Separable verbs as partial deletion in Cantonese

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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

a. 阿明**肥佬**咗 / **肥**咗**佬**
Aaming **feilou**-zo/ **fei**<zo>**lou**
Aaming fail-PERF/ fail<PERF>
'Aaming failed.'

b. 阿明都**OK**埋 / **O**埋**K**
Aaming dou **oukei**-maai/ **ou**<maai>**kei**
Aaming also okay-ADD/ okay<ADD>
'Aaming also (said) okay.'

c. 阿明**farewell**緊 / **fare**緊**well**
Aaming **feweu**-gan/ **fe**<gan>**weu**
Aaming farewell-PROG/ farewell<PROG>
'Aaming is having a farewell.'

d. 阿明**save**咗 / **sa**咗**ve**
Aaming **seifu**-zo/ **sei**<zo>**fu**
Aaming save-PERF/ ssave<PERF>
'Aaming saved (the file).'

e. 阿明**拜拜**咗 / **拜**咗**拜**
Aaming **baaibaai**-zo/ **baai**<zo>**baai**
Aaming bye.bye-PERF/ bye.bye<PERF>
'Aaming (said) bye-bye/ Aaming died.'

f. 阿明冇**sorry**過 / **sor**過**ry**
Aaming mou **sowi**-gwo/ **so**<gwo>**wi**
Aaming not sorry-EXP/ sorry<EXP>
'Aaming didn't (say) sorry.'

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.

(4) a. *瞓覺咗
*__fan__ __gaau__-zo
sleep nap-PERF

b. 瞓咗覺
__fan__-zo __gaau__
sleep-PERF nap
Lit.: 'Slept a nap'

(5) a. *食飯緊
*__sik__ __faan__-gan
eat rice-PROG

b. 食緊飯
__sik__-gan __faan__
eat-PROG rice
'Eating rice'

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 extend 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

§3: More properties

§4: Proposal: Syllable Deletion

§5: Remarks

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).

(6) *jing-jan* 'photocopy' in the Lexicon

a. $[_{V}$ *jing*$_{V}$-*jan*$_{V}]$ No reanalysis

b. $[_{V}$ *jing*$_{V}$-*jan*$_{V}]$ ➜ $[_{VP}\ [_{V}$ jing] $[_{\underline{N}}$ jan]] 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.

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.

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) *[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*.

(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) *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 **sor** 啫

*hai **-ry** Aaming mou **sor-** -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]阿明都冇sor

lin **-ry** Aaming dou mou **sor-** (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]阿明都冇食

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*..

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:

(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.

3.2 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]阿明都冇*(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.'

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.

(31) a. *連**sor**阿明都**sor**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**sor**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.

4 Proposal

4.1 Syllable deletion and partial Copy Deletions

Assumptions:

(33) 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:

(34) 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.

An illustration:

(35) （阿明） **肥**咗十幾次**佬**

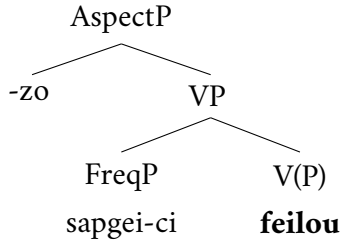
(Aaming) **fei**<zo><sapgei-ci>**lou**

(Aaming) fail<PERF><ten.several-time>

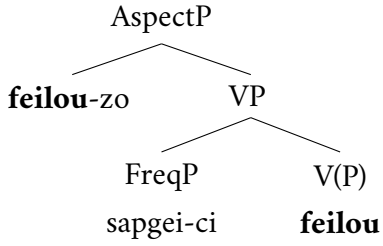
'(Aaming) failed a dozen times.'

(36) Derivation of (35), before introducing the subject

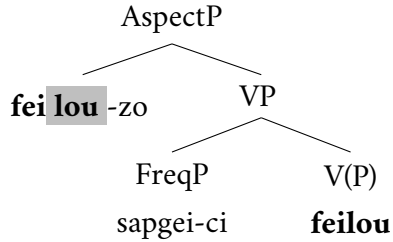
a. Syntax: Building of the AspectP



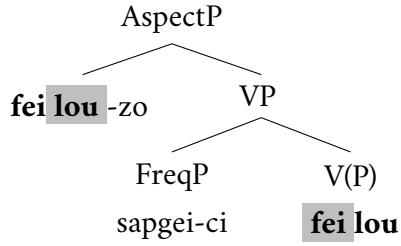
b. Syntax: verb movement



c. PF: Affix-induced Syllable Deletion



d. PF: partial Copy Deletion



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.

(38) (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.

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

(40) A schematic derivation of sentences in (38)

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.

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

(44) A-not-A formation

a. 你**sor**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.

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:

(46) A-not-A formation in the post-syntactic component

a. The negation *m* carries a reduplication operator RED that duplicates its associating verb
m_{RED} AB ➜ **AB** m_{RED} **AB**

b. m_{RED} triggers Syllable Deletion on the AB-string on the left.
A B m_{RED} **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**
Lin-focus	V-Focus	prefixal *lin*	*lin*-**B** ... **A** ...
A-not-A	✘$_{\text{(reduplication)}}$	suffixal m_{RED}	**A**-*m*-AB
Verb topic.	V-Topic	✘	✘
RD of verbs	V-Topic/Defocus	✘	✘
Relativization	✘	✘	✘
Object fronting	✘	✘	✘

Table 2: 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.