# **Deriving separable verbs in Cantonese**

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at Buckeye East Asian Linguistics Forum 4 (BEAL-4),

The Ohio State University (Online),

March 5, 2021

## 1 Introduction

In this talk, we discuss an issue concerning the separability of disyllabic verbs in Cantonese.

Examples	Literal meaning	Meaning	Separation by affix
daam-saam 擔心	bear + heart	worry	daam- <b>gwo</b> -saam 擔過心
ying-yan 影印	reflect + print	photocopy	ying- <b>zo</b> -yan 影咗印
zi-sak 自殺	self + kill	commit suicide	zi- <b>maai</b> -sak 自 <b>埋</b> 殺
laai-coeng 拉長	pull + long	lengthen by pulling	laai- <b>faan</b> -coeng 拉 <b>翻</b> 長
jat-sik 日食	sun + eat	(solar) eclipse	jat- <b>jyun</b> -sik 日完食
	daam-saam 擔心 ying-yan 影印 zi-sak 自殺 laai-coeng 拉長	daam-saam 擔心 bear + heart ying-yan 影印 reflect + print zi-sak 自殺 self + kill laai-coeng 拉長 pull + long	daam-saam 擔心bear + heartworryying-yan 影印reflect + printphotocopyzi-sak 自殺self + killcommit suicidelaai-coeng 拉長pull + longlengthen by pulling

Table 1: Various types of disyllabic verbs (w.r.t. the relation between the two morphemes)

While these above verbs commonly allow separation by verbal suffixes, even monomorphemic

disyllab	ic ve	erbs (mostly English loanwords) allow	separation.		
(1)	Se	paration of monomorphemic verbs			
	a.	阿明 <b>肥佬</b> 咗 / 阿明 <b>肥咗佬</b>	b.	阿明OK咗/阿明O咗K	

Aaming feilou-zo/ fei<zo>lou Aaming fail-PERF/ fail<PERF>

'Aaming failed.'

Aaming oukei-zo/ ou<zo>kei

'Aaming said okay.'

Aaming okay-perf/ okay<perf>

The central question is how such separation is sanctioned by the computational system.

• A prevailing approach in the literature: reanalysis, e.g. the two syllables are reanalyzed as a V+O structure.

We propose a **formal** approach to separable verbs, taking advantage of syntactic head movement and a syllable deletion rule in the post-syntactic component.

### Road map for today

\$2: More properties of separable verbs

\$3: Arguments against a reanalysis approach \$5: Loose ends

§4: Proposal: movement + syllable deletion

# 2 More properties of separable verbs

• Separation by verbal suffixes

The separation patterns are not exclusive to -zo but it applies to all the other verbal suffixes, e.g. experiential -gwo, progressive -gan, modal -dak and -ngaang, universal -saai and -can etc.

### (2) Separation by verbal suffixes

a. 阿明肥**咗**佬

Aaming **fei**<zo>**lou** (=(1))

Aaming fail<PERF>

'Aaming failed.'

b. 阿明肥過佬

Aaming fei<gwo>lou

Aaming fail<EXP>

'Aaming has failed before.'

• In some cases, certain affixes such as *-can* require obligatory separation, in contrast with *-zo*, which allows non-separation (=(1)).

### (3) Obligatory separation

- a. \*阿明肥佬親都俾人鬧
- \*Aaming **feilou**-can dou bei jan naau
  Aaming fail-whenever all PASS person scold
  - Int: 'Whenever Aaming failed, he got scolded.'
- b. 阿明肥**親**佬都俾人鬧

Aaming fei<can>lou dou bei jan naau

Aaming fail<whenever> all PASS person scold 'Whenever Aaming failed, he got scolded.'

• Separation by phrasal elements

Notably, phrasal elements like frequency phrases may be 'inserted' after the affix, separating the
two syllables of the verb. Note that they can only be inserted when the affix is 'infixed' (=b), but
not 'suffixed' (=c).

## (4) Separation by frequency phrases

- a. 肥佬咗十幾次
  - feilou-zo sapgeici
  - fail-PERF ten.several.time
  - 'failed a dozen times.'
- b. 肥 咗 十幾次 佬
  - fei<zo><sapgeici>lou
  - fail<PERF><ten.several.time>
  - 'failed a dozen times.'
- c. \*肥 十幾次 佬 咗
  - \*fei<sapgeici>lou-zo

fail<ten.several.time>-PERF

Int.: 'failed a dozen times.'

• Other than frequency phrases, affectees may also be 'inserted'. Separation by multiple phrasal elements is also possible as in (b).

## (5) Separation by affectees

a. 老師肥咗佢佬

Lousi fei<zo><**keoi**>lou

Teacher fail<PERF><3sG>

'The teacher failed him.'

b. 老師肥咗 佢 十幾次 佬

Lousi fei<zo>**<keoi><sapgeici>**lou

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Teacher fail<PERF><3sG><ten.several.time>

'The teacher failed him a dozen times.'

## 3 Arguments against reanalysis approaches

Previous studies suggested that separable verbs are reanalyzed as verb-object phrases (Chao 1968; Huang 1984; Her 2010). It is reasonable for VO compounds to be reanalyzed as VO phrases but the approach also poses some issues as below.

#### Relativization

While a genuine object may be relativized and serve as the head noun of a relative clause, the second syllable of a separable verb cannot be relativized.

(true VO)

(separable verbs)

## (6) 呢齣就係 [佢睇咗 t] 嘅**戲**

ni ceot zau hai [keoi tai-zo t] ge **hei**this CL then be 3sG watch-PERF MOD movie

'This is the movie that he watched.'

## (7) \*呢個就係 [佢pre咗 t] 嘅 **sent**

\*ni go zau hai [keoi pi-zo t] ge -sen this cL then be 3sG present-PERF MOD present Int.: This is the presentation that he made.'

• Event modification marked by adnominal ge

A duration or frequency phrase may be added before objects to modify the event denoted by the whole verb phrase, marked by an adnominal ge. Although the objects are not the direct modifiee, the second syllable of a separable verb still cannot follow ge, showing no nominal properties.

#### **佢睇咗成十幾日嘅戲喇** (8)

keoi tai-zo sapgeijat hei seng ge 3sg watch-perf as.much.as ten.several.day mod movie sfp 'He has watched movies for days.'

(9) \*佢pre咗成十幾日嘅sent喇

\*keoi pi-zo (separable verbs) seng sapgeijat ge -sen laa 3sg present-perf as.much.as ten.several.day mod present sfp

laa

(true VO)

'He has been doing presentation for days'

- Other arguments (see full handout)
  - Object preposing (zoeng & lin)
    - Lack of semantic and prosodic basis of reanalysis
  - Conceptual difficulties in a generative framework

# 4 Proposal: syllable deletion

- (10) Affix-induced Syllable Deletion
  - Affixes optionally trigger deletion on an adjacent syllable of their hosts.
- (11) Derivation steps for separable verbs
  - a. [-x [AB]] (base structure)
  - b. [<AB>-x [<AB>]] (verb movement)
  - c.  $[\langle AB \rangle x [\langle AB \rangle]] = A x AB$  (affix-induced syllable deletion)
  - d.  $[\langle AB \rangle x [\langle AB \rangle]] = A x B$  (partial copy deletion)

Note: We assume that verbal suffixation generally involve syntactic verb movement to the suffix (Tang 2003). We also assume the copy theory of movement (Chomsky 1995; Nunes 1995, 2004; Bošković 2007), and that if the higher copy is not fully spelt out, the remaining part would be spelt out in the lower copy.

An immediate consequence is that it explains why the following patterns below are unattested:

Examples	Schema	Syllable Deletion	Copy Deletion
a. *lou <zo>fei 佬咗肥</zo>	*B-x-A	Xnon-adjacent deletion	
b. *fei <zo>fei 肥咗肥</zo>	*A-x-A		<b>X</b> fail to apply
c. *lou <zo>feilou 佬咗肥佬</zo>	*B-x-AB	Xnon-adjacent deletion	X fail to apply

\*A-x-AB

**X** fail to apply

d. \*fei<zo>feilou 肥咗肥佬

• Derivation of insertion of phrasal elements

(12) a. 肥咗十幾次佬
fei<zo><**sapgeici**>lou (=4b)
fail<PERF><ten.several.time>
'failed a dozen times.'

(13)b. a. AspP AspP Asp[PFV] (vP)Asp[PFV]  $(\nu P)$ v-V-<feilou>-zo -7.0 (sapgei ci  $\dot{\nu}$ P (sapgei ci 'a dozen times') 'a dozen times') v-V-<feilou> V-<feilou > 'fail' V-feilou 'fail'

## 5 Loose ends

• Complications # 1: Root specificity

Only certain verbs allow separation.

- VO compounds: 62% (Chan and Cheung 2021)
- Non-VO compounds: 29% (Chan and Cheung 2021)
- Mono-morphemeic verbs (mostly loanwords): 40% (24 out of 60, this study)
- They also seem to interact with suffixes, i.e. some roots are more separable with certain suffixes.

Next step: Capture the idiosyncrasy

## • Complications # 2: Separability of suffixes

Some suffixes prefer separation more than other suffixes. Preliminary results on 30 suffixes:

- Group I: Prefer separation, e.g. gwo 過, zo 咗, maai 埋, canuniversal 親, saai 晒 etc.
- Group II: Degraded separation, e.g zyu 住, hoi 開, haa5 吓, faan 翻, dakonly 得 etc.
- Group III: No separation, e.g. hei 起, can<sub>adversive</sub> 親, zoek 著, gam 噉, gang 梗 etc.

## • Beyond Cantonese: Micro-variations with Mandarin

- Obligatoriness of Syllable Deletion rule?

- Mandarin generally disallows separation of non-VO compounds and monomorphemic words.
  - Even for VO compounds, Mandarin disfavors separation as compared to Cantonese.
  - Even for vo compounds, mandarin distavors separation as compared to cantonese

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