

Deriving separable verbs in Cantonese

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Separable verbs.

In Cantonese, some disyllabic verbs allow verbal suffixes to occupy an infix position, e.g., (1)-(2) (Chan & Cheung forthcoming).

- (1) *feilou-zo sap-gei ci* fail-PFV ten-several time “failed a dozen times” (AB-x)
(2) *fei<zo>lou sap-gei ci* fail<PFV> ten-several time =(1) (A-x-B)

The two syllables (referred to as A and B) of the disyllabic *monomorphemic* verb *feilou* ‘fail’ (an English loanword) is separated by perfective suffix *zo* (referred to as x). The same is true of other monomorphemic verbs like *pisen* ‘present’ and *sowi* ‘sorry’. They are known as *separable verbs* and seem to host infixation, but the separation pattern is not exclusive to affixal elements. That phrasal elements like frequency phrases may appear after *zo* in (3) suggests that genuine infixation is not involved.

- (3) *fei<zo><sap-gei ci>lou* fail<PFV><ten-several time> =(1) (A-x-XP-B)

Against a reanalysis approach.

A (syntactic) reanalysis approach suggests that the disyllabic verbs like *feilou* are indeed reanalyzed as a Verb-Object (VO) phrase, a prevailing approach for separable VO compounds in Mandarin (Chao 1968, Huang 1984, Packard 2000, *i.a.*). However, the second syllable in disyllabic verbs barely displays nominal/object properties. First, it cannot be preceded by the nominal modifier marker *ge* (= *sen* in (4)), which is otherwise allowed on a genuine object (= *hei* ‘movie’ in (5)).

- (4) *pi-zo sam ci (*ge) sen* (5) *tai-zo sam ci (ge) hei*
present-PFV three time MOD present look-PFV three time MOD movie
“presented three times.” “watched movies three times”

Also, the second syllable does not saturate the thematic requirement of the transitive verb, since the verb can still take a (preposed) thematic object (= (6)), which is surprising if the second syllable is reanalyzed as an object (*cf.* the true object in (7)).

- (6) *zeong ni-fan-je pi<zo>sen* (7) *(*zeong ni-coet-hei) tai-zo hei*
DISP this-CL-thing present<PFV> DISP this-CL-movie look-PFV movie
“presented on this document” Int.: “watched this movie”

The proposal.

We motivate a hybrid (syntactic + phonological) approach to separable verbs. Assuming that verbal suffixes head a projection above the verb, we suggest that verbal suffixation generally involve syntactic verb movement to the suffix (Tang 2003, Tsai 2001). Crucially, we propose an optional PF deletion rule triggered by affixes in (8).

(8) Affix-induced Syllable Deletion

Affixes optionally trigger deletion on an *adjacent* syllable of their hosts.

Implementation.

Under the copy theory of movement (Chomsky 1995 *et seq.*), verb movement creates two copies, i.e., (9)a-b. If (8) does not apply, copy deletion will erase the lower copy, giving rise to (9)ci as suffixation. If (8) applies, the second syllable (i.e., B adjacent to the suffix) is deleted as in (9)cii(I). Then when copy deletion applies to the lower copy, it only *partially* deletes the complement syllable (i.e., A) for recoverability. A suffix is now sandwiched between A and B (= (9)cii(II)). It immediately explains why the following patterns in (10) are unattested.

(9) Derivation steps for suffixation and “infixation”

- a. [-x [AB]] (base structure)
- b. [<AB>-x [<AB>]] (verb movement)
- ci. [<AB>-x [<AB>]] = AB-x (copy deletion targeting the lower copy, deriving (1))
- cii. (I) [<AB>-x [<AB>]] (affix-induced syllable deletion in (8))
 (II) [<A>-x [<AB>]] = A-x-B (partial copy deletion, deriving (2))

	adjacent syll. deletion	recoverability	copy deletion
(10) a. *lou<zo>fei (*B-x-A)	✗ non-adjacent deletion		
b. *fei<zo>fei (*A-x-A)		✗ unrecoverable	
c. *lou<zo>feilou (*B-x-AB)	✗ non-adjacent deletion		✗ fail to apply
d. *fei<zo>feilou (*A-x-AB)			✗ fail to apply

Deriving (3).

We assume that the frequency phrase is (left-)adjoined to the vP, below the projection headed by the suffix, as in the base structure in (11)a. Crucially, (11)b indicates that the verb moves across the frequency phrase to head-adjoin to the suffix. Then (8) applies and deletes *lou*, followed by the partial copy deletion on *fei* only.

- (11) a. [AspP -zo [vP sapgei ci [vP ... [VP feilou]]]] (base structure)
- b. [AspP <feilou>-zo [vP sapgei ci [vP ... [VP <feilou>]]]] (verb movement)
- c. [AspP <feilou>-zo [vP sapgei ci [vP ... [VP <feilou>]]]] (by (8) and partial copy deletion)

An extension to prefix.

It is argued that the *lin...dou*-focus construction can target verbs, leading to verb doubling (Shyu 1995, Cheng & Vicente 2013). In cases of disyllabic monomorphemic verbs, it is possible to double the whole verb A+B (as in (12)). Crucially, it is possible for B to occupy the higher position (stranding A), but not vice versa, as contrasted in (12) and (13). The pattern in (13) mirrors (2) and immediately follows from the proposal if we assume *lin* is a *prefix*: by (8), *lin* triggers syllable deletion on A (adjacent to *lin*), and copy deletion partially applies to the lower copy, deleting B. (14) is disallowed since syllable deletion is not adjacent.

- (12) *Lin pisen keoi dou mou pisen* (lin-AB ... AB)
 even present 3SG also NEG.PFV pre(sent) “He even didn’t do the presentation.”

- (13) *Lin -sen keoi dou mou pi-* (lin-AB ... AB)
 even (pre)sent 3SG also NEG.PFV pre(sent) =(12)
- (14) **Lin pi- keoi dou mou -sen* (lin- AB ... AB)
 even (pre)sent 3SG also NEG.PFV pre(sent)

Implications.

- (a)** A monosyllabic preference in Cantonese for verbs has been noted (Tang 2002, 2003, Li et al. 2016) and (8) may potentially extend to other cases in the phenomenon: (i) syllable deletion may be obligatory in some environments (e.g., *-dak* and *-ngaang* suffixation, Tang 2002, 2003); (ii) syllable deletion may apply recursively (e.g., in A-not-A formation); (iii) idiosyncratic properties of verbs may show varying resistance to deletion (e.g., different registers, frequency, morpho-phonological structures).
- (b)** We offer novel evidence for a non-lexicalist view that verbal suffixes are *syntactic heads* (*contra*. Gu 1993, Huang et al 2009).
- (c)** Affixation, at least in Cantonese, is achieved not by lowering but *head raising* (*contra*. Cheng, Yi & Xiong 2016), which creates copies for partial deletion.
- (d)** Copy deletion interacts with PF operations like (8) and can be disturbed (*cf.* Lee 2020), leading to word-level partial deletion (*cf.* Fanselow & Cavar 2002).

Selected References.

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