

Finiteness distinction, again and again, in languages without finiteness marking*

Yuyang Liu
Yale University

1 Introduction

Is there a finiteness distinction (a.m.o.: Chomsky 1973, 1981, Baker 2003, Cinque 2004) in Chinese languages, which lack overt finiteness marking? Our answers are:

- Yes, there is.
(See C.-T. J. Huang 1982, 1989, 1998, 2022, Y.-H. A. Li 1985, 1990, Sybesma 2007, 2019, Lin 2011, 2015, Zhang 2016, 2019, Grano 2017, N. Huang 2018, 2024, He 2020, 2024, D. Li 2024.)
- The finiteness distinction is manifested as a hierarchy of clause sizes (1).
(See Grano 2014, N. Huang 2018, C.-T. J. Huang 2022.)
- The lower bound is vP, containing AspP_{inner} but lacking AspP_{outer}.

(1) *Verb complement clause sizes in Chinese languages*

- a. V [CP ... [TP ... [AspP_{outer} ... [vP ... [AspP_{inner} ... [VP ...]]]]] *type I (finite)*
- b. V [TP ... [AspP_{outer} ... [vP ... [AspP_{inner} ... [VP ...]]]] *type II (nonfinite w/o Asp-restructuring)*
- c. V [vP ... [AspP_{inner} ... [VP ...]]] *type III (nonfinite w/ Asp-restructuring)*

This gradient structural view is consistent with the *implicational complementation hierarchy* (ICH) (Wurmbrand & Lohninger 2023; cf. Givón 1980):

(2) *Wurmbrand & Lohninger's (2023) implicational complementation hierarchy*

MOST INDEPENDENT		LEAST INDEPENDENT
LEAST TRANSPARENT	proposition > situation > event	MOST TRANSPARENT
LEAST INTEGRATED		MOST INTEGRATED

* This is joint work with my colleague and friend Ka-Fai Yip. A more complete version is available as a manuscript here: <https://ling.auf.net/lingbuzz/008780>. Earlier findings of this talk have been presented at the 22nd Workshop on Cantonese (WOC) and the 5th Buckeye East Asian Linguistics (BEAL) Forum and published in Liu & Yip 2023. We are very grateful to Ana Arregui, Rajesh Bhatt, Jonathan David Bobaljik, Fulang Chen, Michael Yoshitaka Erlewine, Valentine Hacquard, Cheng-Teh James Huang, Nick Huang, Tommy Tsz-Ming Lee, Dominique Sportiche, Sze-Wing Tang, Alexander Williams, Ting Xu, and the audience on the above occasions for invaluable feedback. For discussion and judgments of the data, we thank Fulang Chen, Zhuo Chen, Ge Gao, Lingxiao Gao, Minqi Liu, Yitong Luo, Yucheng Mo, Satoru Ozaki, Yixiao Song, Irene Yi, Sunhao Yu, Florence Zhang-Yukun & Zhenghao Zhou for Mandarin, and Ka Wing Chan, Sheila Shu-Laam Chan, Sibyl Chen, Man Shan Hui, Margaret Chui Yi Lee, Tommy Tsz-Ming Lee, Ka Hin Ng, Hugo Pau & Kam Pang Wong for Cantonese. All errors are our own.

Our argument relies on the exceptional scopal behavior of ‘again’-type elements in Chinese languages. Consider English *again* first (e.g., [Morgan 1969](#), [Bale 2007](#), [Smith & Yu 2022](#)):

- (3) a. John wants to [go to Hong Kong] again. ✓*want again*, ✓*go again*
 b. John again wants to [go to Hong Kong]. ✓*want again*, ✗*go again*

Mandarin *you* ‘again’ and Cantonese *-faan* ‘again’ behave differently from English *again*:¹

(4) *Mandarin preverbal ‘again’ skipping*

- a. HIGH PRONUNCIATION ... [‘again’ [V_{matrix} [V_{embedded} ... LOW INTERPRETATION
 {-----^}

- b. (*Tongxue*: *Tamen rang wo you xiangxin aiqing. [...] Xinan Daxue dikeyuan daxue-sheng Wang Jingkai, kandao liuchuan zai Renren Wang shang de hunli zhaopian hou, zhuanmen liuyan zhufu zhe dui xinren changchangjiujiu*: “Yinwei tamen, ...) [(Student: They let me again believe in love. [...]) Jingkai Wang, a student at the School of Earth Sciences of Southwest University, left a message wishing the couple a long and happy life together after seeing the wedding photos circulating on *Renren.com*: “Because of them, ...)]

- c. “**You** rang wo [xiangxin aiqing] le!”
 again let 1SG believe love PRF
 “[They] let me again believe in love!”
 Not: “[They] again let me believe in love!”

([Ifeng.com 2012](#))

(5) *Cantonese postverbal ‘again’ lowering*

- a. HIGH INTERPRETATION ... [V_{matrix} [V_{embedded}-‘again’ ... LOW PRONUNCIATION
 {-----^}

- b. (*Mei gitfan zicin jyunbun hai plan-zo jiu heoi jat zyun Ouzau~ dang matjyut lei-hang >< batgwo hou gwai aa3~~~ [...] [Can]cel-zo laa3~~~ Ngo m-sedak heoi aa3.... Batgwo...*)
 [(Before getting married, we originally planned to go around Australia~ as a honeymoon trip >< but it’s very expensive~~~ [...] We cancelled it~~~ I can’t bear to go But ...)]

- c. M-zi wui-m-wui zihau mau jat jat moulala (jau) soeng [heoi-**faan**].
 not-know will-not-will later some one day suddenly again want go-again
 ‘[I] don’t know if [I]’ll suddenly again want to go someday.’
 Not: ‘[I] don’t know if [I]’ll suddenly want to again go someday.’

([ESDlife WOW 2014](#), with *jau* made optional)

This behavior is NOT possible ...

- Across a finite clause boundary; or
- With other Chinese ‘again’-type elements like Mandarin *zai* or Cantonese *-gwo*.

¹ For disambiguation purposes, the free translations are not necessarily fully acceptable in English.

Given this dual asymmetry:

- We associate *you* and *-faan* with Asp_{outer} but *zai* and *-gwo* with Asp_{inner} .
- The association with Asp_{outer} derives the exceptional scopal behavior (6–7).

(6) a. *Exceptional narrow scope by movement and reconstruction*

$[AspP_{outer}$ *you* Asp_{outer} ... $[vP_{matrix}$... $[vP_{matrix}$... $[vP_{embedded}$ **t** V ...

b. *Exceptional wide scope by agreement*

$[AspP_{outer}$ Asp_{outer} ... $[vP_{matrix}$... $[vP_{matrix}$... $[vP_{embedded}$ V-*faan* ...

(7) a. *Intervention to movement to matrix $AspP_{outer}$ (intervener indicated by **shade**)*

* $[AspP_{outer}$ *you* Asp_{outer} ... $[vP_{matrix}$... $[vP_{matrix}$... $[TP_{embedded}$... **$[AspP_{outer}$ Asp_{outer}]** $[vP_{embedded}$ t V ...

b. *Intervention to agreement with matrix $AspP_{outer}$ (intervener indicated by **shade**)*

* $[AspP_{outer}$ Asp_{outer} ... $[vP_{matrix}$... $[vP_{matrix}$... $[TP_{embedded}$... **$[AspP_{outer}$ Asp_{outer}]** $[vP_{embedded}$ V-*faan* ...

Roadmap

- ii. Preverbal ‘again’ skipping in Mandarin
- iii. ‘Again’ skipping under a size-based approach to finiteness
- iv. Postverbal ‘again’ lowering in Cantonese
- v. Conclusion

2 Preverbal ‘again’ skipping in Mandarin

- This section establishes the dual asymmetry in Mandarin.
- We connect the asymmetry between *you* and *zai* with their independent properties.

2.1 Scopal behavior of *you* and *zai*

Liu (2021, 2024) and C.-T. J. Huang (2022) report that matrix *you* can take narrow scope, and this is not possible with *zai* as in (8).²

² The wide scope readings are possible in contexts like the one given below:

- (i) *Wide scope context*: ‘Again’ > ‘want’ > ‘go’
(Xiaoming loves traveling and is a big fan of Hong Kong. Last year, he wanted to go to Hong Kong.)

(8) *Narrow scope context: 'Want' > 'again' > 'go'*

(Yesterday, Xiaoming took a business trip to Hong Kong for work, despite not wanting to travel, as he was compelled by his boss. Unfortunately, he did not complete the work before returning. Today, ...)

- a. (Worried about getting fired for not finishing the work, he wants to go back to Hong Kong again to finish it.)

Xiaoming **you** xiang [qu (yi ci) Xianggang] (le). you: ✓ *skipping*

Xiaoming again want go one time Hong.Kong PRF

Narrow scope: 'Xiaoming wants to again go to Hong Kong (once).'

#Wide scope: 'Xiaoming again wants to go to Hong Kong (once).'

- b. (It is thought that he will want to go back to Hong Kong again to finish it.)

#Xiaoming hui **zai** xiang [qu (yi ci) Xianggang]. zai: ✗ *skipping*

Xiaoming will again want go one time Hong.Kong

*Narrow scope: 'Xiaoming will want to again go to Hong Kong (once).'

#Wide scope: 'Xiaoming will again want to go to Hong Kong (once).'

(9) *Narrow scope context: 'Plan' > 'again' > 'go'*

(The context is the same as in (8).)

- a. (Worried about getting fired for not finishing the work, he plans to go back to Hong Kong again to finish it.)

Xiaoming **you** dasuan [qu (yi ci) Xianggang] (le). you: ✓ *skipping*

Xiaoming again plan go one time Hong.Kong PRF

Narrow scope: 'Xiaoming plans to again go to Hong Kong (once).'

#Wide scope: 'Xiaoming again plans to go to Hong Kong (once).'

- b. (It is thought that he will plan to go back to Hong Kong again to finish it.)

#Xiaoming hui **zai** dasuan [qu (yi ci) Xianggang]. zai: ✗ *skipping*

Xiaoming will again plan go one time Hong.Kong

*Narrow scope: 'Xiaoming will plan to again go to Hong Kong (once).'

#Wide scope: 'Xiaoming will again plan to go to Hong Kong (once).'

Examples (8-9) lead to (10).³

³ It is possible for *you* to "skip" across multiple nonfinite boundaries:

(i) *Narrow scope context: 'Try' > 'let' > 'again' > 'believe'*

(Xiaoming is a good friend of mine. He knows that I had been a true believer of love, until I recently broke up with my partner. Trying to cheer me up, he recommended a famous romance TV series to me, hoping that it will make me believe in love again. He has never done anything like this before.)

Xiaoming **you** shefa [rang wo [xiangxin aiqing]] (le).

Xiaoming again try let 1SG believe love PRF

Narrow scope: 'Xiaoming tried to let me again believe in love.'

#Intermediate scope: 'Xiaoming tried to again let me believe in love.'

#Wide scope: 'Xiaoming again tried to let me believe in love.'

(10) *Generalization I*

The exceptional scopal behavior of ‘again’ is found with **you** but not with **zai**.

Finite clause-taking predicates disallow for **you** to “skip” scope:

(11) *Narrow scope context: ‘Believe’ > ‘again’ > ‘appear’*

(Initially, during the 2003 SARS outbreak, Xiaoming did not believe in the existence of coronavirus, thinking that it was just a flu. After the outbreak, there were no reported cases of coronavirus until the COVID-19 outbreak in 2019. Miraculously, by that time, Xiaoming had become an epidemiologist and collected a sample containing the COVID-19 virus, which led him to come to believe that coronavirus had appeared before, and it had appeared again.)

(Notationally:

Xiaoming’s belief state in 2003 = {✗coronavirus in 2003};

Xiaoming’s belief state in 2019 = {✓coronavirus in 2003, ✓coronavirus in 2019}.)

a. #Xiaoming **you** xiangxin [chuxian-le guanzhuangbingdu]. *matrix you: #*

Xiaoming again believe appear-PFV coronavirus

*Narrow scope: ‘Xiaoming believes that coronavirus again appeared.’

#Wide scope: ‘Xiaoming again believes that coronavirus appeared.’

b. Xiaoming xiangxin [**you** chuxian-le guanzhuangbingdu]. *embedded you: OK*

Xiaoming believe again appear-PFV coronavirus

Narrow scope: ‘Xiaoming believes that coronavirus again appeared.’

A fuller list of predicates that (dis)allow **you** skipping is below:

(12) *Nonfinite clause-taking predicates: ✓You skipping*

bi(po) ‘force’, *changshi* ‘try’, *dasuan* ‘plan’, *jihua* ‘plan’, *jueding* ‘decide’, *mingling* ‘order’, *quan(shuo)* ‘urge’, *rang* ‘let’, *shefa* ‘try’, *tingzhi* ‘stop’, *tiyi* ‘propose’, *tuijian* ‘recommend’, *weixie* ‘threaten’, *xiang(yao)* ‘want’, *xuanze* ‘choose’, *zhunbei* ‘prepare’, etc. (Liu 2024: 215, adapted)

Here are some example contexts where the other readings are possible:

(ii) a. *Intermediate scope context: ‘Try’ > ‘again’ > ‘let’ > ‘believe’*

(Xiaoming is a good friend of mine. Before we met, he and his girlfriend were a legendary couple at our school, known for their touching love story. It was so moving that it made me believe in love. I haven’t been as lucky: I never found my true love and eventually lost faith in it. That changed when Xiaoming and I became friends. He shared more stories about his relationship, and through them, he’s been trying to restore my belief in love.)

b. *Wide scope context: ‘Again’ > ‘try’ > ‘let’ > ‘believe’*

(I despise love and find it impossible to believe in it, but my friend Xiaoming is determined to change my mind. He never stops trying!)

- (13) *Finite clause-taking predicates: ✗You skipping faxian ‘discover’, founen ‘deny’, gaosu ‘tell’, huaiyi ‘suspect’, queren ‘confirm’, renwei ‘think’, shengming ‘declare’, shuo ‘say’, xiangxin ‘believe’, zhidao ‘know’, etc.*
(Liu 2024: 215)

Examples (8-13) lead to (14).

- (14) *Generalization II*
The exceptional scopal behavior of ‘again’ can cross **nonfinite** but not **finite** clause boundaries.

2.2 Structural differences between *you* and *zai*

Lin & Liu (2009) observes that *you* cannot embed under some nonfinite clause-taking predicates like *keyi* ‘be permitted’ and *xiang* ‘want’, but *zai* can:

- (15) Xiaoming keyi /xiang [**zai** /***you** qu Xianggang].
Xiaoming be.permitted want again again go Hong.Kong
(Intended:) ‘Xiaoming is permitted/wants to again go to Hong Kong.’

- They account for this contrast using a *dynamicity* ([±D]) aspect feature (Shen 2004).
- A [+D] Asp^o requires that the predicate be an accomplishment/achievement/activity under Vendler’s (1957) classification.
- *You* but not *zai* must be licensed by the closest [+D] Asp^o.

Other nonfinite clause-taking predicates like *rang* ‘let’ do not show this distinction:

- (16) Zhe bu ju rang wo [**you** /**zai** (yi ci) xiangxin-le aiqing].
this CLF series let 1SG again again one time believe-PFV love
‘This series let me again believe in love.’

For completeness, finite clause-taking predicates can also embed both:

- (17) Xiaoming xiangxin [**you** /**zai** chuxian-le guanzhuangbingdu].
Xiaoming believe again again appear-PFV coronavirus
‘Xiaoming believes that there again appeared coronavirus.’

Whether a clause-taking predicate can embed *you* correlates with whether it can embed the perfective suffix *-le* (interpreted in the embedded clause):

- (18) *Xiaoming keyi /xiang [qu-le Xianggang].
Xiaoming be.permitted want go-PFV Hong.Kong
Intended: ‘Xiaoming is permitted/wants to have gone to Hong Kong.’

A fuller list is provided in table 1, and (15) gives us (19).

	Predicates	Finiteness	Dynamic aspect	Embedded <i>you</i>
a.	<i>dasuan</i> ‘plan’, <i>jueding</i> ‘decide’, <i>tingzhi</i> ‘stop’, <i>tiyi</i> ‘propose’, <i>tuijian</i> ‘recommend’, <i>weixie</i> ‘threaten’, <i>xiang(yao)</i> ‘want’, <i>zhunbei</i> ‘prepare’	nonfinite	✗	✗
b.	<i>bi(po)</i> ‘force’, <i>changshi/shefa</i> ‘try’, <i>mingling</i> ‘order’, <i>quan(shuo)</i> ‘urge’, <i>rang</i> ‘let’, <i>xuanze</i> ‘choose’	nonfinite	✓	✓
c.	<i>faxian</i> ‘discover’, <i>fouren</i> ‘deny’, <i>gaosu</i> ‘tell’, <i>huaiyi</i> ‘suspect’, <i>queren</i> ‘confirm’, <i>renwei</i> ‘think’, <i>shengming</i> ‘declare’, <i>shuo</i> ‘say’, <i>xiangxin</i> ‘believe’, <i>zhidao</i> ‘know’	finite	✓	✓

Table 1 Clause-taking predicates and their compatibility with dynamic aspect and embedded *you*

(19) *Correlation I*

In Mandarin, an ‘again’-type element exhibits exceptional scopal behavior *iff* it cannot surface in an embedded nonfinite clause without a dynamic aspect.

Another contrast concerns whether *you* and *zai* are structurally higher than (outer) aspectual elements. First, while *you* can precede ‘already’ (20), *zai* must follow it (21).

- (20) Ta **you** /***zai** yijing shiqu-le zongying.
3SG again again already lose-PFV trace
(Intended:) ‘His trace is again already lost.’ (Facebook 2017, with *zai* added)

- (21) Danshi wo yijing **zai** zhao-le nanpengyou le.
but 3SG already again find-PFV boy.friend PRF
‘But I have already found a boyfriend again.’ (Baidu 2016)

Second, this pattern extends to the progressive marker (*zheng*)*zai* (22). It is only possible to place *zai* ‘again’ after (*zheng*)*zai* (23).

- (22) Wo jia de mao **you** /***zai** (zheng)*zai* gan guai shi le.
1SG house POSS cat again again PROG do weird thing PRF
(Intended:) ‘The cat in my house is doing weird things again.’
(Books.com.tw 2017, with *zai* ‘again’ added and *zhengzai* made optional)

- (23) Women zhengzai **zai** zou Riben ren de laolu me?
 1PL PROG again walk Japanese person POSS old.path Q
 ‘Are we again following the old path of the Japanese?’ (Obj.cc 2010)

Moreover, *you* and *zai* can co-occur, but in a fixed order. Only *you zai* but not *zai you* is acceptable (24).

- (24) a. **You zai** shang-le laotou yi wan jiu.
 again again give-PFV old.man one CLF wine
 ‘(He) again gave the old man a bowl of wine.’ (Ta Kung Pao 2025)
- b. ***Zai you** shang-le laotou yi wan jiu.
 again again give-PFV old.man one CLF wine

Examples (20–24) give us (25).

- (25) *Correlation II*
 An ‘again’-type element exhibits exceptional scopal behavior *iff* it is structurally higher than (outer) aspectual elements.

3 ‘Again’ skipping under a size-based approach to finiteness

We first take a detour and highlight how *aspect lowering* motivates a gradient notion of finiteness (with terms adopted from C.-T. J. Huang 2022: 22):

- (26) a. CPs are “the most finite” and the most opaque domain.
 b. TP_s are “somewhat infinitival” and a partially transparent domain.
 c. VP_s are “the most infinitival” and the most transparent domain.

3.1 Aspect lowering as diagnosis of nonfinite clause sizes

Aspect lowering refers to the scope mismatch where aspect suffixes like the experiential suffix *-guo*, when appearing in a nonfinite clause, take scope over the matrix predicate (Y.-H. A. Li 1985, 1990, C.-T. J. Huang 1989, 2022, Grano 2014, N. Huang 2018):

- (27) a. Lisi shefa [xiuli-guo zhe tai jiqi].
 Lisi try repair-EXP this CLF machine
 *Narrow scope: ‘Lisi tries to have repaired this machine.’
 Wide scope: ‘Lisi has tried to repair this machine.’ (N. Huang 2018: 351)
- b. Zhangsan (congqian) quan Lisi [jie-guo yan].
 Zhangsan before urge Lisi quit-EXP cigarette
 *Narrow scope: ‘Zhangsan urged Lisi to have quit smoking (before).’
 Wide scope: ‘Zhangsan has (before) urged Lisi to quit smoking.’
 (C.-T. J. Huang 2022: 32, with ‘before’ made optional)

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The interpretation is similar to placing *-guo* on the matrix predicate:

- (28) Zhangsan (congqian) quan-guo Lisi [jie yan].
Zhangsan before urge-EXP Lisi quit cigarette
'Zhangsan has (before) urged Lisi to quit smoking.'

The obligatory wide scope can be made more explicit by adding the progressive marker (*zheng*)*zai* in the matrix, which results in a conflict in aspectual meanings:

- (29) *Matrix progressive + embedded experiential* $\rightsquigarrow$ *matrix aspect clash*
*Zhangsan (zheng)*zai* quan Lisi [jie-guo yan].
Zhangsan PROG urge Lisi quit-EXP cigarette

We take the lack of actuality entailment to be a signal of aspect lowering, and vice versa. For example, finite clause-taking predicates do not allow aspect lowering:

- (30) Zhangsan shuo/xiangxin [Lisi (congqian) jie-guo yan].
Zhangsan say believe Lisi before quit-EXP cigarette
Narrow scope: 'Zhangsan says/believes that Lisi has quit smoking (before).'
- *Wide scope: 'Zhangsan has said/believed that Lisi quits smoking (before).'
- (C.-T. J. Huang 2022: 32, with 'believe' added)

With the presence of (i) the semicomplementizer *shuo* (cf. Ye 2025), (ii) the adverb *ye* 'also', or (iii) internal foci, aspect lowering becomes unavailable as well:

- (31) a. *Semicomplementizer shuo blocking aspect lowering*
*Lisi cengjing shefa [shuo zuo-guo zhe dao cai].
Lisi previously try COMP make-EXP this CLF dish
Intended: 'Lisi has previously tried to cook this dish.' (C.-T. J. Huang 2022: 49)
- b. *Adverb ye 'also' blocking aspect lowering*
*Lisi cengjing shefa [ye zuo-guo zhe dao cai].
Lisi previously try also make-EXP this CLF dish
Intended: 'Lisi has previously tried to also cook this dish.'
(C.-T. J. Huang 2022: 50)
- c. *Internal focus blocking aspect lowering*
*Zhangsan bi Lisi [lian weijifen dou xuan-guo].
Zhangsan force Lisi even calculus all choose-EXP
Intended: 'Zhangsan has forced Lisi to choose even calculus.'

3.2 Finiteness as a hierarchy of clause sizes

To capture the distribution of aspect lowering:

- We propose three types of complement clauses: CP > TP (> AspP) > vP.
(See He 2020, 2024, C.-T. J. Huang 2022, Wurmbrand & Lohninger 2023.)

- We assume functional sequencing.
(See Cinque 1999.)
- We assume a lexicalist approach to suffixation.
(See Chomsky 1970, 1993, Gu 1993, 1995, Huang, Li & Li 2009, Tang 2010, 2015.)
- We analyze aspect lowering as agreement across (nonfinite) clause boundaries (32).
(See Grano 2014, N. Huang 2018, C.-T. J. Huang 2022.)

(32) $[\text{AspP}_{\text{matrix}} \text{ Asp}_{[\text{EXP}]} [\text{vP}_{\text{matrix}} \text{ V} \dots [\text{vP}_{\text{embedded}} \text{ V-} \textit{guo}_{[\text{EXP}]} \dots]$ (N. Huang 2018: 360, with [EXP] added)

Against this background, (30–31) suggest (33–34).

(33) *Finite clauses like (30)*

* $[\text{AspP}_{\text{matrix}} \text{ Asp}_{[\text{EXP}]} \dots [\text{vP}_{\text{matrix}} \text{ V} \dots [\text{CP}_{\text{embedded}} \text{ C} \dots [\text{vP}_{\text{embedded}} \text{ V-} \textit{guo}_{[\text{EXP}]} \dots]$

(34) *Nonfinite clauses like (31)*

* $[\text{AspP}_{\text{matrix}} \text{ Asp}_{[\text{EXP}]} \dots [\text{vP}_{\text{matrix}} \text{ V} \dots [\text{TP}_{\text{embedded}} \text{ T} \dots [\text{vP}_{\text{embedded}} \text{ V-} \textit{guo}_{[\text{EXP}]} \dots]$

- Prior analyses derive (33–34) from the phasal head status of C^0 and from the intervening temporal features of T^0 .
(See N. Huang 2018, C.-T. J. Huang 2022.)
- We offer a unified analysis: (33–34) fall under (defective) intervention (35–36).
(See Chomsky 2000.)

Aspect lowering thus establishes a CP/TP vs. vP distinction.

(35) *Intervention effects*

a. $[\text{AspP}_{\text{matrix}} \text{ Asp}_{[\text{EXP}]} [\text{vP}_{\text{matrix}} \text{ V} \dots [\text{CP/TP}_{\text{embedded}} \dots [\text{AspP}_{\text{embedded}} \text{ Asp}_{[\text{EXP}]} [\text{vP}_{\text{embedded}} \text{ V-} \textit{guo}_{[\text{EXP}]} \dots]$

b. * $[\text{AspP}_{\text{matrix}} \text{ Asp}_{[\text{EXP}]} [\text{vP}_{\text{matrix}} \text{ V} \dots [\text{CP/TP}_{\text{embedded}} \dots [\text{AspP}_{\text{embedded}} \text{ Asp}_{[\text{EXP}]} [\text{vP}_{\text{embedded}} \text{ V-} \textit{guo}_{[\text{EXP}]} \dots]$

(36) *Defective intervention effects*

a. * $[\text{AspP}_{\text{matrix}} \text{ Asp}_{[\text{EXP}]} [\text{vP}_{\text{matrix}} \text{ V} \dots [\text{TP}_{\text{embedded}} \dots [\text{AspP}_{\text{embedded}} \text{ Asp}_{[-\text{D}]} [\text{vP}_{\text{embedded}} \text{ V-} \textit{guo}_{[\text{EXP}]} \dots]$

b. * $[\text{AspP}_{\text{matrix}} \text{ Asp}_{[\text{EXP}]} [\text{vP}_{\text{matrix}} \text{ V} \dots [\text{TP}_{\text{embedded}} \dots [\text{AspP}_{\text{embedded}} \text{ Asp}_{[-\text{D}]} [\text{vP}_{\text{embedded}} \text{ V-} \textit{guo}_{[\text{EXP}]} \dots]$

What about CP vs. TP/vP?

- Internal topicalization exemplifies a dependency that can cross TP/vP boundaries but not CP boundaries (37).

- External topicalization exemplifies a dependency that can cross CP/TP/vP boundaries (38).

(37) *Internal topicalization crossing nonfinite TPs but not finite CPs*

- a. *Wo [zhe pian baogao] xiangxin [_{CP} Lisi xie-wan-le t].
 1SG this CLF report believe Lisi write-finish-PFV
 Intended: ‘I believe that Lisi has already written this report.’
 (N. Huang 2018: 351)
- b. Lisi [zhe pian baogao] hui shefa [_{TP} (shuo) zai zhe zhou nei xie-wan t].
 Lisi this CLF report will try COMP at this week in write-finish
 ‘Lisi will try to finish writing this report this week.’
 (N. Huang 2018: 359)

(38) *External topicalization crossing finite CPs and nonfinite TPs*

- a. [Zhe pian baogao], wo xiangxin [_{CP} Lisi xie-wan-le t].
 this CLF report 1SG believe Lisi write-finish-PFV
 ‘This report, I believe that Lisi has already written.’
- b. [Zhe pian baogao], Lisi hui shefa [_{TP} (shuo) zai zhe zhou nei xie-wan t].
 this CLF report Lisi will try COMP at this week in write-finish
 ‘This report, Lisi will try to finish writing this week.’

3.3 Further specifications of predicate selection

We summarize the selectional constraints in table 2.

- *Xiang* ‘want’ represents a predicate that selects a vP or a TP with a [−D] AspP.
- *Rang* ‘let’ represents a predicate that selects a vP or a TP with a [±D] AspP.
- *Xiangxin* ‘believe’ represents a predicate that selects a CP.

	vP	TP with [−D] AspP	TP with [+D] AspP	CP
<i>Xiang</i> ‘want’	✓	✓	#	*
<i>Rang</i> ‘let’	✓	✓	✓	*
<i>Xiangxin</i> ‘believe’	*	*	*	✓

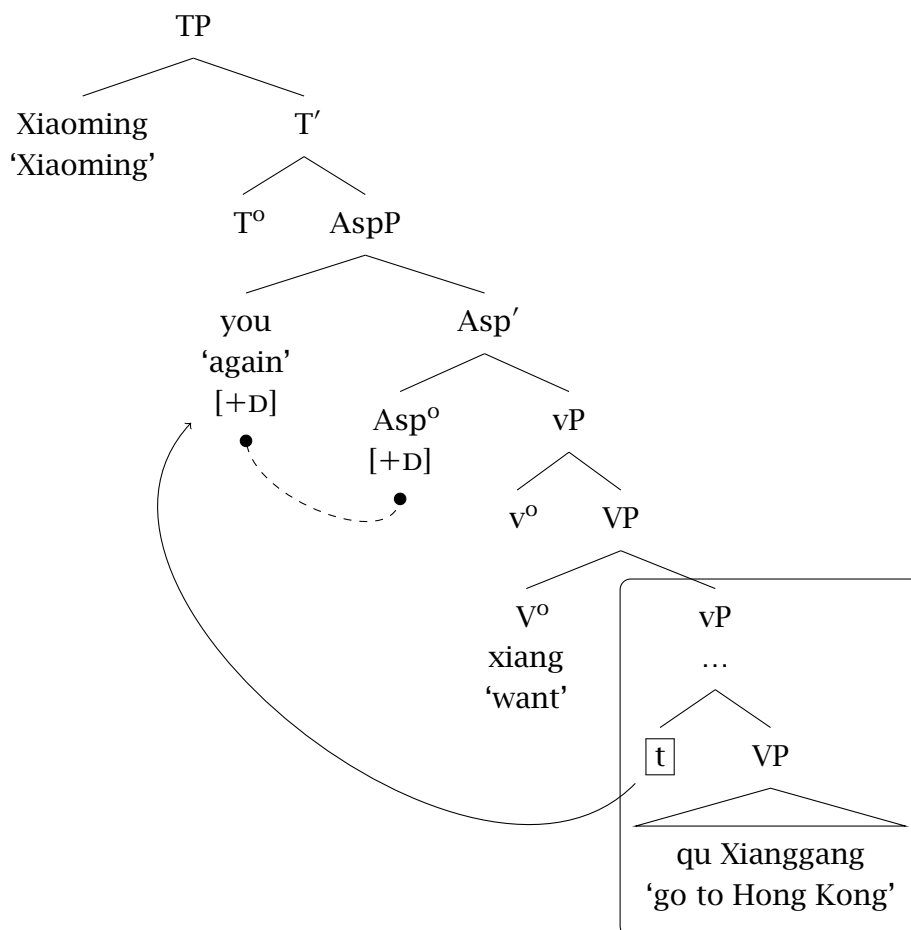
Table 2 Selectional constraints of different predicates in Mandarin

3.4 Deriving *you*’s exceptional scopal behavior

We suggest that both *you* and *zai* can be base-generated within the vP/VP level as adjuncts, but they surface in different positions (cf. Lin & Liu 2009).

- *You* associates with the (outer) AspP and moves there (39-40).
(See Xu 2012, 2016, Liu 2021, 2024.)
- *Zai* does not associate with the (outer) AspP and does not move there.

(39) *Embedded interpretation of you with a nonfinite clause-taking predicate*



(40) *Embedded interpretation of you with a finite clause-taking predicate*
(Intended:) '(Xiaoming) believes that there again appeared coronavirus.'

a. *Low pronunciation: OK*

[AspP_{matrix} ... [vP 'believe' [CP ... [AspP_{embedded} **you** Asp_[+D] [vP t 'coronavirus appeared']]]]]]

b. *High pronunciation: **

*[AspP_{matrix} **you** ... [vP 'believe' [CP ... [AspP_{embedded} Asp_[+D] [vP t 'coronavirus appeared']]]]]]

Our analysis predicts that (i) the semicomplementizer *shuo*, (ii) the adverb *ye* 'also', and (iii) internal foci block 'again' skipping. This prediction is borne out as in (41).

(41) *Semicomplementizer shuo blocking you skipping*

(The context is the same as back in (8).)

#Xiaoming **you** xiang [shuo qu Xianggang].

Xiaoming again want COMP go Hong.Kong

*Narrow scope: ‘Xiaoming wants to again go to Hong Kong.’

#Wide scope: ‘Xiaoming again wants to go to Hong Kong.’

The finiteness diagnostics discussed thus far are summarized in [table 3](#).

	Clause size	Aspect lowering	<i>You</i> skipping
Clause selected by ‘believe’/‘say’	CP	✗	✗
Semicomplementizer <i>shuo</i>	TP	✗	✗
Adverb <i>ye</i> ‘also’	TP	✗	✗
Internal focus	TP	✗	✗
None of the above	vP	✓	✓

Table 3 Finiteness diagnostics

4 Postverbal ‘again’ lowering in Cantonese

The upshot is that *-faan* lowering is just like aspect lowering. See the appendix for data. Here is a brief summary of the empirical foundation:

- ‘Again’ lowering is found with *-faan* but not with *-gwo*.
- ‘Again’ lowering can cross vP boundaries but not CP/TP boundaries.
- *-Faan* cannot co-occur with aspect suffixes like the perfective suffix *-zo*.
- *-Gwo* can co-occur with aspect suffixes, and when it does, it must precede them.

4.1 Phase complements

Phase complements (PCs) refer to suffixes expressing the phase/stage of an action ([Chao 1965](#)). They are structurally lower than aspect suffixes (cf. [Baker’s \(1985\)](#) Mirror Principle):

- (42) a. Women mai-diao-le fangzi. Mandarin
 1PL sell-PC-PFV house
 ‘We sold the house.’ (Sybesma 2017: 303, adapted)
- b. Keoi fan-zoek-zo. Cantonese
 3SG sleep-PC-PFV
 ‘She/he has slept.’ (Cheung 2007: 114)

We observe an asymmetry between *-faan* and *-gwo* in their compatibility with PCs. *-Faan* follows PCs, whereas *-gwo* cannot co-occur with PCs:

- (43) Jausi taai daaiseng zigei wui seng-jat-seng jau fan-zoek-**faan**.
 sometimes too loud self will wake-one-wake again sleep-PC-again
 ‘Sometimes [the snoring] is too loud, and [he] wakes up and falls asleep again.’
 (Baby Kingdom 2020)
- (44) a. *Bunje zaatseng soeng zoi fan-zoek-**gwo** /fan-**gwo**-zoek.
 midnight wake.up want again sleep-PC-again sleep-again-PC
 b. Bunje zaatseng soeng zoi fan-**gwo**. baseline
 midnight wake.up want again sleep-again
 ‘I woke up in the middle of the night and wanted to fall asleep again.’

The ordering of *-faan*, *-gwo*, and other postverbal elements is summarized in (45).

- (45) *Cantonese verb template*
 $\sqrt{V} < \{PC, -gwo\} < \{Asp \text{ suffix}, -faan\}$

4.2 Splitting aspect

Considering (45), we add the following ingredients:

- The Chinese clausal spine has more than one aspect projection.
 (See Gu 1993, 1995, Tsai 2008, Huang, Li & Li 2009, Sybesma 2017, Lu, Lipták & Sybesma 2019, Yip 2020, 2025, Tang 2022, Lee & Pan 2024.)
- *-Faan* agrees with Asp_{outer} (above vP), while *-gwo* agrees with Asp_{inner} (below vP).

Extending the split aspect approach to Mandarin, a question arises as to whether (i) *zai* can also associate with Asp_{inner} , or (ii) it always stays in vP/VP. Example (46) supports (i).

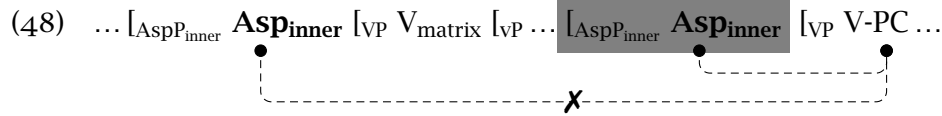
- (46) ‘Again’ > *achievement*
 (Markus Persson, the founder of Minecraft, is sharing his voidness after selling Minecraft to Microsoft.)
 Wo hai shi na ge reng hui **zai** mai-diao Minecraft de hundan eryi.
 1SG still COP that CLF still will again sell-PC Minecraft COMP bastard only
 ‘I’m still that bastard who’ll sell Minecraft again.’
 (iThome 2015)

The reading is that “I” will again achieve the selling of Minecraft, not that “I” will achieve the reselling of Minecraft. We therefore end up with the cartography below:

- (47) ... [Asp_{outer} (**you**) Asp_{outer} ... [vP ... [Asp_{inner} (**zai**) Asp_{inner} ... [VP V ...

With this cartography established, a prediction is that we shouldn’t be able to find PC lowering, as illustrated in (48).

Finiteness distinction, again and again, in languages without finiteness marking



This prediction is borne out:

(49) *Embedded PCs not taking wide scope*

- | | |
|--|--|
| <p>a. Wo (<u>zai</u>) bi(-<u>zhe</u>) ta chi-diao zhe wan fan.
 1SG PROG force-IPFV 3SG eat-PC this CLF rice
 ‘I urge/am urging him to eat up this bowl of rice.’
 Not: ‘I finished urging him to eat this bowl of rice.’</p> <p>b. Ngo (<u>haidou</u>) bik(-<u>gan</u>) keoi so-hou ni dou mun
 1SG PROG force-PROG 3SG lock-PC this CLF door
 ‘I force/am forcing him to lock the door properly.’
 Not: ‘I finished forcing him to lock the door.’</p> | <p><i>Mandarin</i></p> <p><i>Cantonese</i></p> |
|--|--|

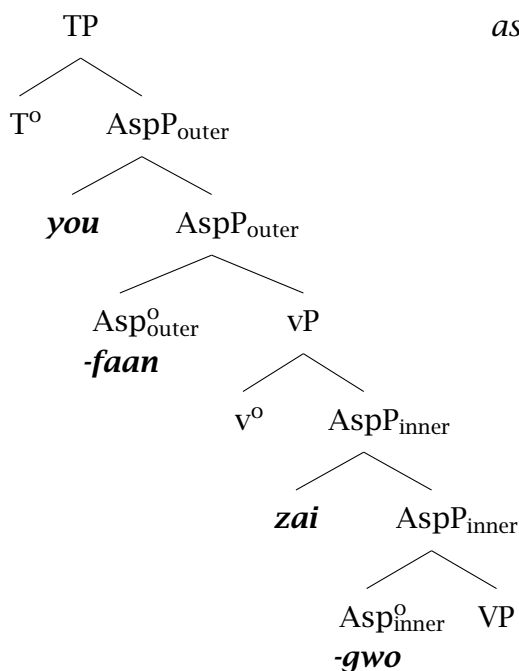
5 Conclusion

Takeaways

- See [table 4](#) for a summary of different complement clause sizes and their compatibility with aspectual elements and the exceptional scopal behavior of ‘again’-type elements.
- See (50) for the cartography of Chinese ‘again’-type elements.

		Asp lowering - <i>Faan</i> lowering	PC lowering - <i>Gwo</i> lowering	<i>You</i> skipping	<i>Zai</i> skipping
		Asp _{outer}	Asp _{inner}	Spec,AspP _{outer}	Spec,AspP _{inner}
‘Believe’/‘say’	CP	✗	✗	✗	✗
Semicomplementizer	TP	✗	✗	✗	✗
‘Also’	TP	✗	✗	✗	✗
Internal focus	TP	✗	✗	✗	✗
None of the above	vP	✓	✗	✓	✗

Table 4 Different clause sizes and their compatibility with aspectual elements and the exceptional scopal behavior of ‘again’-type elements

(50) *Cartography of Chinese ‘again’-type elements**associated positions, not base-generated positions*

A Appendix: Cantonese data

(51) *Embedded ‘again’ taking wide scope over ‘want’ in Cantonese*

(When Ming was a gangster, he always wanted to murder his maniac boss, though he never tried to. He no longer wanted so after he left the gang. Today, he met his boss on the street, who insulted and slapped him. Now, Ming is so angry that he wants to kill him again.)

a. Aaming soeng [deoilam-**faan** keoi daailou].

Ming want kill-again 3SG boss

#Narrow scope: ‘Ming wants to again kill his boss.’

Wide scope: ‘Ming again wants to kill his boss.’

#want > again

again > want

b. #Aaming soeng [deoilam-**gwo** keoi daailou].

Ming want kill-again 3SG boss

#Narrow scope: ‘Ming wants to again kill his boss.’

*Wide scope: ‘Ming again wants to kill his boss.’

#want > again

*again > want

(52) *Embedded ‘again’ not taking wide scope over ‘believe’ in Cantonese*

(Ming quit being a Christian years ago. Today, he had a traffic accident, and heard God’s voice when he was badly injured. Now, He once again believes that God exists.)

a. #Aaming seon [jau-**faan** san].

Ming believe have-again God

#Narrow scope: ‘Ming believes that there is again God.’

#believe > again

*Wide scope: ‘Ming again believes that there is God.’

*again > believe

b. Aaming seon-**faan** [jau san].

Ming believe-again have God

Wide scope: ‘Ming again believes that there is God.’

again > believe

(53) a. -Faan: *Incompatible with aspect suffixes*

Ngo jau tai(*-**faan**)-zo(*-**faan**) ni bun syu.

1SG again read-again-PFV-again this CLF book

Intended: ‘I have read this book again.’

b. -Gwo: ✓*preceding* but ✗*following* aspect suffixes

Ngo zoi tai(?-**gwo**)-zo(*-**gwo**) ni bun syu do jatci.

1SG again read-again-PFV-again this CLF book more once

‘I have read this book one more time again.’

References

- Baker, Mark. 1985. The Mirror Principle and morphosyntactic explanation. *Linguistic Inquiry* 16(3). 373–415. <http://www.jstor.org/stable/4178442>.
- Baker, Mark. 2003. *Lexical categories: Verbs, nouns and adjectives*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511615047>.
- Bale, Alan. 2007. Quantifiers and verb phrases: An exploration of propositional complexity. *Natural Language & Linguistic Theory* 25(3). 447–483. <https://doi.org/10.1007/s11049-007-9019-8>.
- Chao, Yuen Ren. 1965. *A grammar of spoken Chinese*. Berkeley, CA: University of California Press.
- Cheung, Hung-Nin Samuel. 2007. *Xianggang Yueyu yufa de yanjiu (zengding ban) [Cantonese as spoken in Hong Kong (revised edition)]*. Hong Kong: Chinese University Press.
- Chomsky, Noam. 1970. Remarks on nominalization. In Roderick Jacobs & Peter Rosenbaum (eds.), *Readings in English transformational grammar*, 184–221. Waltham, MA: Ginn.
- Chomsky, Noam. 1973. Conditions on transformations. In Morris Halle, Stephen Anderson & Paul Kiparsky (eds.), *A festschrift for Morris Halle*, 232–286. New York: Holt, Rinehart & Winston.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 1993. A Minimalist Program for linguistic theory. In Kenneth Hale & Samuel Jay Keyser (eds.), *The view from building 20: Essays in linguistics in honor of Sylvain Bromberger*, 1–52. Cambridge, MA: MIT Press.

- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Roger Martin, David Michaels, Juan Uriagereka & Howard Lasnik (eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, 89–156. Cambridge, MA: MIT Press.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. New York: Oxford University Press.
- Cinque, Guglielmo. 2004. “Restructuring” and functional structure. In Adriana Belletti (ed.), *Structures and beyond: The cartography of syntactic structures, volume 3*, 132–191. New York: Oxford University Press. <https://doi.org/10.1093/oso/9780195171976.003.0005>.
- Givón, Talmy. 1980. The binding hierarchy and the typology of complements. *Studies in Language* 4(3). 333–377. <https://doi.org/10.1075/sl.4.3.03giv>.
- Grano, Thomas. 2014. Control without finiteness contrasts: Aspect and complement size in Mandarin Chinese. Ms., Indiana University, Bloomington.
- Grano, Thomas. 2017. Finiteness contrasts without Tense? A view from Mandarin Chinese. *Journal of East Asian Linguistics* 26(3). 259–299. <https://doi.org/10.1007/s10831-017-9159-8>.
- Gu, Yang. 1993. Aspect licensing and verb movement in Mandarin Chinese. *CUHK Paper in Linguistics* 4. 68–87.
- Gu, Yang. 1995. Aspect licensing, verb movement and feature checking. *Cahiers de Linguistique Asie Orientale* 24(1). 49–83. <https://doi.org/10.1163/19606028-90000401>.
- He, Yuyin. 2020. *Time in Mandarin: The fingerprints of tense and finiteness*. Cambridge, MA: Harvard University dissertation.
- He, Yuyin. 2024. Finiteness in Mandarin clausal complements: The role of ICH and future modals. *Journal of East Asian Linguistics* 33(2). 259–297. <https://doi.org/10.1007/s10831-024-09278-w>.
- Huang, Cheng-Teh James. 1982. *Logical relations in Chinese and the theory of grammar*. Cambridge, MA: Massachusetts Institute of Technology dissertation.
- Huang, Cheng-Teh James. 1989. Pro-drop in Chinese: A generalized control theory. In Osvaldo Jaeggli & Kenneth Safir (eds.), *The null subject parameter*, 185–214. Dordrecht: Kluwer. https://doi.org/10.1007/978-94-009-2540-3_6.
- Huang, Cheng-Teh James. 1998. *Logical relations in Chinese and the theory of grammar*. New York: Garland.
- Huang, Cheng-Teh James. 2022. Finiteness, opacity, and Chinese clausal architecture. In Andrew Simpson (ed.), *New explorations in Chinese theoretical syntax: Studies in honor of Yen-Hui Audrey Li*, 17–76. Amsterdam: John Benjamins. <https://doi.org/10.1075/la.272.02hua>.
- Huang, Cheng-Teh James, Yen-Hui Audrey Li & Yafei Li. 2009. *The syntax of Chinese*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139166935>.
- Huang, Nick. 2018. Control complements in Mandarin Chinese: Implications for restructuring and the Chinese finiteness debate. *Journal of East Asian Linguistics* 27(4). 347–376. <https://doi.org/10.1007/s10831-018-9185-1>.
- Huang, Nick. 2024. Finiteness in a language without finite morphology: An experimental study of Mandarin Chinese. *Natural Language & Linguistic Theory* 42(2). 533–556. <https://doi.org/10.1007/s11049-023-09591-4>.

- Lee, Tommy Tsz-Ming & Victor Junnan Pan. 2024. Licensing VP movement and ellipsis in Mandarin and Cantonese. *West Coast Conference on Formal Linguistics (WCCFL)* 40. 192–201.
- Li, Daoxin. 2024. Controlling overt subjects in Mandarin. *Journal of East Asian Linguistics* 33(3). 333–366. <https://doi.org/10.1007/s10831-024-09280-2>.
- Li, Yen-Hui Audrey. 1985. *Abstract Case in Chinese*. Los Angeles: University of Southern California dissertation. <https://doi.org/10.25549/usctheses-c36-214020>.
- Li, Yen-Hui Audrey. 1990. *Order and constituency in Mandarin Chinese*. Dordrecht: Kluwer. <https://doi.org/10.1007/978-94-009-1898-6>.
- Lin, Tzong-Hong Jonah. 2011. Finiteness of clauses and raising of arguments in Mandarin Chinese. *Syntax* 14(1). 48–73. <https://doi.org/10.1111/j.1467-9612.2010.00145.x>.
- Lin, Tzong-Hong Jonah. 2015. Tense in Mandarin Chinese sentences. *Syntax* 18(3). 320–342. <https://doi.org/10.1111/synt.12032>.
- Lin, Tzong-Hong Jonah & Chi-Ming Louis Liu. 2009. ‘Again’ and ‘again’: A grammatical analysis of *you* and *zai* in Mandarin Chinese. *Linguistics* 47(5). 1183–1210. <https://doi.org/10.1515/LING.2009.041>.
- Liu, Yuyang. 2021. *‘Again’ skipping in Mandarin Chinese*. Amherst, MA: University of Massachusetts BA thesis.
- Liu, Yuyang. 2024. ‘Again’ skipping in Mandarin Chinese: A syntactic approach. *West Coast Conference on Formal Linguistics (WCCFL)* 40. 213–222.
- Liu, Yuyang & Ka-Fai Yip. 2023. High vs. low ‘again’: Mandarin *you* vs. *zai* and Cantonese *-faan* vs. *-gwo*. *Buckeye East Asian Linguistics (BEAL)* 7. 94–104.
- Lu, Man, Anikó Lipták & Rint Sybesma. 2019. A structural account of the difference between achievements and accomplishments: Evidence from Changsha Xiang Chinese. *Journal of East Asian Linguistics* 28(3). 279–306. <https://doi.org/10.1007/s10831-019-09196-2>.
- Morgan, Jerry. 1969. On arguing about semantics. *Papers in Linguistics* 1(1). 49–70. <https://doi.org/10.1080/08351816909389106>.
- Shen, Li. 2004. Aspect agreement and light verbs in Chinese: The sources of distributivity. *Journal of East Asian Linguistics* 13(2). 141–179. <https://doi.org/10.1023/B:JEAL.0000019115.71381.48>.
- Smith, Ryan Walter & Jianrong Yu. 2022. Agentless presuppositions and the semantics of verbal roots. *Natural Language & Linguistic Theory* 40(3). 875–909. <https://doi.org/10.1007/s11049-021-09524-z>.
- Sybesma, Rint. 2007. Whether we Tense-agree overtly or not. *Linguistic Inquiry* 38(3). 580–587. <https://doi.org/10.1162/ling.2007.38.3.580>.
- Sybesma, Rint. 2017. *Aspect, inner*. https://doi.org/10.1163/2210-7363_ecll_COM_000294.
- Sybesma, Rint. 2019. Xianding xing he Hanyu zhu ju [Finiteness and Chinese main clauses]. *Guoji Zhongguo Yuyan Xuebao [International Journal of Chinese Linguistics]* 6(2). 325–344. <https://doi.org/10.1075/ijchl.19002.syb>.
- Tang, Sze-Wing. 2010. *Xingshi Hanyu jufaxue [Formal Chinese syntax]*. Shanghai: Shanghai Educational Publishing House.
- Tang, Sze-Wing. 2015. *Yueyu yufa jiangyi [Lectures on Cantonese grammar]*. Hong Kong: Comercial Press.

- Tang, Sze-Wing. 2022. On the syntax of incompleteness: Evidence from the converbal construction in Cantonese. In Andrew Simpson (ed.), *New explorations in Chinese theoretical syntax: Studies in honor of Yen-Hui Audrey Li*, 395–428. Amsterdam: John Benjamins. <https://doi.org/10.1075/la.272.14tan>.
- Tsai, Wei-Tien Dylan. 2008. Tense anchoring in Chinese. *Lingua* 118(5). 675–686. <https://doi.org/10.1016/j.lingua.2007.09.002>.
- Vendler, Zeno. 1957. Verbs and times. *The Philosophical Review* 66(2). 143–160. <https://doi.org/10.2307/2182371>.
- Wurmbrand, Susanne & Magdalena Lohninger. 2023. An implicational universal in complementation — theoretical insights and empirical progress. In Jutta Hartmann & Angelika Wöllstein (eds.), *Propositional arguments in cross-linguistic research: Theoretical and empirical issues*, 183–229. Tübingen: Narr Francke Attempto.
- Xu, Ting. 2012. *You again: How is its ambiguity derived?* In Maria Aloni, Vadim Kimmelman, Floris Roelofsen, Galit Sassoon, Katrin Schulz & Matthijs Westera (eds.), *Logic, language and meaning: 18th Amsterdam Colloquium, Amsterdam, the Netherlands, December 19–21, 2011, revised selected papers*, 470–479. Berlin: Springer. https://doi.org/10.1007/978-3-642-31482-7_48.
- Xu, Ting. 2016. *Almost again: On the semantics and acquisition of decomposition adverbs*. Storrs, CT: University of Connecticut dissertation.
- Ye, Ariela. 2025. A say verb or complementizer: Analyzing *shuo* following communicatives and non-communicatives. *North East Linguistic Society (NELS)* 55(2). 293–316.
- Yip, Ka-Fai. 2020. On the position of perfective aspect: Evidence from Yangchun Yue dialect. Paper presented at the 2020 Annual Research Forum of the Linguistic Society of Hong Kong (LSHK-ARF), City University of Hong Kong, 11–12 December.
- Yip, Ka-Fai. 2025. Inner aspect in Cantonese. *FLaP FIRST* 1. 15–36. <https://doi.org/10.5281/ZENODO.15461748>.
- Zhang, Niina Ning. 2016. Identifying Chinese dependent clauses in the forms of subjects. *Journal of East Asian Linguistics* 25(3). 275–311. <https://doi.org/10.1007/s10831-016-9146-5>.
- Zhang, Niina Ning. 2019. Sentence-final aspect particles as finite markers in Mandarin Chinese. *Linguistics* 57(5). 967–1023. <https://doi.org/10.1515/ling-2019-0020>.

Yuyang Liu
 Department of Linguistics
 Yale University
 37 Hillhouse Ave
 New Haven, CT 06511
yuyang.liu@yale.edu