Deriving separable verbs in Cantonese

Ka-Fai Yip, Tommy Tsz-Ming Lee and Sheila Shu-Laam Chan
Yale University, University of Southern California and The Chinese University of Hong Kong
kafai.yip@yale.edu; tszmingl@usc.edu; sheilachan@cuhk.edu.hk

at Buckeye East Asian Linguistics Forum 4 (BEAL-4),
The Ohio State University (Online)

Contents

1	Intr	roduction	2			
2	Separable verbs in Cantonese					
	2.1	Ways of separation	3			
	2.2	Properties of separable verbs	4			
3	Previous approaches: reanalysis					
	3.1	Empirical arguments against reanalysis	6			
	3.2	Conceptual arguments against reanalysis	8			
4	Pro	al: syllable deletion				
5	Extension to other cases					
	5.1	Partial verb fronting: <i>lin</i> 'even'-focus construction	11			
	5.2	Partial reduplication: A-not-A	12			
6	Mic	ro-variations with Mandarin	12			
7	Concluding remarks					
	7.1	Syllable deletion vs. reanalysis	14			
	7.2	Implications under a syllable deletion account	14			

1 Introduction

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

Types	Examples	Literal meaning	Meaning	Separation by affix
Verb + Object	daam-saam 擔心	bear + heart	worry	daam- gwo -saam 擔過心
Verb + Verb	ying-yan 影印	reflect + print	photocopy	ying- zo -yan 影咗印
Modifier + Verb	zi-sak 自殺	self + kill	commit suicide	zi- maai -sak 自埋殺
Verb + Result	laai-coeng 拉長	pull + long	lengthen by pulling	laai- faan -coeng 拉翻長
Subject + Verb	jat-sik 日食	sun + eat	(solar) eclipse	jat- jyun -sik 日完食

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 disyllabic verbs (mostly English loanwords) allow separation.

(1) Separation of monomorphemic verbs

- a. 阿明**肥佬**咗 / 阿明**肥咗佬**Aaming **feilou-**zo/ **fei**<zo>**lou**Aaming fail-PERF/ fail<PERF>
 'Aaming failed.'
- b. 阿明OK咗 / 阿明O咗K
 Aaming oukei-zo/ ou<zo>kei
 Aaming okay-PERF/ okay<PERF>
 'Aaming said okay.'

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

(2) Some possibilities

- a. A lexical approach: both alternating forms are listed in the lexicon.
- b. A syntactic approach: (unconventional) syllable movement
- c. A morphological/post-syntactic approach: metathesis (i.e. syllable transposition)
- d. A reanalysis approach: e.g. the two syllables are reanalyzed as a V+O structure.

We propose a hybrid 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 §5: Extensions to two other cases

§3: Arguments against a reanalysis approach §6: Micro-variations with Mandarin

§4: Proposal: movement + syllable deletion §7: Implications

2 Separable verbs in Cantonese

2.1 Ways of separation

• 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.

(3) 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)).

(4) 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).

(5) 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).

(6) 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

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

'The teacher failed him a dozen times.'

2.2 Properties of separable verbs

• Morphological structure

While the above examples are illustrated with a monomorphemic loanword *failou* 'fail', compound words (i.e. containing more than one morpheme) may also be separated.

(7) Separation of verb-object (VO) compounds

呢本書出咗版喇

nei bun syu ceot<zo>baan laa

this CL book publish<PERF> SFP

'This book has been published.'

(8) Separation of non-VO compounds

a. 佢哋都出咗發喇

keoidei dou **ceot**<saai>**faat** laa (Verb-Verb)

3PL all depart<ALL> SFP

'They all departed.'

b. 呢件事唔自得首喋

nei gin si m-zi<dak>sau gaa (Modifier-Verb)

this CL thing NEG-turn.oneself.in«ABLE> SFP

'You can't turn youself in!'

c. 啲相放親大都蒙

Di-soeng fong<can>daai dou mung (Verb-Result)

CL.PL-photo enlarge<whenever> ALL blur

'Whenever you enlarge a photo, it becomes blurred.'

d. 仲未日完食喎

Zung mei **jat**<jyun>**sik** wo (Subject-Verb)

still neg eclipse<finish> SFP

'The eclipse hasn't ended yet.'

• Constraints on syllables

In general, only disyllabic verbs can be separated. Trisyllabic verbs like loanword *intawiu* 'interview' or native verb *cyunkau-faa* 'globalize, (lit.) globe-ize' cannot be separated.

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.

3 Previous approaches: reanalysis

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.

3.1 Empirical arguments against reanalysis

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. Note that cognate objects may also undergo relativization, suggesting that the ungrammaticality of (10) is not due to the lack of thematic role of *-sen*.

(9) 呢齣就係 [佢睇咗 t] 嘅**戲**

ni ceot zau hai [keoi tai-zo t] ge **hei** (true VO) this CL then be 3sG watch-perf Mod movie 'This is the movie that he watched.'

(10) *呢個就係 [佢pre咗 t] 嘅 **sent**

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

(11) [佢瞓 t] 嘅覺係不同凡響地長

3sg sleep

t] ge

所同凡響地長 (cognate object, Facebook, 2020-2-11)
ge **gaau** hai battungfaanhoeng-dei coeng
mod nap be extraordinary-ly long

• Event modification marked by adnominal ge

Lit.: The nap that she sleeps is extraordinarily long.

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.

(12) 佢睇咗成十幾日嘅戲喇

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

(13) *佢pre咗成十幾日嘅sent喇

*keoi pi-zo seng sapgeijat **ge** -sen laa (separable verbs)
3sg present-perf as.much.as ten.several.day MOD present sfp
'He has been doing presentation for days'

· Object preposing

A genuine object may be preposed in a disposal construction marked by *zoeng*. The second syllable of a separable verb, however, cannot be preposed by *zoeng*.

(14) 佢將**齣戲**睇咗

keoi zoeng **ceot hei** tai-zo (true VO)

3sg disp cl movie watch-perf

'He has watched that movie.'

(15) *佢將**個sent** pre咗

*keoi zoeng **go -sen** pi-zo (separable verbs)

3sg disp cl present present-perf

Int.:'He has made that presentation.'

• Taking thematic objects

One argument for the reanalysis approach comes from examples like (16), where a separated verb cannot take an object.

(16) ? 佢影咗印[呢份野]喇

?keoi jing<zo>jan [nei fan je] laa (separable verbs)
3sg photocopy<perf> this cL thing sfp

'He made a photocopy of this document.'

• However, separable verbs can indeed take a thematic object, as long as it is preposed. This again contrasts with true VO phrases which cannot have an extra preposed object.

(17) a. 佢將[呢份野]影咗**印**喇

keoi zoeng [nei fan je] jing<zo>**jan** laa (separable verbs)

3sg disp this cl thing photocopy<perf> sfp

'He made a photocopy of this document.'

b. 佢連[呢份野]都影埋印喇

keoi lin [nei fan je] dou jing<maai>**jan** laa (separable verbs)

3sg even this CL thing also photocopy<also> sfp

'He even made a photocopy of this document.'

(18) a. *佢將[呢齣戲]睇咗**戲**喇

*keoi zoeng [nei ceot hei] tai-zo **hei** laa (true VO)

3sG DISP this CL movie watch-PERF movie sfP

Int.:'He watched this movie.'

b. *佢連[呢齣戲]都睇埋戲喇

*keoi lin [nei ceot hei] dou tai-maai **hei** laa (true VO)

3sg even this CL movie also watch-also movie sfp

Int.:'He even watched this movie.'

- Some may notice that the second syllable may also be preposed in *lin* 'even'-focus constructions (=19a), which seems to be inconsistent with *zoeng*-disposal constructions. Yet, *lin* may also target verbs as in (19b), hence (19a) does not inform us about object properties. We will go back to *lin* 'even'-focus constructions in section 5.1.
- (19) a. 連[sent]阿明都有pre

lin **-sen** Aaming dou mou **pi**- (separable verbs) even present Aaming also NEG present 'Aaming even didn't present.'

b. 連[食]阿明都有食

lin **sik** Aaming dou mou **sik**even eat Aaming also NEG eat
'Aaming even didn't present.'

(regular verbs)

3.2 Conceptual arguments against reanalysis

- The basis of reanalysis
 - Semantic basis:

Two morphemes of a compound may be coerced into a VO on the basis of an agent-theme like reading (Chao 1968; Zhao and Zhang 1996; Cao and Feng 2003). However, it is not clear how non-VO compounds (Verb-Verb, Modifier-Verb, Verb-Result & Subject-Verb) and monomorphemic verbs may provide such a basis, in particular the latter one which contain only non-morphemic syllables.

- Prosodic basis:

Chao (1968) proposes that relative prosodic prominence of two syllables may also facilitate reanalysis, such as verbs with iambic stress (Weak-Strong), comparable to the Weak-Strong pattern on VO. Yet, this prosodic account is challenged by the presence of

separable trochaic (Strong-Weak) English loanwords in Cantonese, e.g., sowi 'sorry', seaa 'share', gugou 'Google', etc.

 Without both bases, we are forced to say that reanalysis comes for free, which is implausible for a restricted theory.

• The level of reanalysis

In a classic Y-model in generative grammar, there are three levels where the reanalysis may occur, each of them faces conceptual difficulties:

- Pre-syntactic: lexicon (as suggested by Packard (2000) and Her (2010))
 Given the productivity of separation by over 30 suffixes (XX% of roots), there will be learnability issues. Moreover, one also need to explain why separated forms are meaning-equivalent to non-separated forms if they are two lexical items.
- Syntactic: narrow syntax
 Separation involves splitting a V node into a V and an object node, which violates current theoretical assumptions (e.g. No Tampering Condition).
- Post-syntactic: PF (presumably not LF)
 Separation can be achieved by morphophonemic operations like metathesis, but it is not sensitive to syntactic constituency of the "inserted" elements (cf. phrasal elements).
- Possbility to capture language variations (see section 6)

4 Proposal: syllable deletion

We suggest that verbal suffixation generally involve syntactic verb movement to the suffix (Tang 2003) and propose an optional PF deletion rule triggered by affixes:

(20) Affix-induced Syllable Deletion

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

(21) Derivation steps for separable verbs

a. [-x [AB]] (base structure)

b. [<AB>-x [<AB>]] (verb movement)

c. $[\langle AB \rangle] = A - x - AB$ (affix-induced syllable deletion)

d. $[\langle AB \rangle - x [\langle AB \rangle]] = A - x - B$ (partial copy deletion)

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	X non-adjacent deletion	
b. *fei <zo>fei 肥咗肥</zo>	*A-x-A		X fail to apply
c. *lou <zo>feilou 佬咗肥佬</zo>	*B-x-AB	X non-adjacent deletion	X fail to apply
d. *fei <zo>feilou 肥咗肥佬</zo>	*A-x-AB		X fail to apply

• Motivation for the affix-induce deletion

Some suffixes prefer to attach to a monosyllabic verb (Tang 2002, 2003, 2015), e.g. epistemic *-ngaang* 'must' and *-can* 'whenever'. This correlates with their obligatory separation on some verbs. Deletion is induced by the monosyllabic requirement imposed on the verbal host.

Copy deletion

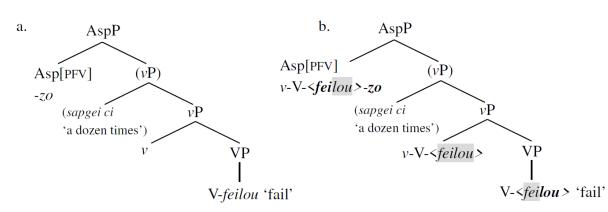
While deleting the whole lower copy is the default option (Chomsky 1995; Nunes 1995, 2004; Bošković 2007), chain reduction is sensitive to the status of the higher copy. If the higher copy is not fully spelt out, the remaining part would be spelt out in the lower copy.

• Derivation of insertion of phrasal elements

(22) a. 肥咗十幾次佬

fei<zo><**sapgeici**>lou (=5b) fail<PERF><ten.several.time> 'failed a dozen times.'

(23)



5 Extension to other cases

- Partial verb fronting: lin 'even'-focus construction
- Partial reduplication: A-not-A (not being discussed today)

5.1 Partial verb fronting: lin 'even'-focus construction

Data. Apparently, the second syllable may be fronted, leaving the first syllable stranded:

(24) (Apparent) partial verb fronting

a. 連sent阿明都有pre

lin **sen** Aaming dou mou **pi** even present Aaming also NEG present 'Aaming even didn't present.'

b. 連ry阿明都有sor

lin **wi** Aaming dou **so**-maai even sorry Aaming also sorry-ADDITIVE 'Aaming even said sorry.'

Interestingly, full copying of both syllables is also possible:

(25) (Full) verb doubling

a. 連present阿明都有present

lin **pisen** Aaming dou mou **pisen** even present Aaming also NEG present 'Aaming even didn't present.'

b. 連sorry阿明都有sorry

lin **sowi** Aaming dou **sowi**-maai even sorry Aaming also sorry-ADDITIVE 'Aaming even said sorry.'

Analysis. Syllables are not terminals and cannot undergo syntactic movement. It should be the whole verb moving. We suggest that (24) is derived by (25) through syllable deletion, by assuming *lin* 'even' to be a prefixal element:

- (26) Derivation steps for partial verb fronting
 - a. [even- [Aaming [also [not [pi-sen]]]]] (base structure)
 b. [even-<pi-sen> [Aaming [also [not [<pi-sen>]]]]] (focus movement of verb, =(25))
 c. [even-<pi-sen> [Aaming [also [not [<pi-sen>]]]]] (prefix-induced syllable deletion)
 - d. [even- $\langle p'i$ -sen> [Aaming [also [not [$\langle pi-s\not e h\rangle$]]]] (partial copy deletion, =(24))

Crucially, the deletion is sensitive to the direction of affixation: while a suffix deletes the second syllable, a prefix deletes the first syllable.

5.2 Partial reduplication: A-not-A

Data.

(27) A-not-A formation

a. sor唔sorry都得

so-m-**sowi** dou dak sorry-not-sorry also fine 'It is fine to say sorry or not.'

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.'

Analysis.

No Copy Deletion.

6 Micro-variations with Mandarin

• Separable verbs

Unlike Cantonese, Mandarin generally disallows separation of non-VO compounds and monomorphemic words. Even for VO compounds, Mandarin disfavors separation as compared to Cantonese:

- Obligatory separation in Cantonese, optional separation in Mandarin:
- (28) Cantonese: batjip 'graduate, (lit.) end-business'
 - a. ??畢業咗三年

??batjip-zo saam-nin
graduate-perf 3-year
Int.:'graduated for 3 years'

b. 畢咗業三年

bat<zo>jip saam-nin
graduate-<PERF> 3-year
'graduated for 3 years'

(29) Mandarin: biye 'graduate, (lit.) end-business'

a. 畢業了三年

biye-le san-nian graduate-PERF 3-year Int.: 'graduated for 3 years'

b. 畢了業三年

bi<le>**ye** san-nian graduate-<PERF> 3-year 'graduated for 3 years'

- Optional separation in Cantonese, non-separation in Mandarin:
- (30) Cantonese: ceot-baan 'publish, (lit.) out-plate'
 - a. 本書出版咗未?

bun syu **ceotbaan**-zo mei? CL book publish-PERF NEG 'Did the book get published?'

b. 本書出咗版未?

bun syu **ceot**<zo>**baan** mei? cl book publish-<perf> Neg 'Did the book get published?'

- (31) Mandarin: chu-ban 'publish, (lit.) out-plate'
 - a. 那本書出版了沒有?

Na ben shu **chu-ban**-le meiyou? that cl book publish-perf NeG 'Did the book get published?'

b. ??那本書出了版沒有?

?? Na ben shu **chu**<le>**ban** meiyou? that CL book publish<PERF> NEG Int.'Did the book get published?'

- Under the current syllable deletion account, the micro-variations can be captured by the obligatoriness of the syllable deletion rule.
- A-not-A formation

(32) Obligatory partial reduplication in Cantonese A-not-A

a. **鍾(*意)**唔鍾意

zung(*ji)-m-zungji

RED-NEG-like

'like it or not'

(33) Optional partial reduplication in Mandarin A-not-A

a. 喜(歡)不喜歡

xi(huan)-bu-xihuan

RED-NEG-like

'like it or not'

7 Concluding remarks

7.1 Syllable deletion vs. reanalysis

• Formulation within the generative framework

- Our syllable deletion account derives separable verbs by adopting a move-and-copy theory in syntax and a syllable deletion rule in PF/phonology. There are no novel, specialized operations outside the generative framework.
- Reanalysis, on the other hand, is a rather ad-hoc mechanism and faces difficultly in terms
 of formalization in the generative theory.

· Capturing micro-variations

- A syllable deletion account is also empirically superior in being able to capture micro-variations between Cantonese and Mandarin, by stating the obligatoriness of the deletion rule.
- Yet, it is unclear how to capture this under a reanalysis account given that reanalysis is not a rule.

7.2 Implications under a syllable deletion account

A head movement approach to complex words

There is a prevailing debate on at which part of grammar complex words are formed, in both generative theories and Chinese linguistics:

 A lexicalist approach: Complex words, including affixed words, are formed and stored in the lexicon. (Chomsky 1970, 1995, 2000; Huang, Li, and Li 2009)

A non-lexicalist approach: No complex objects can be stored in lexicon. They are all derived in syntax or a post-syntactic component. (Halle, O'Neil, and Vergnaud 1993; Tsai 2001; Tang 2003)

This paper provides novel support for the latter non-lexicalist approach, where verbs move to a syntactic head host by affixes, creating copies for syllable deletion. Affixation is derived in syntax by head movement but not in the lexicon.

· Distributed deletion on the word level

- Copy Deletion does not necessarily delete a full copy. Sub-parts of copies may also be deleted, i.e. Distributed (Copy) Deletion (Fanselow and Ćavar 2002). It has been attested on the phrasal level (e.g. discontinuous noun phrases in German, Croatian, Polish).
- This paper shows that Copy Deletion interacts with PF operations such as the proposed syllable deletion rule and can be scattered, leading to Distributed Deletion on the word level.

Cross-linguistic: German and Dutch separable verbs

German and Dutch also have separable complex verbs, where a prefix (generally particles, but could also be a noun or an adjective) may be 'separated' from the verbal stem:

(34) Separable complex verbs in German

- b. Peter **iβt** die Suppe **auf**Peter eats the soup up
 'Peter finishes the soup.'

(35) Separable complex verbs in Dutch

- a. dat John [PRO me t_i] wil **opbellen**_i that John me want up-ring 'that John wants to phone me.'
- b. dat John [PRO me **op** t_i] wil **bellen**_i that John me up wants ring 'that John wants to phone me.'

Given the similarity of these examples with the partial verb fronting in Cantonese, it is worthwhile to explore how a syllable deletion account may extend to German and Dutch.

References

Bošković, Željko. 2007. "On the Locality and Motivation of Move and Agree: An Even More Minimal Theory." Linguistic Inquiry 38 (4): 589–644.

- Cao, Bao-ping, and Gui-hua Feng. 2003. "Forming type of Separable Word and Its Separating Rule." Journal of Radio and TV University (Philosophy and Social Sciences), no. 4, 95–97.
- Chan, Sheila Shu-Laam, and Lawrence Yam-Leung Cheung. 2021. "Morpho-Syntax of Non-VO Separable Compound Verbs in Cantonese." Studies in Chinese Linguistics 41 (2).
- Chao, Y R. 1968. A Grammar of Spoken Chinese. Berkeley: University of California Press.
- Chomsky, Noam. 1970. "Remarks on Nominalization." In <u>Readings in English Transformational</u> <u>Grammar, edited by J Jacobs and P Rosenbaum, 184–221. Waltham, Massachusetts: Ginn.</u>
- ——. 1995. The minimalist program. 420. Cambridge, Massachusetts: MIT Press.
- ———. 2000. "Minimalist inquiries: The framework." In <u>Step by step: Essays on minimalist syntax in honor of Howard Lasnik,</u> edited by Roger Martin, David Michaels, and Juan Uriagereka, 89–156. Cambridge, MA: MIT Press.
- Fanselow, Gisbert, and Damir Ćavar. 2002. "Distributed Deletion." In <u>Theoretical Approaches to</u> Universals, edited by Artemis Alexiadou, 65–107. John Benjamins Publishing Company.
- Halle, Morris, Wayne O'Neil, and Jean-Roger Vergnaud. 1993. "Metrical Coherence in Old English without the Germanic Foot." <u>Linguistic Inquiry</u> 24 (3): 529–538.
- Her, One Soon. 2010. <u>Interaction and variation in the Chinese VO construction.</u> Taiwan: Crane Publishing Co., Ltd.
- Huang, C.-T. James. 1984. "On the Distribution and Reference of Empty Pronouns." <u>Linguistic Inquiry</u> 15:531–574.
- Huang, C.-T. James, Audrey Yen-hui Li, and Yafei Li. 2009. The syntax of Chinese. Cambridge, MA: Cambridge University Press.
- Lee, Tommy Tsz-Ming, and Ka-Fai Yip. 2020. "Raising, phase unlocked." Presentation at West Coast Conference on Formal Linguistics (WCCFL-38), University of British Columbia on March 6-8, 2020.
- Nunes, Jairo. 1995. "The Copy Theory of Movement and Linearization of Chains in the Minimalist Program." PhD diss., University of Maryland.

Nunes, Jairo. 2004. <u>Linearization of Chains and Sideward Movement.</u> Linguistic Inquiry Monographs. Cambridge, Massachusetts: MIT Press.

- Packard, Jerome Lee. 2000. <u>The Morphology of Chinese: A Linguistic and Cognitive Approach.</u> Cambridge: Cambridge University Press.
- Tang, Sze-Wing. 2002. "Focus and dak in Cantonese." Journal of Chinese Linguistics 30 (2): 266–309.
- ——. 2003. "Properties of ngaang and the syntax of verbal particles in Cantonese." Journal of Chinese Linguistics 31 (2): 245–269.
- ——. 2015. <u>Jyutjyu jyufaat gongji [Lectures on Cantonese Grammar].</u> Hong Kong: The Commercial Press.
- Tsai, Wei-Tien Dylan. 2001. "On subject specificity and theory of syntax-semantics interface." Journal of East Asian Linguistics 10 (2): 129–168.
- Zhao, Shuhua, and Bolin Zhang. 1996. "The determination properties of separable words." Language Teaching and Linguisitics Studies, no. 1, 40–51.