Reduplication of bi-morphemic words: Patterns in Chinese

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Outline of the talk

Background

Full and partial reduplication

◻ Reduplication is the iteration of a category in "morphology".

◻ It can be the doubling of a stem or of a root: full reduplication.

◻ Units different from the morphological ones can be doubled, i.e. prosodic units: partial reduplication.

Iconicity

- Function-wise: reduplication displays a great amount of iconicity, but, crucially, it implies a formal encoding and thus is by all means **grammatical**.

- Iconicity emerges in the **increasing** function, cross-linguistically spread: for example in the augmentative modification:

1) <u>French Creole</u>: *mango*   *mango-mango*

                 'mango'   'many mangoes'

2) <u>Jamaican</u>:   *mata* 'matter' *mata-mata* 'a lot of matter'

                         (Kouwenberg & LaCharité 2001: 66)

Counter-iconicity

◻ Reduplication has also counter-iconic functions, like the diminutive one:

3) Toba Batak   *dolok* 'mountain'   *dolok-dolok* 'hill'

(Kiyomi 1995: 1148)

4) Cebuano Caribbean Creole

abhung 'bad smelling'

abhung-abhung 'somewhat bad smelling'

(Mattes 2006: 64)

Grammatical functions

◻ Reduplication also gives rise to categorial shifts, and other merely grammatical functions.

5) Japanese

   hore 'fall in love' → *hore-bore* 'fondly'   (Forza 2011: 81)

6) Italian

   fuggi 'escape' → *fuggi fuggi* 'stampede' (Forza 2011: 82)

Case study: Mandarin Chinese

◻ Verbal and adjectival domains → two different patterns of reduplication, with different functions:

◻ DIMINISHING function (verbs) : 'tentative' or 'delimitative' aspect(see Chao 1968; Li and Thompson 1981, Tsao 2001):

   ◻ The actor does something "a little bit" (Li and Thompson 1981:29);

   ◻ an action goes on quickly, lightly, casually or just for a try → function of making a relaxed tone (Ding 2010)

◻ INCREASING function (adjectives):

   ◻ a higher degree of liveliness or intensity (e.g. Chao 1968, Li and Thompson 1981, Tang 1988)

Monosyllabic bases

- ◘ Segmental level: the two reduplication patterns are alike → AA

- ◘ Differences are suprasegmental and concern tone patterns:

→ DIMINISHING function (verbs): the reduplicant loses its original tone:

7) 教 *jiāo* 'teach' → 教教 *jiāo jiao* 'teach teach = teach a little'

(Li and Thompson 1981:29)

→ INCREASING function (adjectives): the reduplicant always bears the first tone (e.g. Abbiati 1998:90, Paul 2010:120).

8) 小 *xiǎo* 'small' → 小小 *xiǎo-xiāo* 'small-small = (really/thouroughly) small'

Lexical integrity

◻ No morpheme can interrupt the **increasing** (adjectival) reduplication template…

BUT

◻ In the **diminishing** (verbal) reduplication of monosyllabic verbs:

— 一 *yī* 'one' and 了 *le* 'perfective marker' can be put in between base and reduplicant:

A + 一 *yī* 'one' + A   走（一）走   *zǒu (yi) zou* ' have a walk'

A + 了 *le* + A   走（了）走   *zǒu (le) zou* 'walked for a while'

Disyllabic bases

◻ The differences arise at the segmental level.

◻ In the DIMINISHING function, the base is reduplicated as a whole, [AB] $_V$ [AB]$_V$ (see Paul 2010:119)

◻ In the INCREASING function, each syllable (morpheme) is independently reduplicated in pre- and post- base position [A[AB]B]$_A$

  ◻ Feng (2003): While the prosodic pattern is [σσ][σσ], tone sandhi rules show that the morphological structure cannot be [AA][BB], but [A[AB]B] →

  ◻ disalingment between the prosodic and morphological structure of the complex form.

Summing up…

Structure	Function	Input Cat.	Output Cat.	Base	Reduplication
[AB][AB]	diminishing	V	V	介绍 *jièshào* 'introduce/present'	介绍介绍 *jièshào-jièshào* 'introduce (a little)'
[A[AB]B]	increasing	Adj and V	Adj and V	高兴 *gāoxìng* 'happy'	高高兴兴 *gāo-gāo-xìng-xìng* 'very happy'

The analysis 1

Diminishing function

Input constraints

- ▢ At the structural level:

- ▢ Only VERBS → $[AB]_V$ $[AB]_V$

  Disyllabic realization of the $[A]_V$ $[A]_V$ pattern

Input constraints

◻ At the semantic/aspectual level:

◻ [A] or [AB] is a dynamic and volitional verb (Li and Thompson 1981): [+controlled, +dynamic, +durative]

◻ Achievement verbs normally cannot be reduplicated.

◻ Resultative verb compounds cannot be reduplicated (see Tsao 2001).

➔ Result State component excluded in the lexical semantic structure of the base.

➔ Semantic incompatibility between the delimitative aspect conveyed by reduplication and the inherent aspectual properties of these verbs.

Input constraints

- ◻ What about states?
- ◻ Stative verbs generally cannot reduplicate (see Tsao 2001).
  - ◻ BUT some stative verbs expressing a state of mind that can have a dynamic interpretation can be reduplicated:

9)   关心 guānxīn   'be concerned about/be interested in'

10) 熟悉 shúxī   'know sth./sb. well'

11) 了解 liǎojiě   'understand'

(Ding 2010:283)

Input constraints

→ Some predicative disyllabic <u>adjectives </u>related to feelings and states of mind can be reduplicated as [AB] [AB] (see Li 1996, Yang 2003).

12) 高兴高兴 gāoxìng-gāoxìng 'happy-happy = have some fun',

13) 温暖温暖 wēnnuǎn-wēnnuǎn 'warm-warm = warm up'

→ Stage-level adjectives (often used as dynamic verbs, not only as stative verbs; e.g. Sybesma 1997, Liu 2010).

Output constraints

◻ At the formal/categorial level:

$[A]_V$ $[A]_V$ / $[AB]_V$ $[AB]_V$ diminishing function is found only in verbal reduplication and the output is always a Verb.

Output constraints

- At the semantic/aspectual level:

  Diminishing reduplication is incompatible with situations expressing actions in progress:

  14) *她正在看看电视

tā	zhèngzài	kàn-kan	diànshì
she	PROGR	watch-watch	TV

  'She is watching TV a little'

  (Ding 2010:275)

Output constraints

- Incompatible with the durative aspect marker 着 *zhe* and the aspect marker 过 *guo* (experience made in the past).

15) *学生们很有兴趣地参观参观着展览。

xuéshēng-men   hěn   yǒu-xìngqu-de   cānguān-cānguān zhe   zhǎnlǎn

student-PL   very have-interest-ADV visit-visit   DUR exhibition

'Students are visiting the exhibition with a great interest'

16) *这个问题，大家讨论讨论过了。

zhè ge   wèntí,   dàjiā   tǎolun-tǎolun   guo   le

this CLF problem   everybody discuss-discuss   GUO   PART

'Everybody discussed this matter (before)'

(Ding 2010:275)

Output constraints

◻ Compatible with the perfective aspect marker 了 *le* (action completed or terminated, see Smith 1991)

17) 打扫了打扫 dǎsǎo le dǎsǎo 'sweep PFV sweep'

18) 学习了学习 xuéxí le xuéxí 'study PFV study'

→ Note that the perfective aspect marker is between the base and the reduplicant.

Output constraints

◻ The morpheme 一 yī 'one' cannot show up between the base [AB] and its reduplicant (vs. monosyllabic reduplication, ex b.):

* [AB + 一 yī 'one' + AB]

19) a. *讨论一讨论   'discuss-one-discuss'

   tǎolùn-yi-taolun
   b. 看（一）看   'look (one) look 'have a look'
   kàn (yi) kan

➔ in the monosyllabic pattern A+yi+A :

[yi+A] can be analysed as a verbal classifier (Xiao and McEnery 2004).

Diminishing function: V-O compounds

- AB separable Verb-Object compounds:

  A = Verbal head;

  B = Object (including cognate or dummy objects)

- Reduplication pattern: AAB

➜ what reduplicates is the verbal head.

20) a. 睡觉 shuì-jiào 'sleep-sleep (N; bound form)'

→ 睡睡觉 shuì-shui-jiào

    b. 跳舞 tiào-wǔ 'dance-dance (N)'   → 跳跳舞 tiào-tiao-wǔ

    c. 散步 sàn-bù 'distribute-step'   → 散散步 sàn-san-bù

                'take a walk'

Diminishing function: V-O compounds

VN compounds ambiguous w.r.t. their lexical / syntactic status and the object behaves in many respects as a standard syntactic object, rather than a lexical object.

→ The diminishing reduplication only concerns the monosyllabic V constituent (head) of the V-O construction.

With一 yī 'one'

As in the case of monosyllabic verbs, the morpheme 一 yī 'one' can appear between the base verb and the reduplicant.

21) 散一散步 sàn-yi-san-bù 'distribute-one-distribute-step' (cf. 20c)

22) 聊天儿　　→　　　聊聊天儿　　　　or　　聊一聊天儿

　liáo-tiānr　　　　　　　liáo-liao-tiānr　　　　liáo-yi-liao-tiānr

　chat-sky/heaven/day chat-chat-sky　　　chat-one-chat-sky

　'chat'　　　　　　　　　　　　　　　　'chat a little/have a chat'

As in the case of monosyllabic verbs, both 一 *yi* and the reduplicant are in the neutral tone (see Li and Thompson 1981).

V-O compound units

◻ Completely lexicalized / non-separable VO compounds do not reduplicate as [A][A]B, but as [AB][AB]:

Even though it is still possible to detect the verb-object relation, nevertheless they constitute non-separable units:

23)   关心 guān-xīn 'close/concern-heart = be concerned about'

→关心关心 guānxin-guānxin (ABAB)   vs.

24)   散心 sàn-xīn 'distribute-heart = seek distraction/relaxation'

→散散心 sàn-san-xīn (AAB)

Reduplicant as a PATH

◻ DIMINISHING reduplication as syntactic phenomenon (see aspectual constraints + separability).
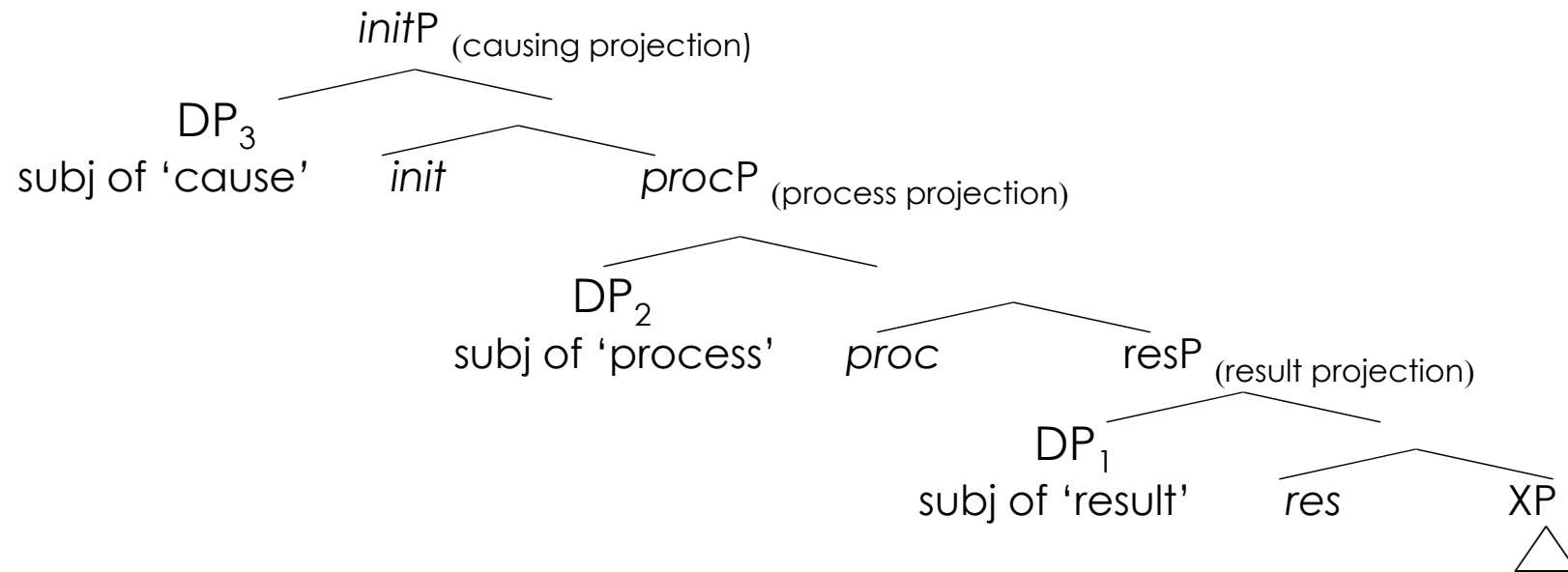
→ Reduplicant occupies a dedicated syntactic position in the complex structure of vP.

Bounded (temporal) path of the base verb (see incompatibility with the progressive and the durative aspect marker).

Ramchand's framework

◻ Analysis based on the constructionist framework put forth by Ramchand (2008) → syntactic decomposition of the event structure ('first phase syntax').

◻ Maximum of three subevents.

◻ Each sub-event is represented with its own projection, ordered in a hierarchical (causal) embedding relation. Causal embedding: the only primitive in the combinatorial system which can create complex events of the same logical type.

ANALYSIS

*init*P (causing projection)

DP$_3$
subj of 'cause'   *init*   *proc*P (process projection)

DP$_2$
subj of 'process'   *proc*   resP (result projection)

DP$_1$
subj of 'result'   *res*   XP

*init*P   → causation event → licenses the external argument
('subject of cause' = **INITIATOR**, doesn't entail agentivity)

*proc*P   → nature of the change or process → licenses the entity
undergoing   change or process ('subject' of process = **UNDERGOER**)

*res*P   → *telos* or *result state* ('subject' of result = **RESULTEE**).
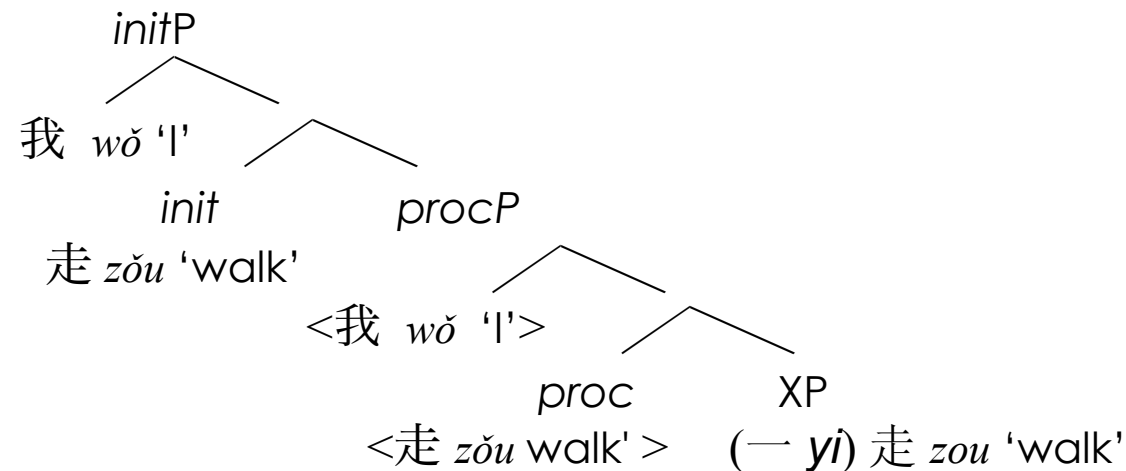
ANALYSIS

Each lexical item specifies the syntactic relevant information (cat. label or 'tag') which permits its insertion in the eventive structure.
Eng.: *push* [init, proc], *throw* [init, proc, res]

→ Chinese verbs that can undergo diminishing reduplication: [init, proc]

→ Reduplicant = bounded path, base-generated in the complement position of *proc*P.

25) 走（一）走 *zǒu (yi) zou* 'have a walk/walk a little' **(走 *zǒu* 'walk' [init, proc])**
    walk (one) walk

Analysis 2

The increasing function

AABB: Input Constraints

At the morphotactic level:

- It requires a disyllabic bimorphemic AB base.
    - Ban of monomorphemic bases, both native words (a) and phonetic borrowings (b):

26)   a. 窈窕 yǎotiǎo 'graceful, gentle' → *窈窈窕窕 yǎo-yǎo-tiǎo-tiǎo

       b. 摩登 módēng ' modern' → *摩摩登登 mó-mó-dēng-dēng

<div align="right">(Paul 2010:137)</div>

- Instantiation of full reduplication: units are handled on a morphemic and not on a prosodic base.

AABB: Input Constraints

◻ The two morphemes must be **lexical**. Adjectives formed with a prefix-like element cannot reduplicate:

27)   a. 不安 bù'ān 'not-**peaceful** = troubled/restless'

→ *不不安安 bù-bù-ān-ān

b. 好看 hǎokàn 'good-look = good-looking'

→ *好好看看 hǎo-hǎo-kàn-kàn

c. 可爱 kě'ài 'can-love = lovable'

→ *可可爱爱 kě-kě-ài-ài

(see Zhu 2003)

AABB: Input Constraints

At the semantic level:

- ◻ Only scalar adjectives can reduplicate (Paris 1979 and Paul 2010: 139, fn.19). Absolute adjectives cannot reduplicate:

  28) 方 fāng 'square' → not *方方 fāngfāng

- ◻ The increasing function can only apply to a base that incorporates a degree/scalar value (see also Zhu 2003).

AABB: Input Constraints

- The bases of increasing [A[AB]B] reduplication are
  - Lexicalized, non-transparent bases (a);
  - adjectives formed by two morphemes with similar meaning (b)
  - or in a logical coordination (c).

29) a. 马虎 mǎhu 'horse-tiger = be careful/casual; confused' →
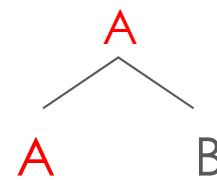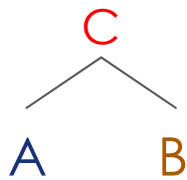
马马虎虎 mǎ-mǎ-hu-hu

b. 快乐 kuàilè 'fast/pleased-happy = happy' → 快快乐乐 kuài-kuài-lè-lè

c. 高大 gāodà 'tall-big = tall and big/great' → 高高大大 gāo-gāo-dà-dà

AABB: Input Constraints

□ **Claim**: the [A[AB]B] template applies to complex bases which are STRUCTURALLY and SEMANTICALLY SYMMETRICAL, i.e. exocentric or coordinative structures, without a clearly identifiable head.

→ **structure of the base:**

→ **reduplication:**

A [A B] **B**

$[[AB][\mathbf{AB}]]_A$

$[ABAB]_A \neq [AB]_V [AB]_V$

Adjectives: the [ABAB]$_A$ pattern

- 'Modifier-adjectival head' compounds (AB) wih a clearly identifiable adjectival head (B) modified by the first constituent (A), reduplicate as ABAB.

30) 雪白 xuě-bái 'snow-white' → 雪白雪白 xuě-bái-xuě-bái

冰凉 bīng-liáng 'ice-cold' → 冰凉冰凉 bīng-liáng-bīng-liáng

滚热 gǔn-rè 'roll/boil-hot = burning hot'

→ 滚热滚热 gǔn-rè-gǔn-rè

(Ding 2010, Paul 2010)

Verbs: [AABB]$_V$ pattern

◘ The [A[AB]B] increasing function can apply to some Vs too: coordinate Vs, either verbs in relation of logical coordination, or synonyms or antonyms.

31) a. 来往 lái-wǎng 'come and go'→ 来来往往 lái-lái-wǎng-wǎng 'go back and forth/come and go in great numbers'

  b. 说笑 shuō-xiào 'chat and laugh' → 说说笑笑 shuō-shuō-xiào-xiào 'chat and laugh together'

  c. 叫嚷 jiào-rǎng 'call/cry out-shout = shout'

→ 叫叫嚷嚷 jiào-jiào-rǎng-rǎng

(Hu 2006)

[AABB]$_V$ pattern: Meaning

◻ What is an increasing meaning in the verbal domain?

◻ Aspectual modification: two interrelated actions are performed alternately, repeatedly → pluriactionality or action in process (Hu 2006 and Ding 2010).

32) 打打杀杀 dǎ-dǎ-shā-shā 'hit-hit-kill-kill = in a continuous state of fighting and killing'

Verbs: [A[AB]B] pattern

- Hu (2006) and Ding (2010) argue that reduplication applies *before* coordination: [AA][BB] vs. [A[AB]B]

- AB is a non-attested verb: coordination of two independently reduplicated V (also expressing semantically opposite situations).

33) a. 打打杀杀 **dǎ-dǎ-shā-shā**   'hit-hit-kill-kill'

    b. 走走停停 **zǒu-zǒu-tíng-tíng**   'walk-walk-stop-stop'

    c. 写写画画 **xiě-xiě-huà-huà**   'write-write-paint-paint'

    d. 睡睡醒醒 **shuì-shuì-xǐng-xǐng**   'sleep-sleep-wake-up-wake-up'
(Hu 2006, Ding 2010)

Verbs: [AABB]$_V$ pattern

However,

- ◘ semantically: the coordination of two reduplicated verbs: diminishing value / tentative aspect ?

- ◘ formally: there are cases where AA and BB alone do not exist:

34) 进进出出 jìn-jìn-chū-chū 'enter-enter-exit-exit '   BUT

    *进进 jìn-jìn 'enter-enter'

    *出出 chū-chū 'exit-exit'

Lexical integrity

→ The $[AABB]_V$ pattern cannot be interrupted by intervening morphemes:

→ ≠ $[AB]_V$ $[AB]_V$

No aspectual markers appear between the two [AB].

Category change

◻ from Noun to Adjective:

35) 鬼鬼祟祟 guǐ-guǐ-suì-suì

'ghost-ghost-evil.spirit-evil.spirit = furtive, stealthy'

◻ from Noun to Verb:

36) 口口声声 kǒu-kǒu-shēng-shēng

'mouth-mouth-sound-sound = repeat over and over again/keep on saying'

Claims

- Increasing reduplication is a strictly morphological phenomenon, i.e. it applies below the X° level ➔ see lexical integrity of the reduplication template (also in the verbal domain)

- As a word formation rule/template:
  - it can apply to non-existent verbs with *intensive/increasing* semantics.
  - It can be category changing

Claims

◻ Sensitivity to the structural/semantic relations between the constituent morphemes in the base:

→ [A[AB]B] pattern: only bimorphemic bases related in a symmetrical fashion, i.e. units separable at the phonological, structural and semantic levels. A and B morphemes: strictly coordinate or lacking a structural and semantic head.

→ When the base encodes a strictly subordinative modifier-head structure : $[[AB] [AB]]_A$ pattern

AABB pattern: analogy effects?

How to explain the case of non-existent (V) bases?

- AABB is a very productive pattern and, as such, has extended by analogy to bases which enter the pattern with the increasing semantics and verbal output.

- The analogical explantion is pursued for the cases where the base is non existent. A derivational analysis is kept for the rest of the spectrum.

Conclusions

◘ Diminishing pattern as a syntactic process: it modifies the aspectual structure of the verb → reduplicant as a path that modifies the aspectual properties of the dynamic verb → inner aspect? $[AB]_V$ $[AB]_V$

◘ Increasing pattern as a morphological process. Structural and semantic constraints:

  ◘ $[A[AB]B]_A$: A and B morphemes are not in a modifier-head relation

  ◘ $[[AB][AB]]_A$: A and B morphemes are in a modifier-head relation

谢谢 *xièxie!*

Thank you!

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