

Separable verbs as partial deletion in Cantonese

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at NACCL-33, University of Chicago,

June 24-25, 2021

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1 Introduction

In this talk, we focus on predicates that potentially appear in a discontinuous form. Our starting concerns suffixation in Cantonese.

While verb suffixes canonically follow the verbs, they can also intervene between the two morphemes. The verb surfaces as a *discontinuous* string.

Example	Literal meaning	Type	Suffixation	Intervention
a. daam-saam ‘worry’ 擔心	bear + heart	V-O	daam-saam- gwo	daam- gwo -saam
b. jing-jan ‘photocopy’ 影印	reflect + print	V-V	jing-jan- zo	jing- zo -jan
c. laai-coeng ‘pull to lengthen’ 拉長	pull + long	V-Rslt.	laai-coeng- faan	laai- faan -coeng
d. zi-sau ‘confess’ 自首	self + inform	Mdf.-V	zi-sau- maai	zi- maai -sau
e. jat-sik ‘(solar) eclipse’ 日蝕	sun + erode	S-V	jat-sik- jyun	jat- jyun -sik

Table 1: Various types of disyllabic verbs

We observe a similar pattern with monomorphemic disyllabic verbs (mostly English loanwords), suggesting that the intervention is not exclusive on morphologically complex verbs.

(1) Monomorphemic verbs and intervening suffixes

- | | |
|--|---|
| <p>a. 阿明肥佬咗 / 肥佬咗</p> <p>Aaming feilou-zo/ fei<zo>lou</p> <p>Aaming fail-PERF/ fail<PERF></p> <p>‘Aaming failed.’</p> | <p>d. 阿明save咗 / sa咗ve</p> <p>Aaming seifu-zo/ sei<zo>fu</p> <p>Aaming save-PERF/ ssave<PERF></p> <p>‘Aaming saved (the file).’</p> |
| <p>b. 阿明都OK埋 / O埋K</p> <p>Aaming dou oukei-maai/ ou<maai>kei</p> <p>Aaming also okay-ADD/ okay<ADD></p> <p>‘Aaming also (said) okay.’</p> | <p>e. 阿明拜拜咗 / 拜咗拜</p> <p>Aaming baaibaai-zo/ baai<zo>baai</p> <p>Aaming bye.bye-PERF/ bye.bye<PERF></p> <p>‘Aaming (said) bye-bye/ Aaming died.’</p> |
| <p>c. 阿明farewell緊 / fare緊well</p> <p>Aaming feweu-gan/ fe<gan>weu</p> <p>Aaming farewell-PROG/ farewell<PROG></p> <p>‘Aaming is having a farewell.’</p> | <p>f. 阿明冇sorry過 / sor過ry</p> <p>Aaming mou sowi-gwo/ so<gwo>wi</p> <p>Aaming not sorry-EXP/ sorry<EXP></p> <p>‘Aaming didn’t (say) sorry.’</p> |

This talk focuses on how such intervention is sanctioned and derived in the grammar.

- (2) We suggest that discontinuous predicates in Cantonese are due to a syllable deletion rule in the PF.
- a. Suffixes always follow verbs and the “separation” is only apparent.
 - b. Discontinuous predicates are resulted from three independent operations:
 - (i) Syntactic verb movement to affixes creates copies (Chomsky 1995; Nunes 1995);
 - (ii) Post-syntactically, affixes trigger a syllable deletion rule on their host;
 - (iii) Copy Deletion erases the complement part of the lower copy (i.e. partial deletion).
 - c. We argue that a VO-reanalysis account is not tenable, at least in Cantonese.

Caveat 1: V-O phrases are sometimes conflated with V-O compounds. Here, we adopt an *operational* definition to distinguish compound verbs from verb phrases.

(3) Operational definition of compound verbs and VO phrases

(Compound) verbs can be followed by a suffix, but verb phrases cannot.

With (3), VO strings that do not allow suffixation (i.e. *VO-suffix) are regarded as phrases.

- | | |
|---|---|
| <p>(4) a. *瞓覺咗
*fan gaau-zo
sleep nap-PERF</p> <p>b. 瞓咗覺
fan-zo gaau
sleep-PERF nap
Lit.: ‘Slept a nap’</p> | <p>(5) a. *食飯緊
*sik faan-gan
eat rice-PROG</p> <p>b. 食緊飯
sik-gan faan
eat-PROG rice
‘Eating rice’</p> |
|---|---|

Note that cases like (4) are traditionally perceived as compounds. We suggest instead that they are verbs taking a cognate object. These cases are *not* regarded as discontinuous predicates.

Caveat 2: Discontinuous predicates display many idiosyncratic properties (see Appendix 1), on which we do not provide a full account.

We focus primarily on how to derive the admissible cases. To the extent that the admissible cases behave in a systematic and consistent way, we believe that discontinuous predicates are not entirely a matter of lexical idiosyncrasies.

Road map for today:

§2: The VO-reanalysis approach

§5: Remarks

§3: More properties

§4: Proposal: Syllable Deletion

Appendix: Idiosyncrasies

2 The VO-reanalysis approach

A well-received analysis on these cases suggests that these disyllabic verbs have undergone **reanalysis**, where the two morphemes are coerced into a phrasal V+Obj structure on the basis of a predicate-theme like reading (Chao 1968; Huang 1984; Her 2010).

In a V-V-type compound verb such as *jing-jan* ‘photocopy’, the second verbal morpheme is reanalyzed as a noun in the lexicon (Packard 2000; Her 2010).¹

(6) *jing-jan* ‘photocopy’ in the Lexicon

- | | | |
|----|---|---------------|
| a. | $[_V \textit{jing}_V - \textit{jan}_V]$ | No reanalysis |
| b. | $[_V \textit{jing}_V - \textit{jan}_V] \rightarrow [_{VP} [_V \textit{jing}] [_N \textit{jan}]]$ | VO reanalysis |

In other cases, the level of reanalysis appears quite “deep”, as it imposes more radical changes on the morphological structure.

(7) *zi-sau* ‘confess’ in the Lexicon

- | | | |
|----|--|---------------|
| a. | $[_V \textit{zi}_{Mdf.} - \textit{sau}_V]$ | No reanalysis |
| b. | $[_V \textit{zi}_{Mdf.} - \textit{sau}_V] \rightarrow [_{VP} [_V \textit{zi}] [_N \textit{sau}]]$ | |

(8) *feilou* ‘fail’ in the Lexicon

- | | | |
|----|---|---------------|
| a. | $[_V \textit{feilou}_V]$ | No reanalysis |
| b. | $[_V \textit{feilou}_V] \rightarrow [_{VP} [_V \textit{fei}] [_N \textit{lou}]]$ | VO reanalysis |

Crucially, the VO-reanalysis approach makes the following empirical predictions:

- (9) When a disyllabic (compound) verb appears in a discontinuous form,
- a. the second syllable is a nominal expression.
 - b. it fails to take objects.
 - c. only the first syllable preserves verbal properties.

3 Properties of discontinuous predicates in Cantonese

We argue that these predictions are not borne out in Cantonese. Instead, we suggest that the opposite of these predictions follow if discontinuous predicates retain their verbal status.

1. Both items should be listed in the lexicon, since both *jing-jan* and *jing* can be followed by a verbal suffix.

3.1 The second syllable and the lack of nominal properties

We suggest that the second syllable in discontinuous predicates in Cantonese does not display standard object/nominal properties, e.g. it cannot be displaced or modified.²

We illustrate this point with three tests:

(10) (A represents the first syllable of a discontinuous predicate, B the second, and x the suffix.)

- a. Relativization: *[_{CP} ... A-x B ...] MOD B
- b. Object fronting: *B ... [_{VP} A-x B]
- c. Nominal modification: *A-x CL/NUM/MOD B

We show that none of these configurations is allowed for discontinuous predicates, as opposed to VO phrases.

3.1.1 Relativization

A genuine object can be relativized and serve as the head noun of a relative clause.

(11) 呢齣就係 [佢睇咗] 嘅戲

ni ceot zau hai [keoi tai-zo hei] ge hei (VO phrase)
 this CL then be 3SG watch-PERF MOD movie
 ‘This is the movie that he watched.’

However, the second syllable of a discontinuous predicate cannot be relativized.

(12) a. *呢個就係 [佢pre緊] 嘅 sent

*ni go zau hai [keoi pi-gan -sen] ge -sen (discontinuous predicate)
 this CL then be 3SG present-PROG MOD present

Int.: ‘This is the presentation (e.g. the slides) that he is presenting.’

b. * [佢尋日sa咗] 嘅 ve唔見咗

*[keoi kamjat sei-zo -fu] ge -fu mgin-zo (discontinuous predicate)
 3SG yesterday save-PERF MOD lose-PERF

Int.: ‘The save (file) that he saved yesterday is lost.’

Note that cognate objects may undergo relativization, suggesting that the ungrammaticality of (12) is not due to the lack of thematic role of *-sen/-fu*.

2. This property differentiates discontinuous predicates in Cantonese from Mandarin ones. For Mandarin cases, see Pan:2015.

- (13) [佢瞓] 嘅覺係不同凡響地長 (V-cognate object, *social media*, 2020-2-11)
 [keoi **fan** **gaau**] ge **gaau** hai battungfaanhoeng-dei coeng
 3SG sleep MOD nap be extraordinary-ly long
 Lit.: ‘The nap that she sleeps is extraordinarily long.’

3.1.2 Object fronting

First, the object in a VO phrase may be preposed in a disposal construction marked by *zoeng* (cf. Mandarin *ba*-constructions).

- (14) 佢將齣戲睇咗
 keoi [zoeng **ceot hei**] **tai-zo** **ceot hei** (VO phrase)
 3SG DISP CL movie watch-PERF
 ‘He has watched that movie.’

This contrasts with the second syllable of a discontinuous predicate.

- (15) a. *佢將個**sent pre**咗
 *keoi [zoeng **go -sen**] **pi-zo** **go -sen** (discontinuous predicate)
 3SG DISP CL present present-PERF
 Int.: ‘He has made that presentation.’
 b. *佢未將個**ry sor**完
 *keoi mei [zoeng **go -wi**] **so-jyun** **go -wi** (discontinuous predicate)
 3SG not.yet DISP CL sorry sorry-FINISH
 Int.: ‘He has not yet finished the sorry (i.e. the apology).’

Second, the object in a VO phrase may be fronted by a focus marker *hai*.

- (16) 係魚阿明唔食啫
 hai **jyu** Aaming m-**sik** **jyu** ze (VO phrase)
 FOC fish Aaming NEG-eat SFP
 ‘It is (only) fish that Aaming does not eat (, but not something else).’

The second syllable of a separable verb, however, cannot be fronted by *hai*.

- (17) a. *係佬阿明唔想**肥**啫
 *hai **-lou** Aaming m-soeng **fei** **-lou** ze (discontinuous predicate)
 FOC fail Aaming NEG-want fail SFP
 Int.: ‘It is (only) fail that Aaming does not want (, but not something else).’

b. *係_{ry} 阿明冇 **so**r 啫

*hai **-ry** Aaming mou **so**r- **-ry** ze (discontinuous predicate)
 FOC sorry Aaming not.have sorry SFP

Int.: 'It is (only) an apology that Aaming didn't give (, but not something else).'

A complication

There is in fact one case where the second syllable appears to be fronted: the *lin* 'even'-focus constructions.

(18) 連_[ry]阿明都有so

lin **-ry** Aaming dou mou **so**r- (discontinuous predicate)
 even sorry Aaming also not.have sorry

'Aaming didn't even apologize.'

This is often taken to indicate the objecthood/nominal property of the second syllable.

However, it is instructive to note that *lin*-focus construction can also target verbs, which results in doubling (Cheng and Vicente 2013).

(19) 連_[食]阿明都有食

lin **sik** Aaming dou mou **sik** (^{OK}regular verb)
 even eat Aaming also NEG eat

'Aaming didn't even eat.'

If so, the fronted *-ry* in (18) does not necessarily provide evidence for the nominal/object status. It is also possible that the fronted *-ry* in (18) is a reduced occurrence of the full predicate *sorry*.³

This suggestion is supported by the fact that both disposal *zoeng* construction and *hai*-focus construction cannot target a verb.

(20) *佢將_[睇]好快嘅(睇咗)齣戲

*keoi zoeng **tai** houfaai-gam (**tai-zo**) ceot hei (*regular verb)
 3SG DISP watch quick-ly watch-PERF CL movie

Int.: 'Aaming quickly watched that movie.'

(21) *係_[食]阿明唔(食)

*hai **sik** Aaming m-(**sik**) (*regular verb)
 FOC eat Aaming NEG-eat

Int.: 'Aaming doesn't EAT (but he drinks).'

These observations suggest the following generalization:

3. We return to this issue concerning *lin* 'even'-focus constructions in section 4.2.1

(22) Generalization on the second syllable

The second syllable of a discontinuous predicate can be displaced only in constructions that can displace a verb.

This generalization also captures the failure of fronting of the second syllable in relative constructions (discussed in §3.1.1), which cannot target verbs.

3.1.3 **Nominal modification**

In this subsection, we show that the second syllable of a discontinuous predicate resists classifiers and numerals, and any other nominal modifications.

First, as genuine nominals, objects in VP phrase can be preceded by individual classifiers.

(23) 佢睇咗三本書

keoi **tai**-zo saam bun **syu** (VO phrase)
 3SG watch-PERF three CL book
 ‘He read books.’

This contrasts with the second syllable of a discontinuous predicate.⁴

(24) Discontinuous predicates

a. *佢肥咗三個佬

*keoi **fei**-zo saam go **lou**
 3SG fail-PERF three CL fail
 Int.: ‘He failed three times.’

b. ??佢pre咗三個sent

??keoi **pi**-zo saam go **sen**
 3SG present-PERF three CL present
 Int.: ‘He gave three presentations.’

Note that some cognate objects (in VO phrases) allow direct modification by numerals, unlike thematic objects. Yet, it is not allowed for discontinuous predicates either.

(25) 佢瞓咗一覺

keoi **fan**-zo jat **gaau** (V+cog. obj.)
 3SG sleep-PERF one nap
 ‘He took a nap.’

(26) *佢sor咗一ry

*keoi **so**-zo jat **wi** (discont. pred.)
 3SG sorry-PERF one sorry
 Int.: ‘He (said) sorry once.’

Second, a duration or frequency phrase may form a modifier phrase with the modifier marker *ge*.⁵ Syntactically, it appears before the object; semantically it modifies the event denoted by the whole verb phrases.

4. Note that only classifiers for individuals (nominals) should be considered, but not event classifiers such as *ci* ‘time’ which may form VP adverbials.

5. This *ge* is not obligatory, but its presence is suggestive of a nominal structure.

- (27) 佢睇咗成十幾日嘅戲喇
 keoi **tai**-zo [seng sapgei-jat ge] **hei** laa (VO phrase)
 3SG watch-PERF as.much.as ten.several-day MOD movie SFP
 ‘He has watched movies for days.’
- (28) 佢瞓咗十幾日嘅覺喇
 keoi **fan**-zo [sapgei-jat ge] **gaau** laa (V+cognate object)
 3SG sleep-PERF ten.several-day MOD nap SFP
 ‘He has been sleeping for ten several days.’

On the other hand, the second syllable of a discontinuous predicate is incompatible with such kind of modification.⁶

(29) Discontinuous predicates

- a. *佢**pre**咗成十幾日嘅**sent**喇
 *keoi **pi**-zo [seng sapgei-jat ge] **-sen** laa
 3SG present-PERF as.much.as ten.several-day MOD present SFP
 ‘He has been doing presentation for days’
- b. *你要**sor**翻三次嘅**ry**我先會原諒你
 *nei jiu **so**-faan [saam-ci ge] **-wi** ngo sin wui jyunloeng nei
 You must sorry-AGAIN three-time MOD wi ngo first will forgive you
 ‘You have to (say) sorry three times (and) then I will forgive you.’

Based on these tests, we conclude that the second syllable should not be regarded as objects or nominals. As we will see shortly, it retains a verbal status, but is realized in a reduced form.

3.2 The verbal nature of discontinuous predicates

As briefly discussed, *lin* ‘even’ focus constructions can target a verb. In such cases, the verb must be doubled (Cheng and Vicente 2013).

- (30) 連[食]阿明都有*(食)過呢碗飯
 lin **sik** Aaming dou mou *(**sik**)-gwo ni wun faan (cf. (19))
 even eat Aaming also NEG sik-EXP this CL_{bowl} rice
 ‘Aaming didn’t even eat this bowl of rice.’

6. Sentences in (29) would be acceptable in the absence of *ge* (cf. §??), where the frequency/duration phrases are regarded verbal modifiers, instead of nominal modifiers (Ernst 1994; Soh 1998; Huang, Li, and Li 2009).

Under a VO reanalysis approach, the first syllable is a verb. We then expect that, in *lin* focus constructions, the first syllable can be fronted and doubled. However, this is not the case.⁷

(31) a. *連**so**阿明都**so**埋**ry**

*lin **so** Aaming dou **so**-maai **-wi**
 even sorry Aaming also sorry-ADD sorry
 ‘Aaming even also said sorry.’

b. *連自阿明都自埋首

*lin **zi** Aaming dou mou **zi**-maai **-sau**
 even confess Aaming also not.have confess-ADD confess
 ‘Aaming didn’t even confess (his crime).’

Instead, it is the whole verb that can be fronted and doubled. Note that these sentences are slightly marked but show a sharp contrast with sentences in (31).

(32) a. (?)連**sorry**阿明都**so**埋**ry**

(?)lin **sowi** Aaming dou **so**-maai **-wi**
 even sorry Aaming also sorry-ADD sorry
 ‘Aaming even also said sorry. (What else do you want from him?)’

b. (?)連自首阿明都自埋首

(?)lin **zisau** Aaming dou **zi**-maai **-sau**
 even confess Aaming also confess-ADD confess
 ‘Aaming even also confessed (his crime). (What else do you want from him?)’

These observations suggest that the discontinuous predicates as a whole are verbal by nature, since they must be doubled in *lin* ‘even’ focus constructions.

7. Sentences in (31) become acceptable if the second syllable is dropped. In these cases, the disyllabic verb has undergone clipping/truncation, which become a monosyllabic verb.

4 Proposal

Taking stock, the properties of discontinuous predicates to be captured are:

- (33) a. The discontinuous form is optional.
 b. They are typically intervened by verbal suffixes, and also by phrasal elements.
 c. The second syllable does not show object or nominal properties.
 d. They must be doubled as a whole in construction requiring verb doubling.

4.1 Syllable deletion and partial Copy Deletions

Assumptions:

- (34) a. The copy theory of movement (Chomsky 1995; Nunes 1995, 2004; Bošković and Nunes 2007)
 b. Affixes are syntactic heads (Tang 1998, *contra* Gu 1993; Huang, Li, and Li 2009).
 c. Verbal suffixation involves syntactic verb movement to the suffix (Tang 2003).

Our proposal consists of two ingredients. First, we propose the following rule in the post-syntactic component:

- (35) Affix-induced Syllable Deletion
 Affixes optionally trigger deletion on an adjacent syllable of their hosts.

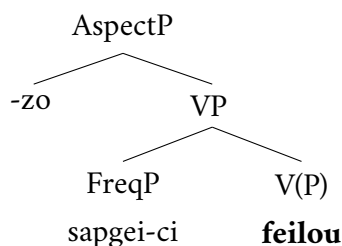
Second, we suggest that Copy Deletion can be applied in a *partial* fashion, which erases the complement part of the other (usually the higher) copy.⁸

An illustration:

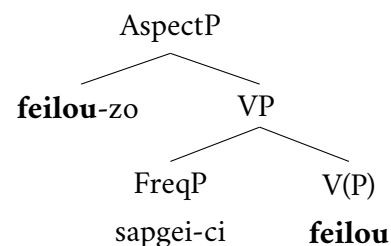
- (36) (阿明) 肥咗十幾次佬
 (Aaming) **fei**<zo><sapgei-ci>**lou**
 (Aaming) fail<PERF><ten.several-time>
 '(Aaming) failed a dozen times.'

- (37) Derivation of (36), before introducing the subject

- a. Syntax: Building of the AspectP

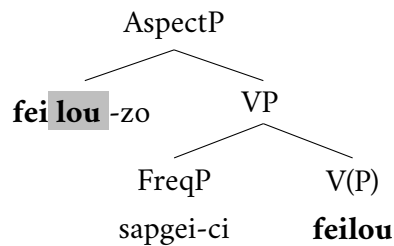


- b. Syntax: verb movement

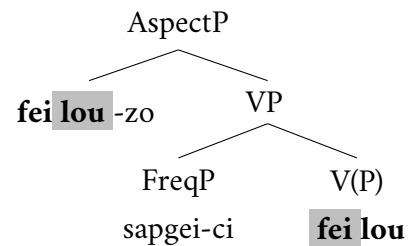


8. It is similar but not identical to Distributed Deletion (Fanselow and Ćavar 2002)

c. PF: Affix-induced Syllable Deletion



d. PF: partial Copy Deletion



Deriving the properties of discontinuous predicates:

(38) a. The discontinuous form is optional.

→ Optionality comes from the proposal that affixes can optionally trigger deletion. If syllable deletion is not triggered, the lower copy as a whole will be deleted by Copy Deletion.

b. They are typically intervened by verbal suffixes, and also by phrasal elements.

→ Potential intervening elements are basically all elements that syntactic verb movement can move across.

c. The second syllable does not show object or nominal properties.

d. They must be doubled as a whole in construction requiring verb doubling.

→ (c) and (d): Discontinuous predicates retain their verbal status in the derivation.

4.2 Further evidence for Syllable Deletion

4.2.1 Deletion of the first syllable triggered by prefixes

Apart from verbal suffixes, there are other affixes that may trigger Syllable Deletion. We discuss a case in *lin*-focus constructions, which display an opposite direction of syllable deletion.

As discussed, there is an apparent case of fronting of the second syllable in *lin*-focus constructions.

(39) (Apparent) fronting of the second syllable

連ry阿明都sor埋

lin wi Aaming dou so-maai

even sorry Aaming also sorry-ADD

'Aaming even (said) sorry.'

We argue that these sentences involve verb fronting instead of object fronting. Note (again) that *lin*-construction can target verbs, not just objects. Also, full verb copying is possible.

(40) (Full) verb doubling

連**sorry**阿明都**sorry**埋lin **sowi** Aaming dou **sowi**-maai

even sorry Aaming also sorry-ADD

'Aaming even also said sorry.'

The pattern in (39) follows straightforwardly if we assume that *lin* is a prefix. Crucially, *lin* optionally triggers syllable deletion on the adjacent (first) syllable. Schematically,

(41) A schematic derivation of sentences in (39)

a. [VP ... [AB] ...] (base VP structure)

b. lin-<AB> ... [VP ... [<AB>] ...] (verb fronting for focus)

c. lin-<A B> ... [VP ... [<AB>] ...] (Affix-induced Syllable Deletion)

d. lin-<A B> ... [VP ... [<A B>] ...] (partial Copy Deletion)

In other words, Syllable Deletion is sensitive to the types of affixation: while a suffix deletes the second syllable, a prefix deletes the first syllable.

Additional support for this analysis comes from two other verb dislocating constructions, where no affixal elements comparable to *lin* are involved.

(42) a. Verb topicalization (Cheng and Vicente 2013)

食 (呢) , 阿明係食咗三碗飯

sik ne, Aaming hai **sik**-zo saam wun faaneat TOP Aaming COP eat-PERF three CL_{bowl} rice

'As for (whether he) ate, Aaming did eat three bowls of rice (, but they are small bowls.)'

b. Right dislocation of verbs (Lee 2017)

阿明話買三架車呀, 買

Aaming waa **maai** saam gaa ce aa3 **maai**

Aaming say eat three CL car SFP eat

'Aaming said (he will) BUY three cars (not SELL three cars).'

In these cases, verbs cannot appear in discontinuous form.

(43) a. Verb topicalization

***ry** (呢) , 阿明係**sor**咗-**wi** (ne), Aaming hai **so**-zo

sorry TOP Aaming COP SORRY-PERF

Int.: 'As for (saying) sorry, Aaming did (say)

sorry.'

b. Right dislocation of verbs

*佢**肥**超過十次喇, 佬keoi **fei** ciugwo sap-ci laa3 -**lou**

s/he fail exceed ten-time SFP fail

Int.: 'S/he FAILED for more than ten

times.'

This follows immediately from the proposed analysis: in the absence of affixes that trigger Syllable Deletion, discontinuous predicates are unavailable.

Note that full doubling of these predicates are possible.

- (44) a. Verb topicalization
sorry (呢) , 阿明係**so**咗**ry**
sowi (ne), Aaming hai **so-zo-wi**
 sorry TOP Aaming COP SORRY-PERF
 ‘As for (saying) sorry, Aaming did (say) sorry.’
- b. Right dislocation of verbs
 佢**肥佬**超過十次喇, **肥佬**
 keoi **feilou** ciugwo sap-ci laa3 **feilou**
 s/he fail exceed ten-time SFP fail
 ‘s/he FAILED for more than ten times.’

4.2.2 Different forms of discontinuous predicates: Syllable Deletion with(out) partial deletion

Taking discontinuous predicates as a combined result of Syllable Deletion and partial Copy Deletion correctly rules out the following illicit discontinuous forms.

Examples	Schema	Syllable Deletion	Copy Deletion
a. *lou<zo>fei 佬咗肥	*B-x-A	\times _{non-adjacent deletion}	
b. *fei<zo>fei 肥咗肥	*A-x-A		\times _{fail to apply}
c. *lou<zo>feilou 佬咗肥佬	*B-x-AB	\times _{non-adjacent deletion}	\times _{fail to apply}
d. *fei<zo>feilou 肥咗肥佬	*A-x-AB		\times _{fail to apply}

Table 2: Illicit forms of discontinuous predicates

These forms either violate the adjacency requirement of Syllable Deletion or fail to undergo Copy Deletion.

While the A-x-AB form is banned in suffixation cases, at least at surface value, it is basically the form of an A-not-A string in Chinese polar questions or disjunction formation.

(45) A-not-A formation

- a. 你**so**唔**sorry**呀?
 nei **so-m-sowi** aa3?
 you sorry-not-sorry SFP
 ‘Will you (say) sorry?’
- b. 阿明**o**唔**ok**都唔關我事
 Aaming **ou-m-oukei** dou m-gwan ngo si
 Aaming okay-not-okay also NEG-relate 1SG matter
 ‘I don’t care whether Aaming says okay or not.’

We suggest that these A-not-A(B) strings are not counterexamples to the proposal; rather, they provide further evidence that Syllable Deletion can occur independently of (partial) Copy Deletion.

The reasoning is as follows:

- (46) a. Copy Deletion applies to members of a movement chain.
 b. If there is no movement at all, Copy Deletion does not apply.
 c. If the two As in the string A-x-AB are *not* created via syntactic movement, then Copy Deletion does not apply and the string does not violate any constraint.

We assume with **Huang:1991**; **Huang:2008**; **Tseng:2009** that A-not-A formation is resulted from some phonological operation. We suggest that A-not-A formation involves the following steps:

- (47) A-not-A formation in the post-syntactic component
- a. The negation m carries a reduplication operator RED that duplicates its associating verb
 $m_{\text{RED}} \text{ AB} \rightarrow \text{ AB } m_{\text{RED}} \text{ AB}$
- b. m_{RED} triggers Syllable Deletion on the AB-string on the left.
 $\text{A B } m_{\text{RED}} \text{ AB}$
- c. A survives Copy Deletion since it is not a member of a movement chain.

Here, we have to assume m_{RED} is an suffix-like element such that it deletes the B on its left but not the A on the right (if it were a prefix).

5 Concluding remarks

The proposed analysis derives the following empirical pattern:

Construction	Verb movement?	Deletion trigger?	Discontinuous predicate?
Suffixation	V-Aspect	suffixes	A-x-B
<i>Lin</i> -focus	V-Focus	prefixal <i>lin</i>	<i>lin</i> -B ... A ...
A-not-A	$\times_{\text{(reduplication)}}$	suffixal m_{RED}	A- m -AB
Verb topic.	V-Topic	\times	\times
RD of verbs	V-Topic/Defocus	\times	\times
Relativization	\times	\times	\times
Object fronting	\times	\times	\times

Table 3: A non-exhaustive list of the distribution of discontinuous predicates

- Previous approaches on discontinuous predicates share a common idea that the second syllable (or the stranded part) is in fact a nominal. While this might be the case for Mandarin, we have shown that Cantonese behaves differently and thus deserves an analysis on its own.

- Micro-variation: Cantonese appears to display a more general preference on discontinuous predicates than Mandarin, at least in terms of suffixation and A-not-A formation. It may hinge on how obligatory/general Syllable Deletion is.
- Further issues: other cases of (partial) reduplication in Cantonese?
- Implications: Partial Copy Deletion may apply on word/head level, cf. Distributed Deletion on phrases.

Appendix: Idiosyncrasies

First, different suffixes display different preferences to discontinuous predicates, which may be divided into three groups (out of 24 suffixes). Note that the differences in separability are not a categorical one but rather a continuum.⁹

- (48) a. Group I: Optional separation
 e.g. experiential *gwo* 過, perfective *zo* 咗, additive *maai* 埋, universal *saai* 晒 *can_{universal}* 親 and *ngaang*, must_{epis} 硬, etc.
- b. Group II: Degraded separation
 e.g. durative *zyu* 住, habitual *hoi* 開, delimitative *haa5* 吓, repetitive *faan* 翻, *dak_{only}* 得 etc.
- c. Group III: No separation
 e.g. inceptive *hei* 起, *can_{adversive}* 親, *zoek* 著, partitive *gam* 嘅, *gang* ‘must_{epis}’ 梗 etc.

Note that the two epistemic necessity suffixes, *ngaang* and *gang*, fall into different groups.

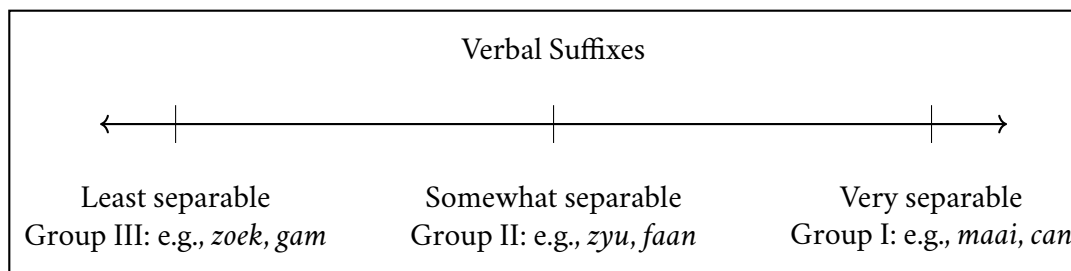


Diagram 1: Continuum of Cantonese verbal suffixes

Second, lexical roots display different preferences. Certain verbs are more tolerant to the discontinuous form. The choice of suffixes may play a role as well.¹⁰

9. Separability is measured by the average acceptability scores (on a scale of 1-5) of 60 verbs for each suffix with 3 annotators.

10. For example, coordinate (e.g. V+V) and subordinative (e.g. Mod.+V) compounds are more compatible with the experiential *-gwo* and the progressive *-gan*.

(49) Distribution by morphological relation

- a. VO compounds: 62% with attested discontinuous forms (Chan and Cheung 2021)¹¹
- b. Non-VO compounds: 29% with attested discontinuous forms (Chan and Cheung 2021)
- c. Monomorphemic verbs: 40% (24 out of 60, this study) with attested discontinuous forms

The discontinuous form of verbs is probably subject to further phonological and morphological constraints, which remain unclear for now.

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