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Revisiting dissyllabic reduplication in Mandarin Chinese

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Introduction

Mandarin Chinese (MC) is known as a language with poor morphology, but this is true only if by morphology one means inflection. MC has rich compounding and reduplicative morphology. In this contribution I will focus on the reduplication patterns of dissyllabic words, i.e. an AB type words reduplicated as AABB or ABAB, with eventual tonal changes, where A and B stand for monosyllabic morphemes.

- (1) a. Intensive ADJ
zi3-xi4 'careful' ⇒ zi2-zì3-xì4-xì4 'very careful'
- b. Attenuative Verb
xue2-xi2 'study' ⇒ xue2-xi0-xue0-xi0 'study a little'

Previous analyses

Yip (1980) is a thorough study on the reduplication patterns. She first assumes two kinds of reduplications:

Morphemic level	Word level
copy of segments	copy of word and tone
morpheme by morpheme copy	word by word copy
create unbreakable units	create separable units

She proposes there is correlations between word category, the unit duplicated (morpheme or word) and reduplication schema (AABB or ABAB).

Word category	ADJ & N	V
Unit copied	morpheme	word
Schema	AABB	ABAB

- (2) a. Dissyllabic ADJ reduplication: AB ⇒ AABB
kuai4-huo2 'happy' ⇒ kuai4-kuai4-huo2-huo2 'very happy'
- b. Dissyllabic V reduplication: AB ⇒ ABAB
kuai4-huo2 'enjoy' ⇒ kuai4-huo0-kuai4-huo0 'enjoy a little'

Subsequent works in the literature follow more or less Yip (1980). For example, Feng (2003) also confirms that verbs are reduplicated as ABAB and adjective AABB. However, Yip's analysis is based on part of the data, which gives a simplistic view.

Complexity of reduplication pattern

Let's see patterns which don't fit Yip's account.

- (3) ABAB type ADJ reduplication (from Luo 2013)
- a. xian1-hong2 ⇒ xian1-hong2-xian1-hong2
vivacious-red ⇒ vivacious-red-vivacious-red
'scarlet' ⇒ 'intense scarlet'
- b. xue3-bai2 ⇒ xue3-bai2-xue3-bai2
snow-white ⇒ snow-white-snow-white
'pure white' ⇒ 'extreme pure white'
- (4) AABB type V reduplication (from Luo 2013 and Zhang 2015)
- a. duo2-shan3 ⇒ duo2-duo0-shan2-shan3
hide-avoid ⇒ hide-hide-avoid-avoid
'dodge' ⇒ 'dodge a lot'
- b. da3-nao4 ⇒ da2-da0-nao4-nao4
hit-fight ⇒ hit-hit-fight-fight
'hit and fight' ⇒ 'hit and fight a lot'

Some preliminary observations based on data in (1)-(4):

- In reduplicative words of AABB type, noun, adjective or verb, A and B are of the dvandva type (1a, 2a, 4ab).
- The reverse is not true: a word having a dvandva structure AB can be duplicated as ABAB (1b, 2b).
- The AABB type is always intensive, sometimes called plural (Zhang 2015), iconic (Morgenstern & Michaud 2007) (1a, 2a, 4ab).
- The reverse is not true: ABAB type can also be iconic (3ab).
- Dissyllabic word AB, if not of dvandva type, cannot be duplicated as AABB, but only ABAB (3ab).
- The reverse is not true: ABAB form can be derived from a dvandva AB word (1b, 2b).
- ABAB verb is always attenuative (1b, 2b); AABB verb always iconic (4ab).

⇒ Yip's Schema doesn't consider a decisive parameter: **the internal structure of the dissyllabic compound.**

The insightful analysis of Zhang(2015) focuses on the plurality and pluractionality in N and V of AABB type and doesn't discuss much enough about ABAB pattern and ADJ reduplication to have an overview on dissyllabic patterns.

Crossing the parameters

According to Bisetto & Scalise (2005), there are three types of grammatical relation in a compound: subordination, attribution and coordination. By crossing the three parameters mentioned above, especially the structure of compounds, we obtain :

ADJ	subordinate	wu2-gu1 (VN) 'innocent'		
	attributive	xian1-hong2 'scarlet'	ABAB	intensive
	coordinate	kuai4-huo2 'happy'	AABB	intensive
N	subordinate	jie4-kou3 (VN) 'excuse'		
	attributive	da4-sha4 'edifice'		
	coordinate	hua1-cao3 'flowers and grass'	AABB	intensive
V	subordinate	dong4-yuan2 (VN) 'mobilize'	ABAB	attenuative
	attributive	man4-pao3 (Adv-V) 'jogging'		
	coordinate	duo2-shan3 'dodge'	AABB	intensive
		qiao1-da3 (endo) 'hit'	AABB	Intensive
		qiao1-da3 (exo) 'say to irritate'	ABAB	attenuative
		kuai4-huo2 (exo) 'enjoy'	ABAB	attenuative

The table exhausts all possible patterns as far as we know and we can clearly see the compounding structure as a decisive factor. That is, the subordinate, attributive and coordinate structure decide the reduplication pattern of AABB and ABAB, and where both patterns are possible, it is the endocentric / exocentric interpretation which decides.

Conclusion

The reduplication of dissyllabic compounds is where compounding and reduplication meet in Mandarin Chinese. This contribution discussed the morphological side of the question, but further studies must be done on the phonological side (tonal sandhi and neutral tone) which makes the question more complex.

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