

On the positions of ‘again’: Comparing Cantonese *-faan*, *-gwo* with Mandarin *you*, *zai*

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1 Introduction

• Postverbal and preverbal ‘again’ elements

Cantonese has two postverbal elements of ‘again’: verbal suffixes *-faan* and *-gwo* (\neq experiential *-gwo*). They both presume a related event has occurred before, with different specifications on the relation between the previous and present events.

(1) Verbal suffix *-faan*: resumption, restitutive, repetitive

(Zhan 1958; Cheung 1972; Chang 1996; S.-W. Tang 2001; Fong 2007; Peng 2010)

- a. 你做翻你嘅嘢，我睇翻我嘅書 (resumption, Zhan 1958:121)
 Nei zou-**faan** nei ge je, ngo tai-**faan** ngo ge syu
 2SG do-AGAIN 2SG MOD thing 1SG read-AGAIN 1SG MOD book
 ‘You (continue) do(ing) your thing, I (continue) read(ing) my book.’
- b. 執翻支筆畀我 (restitutive/counter-direction, adapted from Zhan 1958:121)
 Zap-**faan** zi bat bei ngo
 pick.up-AGAIN CL pen to 1SG
 ‘Pick up the pen (that fell on the floor) for me.’
- c. 我哋喺翻個處見面 (repetitive, Peng 2010:96)
 Ngodei hai-**faan** gosyu ginmin
 1SG at-AGAIN there meet
 ‘Let’s meet there again.’

We do not discuss *-faan*’s modal usage ‘attaining ideal state’, which does not presuppose a past event (cf. S.-W. Tang 2001).

(2) Verbal suffix *-gwo*: repetitive with “fixing” undesirable outcomes of previous events

(Cheung 1972; Chang 1996; Chen and Li 2006; Yan 2009)

- 唔該你寫過佢啦！ (Cheung 2007:156)
 Mhoi nei se-**gwo** keoi laa1!
 please 2SG write-AGAIN 3SG SFP
 ‘Please re-write it.’

Mandarin also has two preverbal elements of ‘again’: adverbs *you* and *zai* (Lü 1980; T.-C. Tang 1988; Lin and Liu 2009) (counterparts in Cantonese: *jau* and *zoi*).

(3) Adverbs *you* and *zai*

- a. 你又生我的氣了。 (Lü 1980:633)
 Ni **you** sheng wo-de qi le.
 2SG AGAIN grow 1sg.POSS anger PERF
 ‘You are mad at me again.’

b. 我還能再見到你嗎?

(Lü 1980:642)

wo hai neng zai jian-dao ni ma?

1SG still can AGAIN see-ACHV 2SG Q

‘Can I see you again?’

The four elements all operate on the event level, which is presumably low in the structure. Today’s talk focuses on their **exceptional scopal behavior in embedded contexts**. We propose that there are **two positions associated with ‘again’**: one on the *aspectual level*, another on the *event level*.

• Overview

(4) Exceptional scopal behavior in embedded contexts

a. Postverbal ‘again’: **Pronounced low, interpreted high**

[V_{matrix} ... [... V_{embedded}-AGAIN ...

(Wide scope interpretation over matrix events)

b. Preverbal ‘again’: **Pronounced high, interpreted low**

[AGAIN ... [V_{matrix} ... [... V_{embedded} ... (Scope “skipping” matrix pred., operating on embedded events)

(5) Two asymmetries in the exceptional scopal behavior

a. The choice of ‘again’ elements: only for *-faan* and *you*, but not *-gwo* and *zai*

→ We propose two positions associated with ‘again’: High ‘again’ at AspP vs. low ‘again’ at vP

b. The choice of embedding predicates: only for non-finite clause taking predicates

→ Non-finite clauses may be as small as vP, lacking AspP to license high ‘again’

• Road map

§2: Scopal behavior of ‘again’

§4: Locating ‘again’ under a split-aspect approach

§3: Proposal: high vs. low ‘again’

§5: Concluding remarks

2 Scopal behavior of postverbal and preverbal ‘again’ elements

2.1 Postverbal *-faan* and *-gwo* in Cantonese

(6) Postverbal ‘again’: **Pronounced low, interpreted high**

[V_{matrix} ... [... V_{embedded}-AGAIN ...

(Wide scope interpretation over matrix events)

When the postverbal *-faan* and *-gwo* attach to embedded predicates, only *-faan* may take scope over ‘want’, as shown in (7a). The embedded predicate denotes an event that cannot be repeated (i.e. killing the boss), favoring

the plausible wide scope reading of repeated (or resumed) desire. In contrast, *-gwo* cannot take scope over ‘want’ (= (7b)). Only the infelicitous narrow scope reading ‘killing the boss again’ is available.

(7) Embedded ‘again’ takes wide scope over ‘want’ in Cantonese

[Context: 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. Ming is so angry that he wants to kill him again.]

a. 阿明(又)想(#又/#再)隊冧翻佢大佬

Aaming (jau) soeng [(#jau/#zoi) deoilam-**faan** keoi daailou] (again>want, #want>again)

Ming AGAIN want AGAIN kill-AGAIN 3SG boss

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

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

b. #阿明(又)想(#又/#再)隊冧過佢大佬

#Aaming (jau) soeng [(#jau/#zoi) deoilam-**gwo** keoi daailou] (*again>want, #want>again)

Ming AGAIN want AGAIN kill-AGAIN 3SG boss

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

Note that the matrix predicate ‘want’ cannot take *-faan* or *-gwo*. One may wonder whether such exceptional scopal behavior is a morphological repair for predicates that cannot take verbal suffixes.

(8) 阿明想(*翻/*過)隊冧佢大佬

Aaming soeng(*-**faan**/*-**gwo**) deoilam keoi daailou

Ming want-AGAIN kill 3SG boss

Int.: ‘Ming again wants to kill his boss.’

However, (9) and (10) show that wide scope *-faan* is also found with predicates that may take verbal suffixes, such as *hyun* ‘persuade/urge’. *-Gwo* again lacks such wide scope reading.

(9) [Context: I used to urge Ming to apply for PhD. Yet, he kept ignoring me and even became mad at me, so I just gave up. Today, our teacher and I see that the government has additional funding for PhD studies, ...]

a. 所以我又勸翻阿明報PhD。

Soji ngo jau hyun-faan Aaming [bou PhD]. (again>persuade)

so 1SG AGAIN persuade-AGAIN Ming apply PhD

Wide scope: ‘So I again urge Ming to apply for PhD.’

b. 所以老師叫我再勸過阿明報PhD。

Soji lousi giu ngo zoi hyun-gwo Aaming [bou PhD]. (again>persuade)

so teacher ask 1SG AGAIN persuade-AGAIN Ming apply PhD

Wide scope: ‘So our teacher asks me to again urge Ming to apply for PhD.’

(10) Embedded ‘again’ takes wide scope over ‘persuade’ in Cantonese

[Context: Same context with (9)]

- a. 所以我又勸阿明報翻PhD。 (again>persuade, #persuade>again)
 Soji ngo jau hyun Aaming [bou-**faan** PhD].
 so 1SG AGAIN persuade Ming apply-AGAIN PhD
 Narrow scope: ‘#So I urge Ming to re-apply for PhD.’
 Wide scope: ‘So I again urge Ming to apply for PhD.’
- b. #所以老師叫我再勸阿明報過PhD。 (*again>persuade, #persuade>again)
 #Soji lousi giu ngo zoi hyun Aaming [bou-**gwo** PhD].
 so teacher ask 1SG AGAIN persuade Ming apply-AGAIN PhD
 Only narrow scope: ‘#So our teacher asks me to urge Ming to re-apply for PhD.’

When *-faan* takes wide scope, it can only attach to either the matrix or embedded predicate, but not both. Doubling of *-faan* would result in a split scope reading, e.g. “again > persuade > again > apply” in (11b).

- (11) a. [Context: Same context with (9)]
 *... 所以我又勸翻佢報翻PhD。
 *Soji ngo jau hyun-faan Aaming [bou-**faan** PhD].
 so 1SG AGAIN persuade-AGAIN Ming apply-AGAIN PhD
 Int. wide scope: ‘So I again persuade Ming to apply for PhD.’
- b. [Context: Ming had applied for PhD for once but he failed. I urged him to re-apply but he just ignored me. Today, I see that the government has additional funding for PhD studies, ...]
 我又勸翻阿明再報翻PhD。 (again>persuade>again>apply)
 Soji ngo jau hyun-faan Aaming [zoi bou-**faan** PhD].
 so 1SG AGAIN persuade-AGAIN Ming AGAIN apply-AGAIN PhD
 Split scope: ‘So I again urge Ming to re-apply for PhD.’

Interestingly, the wide scope reading of embedded *-faan* disappears with predicates like ‘believe’ in (12). The wide scope reading can only be obtained by attaching *-faan* to the matrix ‘believe’.

- (12) Embedded ‘again’ cannot take wide scope over ‘believe’ in Cantonese
 [Context: Ming quit being a Christian years ago. Today, he had a traffic accident, and heard God’s voice when he was badly injured. He once again believes that God exists.]
- a. #阿明(又)信(#又/#再)有翻神
 #Aaming (jau) seon [(#jau/#zoi) jau-**faan** san] (*again>believe, #believe>again)
 Ming AGAIN believe AGAIN have-AGAIN God
 Only narrow scope: ‘#Ming believes that there is again God.’
- b. 阿明(又)信翻有神
 Aaming (jau) seon-faan [jau san] (again>believe)
 Ming AGAIN believe-AGAIN have God
 Wide scope: ‘Ming believes again that there is God.’

‘Believe’ differs from ‘want’ and ‘persuade’ in taking a *finite* clause (C.-T. J. Huang 2022), presumably a CP. ‘Want’ and ‘persuade’ take a non-finite clause with a smaller size (e.g. TP/WOLLP or *vP*). An extensive

examination reveals that the wide scope interpretation of *-faan* is only allowed with non-finite clause taking predicates, listed in (13). In other words, *-faan* cannot take wide scope across a finite clause boundary.

(13) Clause taking predicates in Cantonese and wide scope *-faan*

- a. *Non-finite-clause taking predicates allow embedded -faan to take wide scope*
逼 *bik* ‘force’, 勸 *hyun* ‘persuade/urge’, 叫 *giu* ‘ask’, 請 *ceng* ‘invite’, 派 *paai* ‘send’, 想 *soeng* ‘want’, 打算 *daasyun* ‘intend’, 計劃 *gaiwaak* ‘plan’, 準備 *zeonbei* ‘prepare’, 開始 *hoici* ‘start’, 可以 *hoji* ‘may’, 敢 *gam* ‘dare’, 肯 *hang* ‘be willing’, ...
- b. *Finite-clause taking predicates disallow embedded -faan to take wide scope*
認為 *jingwai* ‘consider’, 相信 *soengseon* ‘believe’, 記得 *geidak* ‘remember’, 講 *gong* ‘say’, 宣佈 *syunbou* ‘declare’, 可能 *honang* ‘be possible’, ...

2.2 Preverbal *you* and *zai* in Mandarin

(14) Preverbal ‘again’: Pronounced high, interpreted low

[AGAIN ... [V_{matrix} ... [... V_{embedded} ... (Scope “skipping” matrix pred., operating on embedded events)
!-----↑

Liu (2021, 2022) reports that preverbal *you* ‘again’, when appears in the matrix clause, may take narrow scope and directly operate on the embedded predicates (i.e. ‘go’ in (15a)). Metaphorically, the scope of the matrix predicate ‘want’ is “skipped”. Notably, we observe that another preverbal ‘again’ *zai* does not show the same skipping effects. The contrast resembles postverbal *-faan* and *-gwo* in Cantonese.

(15) Matrix ‘again’ scopally “skips” ‘want’ in Mandarin

[Context: Yesterday, reluctant to travel but forced by his boss, Xiaoming took a business trip to Hong Kong for some work, but he did not manage to finish it before he came back. Today, ...]

- a. [Afraid of getting fired due to his unfinished work, he wants to go to Hong Kong again to finish it.]
小明又想要去香港（了）。
Xiaoming **you** xiangyao [qu Xianggang (le)]. (#again>want>go, want>again>go)
Xiaoming AGAIN want go Hong Kong PERF
Narrow scope: ‘Xiaoming wants to again go to Hong Kong.’
Wide scope: ‘#Xiaoming again wants to go to Hong Kong.’
- b. [It is believed that he will want to go to Hong Kong again to finish it.]
#小明會再想要去香港。
#Xiaoming hui **zai** xiangyao [qu Xianggang]. (#again>want>go, *want>again>go)
Xiaoming will AGAIN want go Hong Kong
Only wide scope: ‘#Xiaoming will again want to go to Hong Kong.’

The scope skipping effects are also found with other predicates like *dasuan* ‘intend’.

(16) Matrix ‘again’ scopally “skips” ‘intend’ in Mandarin

- a. [Afraid of getting fired due to his unfinished work, he intends to go to Hong Kong again to finish it.]
 小明又打算去香港（了）。
 Xiaoming **you** dasuan [qu Xianggang (le)]. (#again>intend>go, intend>again>go)
 Xiaoming AGAIN intend go Hong Kong PERF
 Narrow scope: ‘Xiaoming intends to again go to Hong Kong.’
 Wide scope: ‘#Xiaoming again intends to go to Hong Kong.’
- b. [It is believed that he will intend to go to Hong Kong again to finish it.]
 #小明會再打算去香港。
 #Xiaoming hui **zai** dasuan [qu Xianggang]. (#again>intend>go, *intend>again>go)
 Xiaoming will AGAIN intend go Hong Kong
 Only wide scope: ‘#Xiaoming will again intend to go to Hong Kong.’

Like Cantonese, the availability of scope skipping effects depends on the choice of matrix predicates. Only non-finite-clause taking predicates can be “skipped”.

(17) Matrix ‘again’ does not scopally “skip” ‘believe’ in Mandarin

[Context: During the 2003 SARS outbreak, Xiaoming was so ignorant that he thought that SARS was just a flu, and he did not believe in the existence of coronavirus. After the outbreak, coronavirus was not found anywhere. In 2019, however, Xiaoming became an epidemiologist and collected a sample that contained coronavirus. Now, he does believe that there had appeared coronavirus, and it appeared again.]

- a. #小明又相信出現了冠狀病毒。
 #Xiaoming **you** xiangxin chuxian-le guanzhuangbingdu. (*believe>again>appear)
 Xiaoming AGAIN believe appear-PFV coronavirus
 Only: ‘#Xiaoming again believes that there appeared coronavirus.’
- b. 小明相信又出現了冠狀病毒。
 Xiaoming xiangxin **you** chuxian-le guanzhuangbingdu. (believe>again>appear)
 Xiaoming believe AGAIN appear-PFV coronavirus
 ‘Xiaoming believes that there again appeared coronavirus.’

(18) Clause taking predicates in Mandarin and *you* scope skipping effects (adapted from Liu 2022)

- a. *Non-finite-clause taking predicates allow matrix you scope skipping effects*
 打算 *dasuan* ‘intend’, 計劃 *jihua* ‘plan’, 決定 *jueding* ‘decide’, 命令 *mingling* ‘order’, 勸 *quan* ‘persuade/urge’, 讓 *rang* ‘let’, 設法 *shefa* ‘try’, 提議 *tiyi* ‘propose’, 推薦 *tuijian* ‘recommend’, 威脅 *weixie* ‘threat’, 想要 *xiangyao* ‘want’, 選擇 *xuanze* ‘choose’, 允許 *yunxu* ‘allow’, 準備 *zhunbei* ‘prepare’; also 停止 *tingzhi* ‘stop’, ...
- b. *Finite-clause taking predicates disallow matrix you scope skipping effects*
 認為 *renwei* ‘consider’, 說 *shuo* ‘say’, 相信 *xiangxin* ‘believe’, 知道 *zhidao* ‘know’, ...

(19) Interim summary

- a. The exceptional scope behavior of ‘again’ is only found with *-faan and you* but not *-gwo and zai*.
- b. The exceptional wide/narrow scope can only cross a **non-finite** clause boundary but not a **finite** clause boundary.

‘again’	Crossing non-finite clause bdy.	Crossing finite clause bdy.
Postverbal <i>-faan</i>	YES	NO
Postverbal <i>-gwo</i>	NO	NO
Preverbal <i>you</i>	YES	NO
Preverbal <i>zai</i>	NO	NO

Table 1: Exceptional scope behavior of ‘again’

3 Proposal

(20) Two ingredients of the proposal

- a. **Non-finite** clauses may be as small as **vP**, lacking AspP.
- b. There are two positions of ‘again’: **high ‘again’** associates with **AspP**, **low ‘again’** associates with **vP**.

3.1 Aspectual projection and finiteness in Chinese

It has been long observed that aspectual suffixes may take matrix scope when they are embedded in non-finite clauses (Li 1990; Grano 2014; N. Huang 2018; C.-T.J. Huang 2022). The phenomenon is called **aspect lowering**.

(21) Aspect lowering can only apply across non-finite clause boundaries

(adapted from C.-T.J. Huang 2022:18-19,32)

- a. 張三(沒有)設法戒過煙。 (Non-finite clauses taken by Huang’s Type III predicates)
 Zhangsan (meiyou) shefa [jie-**guo** yan].
 Zhangsan not.PFV try quit-EXP cigarette
 ‘Zhangsan tried/did not try to quit smoking.’
- b. 張三(從前)勸李四戒過煙。 (Non-finite clauses taken by Huang’s Type II predicates)
 Zhangsan (congqian) quan Lisi [jie-**guo** yan].
 Zhangsan before persuade Lisi quit-EXP cigarette
 ‘Zhang has persuaded Lisi to quit smoking (before).’

c.(#)張三說李四戒過煙。 (Finite clauses taken by Huang’s Type I predicates)

(#)Zhangsan shuo [Lisi jie-**guo** yan].

Zhangsan say Lisi quit-EXP cigarette

‘Zhangsan says that Lisi has quit smoking.’

NOT: ‘#Zhangsan has said that Lisi quits smoking.’

Same in Cantonese (with experiential *-gwo* ≠ ‘again’ *-gwo*):

(22) Aspect lowering in Cantonese

a. 阿明以前嘗試戒過煙

Aaming jicin soengsi [gaai-**gwo** jin]

Ming before try quit-EXP cigarette

‘Ming has tried to quit smoking before.’

b. 老師從來都有勸阿明戒過煙

Lousi cungloi dou mou hyun Aaming [gaai-**gwo** jin]

teacher ever also not.PFV persuade Ming quit-EXP cigarette

‘The teacher never urged Ming to quit smoking.’

c.(#)老師話阿明戒過煙

Lousi waa [Aaming gaai-**gwo** jin]

teacher say Ming quit-EXP cigarette

‘The teacher says that Ming has quit smoking.’

NOT: ‘#The teacher has said that Ming quits smoking.’

Aspect lowering provides crucial evidence for the structure of non-finite clauses. It has been proposed that non-finite clauses **lack a local AspP (i.e. they are ν Ps)**. Hence, the aspectual suffixes need to be licensed by the matrix AspP through agreement, acquiring matrix scope.

(23) Aspect lowering as Agree (Grano 2014; N. Huang 2018; C.-T. J. Huang 2022)

... [_{AspP}-matrix \uparrow Asp [_{ν P}-matrix ν +Control verb ... [_{ν P}-embedded ν +V-*guo* VP ...] (Agree)

(24) Finite clauses: CP (with AspP)

Non-finite clauses: may be as small as ν P (without AspP)

Note that non-finite clauses may be bigger than ν P (and can be taken by C.-T. J. Huang 2022’s Type II predicates). We will discuss those bigger non-finite clauses in Sect. 3.3.

3.2 High vs. low ‘again’

We suggest that all the four ‘again’ elements base-generate at the ν P level and operate on events. We propose that they however associate with different positions (cf. Lin and Liu 2009). Specifically, *-faan* and *you*, but not *-gwo* and *zai*, associate with a higher position at the AspP level.

The association is achieved by (i) **agreement** for *-faan* (on a par with aspectual suffixes in aspect lowering); and by (ii) **movement** for *you* (cf. Liu 2021, 2022).

(25) Proposal: high vs. low ‘again’

- a. ... [_{AspP} *you* / *-faan* ... [_{VP} *zai* / *-gwo* ... [_{VP} ... (associated positions, ≠ base-generated positions)
- b. *Postverbal ‘again’ in Cantonese: agreement*
 ... [_{AspP} Asp ... [_{VP} *-faan* / *-gwo* ... [_{VP} ... (only *-faan* agrees with Asp)
 ↑ ↑
 -----↑
- c. *Preverbal ‘again’ in Mandarin: movement*
 ... [_{AspP} *you* [_{Asp} Asp ... [_{VP} – / *zai* ... [_{VP} ... (only *you* moves to AspP)
 ↑ |

• **Cantonese: acquiring wide scope through agreement**

-Faan agrees with matrix Asp to take wide scope over ‘want’ in (7) 阿明想隊碌翻佢大佬 ‘Ming again wants to kill his boss’. Such agreement is not available for *-gwo*, leading to the lack of wide scope readings.

(26) Postverbal ‘again’ taking wide scope through

- [_{TP} Ming [_{AspP} Asp ... [_{VP} want ... [_{VP} kill *-faan* / *-gwo* ... [the boss (only *-faan* agrees with Asp)
 ↑ ↑ ↑
 -----X-----

• **Mandarin: scope “skipping” by reconstruction**

In (15) 小明又想要去香港 ‘Xiaoming wants to again go to Hong Kong’, *you* first moves to the matrix Spec AspP. Then, it reconstructs for narrow scope (‘go’), “skipping” the scope of the matrix predicate ‘want’. No reconstruction is possible for *zai* due to the lack of movement. That is, *zai* is always interpreted locally.

(27) Preverbal ‘again’ scopally “skipping” matrix predicates

- a. *Movement to matrix AspP*
 [_{TP} Xiaoming [_{AspP} – [_{Asp} Asp [_{VP} want ... [_{VP} *you* / *zai* [_V go to HK (only *you* moves to AspP)
 ↑ | |
 -----X-----
- b. *Reconstruction for narrow scope*
 [_{TP} Xiaoming [_{AspP} *you* [_{Asp} Asp [_{VP} want ... [_{VP} – / *zai* [_V go to HK (you reconstructs to embedded vP)
 | | ↑
 |-----|
- c. *Zai is interpreted locally*
 [_{TP} Xiaoming [_{AspP} Asp [_{VP} *zai* [_V want ... [_{VP} [_V go to HK
 (no gap in embedded vP for reconstructions)

3.3 Predictions on non-finite clauses larger than ν P

Non-finite clauses may be bigger than ν P (N. Huang 2018; C.-T. J. Huang 2022). They can be as large as TPs and may host (i) complementizer *shuo*, (ii) adverb *ye* ‘also’, (iii) internal topics, and (iv) internal foci. Importantly, they no longer allow aspect lowering since they have a local AspP that blocks matrix Asp agreement. (The unavailability of embedded *-guo* in (28) is due to aspectual conflicts.)

(28) Non-finite clauses larger than ν P disallow aspect lowering (C.-T. J. Huang 2022:49-50)

a. *Blocking by complementizer shuo*

*李四曾經設法[說]做過這道菜]

Lisi cengjing shefa shuo zuo-guo zhe-dao cai

Lisi previously try SHUO make-EXP this-CL dish

Int.: ‘Lisi has previously tried to cook this dish.’

b. *Adverb ye ‘also’*

*李四曾經設法[也]做過這道菜]

Lisi cengjing shefa ye zuo-guo zhe-dao cai

Lisi previously try also make-EXP this-CL dish

Int.: ‘Lisi has previously tried to also cook this dish.’

c. *Internal topics*

*我逼迫他[那門課]選過] cf. 我逼迫他[選過那門課]

Wo bipo ta na-men ke xuan-guo.

1SG force 3SG that-CL class choose-EXP

Int.: ‘I have forced him to take that class.’

d. *Internal foci*

*我逼迫他[每一門課]都選過] cf. 我逼迫他[選過每一門課]

Wo bipo ta mei-yi-men ke dou xuan-guo.

1SG force 3SG every-one-CL class all choose-EXP

Int.: ‘I have forced him to take every class.’

Given that these larger finite clauses have AspP, we predict that they do not allow the exceptional scope behavior of *-faan* and *you* since the local AspP sufficiently licences high ‘again’. The prediction is borne out.

(29) Complementizer ‘say’ blocks wide scope *-faan* in Cantonese

[Context: I used to urge Ming to apply for PhD. Yet, he kept ignoring me and even became mad at me, so I just gave up. Today, our teacher and I see that the government has additional funding for PhD studies, ...]

??所以我又勸阿明[話]報翻PhD。

??Soji ngo jau hyun Aaming [waa] bou-faan PhD].

(??again>persuade)

so 1SG AGAIN persuade Ming COMP apply-AGAIN PhD

Int. wide scope: ‘So I again urge Ming to apply for PhD.’

(30) 'Also' blocks wide scope *-faan* in Cantonese

[Context: same as (29), and I also hear that Aafan has applied for PhD today, ...]

?? 所以我又勸阿明[都]報翻PhD。

?? Soji ngo jau hyun Aaming [dou] bou-faan PhD]. (??again>persuade)

so 1SG AGAIN persuade Ming also apply-AGAIN PhD

Int. wide scope: 'So I again urge Ming to also apply for PhD.'

(31) [Context: 阿明以前係反人類主義，想隊碌晒世界上每一個人。本身佢已經正常翻，但今日又發病，...]

a. 阿明又想[隊碌翻每一個人]。

b. ??阿明又想[每一個人]都隊碌翻。

(32) Complementizer 'say' blocks *you's* scope skipping in Mandarin

[Context: Yesterday, reluctant to travel but forced by his boss, Xiaoming took a business trip to Hong Kong for some work, but he did not manage to finish it before he came back. Today, afraid of getting fired due to his unfinished work, he wants to go to Hong Kong again to finish it.]

?? 小明又想要說去香港。

?? Xiaoming you xiangyao [shuo] qu Xianggang]. (??want>again)

Xiaoming AGAIN want COMP go Hong Kong

Int. narrow scope: 'Xiaoming wants to again go to Hong Kong.'

(33) 'Also' blocks *you's* scope skipping in Mandarin

[Context: The day before yesterday, Xiaoming and Xiaohong's boss forced Xiaohong to go to Hong Kong. Yesterday, the boss forced Xiaoming to go to Hong Kong. Today, the boss forced Xiaohong but not Xiaoming to go to Hong Kong. However, secretly admiring Xiaohong, Xiaoming wants to go to Hong Kong today.]

?? 小明又想要也去香港。

?? Xiaoming you xiangyao [ye] qu Xianggang]. (??want>again)

Xiaoming AGAIN want ALSO go Hong Kong

Int. narrow scope: 'Xiaoming wants to again go to Hong Kong as well.'

(34) [Context: 本科時，他以前被逼修了每一門課。上了PhD，...]

a. 小明又想[修每一門課]。

b. ??小明又想[每一門課]都修。

Elements	Size	Asp lowering?	Wide scope <i>-faan</i> ?	You scope skipping?
Complementizer <i>waa/shuo</i>	CP/TP	NO	NO	NO
'also' <i>dou/ye</i>	TP	NO	NO	NO
Internal topics/foci	TP	NO	NO	NO
No above elements	ν P	YES	YES	YES

Table 2: The size of non-finite clauses and blocking effects

4 Locating 'again' under the split-aspect approach

The split-aspect approach proposes that there are more than one aspectual projections on the clausal spine (Gu 1995; Tsai 2008; Huang, Li, and Li 2009; Sybesma 2017; Lu, Lipták, and Sybesma 2019; Lee and Pan 2021). We expect that they interact with high and low 'again' differently according to the structural positions.

4.1 Phase complements and inner aspect

Apart from aspectual suffixes, other postverbal elements may also express aspectual meaning, e.g. 好 *hou2/hǎo* in 鎖好 *so2-hou2/suǒ-hǎo* 'locked properly', 著 *zoek6/zháo* in 瞓著/睡著 *fan3-zoek6/shuì-zháo* 'slept', etc.

They refer to the phase/stage of an action and are called **phase complements** (PCs, Chao 1968:446-450).

Some of them may even follow resultative verbal complement (RVCs). See Appendix 6 for lists of PCs in Cantonese and Mandarin and tests to distinguish them from RVCs and suffixes.

(35) Phase complements following RVCs

- a. 後尾我哋同康華終於打開到話題，發現原來佢好funny同nice。 (News, 2022-1-22) [C]
 haumei ngodei tung Hong Waa zungjyu **daa-hoi-dou** waatai, faatjin jyunloi keoi
 afterwards 1PL with Akina Hong eventually hit-open-ACHV discover actually 3SG very
 hou funny tung nice.
 funny and nice
 'We eventually opened up the topic with Akina Hong, and found that she is really funny and nice.'
- b. 怎麼把手機弄壞掉而且看不出來是人為的？ (Forum, 2021-12-26) [M]
 Zenme ba shouji nong-huai-diao erqie kan-bu-chulai shi renweide?
 how BA cell.phone make-broken-ACHV and see-not-out COP man.made
 'How do you break a cell phone without letting people know that it was you?'

PCs are regarded as an inner aspect layer lower than aspectual suffixes. Crucially, the inner aspect projection is within ν P (Tsai 2008; Sybesma 2017; Lu, Lipták, and Sybesma 2019):

(36) ... [AspP-outer Asp suffixes [ν P ... [AspP-inner PCs [VP ...

While aspectual suffixes allow aspect lowering (e.g. Mandarin *-le*, *-zhe*, *-guo*, Grano 2014), we found that phase complements systemically lack aspect lowering, as shown by the occurrence of matrix progressive aspect.

(37) Phase complements lack aspect lowering

- a. 我喺度逼(緊)佢鎖{好/*過}呢道門 (PCs vs. experiential -gwo) [C]
 ngo haidou bik(-gan) keoi so-{hou/*gwo} ni dou mun
 1SG PROG force-PROG 3SG lock-CMPLT/EXP this CL door
 'I'm forcing him to lock the door properly.'
- b. 我在勸他賣{掉/*過}這本書 (PCs vs. experiential -guo) [M]
 Wo zai quan ta mai-diao-guo zhe-ben shu.
 1SG PROG persuade 3SG sell-ACHV/*EXP this-CL book
 'I am persuading him to sell/*have sold this book.'

The lack of aspect lowering follows from the low position of PCs: they are below ν P and do not agree with a higher AspP outside the non-finite clauses.

4.2 'Again' and inner aspect

Given that high 'again' is located above ν P, we predict that (i) **-faan and you are higher than inner aspect and may operate on predicates with PCs.** While we predict the opposite for 'low' again, there is a caution regarding the postverbal vs. preverbal difference. Only the postverbal -gwo is a head. The preverbal *zai* is either an adjunct or a specifier. Assuming that PCs are heads but not specifiers, we predict that (ii) **only *zai* but not -gwo is compatible with PCs.**

(38) Locating 'again' under the split-aspect analysis

... [AspP-outer **you** [Asp'-outer {-faan/Asp suffixes}] [ν P] ... [AspP-inner **zai** [Asp'-inner {-gwo/PCs}] [VP RVCs] ...

• Cantonese: postverbal -faan and -gwo

To begin with, both -faan and -gwo may occur after resultative verbal complements (RVCs):

(39) Both -faan and -gwo are compatible with RVCs

- a. 可唔可叫你老公放大翻d 相嘅size 到1024 x 768。 (Forum, 2008-8-27)
 ho-m-ho giu nei lougung fong-daai-faan di soeng ge size dou 1024x78.
 may-not-may ask 2SG husband zoom-big-AGAIN CL.PL photo MOD to 1024x78
 'Can you ask your husband to enlarge the size of the photos to 1024x768 again?'
- b. 真係可以再放大過呢啲位置 (Video, 2020-12-27)
 zanhai hoji zoi fong-daai-gwo ni di waizi
 really may AGAIN zoom-big-AGAIN this CL position
 'We really can re-enlarge these positions.'

Our prediction for PCs is borne out. Only -faan is compatible with PCs, but not -gwo. The contrast follows from their structural positions: only -faan is higher than PCs.

(40) Only -faan but not -gwo is compatible with PCs

- a. 喺美國學跳舞最大嘅得著， (Blog, undated, accessed on 2022-6-22)
 唔係話學到一隻好勁嘅舞，或者上到一個好出名嘅老師堂，
 而係搵到翻個份「初衷」。
 hai Meigwok hok tiumou zeoidaai ge dakzoek, (...) ji hai **wan-dou-faan** go fan
 go U.S. learn dance biggest MOD gain rather be find-ACHV-AGAIN that CL
 “cocung”.
 original.goal
 ‘The biggest thing I obtained from learning dancing in the U.S. is (...) rather that I found my original goal again.’
- b. *我去美國學跳舞，係為咗搵到過個份「初衷」 (cf. ^{OK}搵過個份「初衷」)
 *ngo heoi Meigwok hok tiumou, hai waizo **wan-dou-gwo** go fan “cocung”
 1sg go U.S. learn dance be for find-ACHV-AGAIN that CL original.goal
 Int.: ‘The goal I learn dancing in the U.S. is to find my original goal again.’

To give one more example:

- (41) a. 有時太大聲自己會醒一醒又瞓著翻 (Forum, 2020-18-28)
 jausi taai daaiseng zigei wui seng-jat-seng jau **fan-zoek-faan**
 sometimes too loud self will wake.up.a.bit AGAIN sleep-ACHV-AGAIN
 ‘Sometimes (his snoring) is too load and wakes him up; then he would fall asleep again.’
- b. *半夜扎醒想再瞓著過 (cf. ^{OK}再瞓過)
 *bunje zaatseng soeng zoi **fan-zoek-gwo**
 midnight wake.up want AGAIN sleep-ACHV-AGAIN
 Int.: ‘(I) has accidentally woke up at midnight and wants to sleep again.’

As for aspectual suffixes, *-faan* is incompatible with them regardless of the word order. *-gwo* is also unable to follow aspectual suffixes, but it might precede them in some marked cases with narrow scope.

(42) Both -faan and -gwo are incompatible with aspectual suffixes

- a. 又睇(*翻)咗(*翻)呢本書 (≠ directional complement -faan)
 jau **tai(*-faan)-zo(*-faan)** ni bun syu
 AGAIN read-AGAIN-PFV-AGAIN this CL book
 Int.: ‘has read this book again’
- b. 再睇(??過)咗(*過)呢本書多一次
 zoi **tai(??-gwo)-zo(*-gwo)** ni bun syu dojatci
 AGAIN read-AGAIN-PFV-AGAIN this CL book one.more.time
 Int.: ‘has read this book one more time again’

(43) -Gwo preceding aspectual suffixes

- a. 重新寫過咗《拜仁頌》嘅第三段歌詞 (Wikipedia, 2013-8-26)
 cungsan **se-gwo-zo** Baaijanzung ge daisaam dyun goci
 AGAIN write-AGAIN-PFV Bayernhymne GE third line lyrics
 ‘re-wrote the third line of *Bayernhymne*’s lyrics’
- b. Auntie 個電視壞咗， (Social media, 2018-8-26)
 買過咗隻廿幾吋LG帶Time Machine錄影功能嘅。
 Auntie go dinsi waai-zo, **maai-gwo-zo** zek jaagei cyun LG daai Time Machine
 auntie CL TV break-PFV buy-AGAIN-PFV CL around.20 inch LG with time machine
 lukjing gungnang ge.
 record function GE
 ‘Auntie’s TV is broken. She bought another one, which is around 20 inches and has the Time Machine recording function.’

The above patterns follow from the high vs. low ‘again’ distinction. Aspectual suffixes and *-faan* compete for the same position: they both associate with the outer aspect head. *-Gwo* is lower than outer aspect and hence may be suffixed by perfective *-zo*, but not the other way around.

• **Mandarin: preverbal *you* and *zai***

Let us turn to preverbal ‘again’ in Mandarin. First, they are compatible with RVCs:

(44) Both *you* and *zai* are compatible with RVCs

- 再放大／又放大了
 zai fang-da / you fang-da-le
 AGAIN zoom-big / AGAIN zoom-big-PFV
 ‘to enlarge again’/‘to have enlarged in again’

Second, *you* may operate on predicates with PCs. They take wide scope over PCs. *Zai*, unlike postverbal low ‘again’ *-gwo*, may also operate on PCs. The difference between postverbal low ‘again’s follows from their grammatical status: *-gwo* is in the head position, whereas *zai* is in the specifier position of inner aspect.

(45) Both *you* and *zai* are compatible with PCs

- a. 八塊買了一隻雞，九塊錢賣掉，十塊錢又買回來，十一塊錢又賣掉。 (Forum, 2018-7-27)
 請問我賺了多少？
 Ba-kuai mai-le yi-zhi ji, jiu-kuai qian mai-diao, shi-kuai qian you mai
 eight-yuan buy-PFV one-CL chicken nine-yuan money sell-ACHV ten-yuan money AGAIN buy
 huilai, shiyi-kuai qian you mai-diao. Qing wen wo zhuan-le duoshao?
 back eleven-yuan money AGAIN sell-ACHV please ask 1SG earn-PFV how.much
 ‘I bought a chicken for 8 yuan, sold it for 9 yuan, bought it back for 10 yuan, and sold it again for 11 yuan. How much did I make?’

- b. 但這只會曝露我還是那個仍會再賣掉Minecraft的混蛋而已。 (News, 2015-8-31)

Dan zhe zhi hui baolu wo hai shi na-ge reng hui zai mai-diao Minecraft de
 but this only will show 1SG still COP that-CL still will AGAIN sell-ACHV Minecraft DE
 hundan eryi.
 jerk only

‘But this will just show that I’m still that jerk who will sell Minecraft anyway.’

Nevertheless, *you* and *zai* show a contrast with regarding aspectual suffixes. Only *you* but not *zai* may operate on predicates with aspectual suffixes.

(46) Only *you* but not *zai* is compatible with aspectual suffixes

- a. 就又去了京都 (Book name, undated, accessed on 2022-6-23)

jiu you qu-le Jingdu
 so AGAIN go-PFV Kyoto
 ‘So, I went to Kyoto again.’

- b. *就再(已經)去了京都 (cf. ^{OK}再去)

*jiu zai (yijing) qu-le Jingdu
 so AGAIN already go-PFV Kyoto
 Int.: ‘So, I went to Kyoto again (already).’

Note that a narrow scope reading of *zai* under *-le* is possible, as indicated by the position of aspectual adverb ‘already’:

- (47) a. 已經再去了一次
 yijing zai qu-le yi-ci
 already AGAIN go-PFV one-time
 ‘went once again already’

The preverbal progressive *zai* also shows the similar contrast:

- (48) a. 我家的貓又在幹怪事了 (Book name, undated, accessed on 2022-6-23)

Wo jia de mao you zai gan guai shi le.
 1SG home POSS cat AGAIN PROG do weird thing PERF
 ‘The cat in my home is doing weird things again.’

- b. *我家的貓再在幹怪事 (cf. ^{OK}再幹)

*Wo jia de mao hui zai zai gan guai shi
 1SG home POSS cat will AGAIN PROG do weird thing
 Int.: ‘The cat in my home will be doing weird things again.’

The patterns summarised below fall out nicely under the split-aspect analysis, with **high ‘again’** at **outer aspect** and **low ‘again’** at **inner aspect**.

‘again’	Associated positions	Aspectual suffixes	Phase complements	RVCs
<i>-faan</i>	Asp ⁰ -outer	NO	YES	YES
<i>-gwo</i>	Asp ⁰ -inner	NO	NO	YES
<i>you</i>	Spec AspP-outer	YES	YES	YES
<i>zai</i>	Spec AspP-inner	NO	YES	YES

Table 3: Ability of ‘again’ to operate on other postverbal elements

(49) Locating ‘again’ under the split-aspect analysis

... [AspP-outer **you** [Asp'-outer {*-faan*/Asp suffixes}] [_{VP} ... [AspP-inner **zai** [Asp'-inner {*-gwo*/PCs}] [_{VP} RVCs ...

5 Concluding remarks

(50) Take home messages

- a. There are two positions for ‘again’: **high ‘again’ at AspP level** vs. **low ‘again’ at vP level**
 → Attested for both postverbal *-faan* vs. *-gwo* and preverbal *you* vs. *zai*
- b. The two positions provide a unified explanation for differences of ‘again’ in:
 → Exceptional scope behavior across **non-finite** clause boundaries
 → Ability to operate on **outer aspect and inner aspect**

6 Appendix: Phase complements in Cantonese and Mandarin

The term “phase complements” (PCs) is first introduced by Chao (1968). PCs refer to postverbal elements expressing “the phase of an action in the first verbs rather than some result in the action or goal” (p.446, Sect. 6.6.3). While they often share similar grammatical properties with resultative verbal complements (RVCs), their semantic contribution is aspectual.

• Cantonese

The list of phase complements in Cantonese is given below. (a-h) denote the endpoint of events with varying meanings such as event achievement, completion, successful perception, etc. (i-j) also make reference to endpoints, but they encode an additional salient ‘in advance’ meaning. (k) mainly expresses an adversative meaning with a requirement on achieved events. (l-m) concern the internal intervals of events and convey continuation.

(51) Phase complements in Cantonese

(Cheung 1972, 2007:113-115, Matthews and Yip 1994:210-221, S.-W. Tang 2015:71-89)

- a. 著 *zoek6* ‘be on target’, e.g. 瞓著 *fan3-zoek6* ‘slept’
- b. 到 *dou2* ‘arrive’, e.g. 搵到 *wan2-dou2* ‘found’ (cf. J. Huang 2021)
- c. 見 *gin3* ‘see (vs. look)’, e.g. 聽見 *teng1-gin3* ‘hear (vs. listen)’
- d. 好 *hou2* ‘good’, e.g. 做好 *zou6-hou2* ‘being done’
- e. 掂 *dim6* ‘all right’, e.g. 搞掂 *gaau2-dim6* ‘finished, settled’
- f. 完 *jyun4* ‘finish’, e.g. 食完 *sik6-jyun4* ‘finished eating’
- g. 成 *seng4* ‘succeed’, e.g. 約成 *joek3-seng4* ‘succeeded in making an appointment’
- h. 起 *hei2* ‘finish, ready, (lit.) lift’, e.g. 畫起 *waak6-hei2* ‘finished drawing’
- i. 落 *lok6* ‘finish (a long time ago), (lit.) fall’, e.g. 教落 *zyu2-lok6* ‘taught way back then’
- j. 定 *ding6* ‘in advance’, e.g. 煮定 *zyu2-ding6* ‘cooked in advance’ (cf. Wong 2018)
- k. 親 *can1* ‘adversative’, e.g. “ (with achievement requirements, cf. Sio 2020)
- l. 住 *zyu6* ‘hold’, e.g. 冚住 *kam2-zyu6* ‘cover still’
- m. 實 *sat6* ‘firm’, e.g. 望實 *mong6-sat6* ‘keep looking’

Note that they may not be labelled as “phase complements” in the original sources. S.-W. Tang 2015, for example, treats *lok6*, *ding6*, *can1*, *zyu6* and *sat6* as verbal suffixes.

In the following, we examine their grammatical properties through three tests: (i) suffixation of genuine aspectual affixes like perfective 咗 *-zo*; (ii) following an RVC; (iii) 得/唔 *-dak/m-* ‘able/not’ infixation. The results of the three tests are summarized below in Table 4 (examples below the table).

We take the first test as the crucial diagnostics for distinguishing PCs from (canonical) aspectual suffixes. All the PCs can be suffixed by the perfective 咗 *-zo*. Note that this test does not provide evidence for the

Phase complements	-zo suffixing	-dak/m- infixing	following RVCs
zoek6, gin3, hou2, dim6, seng4, can1, sat6	YES	YES	NO
lok6, hei2	YES	NO	NO
dou2, jyun4, zyu6	YES	YES	YES
ding6	YES	NO	YES

Table 4: Grammatical properties of phase complements in Cantonese

morphological status (i.e. whether PCs are suffixes), since suffix stacking is possible in Cantonese (S.-W. Tang 2015). Instead, this test shows that PCs are lower than -zo in the structure (and thus closer to the root by Mirror Principle, Baker 1985).

(52) 咗 -zo 'PFV' suffixation

- a. 佢瞓咗
'He has slept.' (Cheung 2007:114)
- b. 阿明攞到咗一個offer
'Ming got an offer.' (J. Huang 2021:4)
- c. 佢係夢見咗自己係一隻蝴蝶嗎？
'Did he dream that he became a butterfly?' (Video caption, 2021-2-10)
- d. 以為做好咗心理準備
'Did he dream that he became a butterfly?' (Social Media, 2021-6-23)
- e. 單case我搞掂咗㗎嘞。
'I have finished this case.' (Words.hk)
- f. 食完咗飯好耐嘍！
'(I) have finished my meal for quite some time.' (Cheung 2007:149)
- g. 又係一個傾下傾下又傾成咗嘅Project啦
'Just another (business) project that we managed to strike over time.' (Social media, 2020-10-8)
- h. 我幅畫終於畫起咗
'My painting is finally done.' (Social Media, 2016-3-17)
- i. 我返工之前已經發好咗d通粉(...),又煮落咗湯底
'Before going to work, I have already put the macaroni into water and cooked the soup base.' (Blog, 2009-7-12)
- j. 同埋好夠熱，唔會好似煮定咗好耐
'It's also hot enough and doesn't look like being prepared a long time ago.' (Food guide, 2022-4-27)
- k. 你嚇親咗佢
'You scared her.' (Matthews and Yip 1994:228)

- l. 肋骨插住咗個肺 (News, 2020-2-6)
'a rib punctured the lung and got stucked.'
- m. 難以置信咁望實咗自己部手機 (Creative writing, 2021-12-26)
'(He) stares at his phone unbelievably.'

The second test is 得/唔 *-dak/m-* 'able/not' infixation, which is a typical property displayed by RVCs. Note that the test only provides suggestive but not deciding evidence for the morphological status of PCs, since some suffixes like *-sai* can also take *-dak/m-* 'able/not' infixation.

(53) 得/唔 *-dak/m-* 'able/not' infixation

- a. 佢瞓{得/唔}著
'He can(not) sleep.'
- b. 有時都攞唔到，好似今日咁多人，就未必攞得到 (Video caption, 2021-2-10)
'Ming got an offer.'
- c. 睇{得/唔}見 (but compare: 聽{得/唔}見, 夢{得/唔}見)
'can(not) see (vs. hear/? dream)'
- d. *做{得/唔}好心理準備 (vs. descriptive complement 乜都做唔好)
Int.: 'can(not) be ready mentally' (vs. cannot perform well for everything)
- e. 搞{得/唔}掂
'can(not) settle'
- f. 食{得/唔}完
'can(not) finish eating'
- g. 我估今晚去得成 (Matthews and Yip 1994:221)
'I think we'll manage to go tonight'
- h. *畫{得/唔}起幅畫 (vs. directional complement 拎{得/唔}起)
Int.: 'can(not) finish the drawing' (vs. can(not) pick up)
- i. *煮{得/唔}落湯底 (vs. directional complement 食{得/唔}落)
Int.: 'can(not) cook the soup base in advance' (vs. can(not) eat)
- j. *煮{得/唔}定餐飯 (vs. resultative complement 坐{得/唔}定)
Int.: 'can(not) cook the meal in advance' (vs. can(not) sit firmly)
- k. 香港啲公司到呢個年代仲以為可以冚得住啲消息 (Video caption, 2021-2-10)
(but compare: *聽{得/唔}住音樂)
'How could the Hong Kong companies think that they can cover up the news nowadays?' (cf. *can(not) keep hearing music)
- l. 攞{得/唔}實 (but compare: *望{得/唔}實個女仔)
'can(not) hold still' (cf. *can(not) keep staring at the girl)

The third test is whether the PCs may follow a RVC. This test effectively distinguishes PCs from RVCs since RVC stacking is not possible in Cantonese.

(54) Following RVCs

- a. *瞓寐著

Int.: 'slept deeply'

- b. 後尾我哋同康華終於打開到話題，發現原來佢好funny同nice。 (News, 2022-1-22)
'We eventually opened up the topic with Akina Hong, and found that she is really funny and nice.'

- c. *睇清{得/唔}見

Int.: 'saw clearly'

- d. ??省靚好個招牌

Int.: 'made the fame better'

- e. *搞清楚掂

Int.: 'made it clear'

- f. 蒸熟完就可以攪碎 (Food guide, 2014-7-18)
'after finished steaming it, you can break them into pieces'

- g. *book爆成呢間餐廳

Int.: 'made this restaurant fully booked'

- h. *寫靚起幅字

Int.: 'finished the calligraphy artwork'

- i. *煲滾落個湯底

Int.: 'boil the soup base in advance'

- j. 拆走定個書架 (S.-W. Tang 2015:78)
'removed the book shelf in advance'

- k. 門仲打開住 (Creative writing, 2021.2.11)
'The door is wide-opened.'

- l. *揸平實張紙

Int.: 'held and flattened the paper'

• **Mandarin**

Examples of PCs in Mandarin are given below. (a-g) refer to the endpoint of events, expressing meanings of event achievement, completion, successful perception, etc. (h-i) make reference to the internal intervals of events and express continuation.

(55) Phase complements in Mandarin

(Chao 1968:446-450, Li and Thompson 1981:65-66, Sybesma 2017; Lu, Lipták, and Sybesma 2019)

- a. 著 *zháo* ‘be on target’, e.g. 找著 *zhǎo-zháo* ‘found’
- b. 到 *dào* ‘arrive’, e.g. 買到 *mǎi-dào* ‘bought’
- c. 掉 *diào* ‘’, e.g. 賣掉 *mài-diào* ‘sold’
- d. 成 *chéng* ‘succeed’, e.g. 看成(電影) *kàn-chéng (diàn yǐng)* ‘succeeded in seeing movies’
- e. 好 *hǎo* ‘good’, e.g. 鎖好 *suǒ-hǎo* ‘locked properly’
- f. 完 *wán* ‘finish’, e.g. 吃完 *chī-wán* ‘finished eating’
- g. 見 *jiàn* ‘see (vs. look)’, e.g. 聽見 *tīng-jiàn* ‘hear (vs. listen)’
- h. 住 *zhù* ‘hold’, e.g. 站住 *zhàn-zhù* ‘stand still’
- i. 著 *zhe* ‘IPFV’, e.g. 坐著 *zuò-zhe* ‘sit still’ (verbs with degree of attachment, Tsai 2008)

PCs are regarded as a middle aspect layer in Sybesma (2017) and Lu, Lipták, and Sybesma (2019). The top layer is occupied by the aspectual suffix *-le*, and the lowest layer is occupied by resultative verbal complements (RVCs). The three aspect layers are all in between *vP* and *VP*.

(56) [_{VP} ... [_{AspP3-Realization} *-le* [_{AspP2} PCs [_{AspP1-Telicity} RVCs [_{VP} ...

(57) Relative order of phase complements with other postverbal elements

- a. *PCs < le* (Sybesma 2017:303)
 我們賣掉了房子。
wǒmen mài-diào-le fángzi.
 1PL sell-off-ASP house
 ‘We finally sold the house.’
- b. *RVCs < PCs < le* (Lu, Lipták, and Sybesma 2019:303)
 他把我的運動鞋跑壞掉了
tā bǎ wǒ-de yùndòngxié pǎo-huài-diào-le
 3SG BA 1SG-SUB sport.shoe run-broken-off-PRF
 ‘He ran my running shoes completely to pieces’

In Tsai (2008), PCs are regarded as the lowest layer of aspectual projections (Inner Aspect), including *zhe*² ‘keep/still’ (attach to verbs expressing attachment) and *wán* ‘finish’. RVCs are not regarded as aspectual heads. The higher layer is further split into two: Outer Aspect holds elements that can associate with *T*, and Middle Aspect being holds aspectual suffixes that exhibit incompleteness effects due to failure to associate with *T*. The dividing lines of the three aspects are on *vP* and *VP*.

(58) [_{TP} ... [_{AspP1} *zai,-guo* [_{VP} ... [_{AspP2} *-zhe¹, -le* ... [_{VP} *V-Asp3=PCs*

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