

A derivational view on verbal suffixes in Chinese

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Introduction

- Verbal suffixes in Chinese represent a rich class of functional morphemes in the language.
- (1) a. sik-**zo** ‘eat-PFV’
 b. fan-**gan** ‘sleep-PROG’
- Morphologically, they are bound morphemes always attached to a verb.
 - Syntactically, it is less clear how they enter into syntax.
 - A lexicalist view (Cheng 1989; Gu 1993; Huang, Li, and Li 2009)
 - A derivational (non-lexicalist) view (Tang 1998, 2003; Tsai 2001, 2008)

Introduction

- How the two views differ, and why we should care:
 - (2)
 - a. The **lexicalist** view suggests that the string V-suffix forms a lexical item in the morphological component.
 - b. Lexicon: { ... **sik**, **sik-zo**, **sik-gan**, ... }
 - c. → a larger size of lexicon, a smaller syntactic workload
 - (3)
 - a. The **derivational** view suggests the verb and the suffix head distinct projections and verbs combine with suffixes in syntax.
 - b. Lexicon: { ... **sik**, **-zo**, **-gan**, ... }
 - c. → a smaller size of lexicon, a greater syntactic workload

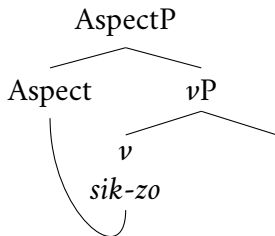
Introduction

- This talk hopes to contribute to the discussion by offering new evidence in support of the **derivational** view.
 - ① Revisit the primary evidence for the lexicalist view
 - ② New evidence # 1 - verb doubling
 - ③ New evidence # 2 - An extraction-suffix correlation

Introduction

- An assumption shared in both views: suffixed verbs are associated with an Aspect Projection above vP
- But they differ in the type of dependencies.

(4) The lexicalist view
(Agree or covert movement)



(5) The derivational view
(overt v -Aspect movement)

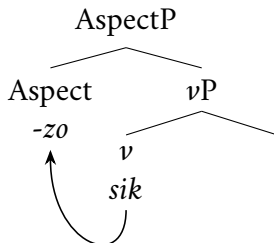


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Manner adverbs

- Verb movement in French and many other languages alters adverb-verb order (Pollock 1989).

(6) French (lexical) verb movement

- Je **mange** souvent ~~mange~~ des pommes.
I eat often of.the apples
'I often eat apples.'
 - *Je souvent **mange** des pommes.
- Overt *v*-Aspect movement, if exists in Chinese, is expected to induce similar word order effects.

Manner adverbs

- However, this is not borne out.

(7) Mandarin (Gu 1993, p.72)

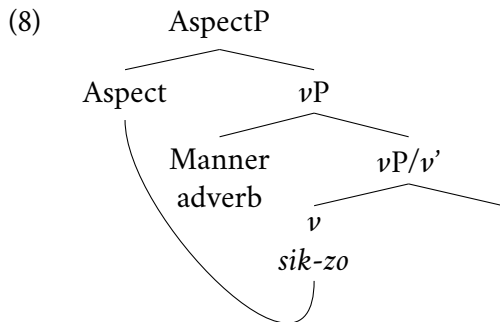
a. Zhangsan **hen kuaide** **xie-le** yi-feng xin.
 Zhangsan very quickly write-PFV one-CL letter
 ‘Zhangsan quickly wrote a letter.’

b. *Zhangsan **xie-le** **hen kuaide** yi-feng xin.
 Zhangsan write-PFV very quickly one-CL letter
 ‘Zhangsan wrote quickly a letter.’

- The lexicalist list view takes the illicit verb-adverb order (in (b)) to be evidence against verb movement.

Manner adverbs

- This argument rests on the assumption that **manner adverbs are invariably adjoined below AspectP to vP (or v')**.



- The suffix must not be “picked up” in the overt syntax.

Manner adverbs

- I argue that this assumption is not warranted, by showing that **aspect suffixes do not always scope over manner adverbs**.
- Consider *-faan* ‘again’:

(9) Aaming **zingzinggai** hok-faan jatman.
 Aaming secretly learn-again Japanese
 ‘Aaming learns Japanese again secretly.’

- ① **again** > **secretly**: the second time to learn Japanese secretly
- ② **secretly** > **again**: the second time to learn Japanese, and this time, secretly

- Only the second reading is available: a manner adverb can outscope Aspect.

Manner adverbs

- One more example: *-maai* ‘also’

(10) Aaming **jat-daam** sik-maai ni-faai kukkei.
 Aaming one.bite eat-also this-CL cookie
 ‘Aaming ate this cookie in one bite.’

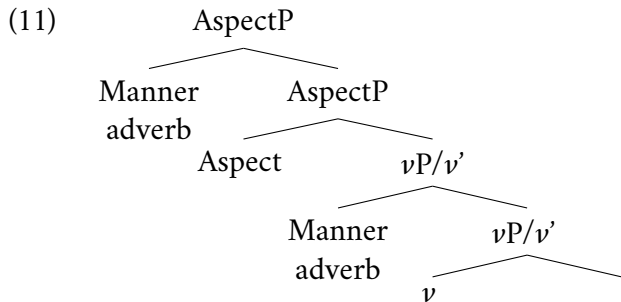
- ① **also** > **in one bite**: (something in one bite, and) this cookie in one bite too.
- ② **in one bite** > **also**: adding this cookie to other stuff in one bite.



- Both readings are available.

Manner adverbs

- These observations suggest that manner adverbs, at least in some cases, must find a way to outscope verbal suffixes.
- A natural suggestion is that manner adverbs can have multiple adjunction sites.



Manner adverbs

- This essentially neutralizes the argument from the absence of word order effects.
- The lack of verb-adverb order in Chinese can be attributable to the high position of manner adverbs.
 - This opens up an important as to how the position of manner adverbs is regulated.
 - One possibility is that manner adverbs are generated low, obligatory move high, but may be reconstructed.
 - I leave this to my future research.

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Verb doubling

- Chinese allows for a number of verb doubling constructions involving a duplicated verb in the periphery (Cheng and Vicente 2013; Lee 2024).

(12) a. Verb topicalization

Maai keoi hai maai-zo go-bun syu.

buy s/he COP buy-PFV that-CL book

‘As for buying, s/he has bought that book (but...).’

b. Verb focus

Lin **tai** keoi dou mou tai-gwo ni-bun syu.

even read s/he also not read-EXP this-CL book

‘S/he didn’t even READ this book.’

Verb doubling

- It has been argued that the two verbs are syntactically dependent (via head movement) (Cheng and Vicente 2013; Lee 2024).
 - ① Lexical identity effects
 - ② Island effects
 - ③ Focus Intervention effects
- Under the **lexicalist** view, the bare verbs in the left periphery require additional assumptions to allow verb doubling to target sub-heads/the internal morphological structure of the verbs.

Verb doubling

- A more serious challenge is that V-suffix cannot be doubled at all.

(13) a. ??**Maai**-zo keoi hai **maai**-zo go-bun syu.

buy-PFV s/he COP buy-PFV that-CL book

‘As for buying, s/he has bought that book (but...).’

b. *Lin **tai**-gwo keoi dou mou **tai**-gwo ni-bun syu.

even read-EXP s/he also not read-EXP this-CL book

‘S/he didn’t even READ this book.’

- Under the **lexicalist** view, the V-suffix forms one lexical item, and it is expected that V-suffix should be doubled in verb doubling constructions.
- This falls out from a **derivational** view if the operation target V/v heads, rather the Aspect heads.

Verb doubling

- It should be admitted that there are cases where the V-suffix must be moved/doubled as a whole.

(14) Right dislocation (of verbs)

Aaming **ngo-dou** wan laa3 **ngo-*(dou)**.

Aaming hungry-RES dizzy SFP hungry-RES

‘Aaming is so hungry that he feels dizzy.’ (Cheung 2015, p.229)

- But this does not challenge the derivational view, since the relevant operation may target Aspect heads rather than *v* heads for independent reasons.
- → A non-lexicalist view would allow more flexibility in handling various verb doubling cases.

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Coverb constructions

- I will make an argument in favor of the derivational view based on a suffix effect on extraction.
- In Chinese, a set of preposition-like elements, *coverbs*, combine with NPs to introduce VP modification (Matthews and Yip 2011).

- (15) a. Ngo [**bong** go-go jan] zou-gwo je.
I help that-CL person do-EXP thing
'I have worked for that person.'
- b. Ngo [**tung** go-go jan] heoi-gwo leoihang.
I with that-CL person go-EXP trip
'I have gone on a trip with that person.'

Coverb constructions

- The NP complement of the coverb generally resists extraction, e.g., relativization.

- (16) a. * [Ngo [**bong** Δ] zou-gwo je ge] go-go jan.
 I help do-EXP thing GE that-CL person
 ‘The person who I have worked for’
- b. * [Ngo [**tung** Δ] heoi-gwo leoihang ge] go-go jan.
 I with go-EXP trip GE that-CL person
 ‘The person with whom I have gone on a trip’

Coverb constructions

- Francis and Matthews (2006) discusses two interesting properties of coverb constructions.
- First, verbal suffixes can alternatively appear on the coverb, suggesting their verbal nature.

(17) a. Ngo [**bong** -gwo go-go jan] zou je.
 I help-EXP that-CL person do thing
 'I have worked for that person.'

b. Ngo [**tung** -gwo go-go jan] heoi leoihang.
 I with-EXP that-CL person go trip
 'I have gone on a trip with that person.'

Coverb constructions

- Second, NP extraction is less degraded in these cases.

(18) Francis and Matthews (2006), p.769

- a. ?[[ngo **bong** -gwo Δ_i zou je] go go jan_i
 I help-ASP work that CL person
 'The person I('ve) worked for'
- b. *[[ngo **bong** Δ_i zou je] go go jan_i
 I help work that CL person

- In some other cases, NP extraction is (almost) natural.

- (19) a. [阿明同過一齊去旅行嘅] 嗰個人原來係學生。
 [Aaming [tung -gwo Δ] jatcai heoi leoihang ge] go-go
 Aaming with-EXP together go trip GE that-CL
 jan jyunloi hai hoksaang.
 person indeed be student
 ‘The person with who Aaming went on a trip is indeed a student.’
- b. *[阿明同一齊做去旅行嘅] 嗰個人原來係學生。
 [Aaming [tung Δ] jatcai heoi -gwo leoihang ge] go-go
 Aaming with together go-EXP trip GE that-CL
 jan jyunloi hai hoksaang.
 person indeed be student

- As suggested by an anonymous review, there may indeed be speakers’ variations.

More examples - clear contrasts

- (20) a. [阿明跟過做研究嘅] 嗰個老師原來係副校長。
b. *[阿明跟做過研究嘅] 嗰個老師原來係副校長。
- (21) a. [阿明陪過飲酒嘅] 嗰個老闆原來係CEO。
b. *[阿明陪飲過酒嘅] 嗰個老闆原來係CEO。
- (22) a. [阿明頭先用過切野嘅] 嗰把刀原來成千蚊。
b. *[阿明頭先用切過野嘅] 嗰把刀原來成千蚊。
- (23) a. [阿明頭先對住大叫嘅] 嗰個地方 係個樹窿。
b. *[阿明頭先對大叫嘅] 嗰個地方 係個樹窿。

More examples - less clear contrasts

- (24) a. ?[阿明搵過吹水嘅] 嗰個男仔原來係富二代。
 b. *[阿明搵吹過水嘅] 嗰個男仔原來係富二代。
- (25) a. ?[阿明代過比錢嘅] 嗰個人原來係學生。
 b. *[阿明代比過錢嘅] 嗰個人原來係學生。
- (26) a. ?[阿明靠過上位嘅] 嗰個人其實係佢好朋友。
 b. *[阿明靠上過位嘅] 嗰個人其實係佢好朋友。
- (27) a. ?[阿明令過失望嘅] 人只有佢媽媽。
 b. *[阿明令失過望嘅] 人只有佢媽媽。
- (28) a. ?[阿明俾過早走嘅] 人只有真係病嘅同學。
 b. *[阿明俾早走過嘅] 人只有真係病嘅同學。

Coverb constructions

- If we focus on speakers who find a contrast of NP extraction between suffixed coverbs and bare coverbs,

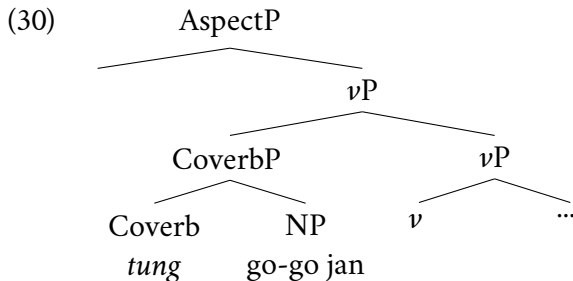
(29) **The extraction-suffix correlation of coverb constructions**

The NP complement of a coverb allows extraction if it is combined with a suffix.

- The lexicalist view leaves little room for explanation, since suffixed coverbs and bare coverbs are syntactically non-distinct.
 - The explanation must rely on non-syntactic factors.

Coverb constructions

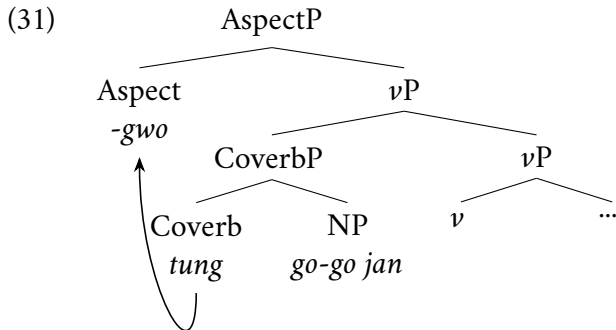
- I argue that the derivational view may attribute the extraction possibility to coverb movement onto the Aspect head, which relaxes locality restriction of coverb structures.
- Briefly, let us assume, the following to be a coverb structure:



- Extraction of NP is disallowed due to adjunct island effects.

Coverb constructions

- In the presence of verbal suffixes, coverb may move to Aspect



- I suggest that this movement of the coverb **extends the locality domain** of the CoverbP, such that NP is no longer opaque to syntactic movement.

Coverb constructions

- This kind of extension effects has been reported in the literature, most commonly observed with head movement.
 - Phase sliding/unlocking/deactivation (Richards 1998; Rackowski and Richards 2005; den Dikken 2018; Gallego and Uriagereka 2006; Gallego 2010; Halpert 2016, 2019; Lee and Yip 2024a).
 - The spirit is that syntactic locality is not set once and for all, and may interact with other operations in the derivation.
- For time reasons, I must leave the technical details for next time.
- But the derivational view ensures greater flexibility to handle the extraction-suffix coorelation in coverb constructions.

Serial verb constructions (SVCs)

- A similar argument can be made with Serial verb constructions.
- They involve a similar to structures as Coverb constructions, except that VP1 need not modify VP2.
- Importantly, the NP in VP1 allows extraction if V1 takes a suffix.

(32) Mandarin

- a. Zhe-zhong yu wo [**mai** -guo Δ] [chi].
 This-kind fish I buy-EXP eat
 'I have bought and eaten this kind of fish.'
- b. *Zhe-zhong yu wo [**mai** Δ] [chi -guo].
 This-kind fish I buy eat-EXP

Serial verb constructions (SVCs)

- More examples:

(33) a. 那個學生我 [VP₁ 找了 Δ] [參加比賽] ◦

b. *那個學生我 [VP₁ 找 Δ] [參加了比賽] ◦

(34) a. 這本書我 [VP₁ 引用了 Δ] [寫論文] ◦

b. *這本書我 [VP₁ 引用 Δ] [寫了論文] ◦

(35) **The extraction-suffix correlation of serial verb constructions**

The NP complement of V1 in a SVC allows extraction if it is combined with a suffix.

- This again motivates a derivational view on verbal suffixes.

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Concluding remarks

- A derivational view on suffixes is both conceptually and empirically superior to a lexicalist view.
- Indeed, there may be further evidence for the derivational view:

- The order of suffixes show Mirror Principle effects (Tang 2003)

(36) *sik-gwo-saai* 'eat-EXP-all'

LF: *saai* > *gwo* > *sik*

- Discontinuous predicates (Lee and Yip 2024b)

(37) *fei-zo-lou* 'fail-PFV-fail'

Suffixes in monomorphemic verbs

- I leave further investigation to future research.

Acknowledgments

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- I also thank Ka-Fai Yip for discussions.

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