

# Parametric variations in discontinuous predicates in Sinitic languages\*

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## 1 Introduction

- In Sinitic languages, a predicate may appear as a discontinuous string, where two syllables are intervened by suffixes/adjuncts.<sup>1</sup> We refer to it as a **discontinuous predicate (D-Pred)** (aka. separable verbs 離合詞).
  - like Mandarin (MC)’s VO compound in (1), (Chao 1968; Huang 1984; Packard 2000, *i.a.*)
  - and Cantonese (CC)’s monomorphemic loanword in (2). (Chan and Cheung 2020; Lee and Yip 2025)
- Blurring the syntax-morphology boundary**: suffixation indicates *wordhood* (=a), whereas intervention suggests *phrasehood* (=b). Put differently, *discontinuous heads* are surprising under the Lexical Integrity Hypothesis.

(1) a. 留學了三年 liuxue-le san-nian stay.school-PFV 3-year ‘studied abroad for three years’	b. 留了三年學 liu-le san-nian xue stay-PFV 3-year school ‘studied abroad for three years’	(D-Pred) [MC]
(2) a. present咗三次 pisen-zo saam-ci present-PFV 3-times ‘presented for three times’	b. pre咗三次sent pi-zo saam-ci sen present-PFV 3-times present ‘presented for three times’	(D-Pred) [CC]

- The majority of current analyses, which are largely based on Mandarin, involves a phrasal VO structure.
- Studies on other Sinitic languages are extremely and surprisingly rare. (except Cantonese; cf. Lee & Yip’s 2024 overview)
- Goals**: Through a comprehensive study on **four** Sinitic languages, this paper uncovers significant variations in D-Preds despite the surface similarities in (1)-(2).
  - We propose that languages differ in the robustness of two operations/parameters:  
① **NOMINALIZATION** and ② **SYLLABLE SUBTRACTION**.
  - They give rise to differential properties of D-Preds, which are systemically correlated with independent constructions in the languages.
- This study implicates that:
  - ① Separation/Discontinuity may have *multiple sources*.
  - ② It should **not** be taken for granted that a given construction is uniform across Sinitic languages;
  - ③ Some variations are *micro-parametric* in nature. (Tang 1998, 2006; Huang 2015; cf. Kayne 2005)

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1. There are other means of separation, including *wh*-intervention in the form of A-*wh*-B and focus movement in the form of EVEN-B...A. See the extensive discussion in Guo (2017) and Pan and Ye (2015) for Mandarin and Lee and Yip (2025) for Cantonese.

- **Roadmap**

§2: Variations in D-Preds: MC vs. CC  
 §3: Two sources of discontinuity  
 §4: A parametric theory

§5: The predicted typology  
 §6: Conclusion

## 2 Variations in discontinuous predicates between Mandarin and Cantonese

### 2.1 Morphological structure of D-Preds

- In Cantonese, monomorphemic verbs and non-VO compounds are readily separable in addition to VO compounds (Chan and Cheung 2020; Yip, Lee, and Chan 2021)
- Non VO-compounds: Verb-Verb (VV), Verb-Resultative (VR), Modifier-Head (MH), and Subject-Predicate (SV).

#### (3) Various morphological types of D-Preds in Cantonese (+ percentage of separable Vs *within the type*)<sup>2</sup>

- |   |   |
|---|---|
| <p>a. <i>Monomorphemic verbs</i> (40%, n=24/60) (Yip et al. 2021)</p> <p>OT完/ O完T</p> <p><b>outi-jyun/ ou-jyun-ti</b></p> <p>OT-COMPL OT-COMPL-OT</p> <p>‘finished working overtime’</p>      | <p>d. <i>VV compounds</i> (16%, n=18/111) (Chan &amp; Cheung 2020)</p> <p>裝修緊/ 裝緊修</p> <p><b>zongsau-gan/ zong-gan-sau</b></p> <p>install.repair-PROG install-PROG-repair</p> <p>‘furnishing’</p> |
| <p>b. <i>VO compounds</i> (62%, n=543/878) (Chan &amp; Cheung 2020)</p> <p>出版咗/ 出咗版</p> <p><b>ceotbaan-zo/ ceot-zo-baan</b></p> <p>out.plate-PFV out-PFV-plate</p> <p>‘published’</p>         | <p>e. <i>MH compounds</i> (20 %, n=18/90) (Chan &amp; Cheung 2020)</p> <p>自首咗/ 自咗首</p> <p><b>zisau-zo/ zi-zo-sau</b></p> <p>self.confess-PFV self-PFV-confess</p> <p>‘turned oneself in’</p>      |
| <p>c. <i>VR compounds</i> (47%, n=82/175) (Chan &amp; Cheung 2020)</p> <p>放大翻/放翻大</p> <p><b>fongdaai-faan/ fong-faan-daai</b></p> <p>zoom.big-AGAIN zoom-AGAIN-big</p> <p>‘enlarge again’</p> | <p>f. <i>SV compounds</i> (8%, n=2/26) (Chan &amp; Cheung 2020)</p> <p>頭痛過/頭過痛</p> <p><b>tautung-gwo/ tau-gwo-tung</b></p> <p>head.hurt-EXP head-EXP-hurt</p> <p>‘had headache before’</p>        |

- Such cases are **rare** in Mandarin. Among all separable verbs in *Modern Chinese Dictionary*, **96-97%** are **VO** compounds (n=around 3500~3800). (Yao 2011; Jiang 2017)<sup>3</sup>
- In particular, monomorphemic verbs are almost impossible to separate. Even for those early documented cases like **you-ta yi-mo** ‘make fun (lit. humor) of him’ (Chao 1968), they are frozen forms and lack productivity.

#### (4) Monomorphemic verbs cannot be discontinuous in Mandarin

- |  |   |
|--|---|
| <p>a. *這個報告我pre了三次sent</p> <p>*Zhe-ge baogao wo <b>pre-le</b> san-ci <b>sent</b></p> <p>this-CL report 1SG present-PFV 3-times present</p> <p>Int.: ‘I presented this report for three times.’</p> | <p>b. *幽了張三三默</p> <p>*you-le Zhangsan san <b>mo</b></p> <p>humor-PFV Zhangsan three humor</p> <p>Int.: ‘made fun of Zhangsan for three times’</p> |
|--|---|

→ **Morphologically**, Mandarin D-Preds are generally formed by **VO compounds**, whereas in Cantonese **all types** of verbs can be D-Preds regardless of the structure or number of morphemes .

2. Note that Chan and Cheung (2020) includes some VO phrases as VO compounds, such as *leifan* ‘divorce’, which resists suffixation in Cantonese: \**leifan-zo* ‘divorced’. The actual percentage of separable VO compounds should be lower than 62%.

3. It is difficult to count such a number in Cantonese, since the pioneer study Chan and Cheung (2020) only has a few monomorphemic verbs and moreover includes some VO phrases. A rough estimate of the percentage of VO compounds in all the separable verbs is around 77% (543/703, among 1340 disyllabic verbs), combining the numbers in Chan and Cheung (2020) and Yip, Lee, and Chan (2021).

## 2.2 The syntactic status of the separated syllables

- Syntactically, the 2nd syllable of D-Preds in Mandarin displays **nominal objecthood** (e.g., Pan and Ye 2015), whereas Cantonese D-Preds **lack** such properties for both VO and non-VO verbs.
- Evidenced by *modification* tests (for nominal property) and *displacement* tests (for objecthood):

### (5) Adnominal *de/ge* modification: *Baseline: VO phrases*

- a. 看了三年(的)小說 [MC]      b. 睇咗三日(嘅)小說 [CC]  
**kan-le**    san-tian (de) [**xiaoshuo**]<sub>Obj</sub>      **tai-zo**    saan-jat (ge) [**siusyut**]<sub>Obj</sub>  
 read-PFV 3-day DE novel      read-PFV 3-day GE novel  
 ‘read novels for 3 days’      ‘read novels for 3 days’

### Adnominal *de/ge* modification: *D-Preds: VO compounds*

- c. 留了三年(的)學 [MC]      d. 留咗三年(\*嘅)學 [CC]  
**liu-le**    san-nian de **xue**      **lau-zo**    saan-nin (\*ge) **hok**  
 stay-PFV 3-year DE school      stay-PFV 3-year GE school  
 ‘studies abroad for 3 years’      ‘studies abroad for 3 years’

### (6) Object fronting in *ba/zoeng*-disposal constructions

- a. *Baseline: VO phrases in Mandarin*  
 Ta ba [**xiaoshuo**]<sub>Obj</sub> dou **kan-wan-le**.      他把小說都看完了 [MC]  
 3SG BA novel all read-COMPL-PFV  
 ‘S/he finished reading all the novels.’
- b. *Baseline: VO phrases in Cantonese*  
 Keoi zoeng [**di-siusyut**]<sub>Obj</sub> dou **tai-saai** laa3      佢將啲小說都睇晒喇 [CC]  
 3SG ZOENG CL.PL-novel all read-ALL SFP  
 ‘S/he finished reading all the novels.’
- c. *D-Preds: VO compounds in Mandarin*  
 Ta ba (zhe santian de) **mang** dou **bang-wan-le**      他把(這三天的)忙都幫完了 [MC]  
 3SG BA this 3-day DE favor all help-COMPL-PFV  
 ‘S/he finished all the helping (of these three days).’      (adapted from Pan and Ye 2015:308)
- d. *D-Preds: monomorphemic verbs in Cantonese*  
 \*Keoi zoeng (di-)wi dou **so-saai** laa3      \*佢將(啲)ry都sor晒喇 [CC]  
 3SG ZOENG CL.PL-sorry all sorry-ALL SFP  
 Int.: ‘S/he finished doing all the apologies.’

- See Appendix for the full set of tests. (see also Lee and Yip 2025 for the lack of verbhood of 1st-syllable in Cantonese D-Preds.)

Type	Test	Configuration	Mandarin	Cantonese
Adnominal modification	Individual classifiers	A-X CL -B	✓	✗
	Numerals	A-X NUM -B	✓	✗
	Adnominal marked <i>de/ge</i>	A-X MOD -B	✓	✗
A-movement (Obj)	Object fronting	[ <sub>VP</sub> <i>ba/zoeng</i> -B ... A-X -B]	✓	✗
	Passivization	-B ... <i>bei</i> [ <sub>TP</sub> ... A-X -B]	✓	✗
A'-movement (nominal)	‘only’-focus constructions	[ <sub>FocP</sub> ONLY-B ... A-X -B]	✓	✗
	Object relativization	[ <sub>RC</sub> ... A-X -B ... ] <i>de/ge</i> -B	✓	✗

→ Syntactically, Mandarin D-Preds have a **VO phrasal structure**, whereas Cantonese D-Preds do **not**: the second syllable **lacks independent word/phrasehood** even after separation (i.e., still part of a word).

### 3 Two sources of discontinuity

The differences call for a non-uniform treatment to D-Preds.

- D-Preds in Mandarin is derived syntactically → **Syntactic D-Preds**
- D-Preds in Cantonese is derived morphologically → **Morphological D-Preds**

#### 3.1 Discontinuity due to syntactic nominalization

- We argue that the mechanisms deriving D-Preds in Cantonese and Mandarin are different.
- **Mandarin D-Preds** have a *syntactic* character, where **NOMINALIZATION** applies to the compound in the syntactic component in (8) (Pan and Ye 2015).

(7) (我) 幫他的忙

(Wo) bang ta-de mang

I help his help

‘(I) help him.’

(8) Mandarin *bangmang* ‘help’: Nominalization > Partial Deletion (Pan and Ye 2015)

a. {**bangmang**, **bangmang**, ta, de}

(Numeration: copying)

b. [<sub>N</sub> N [V-**bangmang**]]

(Syntax: nominalization)

c. [<sub>N'</sub> ta-de [<sub>N</sub> N [V-**bangmang**]]]

(Syntax: taking theme)

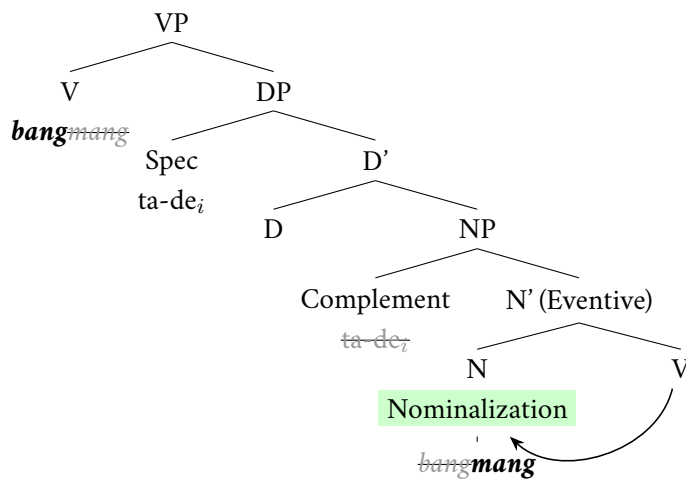
d. [<sub>VP</sub> V-**bangmang** [<sub>DP</sub> ta-de ... [<sub>N</sub> N [V-**bangmang**]]]]

(Syntax: taking cognate object)

e. [<sub>VP</sub> V-**bangmang** [<sub>DP</sub> ta-de ... [<sub>N</sub> N [V-**bangmang**]]]]

(PF: Partial Deletion)

(9) The derivation of D-Pred in Mandarin (adapted)



#### 3.2 Discontinuity due to morphological deletion

- In contrast, **Cantonese D-Preds** exhibits a *morphological* character, where affixes may trigger a morphophonological operation **SYLLABLE SUBTRACTION** on the host in the post-syntactic component (13). (Lee and Yip 2025)

(10) Syllable Subtraction in Cantonese (as a morphophonological process in the PF)

Affixes may trigger deletion on the adjacent syllable of their host to form a foot.

(11) 我O咗好多次T。

(Ngo) **ou**-zo houdo-ci **-ti**.

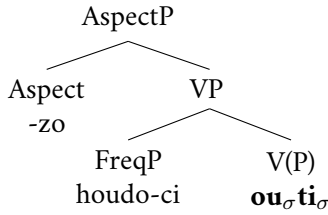
(A-SUFFIX-FREQ-B)

1sg OT-PERF many-time OT

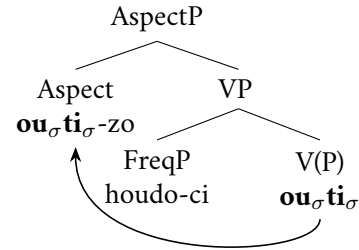
‘(I) worked overtime many times.’

(12) The derivational steps of (11) in the syntactic component (Lee and Yip 2025)

a. Building of the AspectP

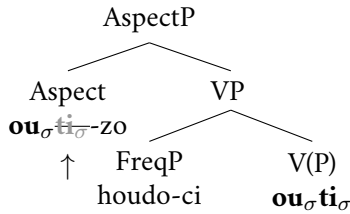


b. Verb movement to Aspect head

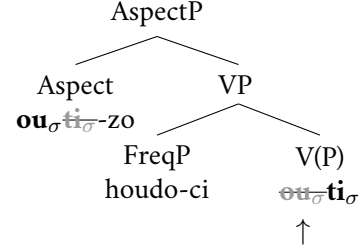


(13) The derivational steps of (11) in the post-syntactic component (Lee and Yip 2025)

a. **Suffix-induced Syllable Subtraction**



b. Partial CD



- The superficial similarities in surface forms of the two languages are due to (distributed/scattered) Partial Deletion, which applies after both operation (cf. Fanselow and Ćavar 2002).

## 4 A parametric theory of discontinuous predicates

- We propose that NOMINALIZATION and SYLLABLE SUBTRACTION are **micro-parameters**.
- Their effects are not specific to D-Preds and can be observed independently in the language.

	Language	① NOMINALIZATION	② SYLLABLE SUBTRACTION	Status of D-Preds
a.	Mandarin	✓	✗	Syntactic (phrasal)
b.	Cantonese	✗	✓	Morphological (word-like)

### 4.1 The NOMINALIZATION parameter

- Tang (2008, 2009, 2011): Mandarin has robust Nominalization and enables a range of **gerundive nominals**, all of which are not possible in Cantonese.
- Tang accounts for the variation by proposing that Cantonese lacks a Nom head that attracts V movement.

(14) The NOMINALIZATION parameter: **Nom**<sub>[uV]</sub> vs. **Nom**<sub>[]</sub>

a. [<sub>NomP</sub> **Nom**<sub>[uV]</sub> [<sub>VP</sub> V (Obj)]]

(Mandarin)

b. \* [<sub>NomP</sub> **Nom**<sub>[]</sub> [<sub>VP</sub> V (Obj)]]

(Cantonese)

NOMINALIZATION	Mandarin	Cantonese
Genitive agents	✓	✗
Verbless <i>de/ge</i> nominals	✓	✗
Relativization of VO-idioms	✓	✗
Internal <i>de</i> expressions	✓	✗

- **Genitive agents:** derived by movement of an empty verb DO to Nom (Tang 2009; cf. Huang 2008)
- Structure: [<sub>NomP</sub> 3SG-*de* [ Nom-V<sub>DO</sub> [<sub>VP</sub> *t<sub>V</sub>* 'teacher']]]

(15) Genitive agents in subject positions (Tang 2011, p.150)

[Ta **de** laoshi] dang-de hao.

他的老師當得好。 [MC]

\*[Keoi **ge** lousi] zou-dak hou.

\*佢嘅老師做得好。 [CC]

3SG MOD teacher do-DES well

'He serves well as a teacher.'

- The same patterns carry over to three other constructions with gerundive nominals
- See also Kwong and Tsou (2003) for the lower productivity of **deverbal nominals** in Cantonese (vs. Mandarin)

(16) Relativization of VO-idioms (Tang 2011, p.153)

a. [Ta chi **de** cu] bi shei dou da

他吃的醋比誰都大 [MC]

3SG eat MOD vinegar compare who all big

'His jealousy is greater than anyone else's.'

b. \*[Keoi gaap **ge** cou] daagwo sojau jan

\*佢哋嘅醋大過所有人 [CC]

3SG sip MOD vinegar bigger all person

'His jealousy is greater than anyone else's.'

(17) Verbless *de/ge* nominals (Tang 2011, p.154, modified)

Zhe-chang hui shei **de** zhuxi?

這場會誰的主席？ [MC]

\*Ni-coeng wui bingo **ge** zyuzik?

\*呢場會邊個嘅主席？ [CC]

this-CL meeting who MOD chairperson

'Who served as the chairman at this meeting?'

(18) Internal *de* expressions (a clausal reading of V-*de*-O) (Tang 2011, p.156)

Ta zuotian da **de** dianhua

他昨天打的電報 [MC]

\*Keoi camjat daa **ge** dinwaa

\*佢尋日打嘅電報 [CC]

3SG yesterday make MOD phone.call

'The phone call he made yesterday.'

Cf. Internal *de* expressions are sometimes referred to as cleft structures with the copula *shi/hai*.

(19) *Shi/hai...de/ge*-clefts (Tse 2019, p.70)

a. Wo **shi** zuotian mai-**de** piao.

我是昨天買的票 [MC]

1SG COP yesterday buy-DE ticket

'It was yesterday that I bought a ticket.'

b. \*Keoi **hai** kamjat maai-**ge** syu.

\*佢係琴日買嘅書 [CC]

3SG COP yesterday buy-GE book

'It was yesterday that he bought a book.'

## 4.2 The SYLLABLE SUBTRACTION parameter

- We propose that Cantonese has robust Syllable Subtraction, as evidenced by a **monosyllabic preference** in a number of *affixed reduplication* phenomena, in contrast with Mandarin.
- Cf. Luke and Lau (2008) and Li et al. (2016), for a similar preference in lexical borrowing (from English)

SYLLABLE SUBTRACTION	Mandarin	Cantonese
A-one-AB	✗	✓
*AB-not-AB	✗	✓
*AB-wh-AB	✗	✓

### (20) V-one-V reduplication

- |   |                         |  |                            |
|---|-------------------------|--|----------------------------|
| a. * <b>chu</b> -yi- <b>chuli</b><br><b>cyu</b> -jat- <b>cyulei</b><br>tackle-one-tackle<br>'try to tackle' | *處一處理 [MC]<br>處一處理 [CC] | b. * <b>chuli</b> -yi- <b>chuli</b><br>* <b>cyulei</b> -jat- <b>cyulei</b><br>tackle-one-tackle<br>Int.: 'try to tackle' | *處理一處理 [MC]<br>*處理一處理 [CC] |
|---|-------------------------|--|----------------------------|

### (21) A-not-A reduplication

- |  |                        |   |                            |
|--|------------------------|---|----------------------------|
| a. <b>xi</b> -bu- <b>xihuan</b><br><b>zung</b> -m- <b>zungji</b><br>like-not-like<br>'like or not' | 喜不喜歡 [MC]<br>中唔中意 [CC] | b. <b>xihuan</b> -bu- <b>xihuan</b><br>?? <b>zungji</b> -m- <b>zungji</b><br>like-not-like<br>'like or not' | 喜歡不喜歡 [MC]<br>??中意唔中意 [CC] |
|--|------------------------|---|----------------------------|

### (22) V-wh-V constructions (cf. Tsai 2021 for Mandarin)

- |   |   |
|---|---|
| a. <b>man</b> -shenme- <b>yuan?</b> 埋什麼怨 [MC]<br><b>maai</b> -matje- <b>jyun?</b> 埋乜野怨 [CC]<br>grudge-what-grudge<br>'What are you holding grudge about?' | b. <b>manyuan</b> -shenme- <b>manyuan?</b> 埋怨什麼埋怨 [MC]<br>* <b>maaijyun</b> -matje- <b>maaijyun?</b> *埋怨乜野埋怨 [CC]<br>grudge-what-grudge<br>'What are you holding grudge about?' |
|---|---|

## 4.3 Interim summary

The split between syntactic vs. morphological D-Preds in Mandarin and Cantonese is correlated with a range of phenomena pertaining to (i) gerundive nominals, and (ii) the monosyllabic preference.

(23) a. Syntactic D-Preds ↔ gerundive nominals	due to NOMINALIZATION
b. Morphological D Preds ↔ monosyllabic preference	due to SYLLABLE SUBTRACTION

## 5 The predicted typology

- The proposal also makes a typological prediction on two types of languages
  - Languages that *lacks* both operations (i.e., both parameter values set as negative)
    - D-Preds are highly restricted.
  - Languages that employ both operations (positive values for both parameters)
    - D-Preds are highly productive.
- Our preliminary findings suggest that **Fuzhounese** exemplifies the former and **Jing-le Jin** (靜樂晉語) the latter.

	Language	❶ NOMINALIZATION	❷ SYLLABLE SUBTRACTION	Status of D-Preds
a.	Mandarin	✓	✗	Syntactic (phrasal)
b.	Cantonese	✗	✓	Morphological (word-like)
c.	?	✗	✗	None
d.	?	✓	✓	Syntactic / morphological

Table 1: The predicted typology of D-Preds

- **Fuzhounese** does not allow D-Preds with or without adnominal *ki* (=24) → lacks NOMINALIZATION
- AB-*wh*-AB forms are preferred over the subtracted A-*wh*-B forms (=25) → lacks SYLLABLE SUBTRACTION

(24) **Fuzhounese**: No syntactic D-Preds (unlike Mandarin): VO 留學 *lauoʔ*

- |  |  |
|--|--|
| a. * <b>lau</b> -lau    san-nien    ( <u>ki</u> )    oʔ<br>stay-PFV 3-year    KI    study<br>Int.: ‘studied abroad for three years.’ | b. <b>lauoʔ</b> -lau    san-nien<br>stay.study-PFV 3-year<br>‘studied abroad for three years.’ |
|--|--|

(25) **Fuzhounese**: No morphological D-Preds (like Cantonese): VV 裝修 *tsounsieu*

- |   |  |
|---|--|
| a. ?? <b>tsoun</b> sieʔnoʔ <b>sieu</b><br>furnish what    furnish<br>‘Why do you furnish (it)?’ | b. <b>tsounsieu</b> sieʔnoʔ <b>tsounsieu</b><br>furnish    what    furnish<br>‘Why do you furnish (it)?’ |
|---|--|

- **Jing-le Jin**, on the other hand, allows Nominalization in D-Preds but only for VO-compounds, but not non-VO D-Preds (=26). → patterning with Mandarin’s NOMINALIZATION
- A-one-AB is possible, but not AB-one-AB. → Monosyllabic preference due to SYLLABLE SUBTRACTION

(26) **Jing-le Jin**: Both syntactic and morphological D-Preds are attested (with different compounds)

- |   |  |
|---|--|
| a. <b>liu</b> -lau    san-xui    tə <b>iaŋ</b> .<br>stay-PFV 3-times MOD oversea<br>‘studied abroad for three times.’ | Syntactic D-Preds (VO compound 留洋 <i>liuiaŋ</i> )    |
| b. <b>lu</b> -lau    si-xui    (*tə) <b>iu</b> .<br>travel-PFV 4-times MOD travel<br>‘traveled for four times’        | Morphological D-Preds (VV compound 旅遊 <i>liuiu</i> ) |

- The typology is summarized in the table below:

	Language	❶ NOMINALIZATION	❷ SYLLABLE SUBTRACTION	Status of D-Preds
a.	Mandarin, ...	✓	✗	Syntactic (phrasal)
b.	Cantonese, ...	✗	✓	Morphological (word-like)
c.	Fuzhounese, ...	✗	✗	None
d.	Jing-le Jin, ...	✓	✓	Syntactic / Morphological

Table 2: The typology of D-Preds



## 6 Conclusion

- **Summary:** There are **significant variations** in discontinuous predicates among Sinitic languages, despite surface similarities.
  - Two types of D-Preds: *syntactic* (like VO phrases) vs. *morphological* (like words/discontinuous heads)
  - Two sources of discontinuity:
    - by ❶ syntactic **NOMINALIZATION** vs. ❷ morphophonological **SYLLABLE SUBTRACTION**
  - A parametric theory: **correlated variations** in *gerundive nominals* and *monosyllabic preference* by ❶-❷
- **Implications**
  - ❶ Separation/discontinuity may have multiple sources in **different modules** of the grammar (syntax vs. PF)
  - ❷ It should **not** be taken for granted that a given construction is uniform across Sinitic languages
    - More attention should be paid to constructions with superficially similar word order
  - ❸ Some variations are systematic and **micro-parametric** in nature. (Tang 1998, 2006; Huang 2015; cf. Kayne 2005)

### • Prospects and our next steps

- A full examination on gerundive nominals and monosyllabic preference in Fuzhounese and Jing-le Jin
- Extension to other Sinitic languages; preliminary findings:
  - a. Mandarin-type: Ganzhou Hakka, Nanchang Gan (?), ...
  - b. Cantonese-type: Shantou and Shanwei Southern Min, ...
  - c. Fuzhounese-type: Shanghainese, Huzhou Wu, Jiaxing Wu, ...
  - d. Jing-le Jin-type: ... (to be investigated)

## 7 Appendix: the syntactic status of D-Preds

### (27) Syntactic tests to distinguish D-Preds from VO phrases

[D-Preds A ... B] vs. [VP V ... NP<sub>Obj</sub>]

- a. Examining whether the second syllable has nominal objecthood
- b. Examining whether the first syllable has full-fledged verbhood
- c. Examining whether the whole D-Preds behave like a VO phrase and fail to take another object

### 7.1 The second syllable and its nominal properties

#### 7.1.1 Adnominal modification

#### (28) The second syllable resists adnominal modification

- (i) \*Individual classifiers: \*A-X CL -B
- (ii) \*Numerals: \*A-X NUM -B
- (iii) \*Adnominal modification marker *ge*: \*A-X MOD -B

First, while nominal objects in VO phrases can be preceded by individual classifiers (=29), the second syllable *lou 1* of the discontinuous predicate *fei 4 lou 1* 'fail' in (30).

#### (29) VO phrases: <sup>OK</sup>Individual classifiers

佢睇咗三本書

keoi tai-zo saam bun syu  
3SG watch-PERF three CL book  
'He read three books.'

#### (30) Discontinuous predicates: \*Individual classifiers

\*佢肥咗三個佬

\*keoi fei-zo saam go lou  
3SG fail-PERF three CL fail  
Int.: 'He made three failures.'

Second, direct modification by numerals is allowed in some VO phrases with a cognate object (unlike a thematic object). However, it is disallowed in discontinuous predicates, as shown in (32), speaking against the possibility that the second syllable is a cognate object.

- (31) V + cognate object: <sup>OK</sup>Numerals  
 佢瞓咗一覺  
 keoi fan-zo jat gaau  
 3SG sleep-PERF one nap  
 'He took a nap.'
- (32) Discontinuous predicate: \*Numerals  
 \*佢sor咗一ry  
 \*keoi so-zo jat wi  
 3SG sorry-PERF one sorry  
 Int.: 'He (said) sorry once.'

Third, a duration or frequency phrase may optionally combine with the adnominal modification marker *ge3* to modify the event denoted by the VP in a pre-object position (Soh 1998; Huang, Li, and Li 2009), as shown in (33a) and (33b). Semantically, the duration/frequency phrase does not modify the object, but the presence of *ge3* is suggestive of a nominal structure in these sentences (Huang 1997; Tang 2008).

- (33) Adnominal modification marker *ge3* (VO phrases)
- a. 佢睇咗成十幾次(嘅)戲喇  
 keoi tai-zo [seng sapgei-ci (ge)] hei laa (thematic objects)  
 3SG watch-PERF as.much.as ten.several-time MOD movie SFP  
 'He has watched movies for a dozen times.'
- b. 佢瞓咗幾日嘅覺喇  
 keoi fan-zo [gei-jat (ge)] gaau laa3 wo3 (cognate objects)  
 3SG sleep-PERF several-day MOD nap SFP SFP  
 'He has been sleeping for several days.'

However, this contrasts with discontinuous predicate. For example, *ge3* cannot be present in (34), suggesting the incompatibility of the second syllable with *ge3*.

- (34) Ban on adnominal modification marker *ge3* (discontinuous predicates)  
 我都搵人裝過幾次(\*嘅)修  
 ngo5 dou1 wan2 jan4 zong1-gwo3 [gei2 ci3 (\*ge3)] -sau1 (Forum; with *ge3* added)  
 1SG also find person furnish-EXP several time MOD furnish  
 'I also found people to furnish for several times.'

### 7.1.2 A-movement

- (35) The second syllable resists A-movement  
 (i) \*Object fronting: \*[<sub>VP</sub> -B ... A-x -B];  
 (ii) \*Passivization: \*-B ... [<sub>TP</sub> ... A-x -B]

First, (36) shows that the object in a VO phrase may be preposed to a *vP*-internal position in a disposal construction marked by *zoeng1* (cf. Mandarin *ba*-constructions, Huang, Li, and Li 2009).

- (36) VO phrases: <sup>OK</sup>Object fronting  
 佢將(本)小說出咗喺網上面  
 keoi5 [<sub>VP</sub> [zoeng1 (bun2) siu2syut3] ceot1-zo2 siu2syut3 hai2 mong5 soeng6min6]  
 3SG DISP CL novel release-PERF at Internet above  
 'S/he released the book online.'

This contrasts with the second syllable in D-Preds *baan2* in (37), which cannot be fronted.

(37) Discontinuous predicates: \*Object fronting

\* 佢將(個)版出咗(喺網上面)

\* keoi5 [<sub>VP</sub> [zoeng1 (go3) -**baan2**] **ceot1**-zo2-~~baan2~~ (hai2 mong5 soeng6min6)]

3SG DISP CL plate release-PFV at Internet above

Int: 'S/he published the book (lit. released the plate) online.'

Second, the object in a VO phrase may be passivized and move to the subject position of the passive verb *bei2* (cf. the raising analysis in Huang 2013), as in (38). However, passivization cannot target the second syllable *baan2* in (39).

(38) VO phrases: <sup>OK</sup>Passivization

只係(塊)板畀人拆咗啫

zi2hai6 [(faai3) **baan2**] bei2 [<sub>TP</sub> jan4 **caak3**-zo2 ~~baan2~~] ze1

only CL plate PSV person dismantle-PFV SFP

'It's just that the plate got dismantled.'

(39) Discontinuous predicates: \*Passivization

\* 只係(塊/個)版畀人出咗啫

\* zi2hai6 [(faai3/go3) -**baan2**] bei2 [<sub>TP</sub> jan4 **ceot1**-zo2-~~baan2~~] ze1

only CL plate PSV person release-PFV SFP

Int.: 'It's just that the book got publish (lit. the plate got released).'

7.1.3 A'-movement targeting NPs/DPs(40) The second syllable resists A'-movement (that target nominals)(i) \**Dak*-focus constructions: \*[<sub>FocP</sub> ONLY-**B** ... **A-x** -~~B~~];(ii) \*Object relativization: \*[<sub>RC</sub> ... **A-x** -~~B~~ ... ] MOD -**B**

First, the adfocus *dak* 'only' triggers focus movement of a nominal to the left periphery (cf. Cheung 2015; Sun 2021), such as in (41a), but not verbal elements, as shown in (41b).<sup>4</sup>

(41) VO phrases: <sup>OK</sup>*Dak*-focus constructions (targeting nominal objects)

a. 得魚阿明冇食過咗

[<sub>FocP</sub> dak [<sub>NP</sub> **jy**u] [ Aaming mou **sik**-gwo ~~jy~~ zaa ]]

(nominal objects)

ONLY fish Aaming not.PFV eat SFP

'(It is) only fish that Aaming has never eaten (, but not something else).'

b. \* [<sub>FocP</sub> dak [<sub>V/VP</sub> **maai** (**jy**u)] [ Aaming m-soeng ~~maai~~ (~~jy~~) zaa ]]

(verbal elements)

ONLY buy fish Aaming not-buy SFP

Int.: '(It is) only buying/buying fish that Aaming does not want (, but not something else).'

The second syllable of D-Preds, however, cannot be targeted for focus movement triggered by *dak*.<sup>5</sup>

(42) Discontinuous predicates: \**Dak*-focus constructions

\* 得首阿明冇自過咗, 佢自過殺嘅

\* [<sub>FocP</sub> dak1 [-**sau2**] [ Aa3ming4 mou5 **zi6**-gwo3 -~~sau2~~] zaa3, keoi5 zi6-gwo3-saat3 ge3

only inform Ming not.PFV self-PFV SFP 3SG self-EXP-kill SFP

Int.: '(It is) only turning himself in that Ming never did. He did attempt suicide once.'

The object in a VO phrase can be relativized, but not the second syllable of D-Preds.

4. Even if the verb/VP in (41b) is doubled, the sentence is still ill-formed.

5. The sentence in (42) is constructed such that it favors an exclusive focus reading on the second syllable of discontinuous MV compound *zi6sau6* 'confess, (lit.) self + inform.' The second syllable *sau6* is intended to contrast with *saat3* in *zi6saat3* 'suicide, (lit.) self + kill'.

- (43) V + cognate object:
- <sup>OK</sup>
- Object relativization

[佢瞓] 嘅覺係不同凡響地長

[<sub>RC</sub> keoi **fan** ~~gaau~~ ge [**gaau**] hai battungfaanhoeng-dei coeng  
3SG sleep MOD nap be extraordinary-ly long

(Social media)

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

- (44) Discontinuous predicates: \*Object relativization

\*[依家小緊] 嘅息係不同凡響地長

\*[<sub>RC</sub> ji1gaa1 **siu2-gan2-sik1**] ge3 [-**sik1**] hai6 bat1tung4faan4hoeng2-dei6 coeng4  
now small-PROG MOD rest be extraordinary-ly long

Int.: 'The break that we're having now is extraordinarily long.'

- (45) Generalization on the syntactic properties of the second syllable

The second syllable of a discontinuous predicate cannot be preceded by an adnominal element or take part in constructions that target objects and/or nominal phrases.

Unlike Cantonese, the second syllable of discontinuous predicates in Mandarin exhibits **nominal properties**:

- (46)
- Nominal properties of the second syllable

(Mandarin, Pan and Ye 2015:308-309)

- a. ✓
- Nominal modification**

告他一狀

**gao** ta yi **zhuang**

report 3SG one report

'Report him/her'

- b. ✓
- Relativization**

幫[別人不願意幫]的忙

bang [bieren bu yuanyi **bang**] de **mang**

help others not willing help MOD help

'Do a favor that no ones want to do'

- c. ✓
- Object fronting**

我把[這三天的忙]幫完了

Wo ba [zhe san tian de **mang**] **bang** wan-le

1SG DISP this three day MOD help help finish-PERF

'I've already done a three-day favor (i.e. I've already helped you for three days).'

## 7.2 The first syllable and its verbal properties

*Lin* 'even' focus constructions can target a verb, rendering verb doubling (Cheng and Vicente 2013; Lee 2022, 2024).

- (47) 連[食]阿明都有\*(食)過呢碗飯

lin **sik** Aaming dou mou \*(**sik**)-gwo ni wun faaneven eat Aaming also NEG sik-EXP this CL<sub>bowl</sub> rice

'Aaming didn't even eat this bowl of rice.'

(cf. (??))

The first syllable in D-Preds cannot fronted and doubled.

- (48)
- Failure of *lin* 'even' verb doubling

- 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
- 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?)'

- (49) a. \*連自阿明都自埋首

\*lin **zi** A. dou mou **zi**-maai **-sau**

even confess A. also not.have confess-ADD confess

'Aaming didn't even confess (his crime).'

- 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?)'

As a novel observation, the first syllable of discontinuous predicates in Mandarin displays **verbal properties** and can be fronted and doubled alone, different from Cantonese.

(50) Verbal properties of the first syllable

(Mandarin)

- a. 連幫，張三都沒有幫這個忙！  
Lian **bang**, Zhangsan dou meiyou **bang** zhe ge **mang**!  
even help Zhangsan also not help this CL help  
'Zhangsan even didn't help me for this! (Not to say giving me gifts.)'
- b. 連告，他都沒有告你一狀！  
Lian **gao**, ta dou meiyou **gao** ni yi **zhuang**!  
even report 3SG also not report you one report  
'Zhangsan even didn't report you! (He holds no grudge.)'

### 7.3 Object-taking ability

If D-Preds were VO phrases in Cantonese, we expect it **not** to take another object, contrary to facts.

(51) D-Preds taking postverbal objects in Cantonese

- a. 放翻大[啲人偶]  
Fong-faan daai [di janngau]  
enlarge-again enlarge CL.PL doll  
'enlarge the dolls again'  
(Yip, Lee, and Chan 2021:98, from Internet)
- b. ?佢影咗印[呢份野]喇  
?keoi jing<zo>jan [nei fan je] laa  
3SG photocopy<PERF> this CL thing SFP  
'He made a photocopy of this document.'

(52) D-Preds taking preposed objects in Cantonese

- a. 佢將[呢份野]影咗印喇  
keoi zoeng [nei fan je] jing<zo>**jan** laa  
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  
3SG even this CL thing also photocopy<also> SFP  
'He even made a photocopy of this document.'

(53) True VO phrases cannot have an extra preposed object

- a. \*佢將[呢齣戲]睇咗戲喇  
\*keoi zoeng [nei ceot hei] tai-zo **hei** laa  
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  
3SG even this CL movie also watch-also movie SFP  
Int.: 'He even watched this movie.'

In contrast, D-Preds in Mandarin are primarily intransitive verbs, which Pan and Ye (2015) attributes to the cognate object analysis. Interestingly, D-Preds still take a thematic object as a *genitive* argument.

(54) D-Preds in Mandarin cannot take a postverbal object

- a. \*告狀 [小顧]。  
\*Gaozhuang [Xiaogu].  
report Xiaogu  
Int.: 'Report Xiaogu.'
- b. 那人威脅要告[小顧]的狀。  
Na ren weixie yao gao [Xiaogu] de zhuang.  
that person threaten will report Xiaogu DE report  
'That person threatens to report Xiaogu.'

## References

- Chan, Sheila Shu-Laam, and Lawrence Yam-Leung Cheung. 2020. "Morpho-Syntax of Non-VO Separable Compound Verbs in Cantonese." *Studies in Chinese Linguistics* 41 (2).
- Chao, Yuen Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.
- Cheng, Lisa Lai-Shen, and Luis Vicente. 2013. "Verb doubling in Mandarin Chinese." *Journal of East Asian Linguistics* 22 (1): 1–37.
- Cheung, Candice Chi-Hang. 2015. "On the Fine Structure of the Left Periphery." In *The Cartography of Chinese Syntax*, edited by Wei-Tien Dylan Tsai, 75–130. Oxford: Oxford University Press.
- Fanselow, Gisbert, and Damir Čavar. 2002. "Distributed Deletion." In *Theoretical Approaches to Universals*, edited by Artemis Alexiadou, 65–107. John Benjamins Publishing Company.
- Guo, Rui. 2017. "The mechanism for the formation of separable words and incompletable words: and the mechanism for the formation of pseudo-attributives." *Yuyan Kexue (Language Science)* 16 (3): 225–249.
- Huang, C.-T. James. 1984. "Phrase structure, lexical integrity, and Chinese compounds." *Journal of the Chinese Language Teachers Association* 19 (2): 53–78.
- . 1997. "On lexical structure and syntactic projection." *Chinese Language and Linguistics* 3:45–89.
- . 2008. "On *Ta de laoshi dangde hao* and related problems." *Linguistic Sciences*, no. 3, 225–241.
- . 2013. "Variations in non-canonical passives." In *Non-canonical Passives*, edited by Artemis Alexiadou and Florian Schäfer, 95–114. John Benjamins.
- . 2015. "On Syntactic Analyticity and Parametric Theory." In *Chinese Syntax in a Cross-Linguistic Perspective*, edited by Yen-Hui Audrey Li, Andrew Simpson, and Wei-Tien Dylan Tsai, 1–48. Oxford: Oxford University Press.
- Huang, C.-T. James, Yen-Hui Audrey Li, and Yafei Li. 2009. *The syntax of Chinese*. Cambridge, MA: Cambridge University Press.
- Jiang, Dejun. 2017. "Comparative description and statistical analysis of the separable words in the *Modern Chinese Dictionary*." *Journal of Inner Mongolia University (Philosophy and Social Sciences)* 49 (3): 106–112.
- Kayne, Richard S. 2005. *Movement and silence*. Oxford: Oxford University Press.
- Kwong, Oi Yee, and Benjamin K. Tsou. 2003. "A synchronous corpus-based study of verb-noun fluidity in Chinese." In *Proceedings of the 17th Pacific Asia Conference on Language, Information and Computation*, 194–203.
- Lee, Tommy Tsz-Ming. 2022. "Towards the unity of movement: implications from verb movement in Cantonese." PhD diss., University of Southern California.
- . 2024. *The Unity of Movement: Evidence from verb movement in Cantonese*. Amsterdam and Philadelphia: John Benjamins Publishing.
- Lee, Tommy Tsz-Ming, and Ka-Fai Yip. 2024. "Separable verbs in Cantonese." In *The Routledge Handbook of Cantonese Linguistics*, To appear.
- . 2025. "Partial Deletion on head chains: Discontinuous predicates in Cantonese." Ms. City University of Hong Kong and Yale University.
- Li, David C.S., Cathy S.P. Wong, Wai Mun Leung, and Sam T.S. Wong. 2016. "Facilitation of transference: The case of monosyllabic salience in Hong Kong Cantonese." *Linguistics* 54 (1): 1–58.
- Luke, Kang-kwong, and Chaak-ming Lau. 2008. "On loanword truncation in Cantonese." *Journal of East Asian Linguistics* 17 (4): 347–362.
- Packard, Jerome Lee. 2000. *The Morphology of Chinese : A Linguistic and Cognitive Approach*. Cambridge: Cambridge University Press.
- Pan, Haihua, and Kuang Ye. 2015. "Separable words and cognate objects in Mandarin Chinese." *Dangdai Yuyanxue [Contemporary Linguistics]* 17 (3): 304–317.
- Soh, Hooi Ling. 1998. "Object scrambling in Chinese." PhD diss., Massachusetts Institute of Technology.
- Sun, Yenan. 2021. "A bipartite analysis of *zhiyou* 'only' in Mandarin Chinese." *Journal of East Asian Linguistics* 30:319–355.
- Tang, Sze-Wing. 1998. "Parametrization of features in syntax." PhD diss., University of California, Irvine.
- . 2006. "A parametric approach to the typology of subtopics in Chinese dialects." *Linguistic Sciences* 5 (6): 3–11.
- . 2008. "On 'syntax-semantics mismatches' and a parametric analysis of nominalization." *Hanyu Xuebao (Chinese Linguistics)* 24 (4): 72–79.
- . 2009. "*Ta-de laoshi dang-de hao* and nominalization in Chinese dialects." *Linguistic Sciences* 8 (3): 239–247.
- . 2011. "On gerundive nominalization in Mandarin and Cantonese." In *Nominalization in Asian Languages: Diachronic and Typological Perspectives*, edited by Foong Ha Yap, Karen Grunow-Harsta, and Janick Wrona, 147–160. Amsterdam and Philadelphia: John Benjamins Publishing Company.
- Tsai, Wei-Tien Dylan. 2021. "On applicative Why-questions in Chinese." In *Why is 'Why' Unique?*, edited by Gabriela Soare, 197–218. Berlin: De Gruyter Mouton.
- Yao, Yibing. 2011. "The statistical study and applicative analysis of the separation forms of separable verbs." Master's thesis, Quzhou Normal University.
- Yip, Ka-Fai, Tommy Tsz-Ming Lee, and Sheila Shu-Laam Chan. 2021. "Deriving separable verbs in Cantonese." In *Buckeye East Asian Linguistics*, vol. 5, edited by Wei William Zhou, John Bundschuh, Mineharu Nakayama, and Zhiguo Xie, 94–104. Ohio State University.