

## Chinese Disyllabic Descriptive Adjectives: Gradability and Reduplication\*

Chen-sheng Luther Liu\*\*

Department of Foreign Languages and Literatures  
National Chiao Tung University

### ABSTRACT

As the state-denoting meaning of its first component gets more and more bleached, nowadays the disyllabic descriptive adjective has transmuted into a gradable adjective. However, the state-denoting meaning of the first component does not totally die out; the disyllabic descriptive adjective, therefore, can only occur with some specific type of degree modifiers. So, the conflict between the assumption made by previous studies like Zhu (1980) that adjectives able to undergo reduplication must be gradable and the observation made by them that disyllabic descriptive adjectives cannot occur with any degree adverb can be solved. For the disyllabic descriptive adjective, the reduplication morphology functions to revive the degree operator function of the first component and make it able to bind and saturate the degree argument of the second component. This distinguishes the disyllabic descriptive adjective from the disyllabic attributive adjective in the reduplication pattern.

**Key words:** covert degree marker, disyllabic descriptive adjective, explicit comparison, gradable, reduplication

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- \*\* Author's email address: csliau@faculty.nctu.edu.tw

## 1. Introduction

Zhu (1956) (henceforth Zhu 1980) dichotomizes Chinese adjectives into two major types: attributive adjectives and descriptive (or state-denoting) adjectives, and each of them consists of many subtypes, as illustrated by examples in (1)-(2), respectively.<sup>1</sup>

(1) Attributive adjectives

A. Mono-syllabic attributive adjectives

da 大 ‘big’, hong 紅 ‘red’, kuai 快 ‘fast’

B. Disyllabic attributive adjectives

ganjing 乾淨 ‘clean’, dafang 大方 ‘generous’, anjing 安靜 ‘quiet’

(2) Descriptive adjectives

A. Reduplicated adjectives

a. Completely reduplicated adjectives

i. The AA reduplicated pattern

dada 大大 ‘big<sub>REDUPL</sub>’, honghong 紅紅 ‘red<sub>REDUPL</sub>’, kuaikuai 快快 ‘fast<sub>REDUPL</sub>’

ii. The AABB reduplicated pattern

ganganjingjing 乾乾淨淨 ‘clean<sub>REDUPL</sub>’, dadafangfang 大大方方 ‘generous<sub>REDUPL</sub>’, ananjingjing 安安靜靜 ‘quiet<sub>REDUPL</sub>’

iii. The ABAB reduplicated pattern<sup>2</sup>

<sup>1</sup> Zhu (1980: 6) dubs the attributive adjective the simple adjective while the descriptive adjective the complex adjective, and incorporates the phrase headed by an adjective as a type of complex adjectives. This paper simply concentrates on the syntax and semantics of disyllabic descriptive adjectives. So, issues like whether an adjective phrase should be considered a kind of complex adjectives will not be addressed here. For ease of exposition, I use the subscript REDUPL to note the semantics associated with the reduplication morphology.

Abbreviations used in this paper include ASP: aspect markers, CL: classifiers, DE: the marker for modifying phrases like genitive phrases, relative clauses, and noun complement clauses in Chinese, and SFP: sentence final particles.

<sup>2</sup> The disyllabic descriptive adjective, as Shi (2004: 89) points out, can reduplicate either in the ABAB or the AAB pattern, as shown by (i)-(ii), respectively (Xu 1987; Xie and Liu 1995; Xu and Shao 1997; Xu

mitianmitian 蜜甜蜜甜 ‘honey.sweet<sub>REDUPL</sub>’, feikuai feikuai 飛快  
飛快 ‘fly.fast<sub>REDUPL</sub>’

b. Partially reduplicated adjectives (the AliAB reduplicated pattern)

hulihutu 糊里糊塗 ‘muddle-headed<sub>REDUPL</sub>’

B. Adjectives with a suffix<sup>3</sup>

a. Adjectives with a disyllabic suffix

hong-tongtong 紅通通 ‘red-suffix<sub>REDUPL</sub>’

b. Adjectives with a trisyllabic suffix

hui-buliudiu 灰不溜丟 ‘gray<sub>REDUPL</sub>’

C. Disyllabic descriptive adjectives

mitian 蜜甜 ‘honey-sweet’, feikuai 飛快 ‘fly-fast’, tonghong 通紅  
‘transparent-red’, nenlü 嫩綠 ‘tender-green’, zhanxin 嶄新 ‘very-new’

These two types, as Zhu (1980) points out, mainly differ from each other in that the former can be modified by a degree adverb but the latter cannot.

- (3) a. Hua    hen    hong.  
flower very red  
花很紅。  
‘The flower is (very) red.’

2001).

- (i) Tanhua    zhen    mei    ya!    Xuebaixuebaide. (Tanhua He he Guihuo)  
epiphyllum really beautiful SFP snow-white-snow-white

曇花真美呀！雪白雪白的。《曇花·鶴和鬼火》

‘How beautiful the epiphyllum is! It is snow.white<sub>REDUPL1</sub>.’

- (ii) Taoziyao ting le, miankong qi-de    xuexuebai,    yi-ju    hua    ye    shuo  
Taoziyao hear SFP face anger-DE snow-snow-white one-CL word also say  
bu chu lai. (Guanchang Xianxing Ji)

not out come

陶子堯聽了，面孔氣得雪雪白，一句話也說不出來。《官場現形記》

‘As Taoziyao heard, he got so angry that his face became snow.white<sub>REDUPL2</sub>.’

Given this, I use the subscript REDUPL1 to note the semantics associated with the ABAB reduplication morphology while REDUPL2 that associated with the AAB reduplication morphology whenever it is necessary.

<sup>3</sup> Following Chao (1968: 199), Lü et al. (1980: 637-659), Tang (1988), Zhu (2003) and Shi (2010: 4), I treat adjectives with a disyllabic or a trisyllabic suffix as a type of reduplicated adjectives.

- b. Fangjian hen ganjing.  
 room very clean  
 房間很乾淨。  
 ‘The room is (very) clean.’
- (4) a. \*Hua hen honghongde.  
 flower very red-red  
 花很紅紅的。
- b. \*Fangjian hen ganganjingjingde.  
 room very clean-clean  
 房間很乾乾淨淨的。
- c. \*Sudu hen feikuaifeikuaide.  
 speed very fly.fast-fly.fast  
 速度很飛快飛快的。
- d. \*Zhangsan hen hu-li-hutude.  
 Zhangsan very muddle-headed<sub>REDUPL</sub>  
 張三很糊里糊塗的。
- e. \*Hua hen hong-tongtongde.  
 flower very red-suffix<sub>REDUPL</sub>  
 花很紅通通的。
- f. \*Tiankong hen hui-buliudiu.  
 sky very gray<sub>REDUPL</sub>  
 天空很灰不溜丟。
- g. \*Sudu hen feikuai.  
 speed very fly-fast  
 速度很飛快。

As Zhu (1980) further points out, among the (sub)types of adjectives, what can undergo reduplication includes: attributive adjectives and disyllabic descriptive adjectives. As shown by examples in (2Aa), the mono-syllabic attributive adjective reduplicates in the AA pattern, the disyllabic attributive adjective the ABB pattern, and the disyllabic descriptive adjective the ABAB pattern. Besides, the disyllabic attributive adjective like those in (2Ab) can also partially reduplicate in the AliAB pattern. However, Zhu’s (1980)

dichotomy immediately brings us the following two questions concerning the disyllabic descriptive adjectives like those in (2C). First, the adjectival reduplication morphology, as Zhu (1980: 6) suggests, functions to transmute an attributive adjective into its descriptive (or state-denoting) counterpart, in addition to adding to the state denoted the speaker's subjective evaluation. If so, why do we still need the ABAB or the AAB reduplication morphology to transmute a disyllabic adjective that denotes a state into a state, as shown by (5), respectively (Chao 1968: 205-210; Lü et al. 1980: 12; Tang 1988, 1996; Guo 2002: 200; Zhu 2003; Liu et al. 2004: 193; Shi 2010: 38)?

- (5) a. xuebai 雪白 'snow-white' xuebaixuebai 雪白雪白 'snow.white<sub>REDUPL1</sub>'  
 b. xuebai 雪白 'snow-white' xuexuebai 雪雪白 'snow.white<sub>REDUPL2</sub>'

Second, as widely assumed, a gradable adjective is one that can occur with a degree adverb. And, based on the contrast below, Chinese adjectives amenable to reduplication are assumed to be gradable (Zhu 1980; Chao 1968; Lü et al. 1980; Tang 1988; Zhu 2003: 10; Liu 2013).

- (6) a. Ni-de da'an (\*feichang) dui.  
 you-DE answer extremely correct  
 你的答案 (\*非常) 对。  
 b. \*Ni-de da'an duiduide.  
 you-DE answer correct-correct  
 \*你的答案对对的。  
 (7) a. Zhangsan feichang gao.  
 Zhangsan extremely tall  
 张三非常高。  
 'Zhangsan is extremely tall.'  
 b. Zhangsan gaogaode.  
 Zhangsan tall-tall  
 张三高高的。  
 'Zhangsan is tall<sub>REDUPL</sub>.'

This assumption, however, brings us the question of why disyllabic descriptive adjectives that are assumed to be non-gradable (e.g., *feikuai* ‘fly-fast’ in (4g)) can undergo reduplication.

To answer these two questions, I would like to argue for the following three major points about the disyllabic descriptive adjective. First, as the state-denoting meaning of the first component of disyllabic descriptive adjectives (henceforth the A component) gets more and more bleached, nowadays the disyllabic descriptive adjective has transmuted into a gradable adjective. Second, since the A component does not have its state-denoting meaning totally died out yet, the disyllabic descriptive adjective can only be modified by some specific type of degree modifiers. Third, for the disyllabic descriptive adjective, the grammatical function of the adjectival reduplication morphology is to revive the degree operator function of the A component and make it able to bind and saturate the degree argument of the second component of the disyllabic descriptive adjective (henceforth the B component).

The organization of this paper is as follows. Section 2 begins with discussing the morphological, syntactic and semantic properties of the disyllabic descriptive adjective, and ends by pointing out the crucial property that provides a window for looking into the gradable nature of the disyllabic descriptive adjective. Section 3 presents the proposal through which the question of why the disyllabic descriptive adjective can undergo reduplication is naturally accounted for. Then, some empirical and theoretical consequences are discussed in section 4. Section 5 is the concluding remark where some comments on Shi’s (2004) analysis on the semantic nature of the A component of disyllabic descriptive adjectives are made.

## **2. The Properties of Disyllabic Descriptive Adjectives**

I shall start this section by discussing the morphological, syntactic and semantic properties of Chinese disyllabic descriptive adjectives, and end it by pointing out the crucial property that provides a hint for answering the two questions about the disyllabic descriptive adjective aroused by Zhu’s (1980) classification of Chinese adjectives.

## 2.1 The Morphological Properties

Depending on their morphological structure, disyllabic descriptive adjectives can be divided into two types: one with the modifier-head structure and the other with the coordinate structure. Significantly, the former requires the head which determines the basic meaning of the whole word to be a gradable attributive adjective. And, the modifier component can be a noun, a verb, a stative adjective, an attributive adjective or an adverb, as illustrated by (8), respectively.<sup>4</sup>

- (8) a. xue-bai 雪白 ‘snow-white’  
 b. fei-kuai 飛快 ‘fly-fast’  
 c. you-hei 黝黑 ‘dark-black’  
 d. nen-lü 嫩綠 ‘tender-green’  
 e. zhan-xin 嶄新 ‘very-new’

## 2.2 The Reduplication Pattern

The disyllabic descriptive adjective differs from the disyllabic attributive adjective in adopting the ABAB/AAB reduplicated pattern rather than the AABB reduplicated pattern, as shown by the contrast below.<sup>5</sup>

- (9) Disyllabic descriptive adjectives  
 a. xuebai ‘snow-white’    xuebaixuebai/xuexuebai ‘snow.white<sub>REDUPL1/2</sub>’  
     雪白                      雪白雪白 / 雪雪白

<sup>4</sup> Depending on whether the two components are similar to each other in meaning, the coordinate type can also be divided into two subtypes, as shown by (i) respectively.

(i) a. xin-ku 辛苦 ‘bitter-bitter’  
 b. heishou 黑瘦 ‘black-thin’

Here, I simply concentrate on the modifier-head type. And, this will not have any significant impact on my study because the analysis proposed can also be applied to the coordinated type.

<sup>5</sup> As Shi (2004: 87) points out, the reduplicated form of the modifier-head type as in (9a-e), collected by Shi (2010) from documentary written data such as *Quan Tang Shi* 《全唐詩》, *Quan Song Ci* 《全宋詞》, *Youxian Ku* 《游仙窟》, *Shenhui Yulu* 《神會語錄》, *Hanshan Shizhu* 《寒山詩注》 and *Bai Juyi Shiji Jiaozhu* 《白居易詩集校注》, occurs earlier than that of the coordinate type like (9f-g).

- |                          |  |
|--------------------------|--|
| b. feikuai ‘fly-fast’    | feikuai feikuai / feifeikuai ‘fly.fast <sub>REDUPL1/2</sub> ’  |
| 飛快                       | 飛快飛快 / 飛飛快   |
| c. youhei ‘dark-black’   | youheiyouhei / youyouhei ‘dark.black <sub>REDUPL1/2</sub> ’    |
| 黝黑                       | 黝黑黝黑 / 黝黝黑   |
| d. nenlü ‘tender-green’  | nenlunenlü / nennenlü ‘tender.green <sub>REDUPL1/2</sub> ’     |
| 嫩綠                       | 嫩綠嫩綠 / 嫩嫩綠   |
| e. zhanxin ‘very-new’    | zhanxinzhanxin / zhanzhanxin ‘very.new <sub>REDUPL1/2</sub> ’  |
| 嶄新                       | 嶄新嶄新 / 嶄嶄新   |
| f. xinku ‘bitter-bitter’ | xinkuxinku / xinxinku ‘bitter.bitter <sub>REDUPL1/2</sub> ’    |
| 辛苦                       | 辛苦辛苦 / 辛辛苦   |
| g. heishou ‘black-thin’  | heishouheishou / heiheishou ‘black.thin <sub>REDUPL1/2</sub> ’ |
| 黑瘦                       | 黑瘦黑瘦 / 黑黑瘦   |
- (10) Disyllabic attributive adjectives
- |                    |  |
|--------------------|--|
| ganjing 乾淨 ‘clean’ | ganganjingjing 乾乾淨淨 ‘clean <sub>REDUPL</sub> ’ |
|--------------------|--|

Significantly here, this contrast brings us the question of why the disyllabic descriptive adjective adopts a reduplication pattern which is different from that the disyllabic attributive adjective adopts.<sup>6</sup>

<sup>6</sup> Based on the observation that a reduplicated adjective must be followed by the marker *de*, which, as he argues, can only be attached to a phrase, Shi (2000) argues that the syntactic status of reduplicated adjectives is a phrase while that of their base form is a word. However, this claim is not without problems. As Lü et al. (1980) point out, in many cases, the marker *de* is not obligatorily required for the reduplicated adjective, as shown by examples below.

- (i) Shoushi-de zhengzhengqiqi(de).  
clean-up-DE order-order  
收拾得整整齊齊 (的)。  
‘Put things in.order<sub>REDUPL</sub>.’
- (ii) Xi-de ganganjiangjing(de).  
wash-DE clean-clean  
洗得乾乾淨淨 (的)。  
‘Have them washed cleanly<sub>REDUPL</sub>.’
- (iii) Qingqing yi tui.  
gentle-gentle one push  
輕輕一推。  
‘Push gently<sub>REDUPL</sub>.’



### 2.3 The Syntactic Properties

The disyllabic descriptive adjective has the following four syntactic properties. First, disyllabic descriptive adjectives can occur in the attributive, the complement or the adverbial position, as illustrated by (11), respectively.

- (11) a. *bilan de tiankong* (attribute)  
 dark-blue DE sky  
 碧藍的天空  
 ‘the dark-blue sky’
- b. *Lian shang tu-de xuebai ru yin.* (complement)  
 face upside wipe-DE snow-white like silver  
 臉上塗得雪白如銀。  
 ‘She made up her face so snow-white that it can be compared to silver.’
- c. *Yueliang xuebaide zhaoliang dadi.* (adverb)  
 moon snow-white shine-bright big-ground  
 月亮雪白地照亮大地。  
 ‘The moon is snow-whitely shining on the ground.’

Second, according to Zhu (1980), Chao (1968), Lü et al. (1980) and Liu et al. (2004), disyllabic descriptive adjectives cannot be modified by a degree adverb, as the ungrammaticality of (12) shows.<sup>7</sup>

- (iv) *Manman shuo.*  
 slow-slow say  
 慢慢說。  
 ‘Say it slowly<sub>REDUPL.</sub>’

See Shi (2010: 49) for further discussion.

<sup>7</sup> The grammatical judgment of (12) is based on Zhu (1980) and the traditional reference grammar like Chao (1968), Lü et al. (1980) and Liu et al. (2004). However, in section 3.1, I will point out that nowadays the intuition of the gradability of disyllabic descriptive adjectives, as indicated by the experimental result shown by twenty-three undergraduate native speakers of Chinese from Taiwan, is somewhat different from that of Zhu (1980), Chao (1968), Lü et al. (1980) and Liu et al. (2004), especially in cases involving the explicit comparison (Kennedy 2007).

- (12) a. \*Zhe-ke tang (hen/feichang) mitian.  
 this-CL candy very/extremely honey-sweet  
 \*這顆糖 (很/非常) 蜜甜。  
 ‘This candy is very/extremely honey-sweet.’
- b. \*Ta-de lian (hen/feichang) gunyuan.  
 he-DE face very/extremely roll-round  
 \*他的臉 (很/非常) 滾圓。  
 ‘His face is very/extremely roll-round.’
- c. \*Ta-de lian (hen/feichang) tonghong.  
 he-DE face very/extremely transparent-red  
 \*他的臉 (很/非常) 通紅。  
 ‘His face is very/extremely transparent-red.’

Third, as Shi (2004, 2010) points out, the semantic bleaching of the A component makes a disyllabic descriptive adjective able to occur as predicate only if the semantic content of the A component is toned up by a lexical, a phonetic or a morphological strategy.<sup>8, 9</sup> The lexical strategies, as (13) illustrates, include having the A component expanded as a sequence consisting of two or more morphemes with the same meaning as the A component or having two disyllabic descriptive adjectives which are similar in meaning occur consecutively.

<sup>8</sup> The semantic content of the A component can also be toned up by having two disyllabic descriptive adjectives occur in a contrastive construction like (i).

(i) Ta-de pifu youhei, ni-de guangliang.  
 he-DE skin dark-black you-DE light-bright  
 他的皮膚黝黑，你的光亮。

‘His skin is dark black, but yours is shining bright.’

<sup>9</sup> The notion of ‘bleaching’ can be understood as ‘grammaticalization’. The grammaticalization of the component A, as Zhu (1980: 4) points out, either leads to its loss of the concrete semantic meaning or makes the component A a suffix. For example, the component A *zhan* of *zhanxin* ‘very-new’ is almost without any semantic meaning in Modern Chinese. The grammaticalization of the component A *sha* ‘instant’ of *shabai* ‘instant-white’ makes *sha* ‘instant’ able to occur as the suffix *-shasha*, as shown below.

(i) bai-shasha 白霎霎 ‘white-suffix<sub>REDUPL</sub>’

- (13) a. Ba tian guang dou zhezhu le, juede [[<sub>A</sub> wu-qi-mo][<sub>B</sub> hei]].  
 BA sky light all cover ASP feel dark-opaque-ink black  
 把天光都遮住了，覺得烏漆墨黑。  
 ‘Have the all sky covered from the light and make it dark-black.’
- b. Jin you yi-chuan shanghao gunyuan-xuebai zhuzi, shi yi  
 now have one-CL upscale roll-round-snow-white pearl is one  
 huanjia shiqie, yang wo huo mai ji bai guan qianchao.  
 dignitary concubine ask I product sell several hundred CL money  
 今有一串上好滾圓雪白珠子，是一宦家侍妾，央我貨賣幾百貫錢鈔。  
 ‘Here is an upscale necklace made of roll.round<sub>REDUPL</sub> and snow.  
 white<sub>REDUPL</sub> pearls from a dignitary concubine. I was asked by her to sell it  
 for several hundred dollars.’

The phonetic strategy, as Wu (1999) points out, can be found in the Hunan dialect where the first syllable of the disyllabic descriptive adjective like *mohei* ‘ink-black’ (i.e., *mo* ‘ink’) is not only accentuated but also phonetically lengthened by two to three times.

The morphological strategy is to have the disyllabic descriptive adjective undergo either the ABAB reduplication or the AAB reduplication, as shown by (14).

- (14) a. You jian duimian na shanpo yi-pian songshu, bilübilü.  
 Again see opposite that hillside one-CL pine dark-green  
 又見對面那山坡一片松樹，碧綠碧綠。  
 ‘The same also happens to the opposite hillside. It is full of dark.green<sub>REDUPL</sub>  
 pine trees.’
- b. Renjia shi xin kai jian, tou ci shang shen, zhanzhanxin  
 people is new open scissors head time up body very-very-new  
 de yifu, quan gei ni le.  
 DE clothes all give you SFP  
 人家是新開剪，頭次上身，嶄嶄新的衣服，全給你了。  
 ‘This suit of newly made clothes never worn is fine.new<sub>REDUPL</sub>. I give it to  
 you.’

Last but not least, the bleached semantic content of the A component can also be strengthened by having the disyllabic descriptive adjective occur with an appropriate post-predicate adjunct (henceforth the adjunct strategy), as what (15) illustrates.

- (15) a. Dan jian yue guang xuebai ru yin.  
 but see moon light snow-white like silver  
 但見月光雪白如銀。  
 ‘But, the moonlight is so snow-white that it can be compared to silver.’
- b. Dianpu ji canting de liuzhuan feikuai ru guo yan yun yan.  
 store and restaurant DE exchange fly-fast like pass eye cloud smoke  
 店鋪及餐廳的流轉飛快如過眼雲煙。  
 ‘The exchange of stores and restaurants is so fly-fast/-transient that it can be compared to a fleeting cloud.’
- c. Chen Kun xing zou Xizang pifu youhei ru tan.  
 Chen Kun walk walk Xizang skin dark-black like charcoal  
 陳昆行走西藏皮膚黝黑如碳。  
 ‘The skin of Chen Kun, who always travels in Xizang, is so black that it can be compared to charcoal.’
- d. Na juchi xing de yepian zhaizhai de nenlü  
 that sawtooth shape DE leaf narrow-narrow DE tender-green  
 ru feicui.  
 like emerald  
 那鋸齒形的葉片窄窄的嫩綠如翡翠。  
 ‘That narrow sawtooth shaped leaf is so green that it can be compared to an emerald.’
- e. Fandian jiang jianwu weichi de feichang hao, shenzhi  
 hotel have building maintain DE extremely good even  
 zhanxin ru gang kaimu ban.  
 every-new like just inaugurate like  
 飯店將建物維持得非常好，甚至嶄新如剛開幕般。  
 ‘The building of hotel is extremely well maintained. So, it looks so new that it can be compared to one that is just inaugurated.’

More attention-catching here is that examples like (15) indeed provide an excellent window for us to penetrate the semantic nature of disyllabic descriptive adjectives.

### 3. Analysis

In this section, I first argue that the disyllabic descriptive adjective is a gradable adjective which is only compatible with some specific type of degree modifiers by pointing out that it can occur in the *ru* comparative construction where the adjectival predicate must be gradable. Then, the analysis that the ABAB/ABB reduplication morphology functions to revive the degree operator function of the A component of disyllabic descriptive adjectives is proposed to explain why the disyllabic descriptive adjective differs from the disyllabic attributive adjective in adopting a different reduplication pattern.

#### 3.1 The Gradability of Disyllabic Descriptive Adjectives

Among the four different strategies that can make a disyllabic descriptive adjective a qualified predicate (i.e., the lexical, the phonetic, the morphological and the adjunct strategy), the adjunct strategy provides strong evidence in support of the claim that disyllabic descriptive adjectives are gradable adjectives which can only occur with some specific type of degree modifiers.

According to Wang (1980[1958]: 368), adjuncts in Archaic Chinese syntactically can occur either in the post-verbal or the pre-verbal position, as shown by (16)-(17), respectively (He 1987, 1992; Sun 1996).

- (16) a. Zi            ji    qing   yu Wei. (Lunyu Xianwen)  
 Confucius play qing at Wei  
 子擊磬於衛。《論語·憲問》  
 ‘The Master was playing, one day, on a musical stone in Wei.’
- b. Wo   yu Zhou   wei   ke. (Zuozhuan Zhaogong)  
 our in Zhou do guest  
 我於周為客。《左傳·昭公》  
 ‘Our dukes are guests of Zhou.’

- (17) a. Fu Yao ji yi qing ru yi renyi,  
 alas Yao since already tattoo you by benevolence-righteousness  
 er yi ru yi shifei yi. (Zhuangzi Dazhongshi)  
 then cut-off-the-nose you by right-wrong alas  
 夫堯既已黥汝以仁義，而劓汝以是非矣。《莊子·大宗師》  
 ‘Yao has already tattooed you with benevolence and righteousness and cut  
 off your nose with right and wrong.’
- b. Junzi bu yi yan ju ren, bu yi ren  
 superior-man not use words promote person not use person  
 fei yan. (Lunyu Weilinggong)  
 put-aside words  
 君子不以言舉人，不以人廢言。《論語·衛靈公》  
 ‘The superior man does not promote a man simply on account of his words,  
 nor does he put aside good words because of the man.’

Significantly here, this kind of syntactic phenomenon, as Ohta (1987[1957]: 166) points out, is also found in the (Archaic) Chinese *ru* comparative construction which, as he further argues, at least has the following two syntactic properties. First, the *ru* comparative construction has two different variants in word order, as shown by (18).

- (18) a. You li ji, xun zhi shang wu, qi zhong shao  
 have raccoon track find it upper den it track slightly  
 da ru ma. (Liubinke Jiayanlu)  
 big as horse  
 有狸跡，尋之上屋，其蹤稍大如馬。《劉賓客嘉言錄》  
 ‘Some raccoon tracks slightly larger than that of horses are found in the  
 upper den.’
- b. Ji qian yi husun ru lü xu da. (Yutang Xianhua)  
 self drag one monkey as donkey slight big  
 己牽一胡孫如驢許大。《玉堂閒話》  
 ‘Meng himself dragged a monkey slightly larger than a donkey.’

Namely, the adjunct constituent formed by the prepositional comparative marker *ru* and the standard of comparison can occur either behind the adjectival predicate *da* ‘big’ (e.g., *ru ma* ‘as horse’ in (18a)), or before the adjectival predicate (e.g., *ru lü* ‘as donkey’ in (18b)).

Second, the predicate in the *ru* comparative construction like (18) are gradable because they can be modified by a degree modifier like *shao* ‘a little bit’ or *xu* ‘a little bit’.

Given these syntactic and semantic properties shown by the *ru* comparative construction like (18), it is not implausible for us to suggest that the disyllabic descriptive adjectives, for example those in (15), are gradable because, like (18), example (15) are also instances of the *ru* comparative construction. Moreover, I suggest that the gradability of disyllabic descriptive adjectives is induced by the bleaching of the state-denoting meaning of the A component of the disyllabic descriptive adjective. So, it is not unreasonable to assume that there exists a covert degree marker (i.e., *deg*) before the disyllabic descriptive adjective in cases like (15) because, in Chinese, a gradable adjective cannot occur as predicate without being modified by a degree adverb/marker (Zhu 1980; Lü et al. 1980; Liu et al. 2004; Liu 2010; Liu 2011). Since the state-denoting meaning of the A component does not totally die out, I further suggest that the disyllabic descriptive adjective has a denotation like (19) and the degree argument carried by it can only be modified by a degree modifier with a denotation like (20) (Kennedy and McNally 2005; Kennedy 2007; here, I use the term ‘adjective<sub>AB</sub>’ to represent the disyllabic descriptive adjective).

(19)  $[[\text{adjective}_{\text{AB}}]] = \lambda d \lambda x. \mathbf{adjective}_{\text{AB}}(x) \geq d$ , and the adjective<sub>AB</sub> can only occur with a degree morpheme/word with a semantic denotation like (20).<sup>10</sup>

(20)  $[[deg]] = \lambda G \lambda x. \exists d (\mathbf{R}(d) \wedge G(d)(x))$ . **R** (i.e., some restriction on the adjective’s degree argument) holds of the degree *d* just in case

- i. it meets a standard of comparison with respect to a comparison class determined by an overt standard of comparison related to the semantic property of the component A, and

<sup>10</sup> Here, I leave it open whether the covert degree marker *deg* is a word or a bound morpheme because it will not have any significant impact on my analysis.

- ii. it has *d* so high that *x* can be compared to the overt standard of comparison, and *deg* can only occur in an explicit comparison construction.

For example, in (21), the R value of the degree marker *deg* must be restricted by the adjunct phrase *ru yin* ‘as silver’, which introduces *yin* ‘silver’ as the overt standard of comparison.

- (21) Dan jian yue guang *deg* xuebai \*(ru yin).  
 but see moon light snow-white like silver  
 但見月光雪白\*(如銀)。

‘But, the moonlight is so snow-white that it can be compared to silver.’

As one anonymous reviewer reminds me, this not only explains why the adjunct phrase *ru yin* ‘like silver’ in (21) is obligatory, but also sets the disyllabic descriptive adjective apart from other simple adjectives in having a high/prototypical degree reading. Namely, as the silver is considered to be prototypically white, the adjective phrase in (21) does not simply mean “as white as silver” but rather means “so white that the moonlight can be compared to silver”.

This proposal gets supporting evidence from the fact that in Modern Chinese the disyllabic descriptive adjective cannot occur as predicate independently, as the ungrammaticality of (22) illustrates.

- (22) a. \*Zhe-ke pingguo mitian.  
 this-CL apple honey-sweet  
 \*這顆蘋果蜜甜。  
 b. \*Ta-de shencai gunyuan.  
 he-DE body-figure roll-round  
 \*他的身材滾圓。  
 c. \*Zhe-pian yezi bilü.  
 this-CL leaf dark-green  
 \*這片葉子碧綠。



- d. \*Zhe-pian yezi nenlü.  
 this-CL leaf tender-green  
 \*這片葉子嫩綠。
- e. \*Ta-de lian se shabai.  
 he-DE face color extremely-white  
 \*他的臉色霎白。

Namely, in Modern Chinese, a gradable adjective cannot occur as predicate without being modified by a degree marker (Zhu 1980; Chao 1968; Lü et al. 1980; Tang 1988; Guo 2002; Zhu 2003; Liu et al. 2004; Liu 2013). So, the ungrammaticality of (22) can be well accounted for by assuming that nowadays the disyllabic descriptive has transmuted into a gradable adjective.

Besides the supporting evidence from the *ru* comparative construction like (15) and the ungrammaticality of (22), the current usage of disyllabic descriptive adjectives by undergraduate native speakers of Chinese from Taiwan further endorses the claim that nowadays the disyllabic descriptive adjective has transmuted into a gradable adjective.

To test the informant's intuition on the gradability of disyllabic descriptive adjectives, three sets of sentences, as illustrated by (23)-(25) respectively, are designed according to the following criteria: (A) Each set contains five sentences, and each sentence contains a disyllabic descriptive adjective. (B) The five disyllabic descriptive adjectives contained in each set differ from each other in the morphological structure as what (8) illustrates. (C) One set has all the disyllabic descriptive adjectives modified by the degree adverb *hen* 'very', another not only has all the disyllabic descriptive adjective modified by the degree modifier *haiyao* 'even-more' with the superior comparison meaning but also contains an overt standard of comparison introduced by the comparative marker *bi* 'than', and the other not only has all the disyllabic descriptive adjectives modified by the degree modifier *yiyang* 'equivalent' with the equivalent comparison meaning but also contains an overt standard of comparison introduced by the comparative marker *gen* 'with'.

- (23) a. Zhe-ke pingguo chi-qilai hen mitian.  
 this-CL apple eat-up very honey-sweet  
 這顆蘋果吃起來很蜜甜。  
 ‘This apple tastes very sweet.’
- b. Zhangsan de sudu hen feikuai.  
 Zhangsan DE speed very fly-fast  
 張三的速度很飛快。  
 ‘The speed of Zhangsan’s (driving) is fly-fast.’
- c. Zhe-pian yezi hen bilü.  
 this-CL leaf very dark-green  
 這片葉子很碧綠。  
 ‘This leaf is dark-green.’
- d. Zhe-pian yezi hen nenlü.  
 this-CL leaf very tender-green  
 這片葉子很嫩綠。  
 ‘This leaf is tender green.’
- e. Ta tuo-de hen jingguang.  
 he take-off-DE very precise-bare  
 他脫得很精光。  
 ‘He has himself barely undressed.’
- (24) a. Zhe-ke pingguo chi-qilai bi fengmi haiyao mitian.  
 this-CL apple eat-up than honey even-more honey-sweet  
 這顆蘋果吃起來比蜂蜜還要蜜甜。  
 ‘This apple tastes much sweeter than honey.’
- b. Zhangsan de sudu bi fei che haiyao feikuai.  
 Zhangsan DE speed than flying car even-more fly-fast  
 張三的速度比飛車還要飛快。  
 ‘The speed of Zhangsan’s (driving) is much faster than a flying car.’
- c. Zhe-pian yezi bi na-pian haiyao bilü.  
 this-CL leaf than that-CL even-more dark-green  
 這片葉子比那片還要碧綠。  
 ‘This leaf is much dark greener than that one.’

- d. Zhe-pian yezi bi na-pian haiyao nenlü.  
 this-CL leaf than that-CL even-more tender-green  
 這片葉子比那片還要嫩綠。  
 ‘This leaf is much tender greener than that one.’
- e. Ta tuo-de bi ni haiyao jingguang.  
 he undress-DE than you even-more precise-bare  
 他脫得比你還要精光。  
 ‘He has himself much more barely undressed than you do.’
- (25) a. Zhe-ke pingguo chi-qilai gen fengmi yiyang mitian.  
 this-CL apple eat-up with honey equivalently honey-sweet  
 這顆蘋果吃起來跟蜂蜜一樣蜜甜。  
 ‘This apple tastes as sweet as honey.’
- b. Zhangsan de sudu gen fei che yiyang feikuai.  
 Zhangsan DE peed with flying car equivalently fly-fast  
 張三的速度跟飛車一樣飛快。  
 ‘The speed of Zhangsan’s (driving) is as fast as a flying car.’
- c. Zhe-pian yezi gen na-pian yiyang bilü.  
 this-CL leaf with that-CL equivalently dark-green  
 這片葉子跟那片一樣碧綠。  
 ‘This leaf is as dark green as that one.’
- d. Zhe-pian yezi gen na-pian yiyang nenlü.  
 this-CL leaf with that-CL equivalently tender-green  
 這片葉子跟那片一樣嫩綠。  
 ‘This leaf is as tender green as that one.’
- e. Ta tuo-de gen ni yiyang jingguang.  
 he undress-DE with you equivalently precise-bare  
 他脫得跟你一樣精光。  
 ‘He has himself as barely undressed as you.’

Each of the twenty-three informants has been tested by these three sets of sentences through the following regulations by a computer program: (A) All the fifteen sentences

are shown to the informants in a randomized order. (B) The informants are asked to judge the grammaticality of each sentence according to the five scales of grammaticality: 5 (perfect), 4 (good), 3 (acceptable), 2 (marginal) and 1 (bad). (C) The next sentence will not show up on the screen until the informant has made her/his judgment on the current sentence.

On the one hand, having the testing times for each degree modifier (i.e., *hen* ‘very’, *haiyao* ‘even-more’ and *yiyang* ‘equivalently’) as the statistical standard, the experimental result can be shown by Table 1 (‘ $X \geq 3$ ’ means a testing time for some degree adverb has a scale value equal to or higher than 3. ‘ $X < 3$ ’ means a testing time for some degree adverb has a scale value lower than 3).

Table 1: The Testing Times

	$X \geq 3$	$X < 3$
<i>hen</i> /很	72	43
<i>haiyao</i> /還要	91	24
<i>yiyang</i> /一樣	98	17

That is, for the degree modifier *hen* ‘very’, the times with a scale value equal to or larger than 3 are seventy-two times out of one hundred and fifteen times, but the times with a scale value lower than 3 are forty-three times out of one hundred and fifteen times. For the degree modifier *haiyao* ‘even-more’, the times with a scale value equal to or larger than 3 are ninety-one out of one hundred and fifteen times, but the times with a scale value lower than 3 are twenty-four times out of one hundred and fifteen times. And, for the degree modifier *yiyang* ‘equivalently’, the times with a scale value equal to or larger than 3 are ninety-eight times out of one hundred and fifteen times, but the times with a scale value lower than 3 are seventeen times out of one hundred and fifteen times.

On the other hand, having the number of informants as the statistical standard, the experimental result can be shown by Table 2.

Table 2: The Number of Informants

	$X \geq 3$	$X < 3$
<i>hen</i> /很	10	13
<i>haiyao</i> /還要	19	4
<i>yiyang</i> /一樣	19	4

Namely, for the degree modifier *hen* ‘very’, the number of informants with an average scale value equal to or larger than 3 is ten but the number of informants with an average scale value lower than 3 is thirteen. For the degree modifier *haiyao* ‘even-more’, the number of informants with an average scale value equal to or larger than 3 is nineteen, but the number of informants with an average scale value lower than 3 is four. And, for the degree modifier *yiyang* ‘equivalently’, the number of informants with an average scale value equal to or larger than 3 is nineteen, but the number of informants with an average scale value lower than 3 is four.

These experimental results have the following three important implications. First, the credibility of the claim that nowadays the disyllabic descriptive adjective has transmuted into a gradable adjective is high to an extent that it cannot be ignored.

Second, our proposal that nowadays the disyllabic descriptive adjective has transmuted into a gradable adjective being only compatible with a degree modifier with a denotation like (20) well matches the experimental result about the judgment on sentences containing the degree modifier *haiyao* ‘even-more’ and an overt standard of comparison as well as sentences containing the degree modifier *yiyang* ‘equivalently’ and an overt standard of comparison.

Third, the grammaticality of sentences with the degree modifier *hen* ‘very’, though not being as high as that of sentences with the degree modifier *haiyao* ‘even-more’ or *yiyang* ‘equivalently’, actually is not low to an extent that can lead us to say that the disyllabic descriptive adjective cannot be modified by the degree modifier *hen* ‘very’. So, the claim made by Zhu (1980), Chao (1968), Lü et al. (1980) and Liu et al. (2004) that the disyllabic descriptive adjective is incompatible with any degree modifier has got loosen due to language change.<sup>11</sup> Given this, it is not implausible for us to say that now the

<sup>11</sup> This further implies that, nowadays, it is not appropriate to say that the disyllabic descriptive adjective is ‘descriptive’ as what Zhu (1980) suggests.

disyllabic descriptive is on its way to a ‘genuine’ gradable adjective.

However, the assumption that the disyllabic descriptive adjective has transmuted into a gradable adjective still cannot explain why the disyllabic descriptive adjective differs from the disyllabic attributive adjective in adopting the ABAB/AAB reduplication pattern rather than the AABB reduplication pattern.

### 3.2 The Semantics of ABAB Reduplicated Adjectives

In (Archaic) Chinese, there are four different strategies to change an attributive adjective into its state-denoting counterpart. The first strategy, which is used in Archaic Chinese, is to add the prefix like *you-* (i.e., 有-), *qi-* (i.e., 其-), *si-* (i.e., 斯-) and *si-* (i.e., 思-) to an attributive adjective, as shown by examples in (26) (Wang 1955; Xiang 1980; Zhao 1992; Shi 2010: 39-40).

(26) a. You-huang shangdi. (Shijing Xiaoya)

gracious Heaven

有皇上帝。《詩經·小雅》

‘Oh, gracious Heaven above, ....’

b. Yu xue qi-fei. (Shijing Beifeng)

rain snow falling-scattered

雨雪其霏。《詩經·北風》

‘The snow falls and drifts about.’

c. Ru qi si-yi. (Shijing Xiaoya)

as stand steady

如跂斯翼。《詩經·小雅》

‘As steady as a man standing ....’

Second, as Yang (1979), Zhang (2000) and Shi (2010: 39-40) point out, in Archaic Chinese, an attributive adjective can be changed into its state-denoting counterpart by adding suffixes like *-ran* (i.e., -然), *-ru* (i.e., -如), *-ruo* (i.e., -若), *-er* (i.e., -爾) and *-yan* (i.e., -焉), as (27) illustrates.

- (27) a. Junzi zheng qi yi guan, zun qi zhanshi, yan-ran ren  
 he adjust his clothes cap dignify his looks dignified person  
 wang er wei zhi. (Lunyu Yaoyue)  
 look then awe him  
 君子正其衣冠，尊其瞻視，儼然人望而畏之。《論語·堯曰》  
 ‘He adjusts his clothes and cap, and throws a dignity into his looks, so that,  
 thus dignified, he is looked at with awe.’
- b. Bi-ru, po-ru, bai ma han-ru. (Zhouyi Bi)  
 unadorned spotlessly-white white horse nimble  
 賁如，皤如，白馬翰如。《周易·賁》  
 ‘Nimble coming with an unadorned and spotlessly-white dress by a white  
 horse ....’
- c. Sang zhi wei luo, qi ye wo-ruo. (Shijing Weifeng)  
 mulberry leaf not shed it leaf rich-glossy  
 桑之未落，其葉沃若。《詩經·衛風》  
 ‘Before the mulberry tree has shed its leaves, how rich and glossy are they!’
- d. Yu ba bu neng, ji jie wu cai, ru you suo  
 wish give-over not can then exert I ability if have something  
 li zhuo-er. (Lunyu Zihan)  
 stand-up high-far  
 欲罷不能，既竭吾才，如有所立卓爾。《論語·子罕》  
 ‘When I wish to give over the study of his doctrines, I cannot do so, and  
 having exerted all my ability, there seems something to stand right up  
 before me.’
- e. Zhuhou qi shei bu xin-yan wang Chu er gui  
 Minister it who not rejoice look Chu then turn-to  
 zhi. (Zuozhuan Zhaogong)  
 it  
 諸侯其誰不欣焉望楚而歸之。《左傳·昭公》  
 ‘...which of the States will not rejoice? They will look to Chu, and turn to  
 it, ....’

The third strategy is reduplication which is used in Archaic Chinese and Modern Chinese.

- (28) a. Huanghuang shangdi. (Shijing Xiaoya)  
 gracious Heaven  
 皇皇上帝。《詩經·小雅》  
 ‘Oh, gracious Heaven above, ...’
- b. Yu xue feifei. (Shijing Beifeng)  
 rain snow falling-scattered  
 雨雪霏霏。《詩經·北風》  
 ‘The snow falls and drifts about.’
- c. Tian heiheide.  
 sky black-black  
 天黑黑的。  
 ‘The sky is dark<sub>REDUPL.</sub>.’
- d. Zhangsan jianjiankangkangde.  
 Zhangsan healthy-healthy  
 張三健健康康的。  
 ‘Zhangsan is healthy<sub>REDUPL.</sub>.’

Fourth, as Liu (2013: 124) argues, the state-denoting meaning of an attributive adjective can be obtained by having its degree argument bound by a degree modifier, as shown by (29), where 1 represents the Theme argument and D the degree argument of the adjective *jiankang* ‘healthy’ (Higginbotham 1985; Liu 2013).

- (29) Zhangsan<sub>1</sub> hen<sub>i</sub> jiankang<sub><1, Di></sub>.  
 Zhangsan very healthy  
 張三很健康。  
 ‘Zhangsan is very healthy.’



Since neither prefixes like *you-*, suffixes like *-ran*, nor adjectival reduplication can be found in the disyllabic descriptive adjective, I suggest that, at the beginning stage of occurrence of the disyllabic descriptive adjective, the A component of disyllabic descriptive adjectives functions as a degree operator at the lexical level which not only binds but also saturates the degree argument carried by the B component, thus the state-denoting meaning of disyllabic descriptive adjectives is derived, as shown by (30).<sup>12</sup>

- (30) Jifu<sub>1</sub> [[<sub>A</sub> xue<sub>i</sub>][<sub>B</sub> bai<sub><1, Di></sub>]], toufa<sub>1</sub> [[<sub>A</sub> wu<sub>i</sub>][<sub>B</sub> hei<sub><1, Di></sub>]].  
 skin snow-white hair dark-black  
 肌膚雪白，頭髮烏黑。  
 ‘The skin is snow white, and the hair is dark black.’

However, as the A component gets more and more bleached in the semantic meaning, it becomes less and less qualified to be a degree operator. So, the state-denoting meaning of the disyllabic descriptive adjective gets weaker and weaker. In order to ‘restore’ the state-denotation meaning, morphologically a disyllabic descriptive adjective can adopt the reduplication strategy, either the ABAB or the AAB reduplication pattern,

<sup>12</sup> As Isaendo (1958) and Lien (2000: 63) point out, the word-internal syntax, at least, differs from the word-external syntax in the following two aspects. First, the word order of a phrase differs from the component order of its word-counterpart where each component of the word has a word-counterpart in its phrasal counterpart. For example, in Taiwanese, *tsha bihun* ‘stir-fry rice-noodle’ is a verb phrase in which the head verb *tsha* ‘stir-fry’ precedes the noun complement *bihun* ‘rice-noodle’. However, *bihun-tsha* ‘stir-fried rice-noodle’ is a compound noun in which it is the head noun component *bihun* ‘rice-noodle’ that precedes the verb component *tsha* ‘stir-fry’. Second, the restriction between the modifier and the modifiee in a phrase is not the same as that in a word. For instance, in Chinese, at the phrasal level, *xue* ‘snow’, being a noun, cannot function as an adverb to modify the adjective *bai* ‘white’; therefore, *xue* ‘snow’, as (i) shows, can only modify the adjective *bai* ‘white’ through the help of the degree adverb *yiyangde* ‘equivalently’.

- (i) Pifu xiang xue yiyangde bai.  
 skin like snow equivalently white  
 皮膚像雪一樣地白。  
 ‘The skin is as white as snow.’

However, at the word level, the noun *xue* ‘snow’, though not being an adverb, can directly modify the adjective *bai* ‘white’, as in *xuebai* ‘snow-white’. So, it will not be a problem for me to assume that the A component of disyllabic descriptive adjectives like *xuebai* ‘snow-white’ functions as a degree operator at the lexical level which not only binds but also saturates the degree argument carried by the B component.

to ‘revive’ its state-denoting meaning, as respectively shown by (31) taken from Shi (2004).

- (31) a. Tanhua      zhen mei      ya! Xuebaixuebaide. (Tanhua He he Guihuo)  
 epiphyllum really beautiful SFP snow.white<sub>REDUPL</sub>  
 曇花真美呀！雪白雪白的。《曇花·鶴和鬼火》  
 ‘How beautiful the epiphyllum is! It is snow.white<sub>REDUPL</sub>.’
- b. Taoziyao ting le, miankong qi-de      xuexuebai,      yi-ju      hua  
 Taoziyao hear SFP face      anger-DE snow-snow-white one-CL word  
 ye      shuo bu      chu lai. (Guanchang Xianxing Ji)  
 also say not go come  
 陶子堯聽了，面孔氣得雪雪白，一句話也說不出來。《官場現形記》  
 ‘As Taoziyao heard, he got so angry that his face became  
 snow.white<sub>REDUPL2</sub>.’

Furthermore, I suggest that, for the disyllabic descriptive adjective, the actual function of reduplication morphology is to revive the degree operator function of the A component and make it able to bind and saturate the degree argument carried by the B component.<sup>13</sup>

<sup>13</sup> As one anonymous reviewer reminds me, the claim that ‘adjective reduplication is “to revive the degree operator function” and makes it able to bind and saturate the degree argument’ has been more clearly argued for in Zhang (2015). Assuming that *hen* and the adjective reduplication morphology are in complementary distribution, Zhang (2015: 26-27) suggests that *hen* and the adjective reduplication morphology are different realizations of the same functional head Deg. Assuming this, Zhang (2015) treats the adjective reduplication morphology as a function degree head which binds and saturates the degree argument of the adjective. However, what I really argue for here is that the actual function of adjectival reduplication morphology is to revive the degree operator function of the A component and make it (i.e., the A component) able to bind and saturate the degree argument carried by the B component. The reviewer mistakenly misses “of the A component” out of my claim, which leads her/him to make a strawman fallacy. Neither do I treat the adjectival reduplication morphology as a functional degree head, nor do I claim that it is the adjectival reduplication morphology that binds and saturates the degree argument of the component B. If both *hen* and the adjective reduplication morphology can be analyzed as the degree head, we would expect both (iiA) to be the same in grammaticality; however, as the dialogue below shows, the fact does not bear out this expectation.

(i) Q: Zhangsan      gao      ma?  
 Zhangsan      tall      SFP  
 ‘Is Zhangsan tall?’

So, it is this function which the ABAB/ABB reduplication morphology plays that makes the disyllabic descriptive adjective different from the disyllabic attributive adjective in adopting the ABAB/AAB reduplication pattern rather than the AABB reduplication pattern. By contrast, the AABB adjectival reduplication morphology like that of *qingqingchuchu* ‘clear<sub>REDUPL</sub>’ in (32a), as Liu (2013) argues, functions to introduce a positive degree morpheme (henceforth *Pos*) to bind the degree argument at the lexical level, as illustrated by (32b).

- (32) a. qingqingchuchu  
 clear-clear  
 清清楚楚  
 ‘clear<sub>REDUPL</sub>’  
 b. [*Pos*<sub>i</sub> qingchu<sub><1, Di></sub>]

So, the function of adjectival reduplication morphology, either the AA, the AABB, the ABB, the ABAB, or the AAB pattern, is to change an attribute-denoting adjective into its state-denoting counterpart, and the degree-sense conveyed by a reduplicated adjective is simply a ‘by-product’ of the state realization because the premise of having a property realized as a state, as Liu (2013: 117) argues, is that the degree of that property must be ‘high’ enough (Zhu 1980; Xie and Liu 1995; Shi 1996).

Since the ABAB/AAB reduplication morphology simply functions to revive the state-denoting meaning of the disyllabic descriptive adjective, contra Shi (2010: 308), I suggest that the ‘by-product’ degree-sense induced by it is not necessary to a superlative one, as attested by (33).

- 
- (ii)Aa: Zhangsan    hen    gao.  
 Zhangsan    very    tall  
 ‘Zhangsan is very tall.’  
 Ab: \*Zhangsan    gaogaode.  
 Zhangsan    tall-tall  
 ‘Zhangsan is tall<sub>REDUPL</sub>.’

To review Zhang (2015) is beyond the scope of this study. So, I will not have any further comments on whether the adjective reduplication morphology should be treated as a functional degree head in this paper.

- (33) Zhangsan kan-qilai zhuangshuozhuangshuode, dan haishi bu ru  
 Zhangsan look-up strong-huge-strong-huge but still not like  
 Yao Ming zhuangshuo.  
 Yao Ming strong-huge  
 張三看起來壯碩壯碩的，但還是不如姚明壯碩。  
 ‘Although Zhangsan looks strong.huge<sub>REDUPL</sub>, he is still not so strong and huge  
 as Yao Ming is.’

Namely, if the degree-sense induced by the ABAB/AAB reduplication morphology must be a superlative one, then (33) should be semantically illegitimate, contrary to fact.

#### 4. Implications

The analysis proposed here for the syntactic and semantic properties of the disyllabic descriptive adjective has the following three empirical and theoretical implications. First, the conflict between the assumption made by Zhu (1980), Chao (1968), Lü et al. (1980), Tang (1988), Zhu (2003), Paul (2004) and Liu (2013) that adjectives which are able to undergo reduplication must be gradable and the observation made by them that disyllabic descriptive adjectives cannot occur with any degree adverb can be solved. So, the assumption that adjectives which are able to undergo reduplication must be gradable can be maintained.

Second, since the degree marker *deg* can only occur in an explicit comparison construction, the disyllabic descriptive adjective, as predicted, can only occur in an explicit comparison construction. So, to some native speakers, the low acceptability on the co-occurrence between the disyllabic descriptive adjective and the degree adverb *hen* ‘very’ and *feichang* ‘extremely’, as (34) illustrates, can be naturally accounted for because degree modifiers like *hen* ‘very’ and *feichang* ‘extremely’ can only occur in an implicit comparison construction (Kennedy 2007).<sup>14</sup>

<sup>14</sup> The restriction that the degree marker *deg* can only occur in an explicit comparison construction, as I have pointed out, becomes less rigid for the younger generation in Taiwan.

- (34) \*/?(?) Zhe-pian yezi hen/feichang nenlü.  
 this-CL leaf very/extremely tender-green  
 \*/?(?) 這片葉子很／非常嫩綠。

Given this, the ungrammaticality (or marginality) of examples like (34) cannot counter the proposal that disyllabic descriptive adjectives are gradable.

Third, a disyllabic descriptive adjective, as I have argued, can only be modified by the degree modifier *deg* whose R value must be determined by an overt standard of comparison related to the semantic properties of the A component; therefore, the value of R is dependent on the speaker's subjective intension because a speaker can subjectively determine the standard of comparison involved. This explains why the speaker, as Zhu (1980, 1982) points out, can subjectively determine the meaning of the A component.<sup>15</sup>

## 5. Concluding Remarks

As the state-denoting meaning of the A component of disyllabic descriptive adjectives gets more and more bleached, nowadays the disyllabic descriptive adjective has transmuted into a gradable adjective. However, it is only compatible with some specific type of degree modifiers because the state-denoting meaning of the A component has not yet totally died out.

Interestingly, according to Wu's (1999) study on the disyllabic descriptive adjective in Qidong dialect spoken in Hunan, the A component *liu* 'slippery' and *xi* 'pulpy', in addition to being found in the disyllabic descriptive adjective like *liu-yuan* 'slippery-round' and *xi-lan* 'pulpy-smash', are also found in examples below.

<sup>15</sup> As one anonymous reviewer reminds me, the idea that the value of the degree is related to the speaker's subjective evaluation is the claim made in Rett (2015). In all fairness, Rett (2015) should not be the first person who makes such a claim. As Zhu (1982: 196-197) as well as Zhang (2002: 126-191) points out much earlier than Rett (2015), some (Chinese) degree adverbs (e.g., *hao* 'thoroughly' and *hen* 'very'), in addition to specifying the degree value, also convey the speaker's subjective evaluation. Since the issue of distinguishing the type-shifting function from the evaluative function of degree adverbs is not my concern here, I will not have any mention about Rett (2015).

- (35) a. liu-liang 溜亮 ‘slippery-bright’  
 b. liu-guang 溜光 ‘slippery-light’  
 c. liu-bao 溜薄 ‘slippery-thin’
- (36) a. xi-ruan 稀軟 ‘pulpy-soft’  
 b. xi-po 稀破 ‘pulpy-broken’  
 c. xi-zang 稀臟 ‘pulpy-dirty’

Moreover, the semantic content of *liu* and *xi* are so bleached that they simply function like the degree modifier *hen* ‘very’. The diffusion of the A component like *liu* and *xi* as well as their semantic bleaching, hence, leads Shi (2004: 88) to suggest that the A component is on the way to transmute into a degree marker (Zhu 1980).

Although it is not unreasonable for Shi (2004) to make such an assumption, the results of the experiment we have conducted lead us to make a different suggestion. As the experimental results on the current usage of disyllabic descriptive adjectives by the younger generation from Taiwan indicate, the acceptability of sentences with the degree modifier *hen* ‘very’, though not being as high as that of sentences with the comparative degree modifier *haiyao* ‘even-more’ or *yiyang* ‘equivalently’, is not low to an extent that can lead us to claim that the disyllabic descriptive adjective cannot be modified by the degree modifier *hen* ‘very’. Given this, I would like to suggest that, in Taiwan, the ‘whole’ disyllabic descriptive now is on its way to transmute into a ‘genuine’ gradable adjective.

(Proofreader: Li Qi-hong)

## References

- Chao Yuen Ren. *A Grammar of Spoken Chinese*. Berkeley: University of California Press, 1968.
- Guo Rui 郭銳. *Xiandai Hanyu Cilei Yanjiu* 現代漢語詞類研究 (*Studies on Categories of Modern Chinese*). Beijing 北京: The Commercial Press 商務印書館, 2002.
- He Leshi 何樂士. *Zuozhuan Xuci Yanjiu* 左傳虛詞研究 (*Functional Categories in the Zuozhuan*). Beijing 北京: The Commercial Press 商務印書館, 1987.
- \_\_\_\_\_. “Shiji Yufa Tedian Yanjiu 史記語法特點研究 (Grammatical Characteristics in the *Shiji*),” in Cheng Xiangqing 程湘清 (ed.), *Liang Han Hanyu Yanjiu* 兩漢漢語研究 (*Chinese of the Two Han Periods*). Jinan 濟南: Shandong Education Press 山東教育出版社, 1992, pp. 1-261.
- Higginbotham, James. “On Semantics,” *Linguistic Inquiry*, 16.4, 1985, pp. 547-593.
- Isaendo, B. N. 伊三克. “Lun Hanyu zhong Ci de Jiexian Wenti Er 論漢語中詞的界線問題二 (Discuss the Problem of Word Boundary of Chinese II),” *Zhongguo Yuwen* 中國語文 (*Studies of the Chinese Language*), 6, 1958, pp. 283-287.
- Kennedy, Christopher. “Modes of Comparison,” *Proceedings from the Annual Meeting of the Chicago Linguistic Society*, 43.1, 2007, pp. 141-165.
- Kennedy, Christopher and Louise McNally. “Scale Structure, Degree Modification, and the Semantics of Gradable Predicates,” *Language*, 81.2, 2005, pp. 345-381.
- Lien Chinfa 連金發. “Goucixue Wenti Tansuo 構詞學問題探索 (Exploring Morphological Issues),” *Hanxue Yanjiu* 漢學研究 (*Chinese Studies*), 18.s, 2000, pp. 61-78.
- Liu, Chen-sheng Luther. “The Positive Morpheme in Chinese and the Adjectival Structure,” *Lingua*, 120.4, 2010, pp. 1010-1056. doi: 10.1016/j.lingua.2009.06.001
- \_\_\_\_\_. “The Chinese *bi* Comparative,” *Lingua*, 121.12, 2011, pp. 1767-1795. doi: 10.1016/j.lingua.2011.07.002
- \_\_\_\_\_. “Reduplication of Adjectives in Chinese: A Default State,” *Journal of East Asian Linguistics*, 22.2, 2013, pp. 101-132. doi: 10.1007/s10831-012-9099-2
- Liu Yuehua 劉月華, Pan Wenyu 潘文娛 and Gu Wei 故韡. *Shiyong Xiandai Hanyu Yufa* 實用現代漢語語法 (*Modern Chinese Grammar*). Beijing 北京: The Commercial Press 商務印書館, 2004.
- Lü Shuxiang 呂叔湘 et al. *Xiandai Hanyu Babai Ci* 現代漢語八百詞 (*Eight Hundred Words in Modern Chinese*). Beijing 北京: The Commercial Press 商務印書館, 1980.

- Ohta Tatsuo 太田辰夫. *Zhongguoyu Lishi Wenfa* 中國語歷史文法 (*A Historical Grammar of Modern Chinese*), trans. Jiang Shaoyu 蔣紹愚 and Xu Changhua 徐昌華. Beijing 北京: Peking University Press 北京大學出版社, 1987[1957].
- Paul, Waltraud. "Adjectival Reduplication in Mandarin Chinese," Paper presented at 'The 11th International Morphology Meeting,' 14-17 February 2004, Vienna: University of Vienna.
- Rett, Jessica. *The Semantics of Evaluativity*. Oxford: Oxford University Press, 2015.
- Shi Dingxu 石定栩. "Xingrongci Chongdieshi de Jufa Diwei 形容詞重疊式的語法地位 (The Syntactic Status of Reduplicated Adjectives)," *Hanyu Xuebao* 漢語學報 (*Chinese Linguistics*), 2, 2000, pp. 70-75.
- Shi Qin 石銀. "Xingrongci ABAB Shi Chongdie de Zhonglei, Xingcheng Shijian ji Qita 形容詞 ABAB 式重疊的種類，形成時間及其他 (The Sort and Formative Time of Adjective ABAB's Reduplication and Others)," *Hubei Guangbo Dianshi Daxue Xuebao (Zhaxue Shehui Kexue Ban)* 湖北廣播電視大學學報 (哲學社會科學版) (*Journal of Hubei Radio & Television University (Philosophy and Social Sciences)*), 131.4, 2004, pp. 85-89.
- \_\_\_\_\_. *Hanyu Xingrongci Zhongdixingshi de Lishi Fazhan* 漢語形容詞重疊形式的歷史發展 (*The Historical Development of Reduplicated Adjectives in Chinese*). Beijing 北京: The Commercial Press 商務印書館, 2010.
- Shi Yuzhi 石毓智. "Lun Hanyu de Jufa Zhongdie 論漢語的句法重疊 (Studies on the Syntactic Reduplication in Chinese)," *Yuyan Yanjiu* 語言研究 (*Studies in Language and Linguistics*), 2, 1996, pp. 1-12.
- Sun Chaofen. *Word-Order Change and Grammaticalization in the History of Chinese*. Stanford: Stanford University Press, 1996.
- Tang Ting-chi 湯廷池. "Guoyu Xingrongci de Zhongdie Guilu 國語形容詞的重疊規律 (Reduplication of Adjectives in Chinese)," in *Hanyu Cifa Jufa Lunji* 漢語詞法句法論集 (*Studies on Chinese Morphology and Syntax*). Taipei 臺北: Student Book 臺灣學生書局, 1988, pp. 29-57.
- \_\_\_\_\_. "On Reduplication of Adjectives in Chinese: A Comparative Study of Mandarin and Southern Min," *Studies in the Linguistics Sciences*, 26.1, 1996, pp. 325-339.
- Wang Li 王力. *Hanyu Shi Gao* 漢語史稿 (*Manuscript of Chinese History*). Beijing 北京: Science Press 科學出版社, 1980[1958].
- Wang Xian 王顯. "Shijing zhong gen Chongyan Zuoyong Xiangdang de You Zishi, Qi Zishi, Si Zishi han Si Zishi 詩經中跟重言作用相當的有字式、其字式、斯字式和思字式 (The Character Patterns with a Function Similar to Reduplication: You



- Character Pattern, *Qi* Character Pattern, *Si* Character Pattern and *Si* Character Pattern),” *Yuyan Yanjiu* 語言研究 (*Studies in Language and Linguistics*), 4, 1955, pp. 9-44.
- Wu Yunji 伍雲姬 (ed). *Hanyu Fangyan Gongshi yu Lishi Yufa Yanjiu Lunwenji* 漢語方言共時與歷時語法研討論文集 (*Proceedings of Diachronic and Synchronic Studies on Chinese Dialects*). Guangzhou 廣州: Jinan University Press 暨南大學出版社, 1999.
- Xiang Xi 向熹. “Shijing li de Fuyin Ci 《詩經》裡的複音詞 (Disyllabics in *Shijing*),” *Yuyanxue Luncong* 語言學論叢 (*Essays on Linguistics*), 6, 1980, pp. 27-54.
- Xie Zili 謝自立 and Liu Danqing 劉丹青. “Suzhou Fangyan Bianxing Xingrongci Yanjiu 蘇州方言變形形容詞研究 (A Study on the Deformed Adjective in Suzhou),” *Zhongguo Yuyan Xuebao* 中國語言學報 (*Journal of Chinese Languages*), 5, 1995, pp. 214-245.
- Xu Bo 徐波. “Ningbo Fangyan Xingrongci Mozhuang Xingshi - Jian Yi Hanyu Xingtai Bianhua Wenti 寧波方言形容詞摹狀形式—兼議漢語型態變化問題 (The Descriptive Form of Adjectives in Ningbo Dialect – A Discussion on Problems of Morphological Changes in Chinese),” *Yuwen Yanjiu* 語文研究 (*Studies in Language and Linguistics*), 3, 2001, pp. 41-46.
- Xu Liejiong 徐烈炯 and Shao Jingmin 邵敬敏. “Shanghai Fangyan Xingrongci Chongdieshi Yanjiu 上海方言形容詞重疊式研究 (Studies on the Reduplicated Adjectives in Shanghai Dialect),” *Yuyan Yanjiu* 語言研究 (*Studies in Language and Linguistics*), 2, 1997, pp. 68-80.
- Xu Lifang 徐立芳. “Suzhou Fangyan Xingrongci Chutan 蘇州方言形容詞初探 (A Preliminary Study on Adjectives in Suzhou Dialect),” *Xuzhou Shifan Xueyuan Xuebao* 徐州師範學院學報 (*Journal of Jiangsu Normal University*), 1, 1987, pp. 65-74.
- Yang Jianguo 楊建國. “Xian Qin Hanyu de Zhuangtai Xingrongci 先秦漢語的狀態形容詞 (Adjectives in the Pre-Qin-dynasty Chinese),” *Zhongguo Yuwen* 中國語文 (*Studies of the Chinese Language*), 6, 1979, pp. 426-436.
- Zhang Bo 張博. “Xian Qin Xingrongci Houzhui ‘Ru, Ruo, Er, Ran, Yan’ Kaocha 先秦形容詞後綴“如、若、爾、然、焉”考察 (Studies on the Pre-Qin Suffixes: *Ru, Ruo, Ran* and *Yan*),” in *Gudai Hanyu Cihui Yanjiu* 古代漢語詞匯研究 (*Studies on Lexicon of Archaic Chinese*). Yinchuan 銀川: Ningxia People’s Publishing House 寧夏人民出版社, 2000, pp. 44-61.
- Zhang, Ninna Ning. “Functional Head Properties of the Degree Word *Hen* in Mandarin Chinese,” *Lingua*, 153.1, 2015, pp. 14-41. doi: 10.1016/j.lingua.2014.10.005

- Zhang Yajun 張亞軍. *Fuci yu Xianding Miao Zhuang Gongneng* 副詞與限定描狀功能 (*Adverbs and Attributive Modification Function*). Hefei 合肥: Anhui Education Press 安徽教育出版社, 2002.
- Zhao Jinming 趙金銘. "Shijing zhong de Xingrongci Yanjiu 詩經中的形容詞研究 (Studies on Adjectives in *Shijing*)," in Cheng Xiangqing 程湘清 (ed.), *Xian Qin Hanyu Yanjiu* 先秦漢語研究 (*Studies on Pre-Qin-dynasty Chinese*). Jinan 濟南: Shandong Education Press 山東教育出版社, 1992, pp. 114-143.
- Zhu Dexi 朱德熙. "Xiandai Hanyu Xingrongci Yanjiu 現代漢語形容詞研究 (Studies in Present-Day Chinese Adjectives)," *Yuyan Yanjiu* 語言研究 (*Studies in Language and Linguistics*), 1, 1956, pp. 83-111. (Reprinted in Zhu Dexi 朱德熙. *Xiandai Hanyu Yufa Yanjiu* 現代漢語語法研究 (*Studies on Syntax of Modern Chinese*). Beijing 北京: The Commercial Press 商務印書館, 1980, pp. 3-41.)
- \_\_\_\_\_. *Yufa Jiangyi* 語法講義 (*Lectures on Chinese Syntax*). Beijing 北京: The Commercial Press 商務印書館, 1982.
- Zhu Jingsong 朱景松. "Xingrongci Chongdieshi de Yufa Yuyi 形容詞重疊式的語法意義 (The Grammatical Meaning of Reduplicated Adjectives)," *Yuwen Yanjiu* 語文研究 (*Linguistic Research*), 88.3, 2003, pp. 9-17.

## 漢語雙音節狀態形容詞：程度與重疊

劉辰生

國立交通大學外國語文學系

csliau@faculty.nctu.edu.tw

### 摘 要

伴隨著第一音節狀態語意的弱化，雙音節狀態形容詞已開始轉化為程度形容詞。由於第一音節的狀態語意尚未完全消失，所以雙音節狀態形容詞只能被特定類別的程度副詞修飾。雙音節狀態形容詞帶有程度性的論點解決了只有程度性形容詞才能重疊和雙音節狀態形容詞不受程度副詞修飾這兩種說法間的矛盾問題。對雙音節狀態形容詞而言，重疊構詞的作用在於恢復第一音節原有的程度運符功能，使之能約束並滿足第二音節所帶的程度論元。這樣的功能適切地為雙音節狀態形容詞和雙音節性質形容詞做出了區隔。

**關鍵詞：**隱性程度標記，雙音節狀態形容詞，顯性比較，程度性，重疊

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