear fashion, the output being the same, independently of the categorial identity of the input.

4.6 Intermediate summary

This section has provided ample evidence in favor of two morphologically different classes of adjectives in Chinese, viz. simple vs. derived adjectives. Given the properties of simple and derived adjectives discussed in detail above, Huang Shi-Zhe’s (2006) approach cannot be on the right track. Huang Shi-Zhe claims simple adjectives to be of the same semantic type ⟨e⟩ as bare nouns, and derived adjectives to be of the type ⟨e,t⟩ (glossing over the differences between predicative and non-predicative simple adjectives). Furthermore, she postulates a type matching constraint in NP modification.
adjectives subsumes (completely and partially) reduplicated adjectives as well as modifier-head compounds; they can systematically function as predicates, attributes and adverbs. Accordingly, derived adjectives lack the bipartitioning into predicative and non-predicative adjectives observed for the class of simple adjectives. The common semantic denominator of derived adjectives has been shown to evaluate, describe a property rather than purely refer to it (as simple adjectives do). It is this special semantics of derived adjectives which explains their incompatibility with degree adverbs and with negation as well as their unacceptability in the comparative construction and the de-less modification structure.

structures, requiring the modifier and the modifiee to be of the same semantic type, i.e. (e) in de-less modification. While this might perhaps capture the fact that derived adjectives, being (e,t), are excluded from the de-less modification structure, it makes wrong predictions for the overall syntax/semantics of adjectives, some of which are briefly discussed here. Simple adjectives being of the same type as bare nouns, they are wrongly predicted to appear in the copula structure. Furthermore, being argumental, simple adjectives are not expected to function as predicates without any of the “predication markers” such as the adverb hen ‘very’ “turning” the (e) type adjective into the required type (e,t) (p. 352). However, it is well-known (see Paris 1989: 112) that a simple adjective can constitute a predicate on its own and then indicates the comparative degree of the property in question:

(i) Zhèi-bĕn shū guì (= Paris 1989: 112, (51))
 this -cl book expensive
 ‘This book is more expensive.’

When used in a contrastive pair of sentences, the adjective is interpreted in the neutral degree:

 this -cl book expensive that-cl cheap / neg expensive
 ‘This book is expensive, that one is cheap/is not expensive.’

In a yes/no question – either with the sentence-final particle ma or in the form of an ‘A-bù-A’ question (cf. Huang C.-T. 1982) – the adjective is equally interpreted in the neutral degree:

(iii) Zhèi-bĕn shū guì ma ?
 this -cl book expensive part

(iv) Zhèi-bĕn shū guì bù guì?
 this -cl book expensive neg expensive
 ‘Is this book expensive?’

Last, but not least, the possibility to negate adjectives with bù demonstrates that they do not need any “predication marker” in order to function as predicates (cf. (ii) above). Also note that with bare nouns, the “predication marker” hen ‘very’ is not able to change the semantic type from (e) into (e,t): *hen N, a contrast unexpected under Huang Shi-Zhe’s (2006) proposal.
5. Conclusion

We have provided extensive evidence for adjectives as a distinct part of speech in Mandarin. More precisely, we have argued that Chinese has as many as two morphologically different classes of adjectives, simple and derived adjectives, each with its own set of predictable semantic and syntactic properties. Furthermore, we have demonstrated that typological studies have to take into account both types of modification available in Mandarin Chinese: that where the subordinator de intervenes between the adjective and the head noun, ‘A de N’, and the case of simple juxtaposition of the adjective and the noun ‘A N’. To acknowledge adjectives as a distinct part of speech not only allows us to correct the typological picture we have of so-called “isolating” languages, but also challenges current proposals where all adnominal modifiers subordinated by de are either analyzed as relative clauses (cf. Sproat & Shih 1988, 1991; Duanmu 1998; Simpson 2001) or as small clauses (cf. Den Dikken & Singhapreecha 2004).

References

Cinque, D. 2005. The dual source of adjectives and phrasal movement in the Romance DP. Ms, University of Venice.


Xiao Fu. 1956. Mingcixing cizu zhong ‘de’ zi de zuoyong (The function of de in noun phrases).

Xu Jianhua & Liu Fuhua. 1999. Danyin xingrongci dingyu de he-zhi xi-zhi ya yuxu wenti (Monosyllabic attributive adjectives and the problem of word order).


Zhu Dexi. 1984. Dingyu he zhuangyu de qufen yu tici he weici de duili (On the demarcation between attributes and adverbials with reference to the opposition between substantives and verbs).

Zhu Dexi. 1993. Cong fangyan he lishi kan zhuangtai xingrongci (Examination of descriptive adjectives in the dialects and from a historical perspective).
