

# Discontinuous predicates as partial deletion in Cantonese \*

Sheila Shu-Laam Chan, Tommy Tsz-Ming Lee and Ka-Fai Yip

## 1 Introduction

As a variant of Copy Deletion (CD), partial/scattered deletion (Fanselow and Ćavar 2002, *et seq.*) has been adopted to handle different discontinuous phrasal constituents in both nominal and verbal domains (e.g., left branch extraction, as in Bošković (2001), Bošković (2015), Pereltsvaig (2008), Bondarenko and Davis (2021); and predicate fronting, as in Bentzen (2008), van Urk (2019), Larson (2020)). In this paper, we propose that partial deletion is not restricted to phrasal constituents but also heads (i.e., partial deletion at word-level), based on new evidence from discontinuous predicates in Cantonese.

The empirical foundations of this paper concern the observation that a disyllabic verb in Cantonese can appear in discontinuous form when it takes verbal suffixes (Chan and Cheung 2021). Substantially, while a verb suffix (referred to as *x*) canonically follows a verb, it can also intervene between the two syllables of the verb (referred to as *A* and *B*), leading to a discontinuous string of the verb. We refer to these strings as *discontinuous predicates*, and verbs that exhibit this alternation as *separable verbs*. Table 1 shows cases of separable complex verbs consisting of two morphemes.<sup>1</sup>

Example	Lit. meaning	Type	Suffixation (A-B-x)	Intervention (A-x-B)
a. daam-saam ‘worry’	bear + heart	V-O	daam-saam- <span style="border: 1px solid black; padding: 0 2px;">gwo</span>	daam- <span style="border: 1px solid black; padding: 0 2px;">gwo</span> -saam
b. jing-jan ‘photocopy’	reflect + print	V-V	jing-jan- <span style="border: 1px solid black; padding: 0 2px;">zo</span>	jing- <span style="border: 1px solid black; padding: 0 2px;">zo</span> -jan
c. laai-coeng ‘pull to lengthen’	pull + long	V-Rslt.	laai-coeng- <span style="border: 1px solid black; padding: 0 2px;">faan</span>	laai- <span style="border: 1px solid black; padding: 0 2px;">faan</span> -coeng
d. zi-sau ‘confess’	self + inform	Mdf.-V	zi-sau- <span style="border: 1px solid black; padding: 0 2px;">maai</span>	zi- <span style="border: 1px solid black; padding: 0 2px;">maai</span> -sau
e. jat-sik ‘(solar) eclipse’	sun + erode	S-V	jat-sik- <span style="border: 1px solid black; padding: 0 2px;">jyun</span>	jat- <span style="border: 1px solid black; padding: 0 2px;">jyun</span> -sik

Table 1: Various types of disyllabic verbs

More interestingly, we observe a similar pattern with *monomorphemic* disyllabic verbs (mostly English loanwords), where two non-morphemic syllables are separated by a suffix in (1).<sup>2</sup>

(1) Monomorphemic verbs and intervening suffixes

- a. Aaming **feilou-zo/ fei<zo>lou**  
Aaming fail-PERF/ fail<PERF>  
‘Aaming failed.’
- b. Aaming dou **oukei-maai/ ou<maai>kei**  
Aaming also okay-ADD/ okay<ADD>  
‘Aaming also (said) okay.’

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<sup>1</sup>These verbs, despite their bi-morphemic nature, should not be conflated with verb-object phrases (especially (a) in Table 1). This is because phrases cannot take verbal suffixes in general:

- (i) \***sik faan-gan**  
eat rice-PROG  
Int.: ‘eating rice’

<sup>2</sup>Abbreviations: 1,2,3=first, second, third person respectively; ADD=affixal additive quantifier; CL=classifier; COP=copula; DISP=disposal marker; EXP=experiential aspect marker; FOC=focus marker; MOD=modifier marker; NEG=negation; PERF=perfective aspect marker; PL=plural; PROG=progressive aspect marker; SFP=sentence-final particle; SG=singular; TOP=topic marker.

- c. Aaming **feweu-gan/ fe<gan>weu**  
 Aaming farewell-PROG/ farewell<PROG>  
 ‘Aaming is having a farewell.’
- d. Aaming **seifu-zo/ sei<zo>fu**  
 Aaming save-PERF/ ssave<PERF>  
 ‘Aaming saved (the file).’
- e. Aaming **baibaai-zo/ baai<zo>baai**  
 Aaming bye-PERF/ bye<PERF>  
 ‘Aaming (said) bye/ Aaming died.’
- f. Aaming mou **sowi-gwo/ so<gwo>wi**  
 Aaming not sorry-EXP/ sorry<EXP>  
 ‘Aaming didn’t (say) sorry.’

Notably, A and B can be further separated by other phrasal elements such as frequency phrases:

- (2) Intervention by both a verbal suffix and a frequency phrase  
 Aaming **fei<zo><sap-gei ci>lou**  
 Aaming fail<PERF><ten-several time>  
 ‘Aaming failed a dozen times’

We focus on how such intervention is sanctioned and derived in the grammar. We suggest that the discontinuous strings in Cantonese involve a conspiracy of multiple operations in Narrow Syntax and in the Phonological Form (PF). We motivate a hybrid (syntactic + phonological) approach that preserves the lexical integrity of the verbs while allowing the (apparent) syllable separation. Precisely, the crux of the proposal includes the following components:

- (3) Proposed derivation of separable verbs in Cantonese:
- Syntactic verb movement to affixes creates copies (Chomsky 1995, Nunes 1995);
  - Post-syntactically, affixes trigger a PF syllable deletion rule on their host;
  - Copy Deletion erases the complement part of the lower copy (i.e. partial deletion).

If this proposal is on the right track, it implicates that partial deletion is not exclusively applied to phrasal constituents, but also to words/heads, a possibility briefly mentioned in Pereltsvaig (2008).

The rest of this paper is organized as follows. Section 2 provides more properties of discontinuous predicates in Cantonese. Section 3 outlines our proposal of partial deletion. Section 4 argues against two possible alternatives, namely reanalysis and metathesis. Section 5 concludes with implications on discontinuous predicates cross-linguistically and on Copy Deletion.

## 2 Properties of discontinuous predicates in Cantonese

In this section, we discuss the categorial properties of the two (separated) syllables of a discontinuous predicate. We suggest that both of them display verbal properties. We start with the second syllable in §2.1, followed by the first syllable in §2.2.

### 2.1 The second syllable and the lack of nominal properties

We suggest that the second syllable in discontinuous predicates in Cantonese should not be regarded as a nominal (or precisely a derived object of the first syllable), as it does not display nominal properties. The following three tests show that it cannot be displaced or modified, as opposed to the genuine object in a Verb-Object (VO) phrase.<sup>3</sup>

- (4) (A=1<sup>st</sup> syllable of a discontinuous predicate; B=2<sup>nd</sup> syllable; x=the suffix; shade=gap)
- Relativization: \*[CP ... A-x **B** ... ] MOD **B**
  - Object fronting: \***B** ... [VP A-x **B** ]
  - Nominal modification: \*A-x CL/NUM/MOD **B**

<sup>3</sup>This property differentiates discontinuous predicates in Cantonese from Mandarin ones. For Mandarin cases, see, for example, Pan and Ye (2015).

### 2.1.1 Relativization

A genuine object can be relativized and serve as the head noun of a relative clause (=5). However, the second syllable of a discontinuous predicate cannot be relativized (=6).

- (5) 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.’
- (6) \*[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 (=7),<sup>4</sup> suggesting that the ungrammaticality of (6) is not due to the lack of thematic role of *-fu*.

- (7) [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.’

### 2.1.2 Object fronting

There are two ways by which the object in a VO phrase can be fronted. First, the object may be preposed in a disposal construction marked by *zoeng* (cf. Mandarin *ba*-constructions) (=8), and this contrasts with the second syllable of a discontinuous predicate (=9).

- (8) keoi [zoeng **ceot hei**] **tai**-zo **ceot hei** (VO phrase)  
 3SG DISP CL movie watch-PERF  
 ‘He has watched that movie.’
- (9) \*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 may be fronted by a focus marker *hai* (=10). Again, the second syllable of a separable verb cannot be fronted by *hai* (=11).

- (10) 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).’
- (11) \*hai **-lou** Aaming m-**soeng** **fei** **-lou** ze (discontinuous predicate)  
 FOC fail Aaming NEG-want fail SFP  
 Int.: ‘It is (only) failure that Aaming does not want (, but not something else).’

A complication arises from a case where the second syllable appears to be fronted: the *lin*-‘even’ focus constructions in (12), which is often taken to indicate the objecthood/nominal property of the second syllable.

- (12) lin **-ry** Aaming dou mou **sor-** (discontinuous predicate)  
 even sorry Aaming also not.have sorry  
 ‘Aaming didn’t even apologize.’

Nevertheless, *lin*-construction can also target verbs, which results in doubling (Cheng and Vicente 2013). If so, the fronted *-ry* in (12) does not necessarily provide evidence for the nominal/object status. It is possible that the fronted *-ry* in (12) is a reduced occurrence of the full predicate *sorry*.<sup>5</sup> This suggestion is supported by the fact that both disposal *zoeng* construction and *hai*-focus construction cannot target a verb.

<sup>4</sup>Source: <https://m.facebook.com/hkpusuccess/photos/a.1796850097312250/2423639761299944/>, accessed on 2020-2-11.

<sup>5</sup>We return to this issue concerning *lin*-‘even’ focus constructions in §3.2.

- (13) lin **sik** Aaming dou mou **sik** (OKregular verb)  
 even eat Aaming also NEG eat  
 ‘Aaming didn’t even eat.’
- (14) \*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.’
- (15) \*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, which also captures the failure of fronting of the second syllable in relative constructions (discussed in §2.1.1), which cannot target verbs:

- (16) Generalization on the displacement of the second syllable  
 The second syllable of a discontinuous predicate can be displaced only in constructions that can displace a verb.

### 2.1.3 Nominal modification

Below, 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, contrasting with the second syllable of a discontinuous predicate.<sup>6</sup>

- (17) keoi **tai-zo** saam bun **syu** (VO phrase)  
 3SG watch-PERF three CL book  
 ‘He read books.’
- (18) \*keoi **fei-zo** saam go **lou** (discontinuous predicate)  
 3SG fail-PERF three CL fail  
 Int.: ‘He failed three times.’

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.

- (19) keoi **fan-zo** jat **gaau** (V + cognate object)  
 3SG sleep-PERF one nap  
 ‘He took a nap.’
- (20) \*keoi **so-zo** jat **wi** (discontinuous predicate)  
 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*.<sup>7</sup> Syntactically, it appears before the object; semantically it modifies the event denoted by the whole verb phrases.

- (21) 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.’
- (22) 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.’

<sup>6</sup>Note that only classifiers for individuals (nominals) should be considered, but not event classifiers that may form VP adverbials like *ci* ‘time’.

<sup>7</sup>This *ge* is not obligatory, but its presence is suggestive of a nominal structure.

On the other hand, the second syllable of a discontinuous predicate is incompatible with such kind of modification.<sup>8</sup>

- (23) \*nei jiu so-faan [saam-ci ge] -wi ngo sin wui jyunloeng nei (dis. pred.)  
 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 the above tests, we conclude that the second syllable does not have an object/nominal status. As we will see in the next subsection, it indeed retains a verbal status but is realized in a reduced form.

## 2.2 The verbal nature of discontinuous predicates

We turn to the categorial property of the first syllable in a discontinuous predicate. As briefly discussed, *lin-* ‘even’ focus constructions can target a verb. In such cases, the verb must be doubled (Cheng and Vicente 2013), as in (24).

- (24) lin sik Aaming dou mou \*(sik)-gwo ni wun faan (cf. (13))  
 even eat Aaming also NEG sik-EXP this CL<sub>bowl</sub> 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:

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

Instead, it is the whole verb that can be fronted and doubled (=26). Note that sentences like (26) are slightly marked but show a sharp contrast with (25).

- (26)<sup>(?)</sup> 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?)’

These observations suggest that the discontinuous predicates as a whole are verbal by nature, since they must be doubled in *lin-* ‘even’ focus constructions. In the next section, we propose an account which derives the discontinuous forms and at the same time captures the verbal properties.

## 3 Discontinuous predicates as partial deletion

For concreteness, we assume that verbal suffixes head a projection above the verb and that verbal suffixation generally involves syntactic verb movement to the suffix in Narrow Syntax (Tang 2003, Tsai 2001). Crucially, we propose that discontinuous verbs in Cantonese are resulted from (i) a PF deletion rule triggered by affixes on the higher copy in (27), followed by (ii) partial Copy Deletion that applies to the lower copy.

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

### 3.1 Implementation of the proposal

We illustrate this proposal with (2), repeated below:

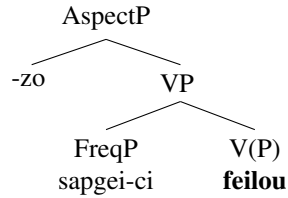
- (28) (Aaming) fei<zo><sapgei-ci>lou  
 (Aaming) fail<PERF><ten.several-time>  
 ‘(Aaming) failed a dozen times.’

<sup>8</sup>Sentences in (23) would be acceptable in the absence of *ge* (cf. §2.1.3), where the frequency/duration phrases are regarded verbal modifiers, instead of nominal modifiers (Ernst 1994, Soh 1998, Huang et al. 2009).

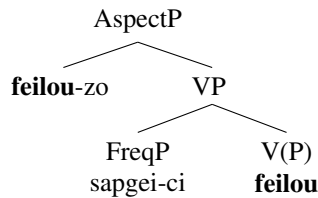
The derivation of (28) is given in (29). (29a) is the baseline with an AspectP. (29b) indicates verb movement to the Aspect head *-zo*, creating two copies of *feilou* (under the Copy Theory of Movement) in Narrow Syntax. In (29c), when the structure is shipped to the PF, Syllable Deletion in (27) applies and deletes the second syllable *-lou* which is adjacent to the suffix (marked by shade). Finally, in (29d), partial Copy Deletion applies to the lower copy by deleting only the complement (i.e., the first) syllable *fei-*, giving rise to the discontinuous string in (28). Note that, if Syllable Deletion does not apply, Copy Deletion would apply to the whole lower copy, resulting in no discontinuous verbs (i.e., just *feilou-zo sapgei-ci*).

(29) Step-by-step derivation of (28), before introducing the subject

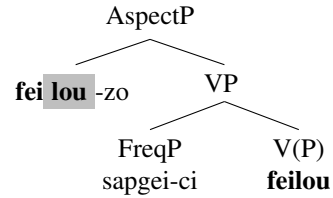
a. Syntax: Building of the AspectP



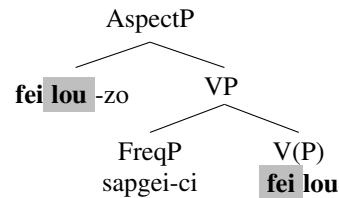
b. Syntax: verb movement



c. PF: Affix-induced Syllable Deletion



d. PF: partial Copy Deletion



A desirable consequence of the proposal is that it does not over-generate to include all logically possible discontinuous forms. That is, it correctly disallows the following patterns in Table 2. Both (a) and (c) delete a non-adjacent syllable (i.e. A) on the higher copy and violate the Syllable Deletion rule in (27), and hence illegitimate. (b), (c) and (d) are ruled out on the basis of failure to delete the complement syllables on the lower copy, leading to two instances of the same syllables on the surface (i.e. A in (b) & (d) and B in (c)).

Examples	Schema	Syllable Deletion	Copy Deletion
a. *lou<zo>fei	*B-x-A	✗ <sub>non-adjacent deletion</sub>	
b. *fei<zo>fei	*A-x-A		✗ <sub>fail to apply</sub>
c. *lou<zo>feilou	*B-x-AB	✗ <sub>non-adjacent deletion</sub>	✗ <sub>fail to apply</sub>
d. *fei<zo>feilou	*A-x-AB		✗ <sub>fail to apply</sub>

Table 2: Illicit forms of discontinuous predicates

### 3.2 Extension to verb fronting

Apart from verbal suffixes, other affixes that may also trigger Syllable Deletion. We discuss a case in *lin-* ‘even’ focus constructions, which display an opposite direction of Syllable Deletion by a *prefix*. As discussed in § 2.1.2, the second syllable of discontinuous predicates may undergo apparent fronting in *lin*-constructions:

(30) (Apparent) fronting of the second syllable

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

(*lin*-B ... A)

We argue that these sentences involve genuine verb fronting followed by partial deletion. Recall that *lin*-constructions can target verbs. Also, full verb copying is possible, as in (31):

- (31) (Full) verb doubling  
*lin sowi* Aaming dou *sowi*-maai (lin-AB ... AB)  
 even sorry Aaming also sorry-ADD  
 ‘Aaming even also said sorry.’

The pattern in (30) follows straightforwardly from our proposal and the prefixal nature of *lin*-‘even’. Firstly, *lin*- attracts the verb to move to a focus position. Then, *lin*- (optional) triggers Syllable Deletion on the adjacent syllable on the higher copy, which is the first syllable (i.e. A/ *so*-). Finally, Copy Deletion erases the complement syllable (i.e. B/ *-wi*) on the lower copy, delivering the *lin*-B ... A string in (30). The schematic derivation is given below:<sup>9</sup>

- (32) A schematic derivation of (30)  
 a. [VP ... [AB] ... ] (base VP structure)  
 b. *lin*-<AB>... [VP ... [<AB>] ... ] (verb fronting for focus, =(31))  
 c. *lin*-< A B>... [VP ... [<AB>] ... ] (Affix-induced Syllable Deletion)  
 d. *lin*-< A B>... [VP ... [<A B >] ... ] (partial Copy Deletion, =(30))

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.

- (33) a. Verb topicalization (Cheng and Vicente 2013)  
*sik* ne, Aaming hai *sik*-zo saam wun faan  
 eat TOP Aaming COP eat-PERF three CL<sub>bowl</sub> 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)  
 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.

- (34) a. \*-*wi* (ne), Aaming hai *so*-zo (verb topicalization)  
 sorry TOP Aaming COP sorry-PERF  
 Int.: ‘As for (saying) sorry, Aaming did (say) sorry.’  
 b. \*keoi *fei* ciugwo sap-ci laa3 *-lou* (right dislocation of verbs)  
 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 and subsequent partial Copy Deletion, discontinuous predicates are unavailable.

#### 4 Against two alternatives

We have seen that the proposed partial deletion approach is able to derive the admissible cases and predict the illicit cases of discontinuous predicates. Besides, there are at least two other possible ways to derive the discontinuous forms. As will be shown below, however, they are inadequate to capture the empirical properties of discontinuous predicates in Cantonese.

One alternative approach is to assume that separable verbs are ambiguous between a word (head) and a phrase. In cases with suffixation, the verbs are heads ( $V^0$ ); whereas with a discontinuous form, the verbs have a phrasal status (VP). This is precisely what has been proposed for discontinuous predicates in Mandarin Chinese (Chao 1968, Huang 1984, Packard 2000, Her 2010), a closely

<sup>9</sup>See Lee (2021) for discussions on the suspension of Copy Deletion in (32b) which leads to full doubling in (31).

related language with Cantonese. With resort to the notion of reanalysis, a verb may be reanalyzed as a Verb-Object-phrase (e.g. Chao 1968), or conversely, an (idiomatic) VO phrase may be reanalyzed into a single verbal head (e.g. Huang 1984).<sup>10</sup> Concretely, the first syllable of a discontinuous predicate is treated as a monosyllabic verb and the second syllable a nominal object:

(35) *Feilou* ‘fail’ undergoing reanalysis (to be rejected):

- a. [v *feilou*] → [VP [v fei ] [NP lou ] ] (head-to-phrase reanalysis)  
 b. [VP [v fei ] [NP lou ] ] → [v *feilou*] (phrase-to-head reanalysis/ lexicalization)

Conceptually, it is difficult to reanalyze monomorphemic verbs like *feilou* as VO phrases, since both syllables are not morphemic and lack a morphological and semantic basis for reanalysis. Moreover, the reanalysis approach also faces empirical challenges. It predicts that (i) the second syllable shows nominal/object properties, and that (ii) the first syllable shows verbal properties. Both predictions, however, are not borne out. As discussed in §2, the second syllable fails to undergo object movement and resists nominal modification. The first syllable is not the target of verb movement in *lin-* ‘even’ focus constructions. Additionally, the whole discontinuous predicate does not pattern with a VO phrase. While a true VO phrase cannot be doubled in *lin-* constructions, (full) doubling is permitted for separable verbs (=26), repeated below), even when the lower instance is discontinuous (i.e. intervened by a suffix). Thus, it is not tenable to take discontinuous predicates as phrases.<sup>11</sup>

- (36) a. \**lin* [vp **sik(-maai) faan**] Aaming dou [vp **sik-maai faan**] (VO phrase)  
 even eat(-ADD) rice Aaming also sik-ADD rice  
 ‘Aaming even also had a meal/ (lit.) ate rice.’  
 b.<sup>(?)</sup> *lin* **sowi** Aaming dou **so<maai>-wi** (discontinuous predicate)  
 even sorry Aaming also sorry<ADD>  
 ‘Aaming even also said sorry. (What else do you want from him?)’

Another alternative approach is to retain the head status of separable verbs and derive their discontinuous forms by metathesis. In other words, there is only one instance of the verb in Narrow Syntax. For example, a post-syntactic metathesis rule may alter order of the suffix and the second syllable of separable verbs locally, forming infixation (e.g. Harris and Halle (2005)):

- (37) *Jingjan-zo* ‘photocopy-PERF’ undergoing a metathesis rule (to be rejected):  
*jingjan-zo* → *jing<zo><jan>* (Metathesis)

This approach, however, faces problems when deriving “non-local” cases, including separation by phrasal elements (e.g. (2)) and *lin-* ‘even’ focus constructions (e.g. (12)), since a local metathesis rule presumably does not preserve the syntactic constituency. Hence, analyzing discontinuous predicates as a single verb head is not tenable either. Discontinuous predicates should instead be analyzed as two instances of a verb located at different heads (i.e. two copies) with partial deletion.

## 5 Concluding remarks

Drawing on the affixed-induced PF Syllable Deletion rule and partial Copy Deletion, the proposed analysis derives the following empirical patterns of Cantonese discontinuous predicates in Table 3.

This proposal has a few implications. First, it may offer a novel perspective to discontinuous predicates in other languages. Separable verbs are common cross-linguistically, and have long been an issue for the boundary between syntax and morphology in German (=38) and Dutch (=39) because of their word-like status (when occurring as a whole) and phrase-like separation (e.g. Booij 1990, 2002, Zeller 2002, Müller 2002, van Marle 2002, Vikner 2005). Building on Cantonese, the

<sup>10</sup>The phrase-to-head reanalysis has also been proposed for discontinuous predicates in German and Dutch, e.g. Zeller (2002).

<sup>11</sup>Under our partial deletion approach, the lower discontinuous predicate in (26)/(36b) is derived by Syllable Deletion and partial Copy Deletion post-syntactically in the PF. Hence, the (lowest) full verb form at V is still available in Narrow Syntax for focus movement, allowing doubling.



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 ...
Verb topic.	V-Topic	✗	✗
RD of verbs	V-Topic/Defocus	✗	✗
Relativization	✗	✗	✗
Object fronting	✗	✗	✗

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

current proposal provides a resolution to derive the separation while retaining the lexical integrity of discontinuous predicates, which may be extended to German and Dutch upon careful examination.

(38) ... daß Peter die Suppe **aufißt**/ Peter **ißt** die Suppe **auf**  
 that Peter the soup up-eat Peter eats the soup up  
 ‘...that Peter finishes the soup.’/ ‘Peter finishes the soup.’ (German, Polzin 1997:4)

(39) dat John [PRO me  $t_i$ ] wil **opbellen<sub>i</sub>**/ dat John [PRO me **op**  $t_i$ ] wil **bellen<sub>i</sub>**  
 that John me want up-ring/ that John me up wants ring  
 ‘that John wants to phone me.’ (Dutch, Booij 1990:46)

Second, the proposal also suggests that partial deletion is not exclusively applied to phrasal constituents, but also to words/heads, a possibility briefly mentioned in Pereltsvaig (2008).

Last but not least, partial deletion under the current conception is not a special subtype of Copy Deletion (which scatters over different copies). The non-canonical/partial nature of Copy Deletion is indeed due to a combination of a PF deletion rule (on the higher copy) and the general Copy Deletion (on the lower copy), where the latter is disturbed by the former with regard to the calculation of what to be deleted. As such, we maintain a relatively conservative understanding of Copy Deletion.

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Department of Biology  
 Tufts University  
 Medford, MA 02155  
 sheila.chan@tufts.edu

Department of Linguistics  
 University of Southern California  
 Los Angeles, CA 9008-1693  
 tszmingl@usc.edu

Department of Linguistics  
 Yale University  
 New Haven, CT 06520-8366  
 kafai.yip@yale.edu