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.

Previous analyses

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

<table>
<thead>
<tr>
<th>Morphemic level</th>
<th>Word level</th>
</tr>
</thead>
<tbody>
<tr>
<td>copy of segments</td>
<td>copy of word and tone</td>
</tr>
<tr>
<td>morpheme by morpheme copy</td>
<td>word by word copy</td>
</tr>
<tr>
<td>create unbreakable units</td>
<td>create separable units</td>
</tr>
</tbody>
</table>

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

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

(2) a. Dissyllabic ADJ reduplication: AB ⇒ AABB
   kua14-huo2 ‘happy’ ⇒ kua1-kua14-huo2-huo2 ‘very happy’
   b. Dissyllabic V reduplication: AB ⇒ ABAB
   kua14-huo2 ‘enjoy’ ⇒ kua14-huo0-kua4-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) AABB 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) ABAB 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-da1-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 word AB (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 plurationality in N and V of AABB type and doesn’t discuss much enough about ABAB pattern and ADJ reduplication to have a overview on dissylabic 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-gui1 (VN) ‘innocent’ | attributive | xian1-hong2 ‘scarlet’ | AABB | intense |
| N | coordinate | kua14-huo2 ‘happy’ | AABB | kua1-kua14-huo2-huo2 ‘very happy’ | intensive |
| V | subordinate | jei4-kou3 (VN) ‘excuse’ | attributive | da1-sha4 ‘edifice’ | AABB | intense |
| | | | coordinate | hua1-cao3 ‘flowers and grass’ | AABB | intensive |
| | | | | | | |

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 much more complex.

References

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- Morgenstern, Aliyah & Alexis Michaud (2007), The reduplication of compounding in Italian and English: morphosyntactic or phonological variation. Communication presented at Queen Mary Linguistics, March for 5th.