

Sentence-final particles in multiple phases? Some evidence from language contact

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Abstract

Cinque's (1999) cartographic theory associates one meaning with one functional head. As such, if applied to sentence-final particles (SFPs), cartographic assumptions ought to group semantically similar SFPs onto the same functional head cross-linguistically (cf. Pan 2019; Sybesma & Li 2007). However, I show that aspectual and restrictive focus SFPs in Cantonese and Mandarin (Sinitic, Sino-Tibetan) seemingly contradict Cinque by occupying different structural positions despite their semantic closeness. To shed light on the problem, I adduce novel data from Guangzhou Cantonese and Singapore Cantonese, demonstrating that SFPs borrowed into these varieties are treated differently according to their structural height. Likewise citing scopal and other facts, I ultimately make a case for placing SFPs in multiple phases (Chomsky 2000 etc.), following Erlewine (2017) and Biberauer (2017), but *contra* Pan (2019), a.o. To accommodate Cinque (1999), I ultimately submit that different-phase SFPs constitute distinct lexical classes, which each cluster separately, but in the same semantically determined sequence compatible with cartographic assumptions.

Keywords: sentence-final particles; cartography; Phase Theory; language contact; Cantonese.

1. Introduction

Using data from Cantonese and Mandarin (Sinitic, Sino-Tibetan), this paper starts out by demonstrating that sentence-final particles (SFPs) do not always abide by the cartographic maxim of assigning vocabulary items with similar meanings to the same functional head. It then examines SFPs borrowed into the Cantonese varieties of Guangzhou and Singapore, proposing based on ir-

regular clustering restrictions that SFPs may be spread out between different phases and in fact comprise several different lexical classes.^{1 2}

1.1. Theoretical background

Building on Rizzi's (1997) concept of a split CP, cartography (Cinque 1999) postulates a richly articulated array of semantically motivated projections to house adverbs and functional items. Cartography is empirically supported by, for instance, how adverbs with certain meanings appear in a largely fixed relative order cross-linguistically (Table 1).

Table 1. Semantically similar adverbs exhibit a stable relative order cross-linguistically.

Relative order	French	Italian	Meaning
1	<i>généralement</i>	<i>solitamente</i>	usually
2	<i>ne ... pas</i>	<i>non ... mica</i>	not
3	<i>déjà</i>	<i>già</i>	already
4	<i>plus</i>	<i>più</i>	any longer
5	<i>toujours</i>	<i>sempre</i>	always
6	<i>complètement</i>	<i>completamente</i>	completely

As such, cartography assumes that each functional projection only houses items with specific semantic characteristics.

Originally applied to adverbs and inflectional morphemes, the one-meaning-one-head approach in cartography has now been expanded to encompass

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² The following notation is not included in or used differently to the Leipzig Glossing Rules: EXP = experiential aspect, NEG.EXIST = negative existential verb, REL = relativiser, SFP = sentence-final particle. SFPs are not glossed with translations, instead being variously marked 'SFP', romanised, or labelled to indicate their function: [ASP] – aspectual, [ONLY] – restrictive focus, [CLEFT] – for the SFPs listed in Table 6. How SFPs are glossed varies according to what is most relevant to the argumentation.

SFPs (cf. Li 2006, Sybesma & Li 2007; Pan 2019).³ Simply put, ‘SFP’ is an umbrella term for a group of words which are always right-peripheral in canonical word order but are otherwise functionally and semantically very diverse. The latter coupled to their ability, and indeed tendency, to cluster with each other in a fixed order, predisposes SFPs to description in a cartographic framework. (1) demonstrates this clustering behaviour. The aforementioned authors mostly assume that SFPs occurring the furthest left are most closely bound to the preceding clause in meaning, and are structurally the lowest. Conversely, the further right an SFP, the more it is associated with discourse context and the less with sentential syntax (sections 2–4 explain what these SFPs mean).

(1) [Cantonese, constructed]⁴

keoi5 duk6gwo3 siu2hok6 **lai4 ge3 zaa3 wo3**
 3SG learn-EXP primary.school LAI4 GE3 ZAA3 WO3
 ‘(It’s the case that) he’s only completed primary school(, mind you).’

Switching the order of SFPs around within the cluster yields ungrammaticality, e.g. **zaa3 ge3 wo3 lai4*. The fixed order in which SFPs occur is likely to be structurally determined and hence fall under the scope of syntactic analysis.

However, the authors cited above disagree on the number and sequence of projections underlying SFPs in Sinitic, and exactly what meanings each functional projection is sensitive to.

Prior work (Erlewine 2017; Biberauer 2017) that has taken SFPs to represent or attach to phasal heads may provide some clues as to their positions relative to each other. For the purposes of this paper, I will take phasal heads to mark out a subpart of the syntactic structure known as a phase (Chomsky 2000 etc.). Spellout takes place one phase at a time, meaning that items in the same phase undergo conversion to PF together, whereas items in different phases do not.

³ These scholars usually assume antisymmetry (Kayne 1994). I remain agnostic on this issue, but follow some authors (e.g. Erlewine 2017; Pan 2019) in taking SFPs to be heads (but see 6.3).

⁴ Jyutping is used to transcribe all varieties of Cantonese covered here. The numbers at the end of each syllable mark tone. For Mandarin, pinyin is used, the tones marked by diacritics. Hokkien examples are transcribed in Peh-oe-ji romanisation, but tones have been left unmarked due to pervasive regional variation and tone sandhi. ‘Cantonese’ refers to the standard dialect of Yue Chinese that originates in Guangzhou and is now also spoken in Hong Kong and Singapore. Specific Cantonese varieties are labelled as such where appropriate.

1.2. Structure of the present paper

In section 2, I examine aspectual SFPs in Cantonese and Mandarin, showing them, seemingly *contra* Cinque (1999), to occupy different functional heads despite their semantic proximity. Section 3 does the same with restrictive focus SFPs in both languages. I adduce scopal data to argue that near-synonymous SFPs housed in different projections are usually in different phases.

Sections 4 and 5 introduce SFPs borrowed into Guangzhou and Singapore Cantonese to note that in each recipient language, borrowings cannot cluster with native (i.e. non-borrowed) SFPs if semantically analogous clusters are disallowed in the source language. I hence hypothesise that SFPs are borrowed with their underlying structure intact. I observe that the Cantonese SFP *lai4* challenges this assumption, but explain its irregular behaviour by its position within TP. Section 6 adduces other relevant data to buttress an analysis of SFPs in different phases. I propose that because SFPs in each phase are categorially distinct, they do not in fact threaten cartographic assumptions, for near-synonymous but categorially different SFPs can legitimately inhabit different projections. Section 7 concludes.

1.3. Methodology

The acceptability of SFP clusters in all primary data was ascertained with the help of at least five native-speaker informants. Clusters were deemed fully grammatical if a simple majority for each variety (e.g. Guangzhou Cantonese) agreed that they did not sound entirely unlike what a native speaker of that variety would say. All clusters were contextualised in sentences, a non-exhaustive list of which is contained in the Appendix.

2. One meaning in more than one node: Aspectual SFPs

2.1. Realisation-of-state SFPs in Cantonese and Mandarin

This section presents comparative data from Cantonese and Mandarin that apparently contradicts the one-meaning-one-head approach in cartography. I will start by comparing the Cantonese SFP *laa3* and the Mandarin SFP *le* (also labelled as *le*₂ in some studies to distinguish it from the homophonous verbal

particle *le*). Both these SFPs have been demonstrated to indicate the realisation of a new state (Fung 2000; Yiu 2001), their use in similar contexts in both languages having led some to claim that they are close semantic equivalents (Kwok 1984: 46; Sybesma & Li 2007: 1749; Matthews & Yip 2011: 402; Tang 2015: 204); see (2).

(2) Mandarin *le* and Cantonese *laa3* both express a realisation-of-state

a. [Mandarin, constructed]

xiàyǔ **le**

rain LE

b. [Cantonese, Yiu 2001:108]

lok6jyu5 **laa3**

rain LAA3

‘It’s started to rain.’ (i.e. the state of raining has now materialised)

In line with their realisation-of-state meanings, both SFPs are incompatible with the adverb meaning ‘not yet’ in Cantonese and Mandarin respectively.

(3) Mandarin *le* and Cantonese *laa3* are incompatible with ‘not yet’

a. [Mandarin, constructed]

*háiméi xiàyǔ **le**

not.yet rain LE

b. [Cantonese, Yiu 2001:108]

*mei6 lok6jyu5 **laa3**

not.yet rain LAA3

intended: ‘It hasn’t rained yet.’ (i.e. ‘It has now become the case that it hasn’t rained.’)

However, there is evidence that both SFPs differ in their scopal properties despite being semantically so similar. The next two subsections will present data on Mandarin *le* and Cantonese *laa3* respectively to support this claim.

2.2. Mandarin *le* is TP-internal

Erlewine (2017) argues that *le* in Mandarin occupies a low structural position below CP. I will only elaborate on his points concerning subjects and epistemic modals as the rest have been convincingly refuted by Pan (2019b).

To start with subjects, Erlewine (2017) claims that *le* licenses an indefinite reading of wh-words (e.g. *shénme* ‘what’) it takes scope over (ibid:51). Because wh-words in subject position cannot be given an indefinite reading, Erlewine claims such subjects to be beyond the scope of *le*.

- (4) [Mandarin, Erlewine 2017:52, (28-29)] Wh-subjects cannot receive an indefinite reading from *le* and may therefore be beyond its scope (Erlewine 2017)

- a. Indefinite reading of wh-word *shénme* ‘what’ illicit in absence of SFP *le*

Tā kàndào shénme
 3SG see-RES what
 ‘What did s/he see?’ (shénme as wh-question word)
 *‘S/he saw something.’ (*indefinite reading of shénme)

- b. Indefinite reading of wh-word *shénme* ‘what’ licensed by SFP *le* when in object position

tā kàndào shénme le
 3SG see-RES what LE
 ‘What did s/he see?’ (shénme as wh-question word)
 ‘S/he saw something.’ (indefinite reading of shénme)

- c. Indefinite reading of wh-word *shéi* ‘who’ illicit when wh-word is in subject position

shéi shuō shénme le
 who say what LE
 ‘Who spoke?’ (shéi as wh-question word)
 *‘Someone spoke.’ (*indefinite reading of shéi)

Pan (2019b:119), however, provides an alternative analysis for wh-subjects, theorising that the existential quantifier \exists , responsible for the indefinite reading of wh-words and whose closure is triggered by merging *le* into the sentence, is invariably located at T'/I' and not any higher. The reason that wh-subjects cannot be given an indefinite reading is that they are moved to a higher TopicP, in which position they no longer fall under the scope of the existential quantifier. As an indefinite reading is only possible of wh-words within the scope of the existential quantifier, wh-subjects in either topic position or spec-TP do not qualify. This, Pan claims, not a TP-internal placement of *le*, is what is responsible for its apparent inability to scope over subjects.

Nonetheless, the above does not automatically mean that *le* is higher than TP. Case in point, Pan himself states that the position of the existential quantifier is independent of the scope of the SFP(s) that trigger(s) it, with SFPs higher than *le*, like *ma*, triggering the existential quantifier no higher than the same T' position. A TP-internal analysis of *le*, postulating that *le* does not have to scope over the existential quantifier to trigger it, is hence still possible.

What further supports such a TP-internal analysis of *le* is its inability to interact with epistemic modals. As demonstrated in (5), *le* takes scope over structurally lower modals such as *yào* (future marker), but under epistemic modals such as *kěnéng* 'probably'.⁵

- (5) *kěnéng míngtiān *(yào) xiàyǔ le*
probably tomorrow will rain LE

'It may now rain tomorrow.' (lit. 'Probably it is now the case that it is going to rain tomorrow.': *yào* < *le* < *kěnéng*, where '<' is read as 'takes scope over')

*'It is now the case that it is probably going to rain tomorrow.' (It wasn't the case before.) (*yào* < *kěnéng* < *le*)

Le in conjunction with the future marker *yào* indicates the realisation of a state where rain is imminent. Without *yào*, (5) is degraded. As *le* cannot scope above the epistemic modal *kěnéng* 'probably' to indicate the realisation of a state of probability, in the absence of *yào*, the realisation-of-state marker *le* would se-

⁵ I disagree with Erlewine's (2017) analysis of *yào* as an epistemic modal, as it can co-occur with the epistemic modal *kěnéng*, shown in (5).

mentally contradict *míngtiān* ('tomorrow'), which indicates a yet-to-materialise state of affairs. Erlewine's (2017:49 (23a, 24a)) observations on abilitative and deontic modals also support a lower-than-TP scope of *le*.⁶

For want of more suitable tests, I take the above to suffice as evidence that *le* is within TP.

2.3. Cantonese *laa3* is above TP

Cantonese *laa3*, however, is able to scope above epistemic modals. (6) clearly shows this, as the realisation-of-state *laa3* is able to take scope high enough to avoid semantically contradicting the future adverb 'tomorrow'. Instead, *laa3* interacts with the epistemic modal *ho2nang4* ('probably') to express that the state of probability has now materialised. This contrasts starkly with Mandarin *le*, which 2.2 has shown is unable to interact with epistemic modals. Therefore, unlike in Mandarin, the future marker *jiu3* (= *yào* in (5)) is not needed to avoid anomalous semantics; see (6).

(6) [Cantonese, constructed]

ho2nang4 ting1jat6 (jiu3) lok6jyu5 laa3
 probably tomorrow will rain LAA3
 'It may now rain tomorrow.' (jiu3 < ho2nang4 < laa3) (i.e. It had not been probable before.)

Assuming that the inability of Mandarin *le* to scope over epistemic modals is solely conditioned by its low structural position, this observation would necessarily mean that Cantonese *laa3* is positioned higher than Mandarin *le*.

As Erlewine's (2017) other tests for Mandarin are not applicable to Cantonese, I will take (6) to amply demonstrate the high, TP-external, position of Cantonese *laa3*, as compared to the lower, TP-internal, position of Mandarin *le*.

Placing two realisation-of-state SFPs in different structural positions seems to run counter to the cartographic maxim that items with comparable meanings should be positioned on the same functional head. To explore this

⁶ Considering how *le* can interact with other lower modals, I here disregard the possibility of semantic incompatibility between *le* and TP-external epistemic modals.

apparent contradiction further, I now introduce a third SFP, Cantonese *lai4*, which has several functions.

2.4. Cantonese *lai4* is TP-internal

When *lai4* interacts with a copula-DP combination, as in (7), *lai4* asserts “the innate properties” of the DP (Fung 2000: 88–89), perhaps lending itself to be paraphrased as ‘intrinsically’ or ‘by nature’; see (7).

(7) [Cantonese, Fung 2000: 87, (36)]

nei1 go3 hai6 din6 si6 gei1 lai4
 PROX-CLF COP television LAI4
 ‘This is a TV set.’ (It is intrinsically/ by nature one.)

Focussing for now on its aspectual meanings, *lai4* interacting with a non-copular predicate indicates that an action had been completed not long ago (cf. Lai 2014) and does not continue into the time of speech. Hence, *lai4* has been equated with the ‘perfective’ by some (e.g. Fung 2000: 83, Yiu 2001); see (8).

(8) [Cantonese, constructed]

keoi5 sik6 jyun4 faan6 lai4
 3SG eat-finish rice LAI4
 ‘He had had his meal.’ (He’s now doing something else.)

Lai4, expressing the discontinuation of a state, is thus semantically distinct from Mandarin *le* and Cantonese *laa3*, which both indicate the emergence of a new state. Despite these discrepancies, however, Cantonese *lai4* seems to resemble Mandarin *le* in not being able to scope over epistemic modals.

(9) [Cantonese, constructed] *Lai4* (in a hypothetical LAI-phrase) cannot scope over epistemic modals (in the projection $\text{Mod}_{\text{epistemicP}}$)

- a. Grammatical: epistemic modal > *lai4*
Context: The speaker notices the ground is wet

[Mod_{epistemic}P waak6ze2 [TP [LAI-P lok6 jyu5 lai4]]]
 possibly fall rain LAI4
 ‘It might have rained just now.’

- b. Ungrammatical: *epistemic modal < *lai4*
Context: It was cloudy just a moment ago, but not anymore

*[LAI-P [Mod_{epistemic}P waak6ze2 [TP lok6 jyu5]] lai4]
 possibly fall rain LAI4
 intended: ‘Just now, rain was possible.’ (But it is no longer so because the sky has cleared.)

As Cinque (1999) places epistemic modals directly above TP, the latter suggests that *lai4* is structurally lower than TP, whereas other SFPs are higher. *Lai4* can in fact interact with lower modals (Yiu 2001:25). Positioning *lai4* as such would imply that it is in a lower phase than the other SFPs discussed here. Although semantic reasons cannot be ruled out for the inability of *lai4* to interact with epistemic modals, the next subsection offers evidence to support a structural account.

2.5. Two aspectual SFP projections in Cantonese

Unlike aspectual SFPs in Mandarin, which Pan (2019:24) shows are not able to co-occur, the Cantonese aspectual SFPs *lai4* and *laa3* are able to appear in the same cluster.

- (10) [Cantonese, constructed] Cantonese permits *lai4* and *laa3* to co-occur although both equally express aspect

keoi5 sik6jyun4 faan6 lai4 laa3, ji4gaal keoi5
 3SG eat-finish rice LAI4 LAA3, now 3SG
 zou6gan2 gung1fo3
 do-PROG homework

‘He has already had his meal. He’s now doing his homework.’

Hence, Cantonese clearly has more than one functional projection for aspectual SFPs. This ought to be universally applicable under the cartographic assumptions outlined in Section 1.⁷ If the theory outlined above is correct, and Cantonese *lai4* occupies the same functional projection as Mandarin *le* despite their semantic dissimilarity, while Cantonese *laa3* and Mandarin *le* occupy different functional projections despite their semantic closeness, this poses a problem to the one-meaning-one-head approach in cartography. Table 2 summarises the data so far.

Table 2. Properties of aspect-related SFPs in Cantonese and Mandarin.

Aspect-related SFPs	Cantonese		Mandarin
	<i>laa3</i>	<i>lai4</i>	<i>le</i>
Meaning	realisation-of-state	recently completed action (aspectual); innate characteristics (non-aspectual)	realisation-of-state
Scopes over epistemic modals?	Y	N	N

3. One meaning in more than one node: Restrictive focus SFPs

3.1. Mandarin *éryǐ* is TP-internal

This section will look at the restrictive focus SFPs in Mandarin and Cantonese, which are respectively *éryǐ* and *zaa3*. Here, I argue that much like the realisation-of-state SFPs in both languages, semantic closeness does not entail that the restrictive focus SFPs are positioned in the same projection, seemingly contradicting Cinque (1999).

I begin by once more citing Erlewine (2010, 2017). Both his works claim that *éryǐ* cannot focalise subjects and is hence plausibly TP-internal.

- (11) [Mandarin, adapted from Erlewine 2017:59, (45)] ***Éryǐ* cannot focalise subjects**

⁷ Chan (2020:76) provides more comparative data from Hokkien (Min, Sinitic) in support of two projections for aspectual SFPs.

*(zhǐyǒu) [wǒ yīgèrén]_F huì kàn yīngwén éryǐ
 only 1SG 1-CLF-person can read English ERYI
 ‘Only [I]_F can read English.’ (No-one else can.)

Arguing against Erlewine, Pan (2019b) rightly notes that *éryǐ* is mostly unable to occur without a preverbal restrictive focus item (usually *zhǐshì/zhǐyǒu* ‘only’), no matter whether *éryǐ* focalises items above or within TP. This is corroborated by all my mainland informants, for which reason data from such speakers cannot show whether *éryǐ* takes scope over subjects.

However, Erlewine (p.c.) notes that certain mainland speakers and somewhat more Taiwanese Mandarin speakers allow such a usage, the latter of which is confirmed by my Taiwanese informants. With such speakers, *éryǐ* is decidedly unable to focalise subjects or epistemic modals, both located outside TP, as (12) demonstrates.

(12) *Éryǐ* cannot focalise subjects or epistemic modals without preverbal *zhǐshì*

*(zhǐshì) jīntiān *(zhǐshì) kěnéng xiàyǔ éryǐ
 only today only probably rain ERYI
 subject focus: ‘Only [today]_F might it rain.’
 epistemic modal focus: ‘Today it is merely [probable]_F that it will rain.’ (i.e. There only exists a possibility – it is not certain.)
 predicate focus, allowed by certain speakers without preverbal *zhǐshì*:
 ‘Today it will only [rain]_F.’ (It won’t snow.)

The above ought to suffice as evidence that *éryǐ* with such speakers is within TP, instead of above it as Pan (2019b) claims. However, before drawing any conclusions, it must be noted that *éryǐ* sometimes appears to focalise an entire clause, as observed by both authors.

The apparent ability of *éryǐ* to focalise a whole TP seems to suggest that *éryǐ* is structurally higher than TP, because for a constituent to be focussed the focus item (in this case *éryǐ*) must c-command it. In such a case, *éryǐ* would prove no exception to Pan’s claim that all SFPs are in CP. Erlewine (2010, 2017, & p.c.) attempts to account for this by postulating the existence of two *éryǐ*, the one lower than TP (“focus-sensitive *éryǐ*”) and the other higher than TP (“utterance-focus *éryǐ*”).

- (13) [Mandarin, Erlewine 2010:35, (27)] Utterance-focus *éryǐ* (Erlewine 2010, 2017) supposedly scopes over the entire utterance

[wǒ bù hē chá]_F *éryǐ*
 1SG NEG drink tea ERYI
 ‘It’s just that [I don’t drink tea]_F ... there’s no other reason.’

However, a problem with postulating two separate forms of *éryǐ* in Mandarin is that *éryǐ* is consistently unable to focalise subjects, as (12) has demonstrated. If it were able to focalise an entire TP, it is unexpected that Erlewine’s utterance-focus *éryǐ*, which is supposed to be structurally higher than subjects, cannot focalise subjects. After all, the Association With Focus mechanism (Jackendoff 1972; Rooth 1985) states that *any* constituent c-commanded by a focus item can be focalised. Against this backdrop, I contend that postulating only one sub-TP *éryǐ* suffices to account for the behaviour of Erlewine’s two purported manifestations of *éryǐ*.

I propose that when it appears to focalise an entire clause, *éryǐ* in fact focalises only the predicate (i.e. vP and all other sub-TP projections), without the subject. This removes the need for postulating two structurally distinct manifestations of *éryǐ*. Hence, (13) can be structurally interpreted as follows.

- (14) [Mandarin, repeat of (13)] Predicate-focus can yield Erlewine’s (2010, 2017) “utterance-focus” reading of *éryǐ*

wǒ [bù hē chá]_F *éryǐ*
 1SG NEG drink tea ERYI
 ‘I just [don’t drink tea]_F ... there’s no other reason.’ (i.e. = (13))

The implication is that Erlewine’s ‘focus-sensitive *éryǐ*’ would really be *éryǐ* taking narrow focus, while his ‘utterance-focus *éryǐ*’ is one and the same *éryǐ* taking broad focus over vP. Such an approach neatly accounts for why despite its seemingly high structural position in certain contexts, *éryǐ* remains incapable of focalising subjects.

In short, I here argue that placing Mandarin *éryǐ* within TP is sufficiently justified by the data available.

3.2. Cantonese *zaa3* is above TP

This section will show that the Cantonese restrictive focus SFP *zaa3* ('only'), unlike the near-synonymous Mandarin *éryǐ*, is higher than TP with some speakers and within TP with others.

This is adequately demonstrated by how with many speakers, *zaa3* can comfortably focalise both subjects and epistemic modals.⁸

(15) [Cantonese, Law 2002:388, (34)] ***Zaa3* can focalise subjects**

Teacher: bin1go3 waak6faa1 bung6 coeng4?
 who draw-messy CLF wall
 'Who did the graffiti?'

Billy: m4 gwaan1 ngo5 si6 aa3.
 NEG related 1SG matter SFP
 'It's not me!

[Aa3ming4]_F waak6faa1 bung6 coeng4 **zaa3**
 (NAME) draw-messy CLF wall ZAA3
 'It's only [Aaming]_F who did it.'

(16) [Cantonese, constructed] *Zaa3* takes scope over epistemic modals, e.g. *waak6ze2* ('probably')

keoi5 [waak6ze2]_F wui5 heoi3 **zaa3**, m4 hai6
 3SG probably FUT go ZAA3, NEG COP

jat1ding6 wui5 heoi3,
 definitely FUT go,

'It's only [possible]_F that he'll go tomorrow, it's by no means certain.

m4hou2 gam3 hoi1sam1 zyu6
 don't such happy SFP
 'Don't rejoice just yet.'

⁸ For cross-linguistic evidence of a restrictive focus SFP above TP, see Cheong (2016: 24–47, Singlish) and Chan (2020: 76–77, Hokkien).

By contrast, certain Cantonese speakers (cf. Tang 1998:45–46) disallow *zaa3* from taking scope over subjects. Indeed a minority of my informants fall into this category, but many among this group nonetheless permit *zaa3* to scope over epistemic modals, i.e. (16). Here, I presume this inconsistency to indicate there structurally being more than one *zaa3* in Cantonese, one within TP and one above it (cf. Chan 2020: 99–100).

3.3. Interim summary

I have so far presented evidence that both within the same language and cross-linguistically, restrictive and aspect-related SFPs with highly similar meanings occupy more than one structural position. This is not predicted by cartographic theory as applied to SFPs.

I have also attempted to show that (near-)synonymous SFPs may occupy positions both within and above TP, as I here propose in Table 3.

Table 3. Proposed distribution of aspect-related and restrictive focus SFPs in Cantonese and Mandarin.

Category of SFPs	Cantonese		Mandarin	
	within TP	above TP	within TP	above TP
Aspect-related	<i>lai4</i>	<i>laa3</i>	<i>le</i>	-
Restrictive focus	<i>zaa3</i>	<i>zaa3</i>	<i>éryǐ</i>	-

To further buttress an analysis of SFPs in different phases, we now turn to SFPs borrowed into two varieties of Cantonese.

4. Native and borrowed SFPs – differences in clustering properties

Here, I will look at one borrowed SFP each in Guangzhou Cantonese and Singapore Cantonese. I ultimately show that both borrowed SFPs seem to block certain structurally lower native Cantonese SFPs from co-occurring with each other.

This sets the scene for my proposal in Section 5 that these differences are due to whole clusters of SFPs being calqued from the source language with the underlying structure, instead of SFPs being singly borrowed into Cantonese without the nodes that house them. Using this evidence, I will then reaffirm in Section 6 that SFPs are in different phases, and by extension, plausibly in different lexical classes.

4.1. Sociolinguistic background

Guangzhou Cantonese (GZC) and Singapore Cantonese (SGC) are closely related, the latter being descended from the former. GZC originates and is still spoken in the old urban area of Guangzhou (Canton), but is being rapidly replaced by Mandarin (also known as *Putonghua*) as a lingua franca. SGC, on the other hand, is already moribund. Largely spoken by immigrants to Singapore of Cantonese descent, it differs from GZC most conspicuously in its numerous borrowings from other languages, such as Hokkien (Min Chinese, Sino-Tibetan) and the English-based creole Singlish (see Leimgruber 2013 for a background), which are more widely used in the local context.

4.2. Cantonese SFPs covered

Aside from the native Cantonese SFPs *laa3* and *lai4* (aspect-related) and *zaa3* (restrictive focus) already discussed in Sections 2 and 3, two additional native and two borrowed SFPs will be examined in the remainder of this paper. Native Cantonese SFPs will be assumed to be identical in structural and semantic properties in all Cantonese varieties covered here. SFPs from other languages (e.g. Mandarin, Hokkien) will be covered in the first section in which they appear.

i) *ge3*

Some meanings of the SFP *ge3* may be characterised as ‘stative’, i.e. indicating an intrinsic property or a normal state-of-affairs. This may in turn be interpreted as conveying an assertive tone (Fung 2000, see also (17a)). *Ge3* is also often associated with the construction <copula + predicate + *ge3*>, which in the context of the Sinitic languages is termed a type of cleft. For this latter

reason, and because the full range of meanings *ge3* expresses is otherwise hard to definitively demarcate, it and functionally related SFPs in other languages (see Section 5) will be termed ‘cleft SFPs’ here.

- (17a) [Cantonese, constructed] *Ge3* has a stative meaning, also interpretable as assertive

nei1 gaan1 caan1gun2 hou2 do1 jan4 **ge3**
 PROX CLF restaurant very many people GE3
 ‘This restaurant is (normally) crowded.’ (i.e. not a one-off occurrence)

- (17b) [Cantonese, constructed] *Ge3* is found in the ‘cleft’ construction <COP + predicate + *ge3*>

gin6 si6 hai6 gam2 **ge3**
 CLF matter COP thus GE3
 ‘It was like this.’ (followed by elaboration)

- ii) *wo3*

This SFP expresses speaker attitude, specifically ‘noteworthiness’ by some accounts (e.g. Matthews & Yip 2011). Speaker-attitude SFPs are usually structurally high, as seen from their position in the far right of clusters.

- (18) [Cantonese, constructed]

keoi5 duk6gwo3 siu2hok6 **wo3**
 3SG learn-EXP primary.school WO3
 ‘He’s been to primary school(, mind you.)’ (He’s by no means totally uneducated.)

All five native SFPs covered can cluster in the sequence shown in (19) (cf. also (1)), with the exception of *zaa3* and *laa3*, which can only freely combine in GZC.

- (19) Relative order of native Cantonese SFPs covered
 lai4 < ge3 < zaa3 < laa3 < wo3

One borrowed SFP will be discussed for each variety. Both borrowings express speaker attitude and can attach to a variety of clause types. For ease of differentiation from native Cantonese SFPs, borrowed SFPs will be underlined throughout. The borrowed SFP discussed for GZC is baa3 ‘uncertainty’, a recent loan from Mandarin (see Chan 2020).

- (20) [GZC, corpus] Baa3 in a rhetorical question in GZC
 Context: Two people have just boarded a plane.

wu6ziu3 m4 sai2 zaalzyu6 baa3?
 passport NEG need hold-ASP BAA3
 ‘I suppose (we) don’t need to hold on to our passports?’ (We could keep them in our bags.)

- (21) [Mandarin, elicited] **Ba in a declarative**
 tā bù huì piàn nǐ **ba**
 3SG NEG FUT cheat 2SG BA
 ‘He wouldn’t lie to you, I suppose.’

For SGC, the borrowed SFP covered is laa6. This SFP couches the foregoing proposition as valid or reasonable beyond doubt, giving rise to a possible coercive effect (see Wong 2014). Laa6 likely derives from either Hokkien or Singlish (see Chan 2020: 168–172, there referred to as *laa^t*). However, for expediency, only Hokkien will be considered here.

- (22a) [SGC, corpus] Laa6 in an imperative

aai3jo4, nei5 oi3 zou6 ge3 je5 nei5 gaa1geil zou6 laa6
 INTRJ, 2SG want do REL thing 2SG self do LAA6
 ‘For goodness’s sake, this is something you want to do, so get it done yourself.’

- (22b) [SGC, constructed] Laa6 in a declarative
 Context: Speaker is asked impatiently, “Why aren’t we betting with money?”
 ji1ci3 mou5 cin2 laa6, daan6hai6 haa6ci3
 this-time NEG.EXIST money LAA6 but next-time

wui5 jau5
FUT EXIST

‘There is no money involved this time (as a matter of fact). But the next time there will be.’

(23) [Hokkien, Li 1999: 48] **La in a declarative**

goa bo ai ket-hun la
1SG NEG want marry LA
‘I don’t want to get married.’ (How can this possibly work?)

4.3. Generalisation on mutual compatibility

The analysis here focusses on a generalisation based largely on the clustering behaviour of native – as opposed to borrowed – SFPs in GZC and SGC. Where necessary, I will refer to it as the **generalisation on mutual compatibility**. It stipulates that if three hypothetical SFPs A, B, and C are all mutually compatible – i.e. the pairs AB, AC, and BC are all valid clusters – then the cluster ABC (in this sequence) would equally be a valid one. It is based on the data in the appendix, where a list of valid SFP pairs was used (Table 1), arranging each SFP in the requisite order, to exhaustively form three, four and five-part clusters (Table 2).

The first two examples exemplify the generalisation ruling in tripartite clusters where all three SFPs are mutually compatible. In the third the generalisation correctly rules out the tripartite cluster **lai4 zaa3 zek1* because the SFPs *zaa3* and *zek1* are mutually incompatible.

Table 4. Three clusters of three SFPs each that abide by the generalisation.

Criteria	1) <i>ge3 zaa3 wo3</i> (A = <i>ge3</i> , B = <i>zaa3</i> , C = <i>wo3</i>)	2) <i>lai4 laa3 gwaa3</i> (A = <i>lai4</i> , B = <i>laa3</i> , C = <i>gwaa3</i>)	3) <i>*lai4 zaa3 zek1</i> (A = <i>lai4</i> , B = <i>zaa3</i> , C = <i>zek1</i>)
AB valid?	✓ – <i>ge3 zaa3</i>	✓ – <i>lai4 laa3</i>	✓ – <i>lai4 zaa3</i>
AC valid?	✓ – <i>ge3 wo3</i>	✓ – <i>lai4 gwaa3</i>	✓ – <i>lai4 zek1</i>
BC valid?	✓ – <i>zaa3 wo3</i>	✓ – <i>lai4 gwaa3</i>	✗ – <i>*zaa3 zek1</i>
Thus ABC valid?	✓ – <i>ge3 zaa3 wo3</i>	✓ – <i>lai4 laa3 gwaa3</i>	✗ – <i>*lai4 zaa3 zek1</i>

4.4. Borrowed SFPs violate the generalisation

It should be reiterated that the generalisation presented above is based on native Cantonese SFPs. Borrowed SFPs, on the other hand, seem not to abide by it, as the examples in Table 5 show. They involve the borrowed SFPs baa3 (GZC) and laa6 (SGC), contrasted with the native Cantonese speaker-attitude SFP wo3.

Table 5. The borrowed speaker-attitude SFPs baa3 (GZC) and laa6 (SGC) do not abide by the generalisation, unlike the native speaker-attitude SFP wo3.

Combination	<u>baa3</u> (GZC) (A = <i>ge3</i> , B = <i>zaa3</i> , C = <u><i>baa3</i></u>)	<u>laa6</u> (SGC) (A = <i>ge3</i> , B = <i>zaa3</i> , C = <u><i>laa6</i></u>)	<u>wo3</u> (Cantonese, native) (A = <i>ge3</i> , B = <i>zaa3</i> , C = <u><i>wo3</i></u>)
[CLEFT] + ~	<i>ge3</i> <u><i>baa3</i></u> (AC ✓)	<i>ge3</i> <u><i>laa6</i></u> (AC ✓)	<i>ge3</i> <u><i>wo3</i></u> (AC ✓)
[ONLY] + ~	<i>zaa3</i> <u><i>baa3</i></u> (BC ✓)	<i>zaa3</i> <u><i>laa6</i></u> (BC ✓)	<i>zaa3</i> <u><i>wo3</i></u> (BC ✓)
[CLEFT] + [ONLY]	<i>ge3</i> <i>zaa3</i> (AB ✓)		
[CLEFT] + [ONLY] + ~	* <i>ge3</i> <i>zaa3</i> <u><i>baa3</i></u> (ABC ✗)	* <i>ge3</i> <i>zaa3</i> <u><i>laa6</i></u> (ABC ✗)	<i>ge3</i> <i>zaa3</i> <u><i>wo3</i></u> (ABC ✓)

This data, based on more than one Cantonese variety, reliably shows that borrowed SFPs prevent *ge3* and *zaa3* from co-occurring. Taking this to be the case for want of a better alternative, the rest of the paper discusses possible reasons for this phenomenon.

5. Loan-translation of clusters

5.1. The source languages

Mandarin and Hokkien both have an SFP analogous to Cantonese *ge3* ('cleft SFP'), namely *de* (Mandarin) and *e* (Hokkien), similar foremost in their shared tendency to occur in the Chinese 'cleft' construction mentioned in 4.2. For expediency, these three items will be termed the 'cleft SFP' (glossed [CLEFT]) of their respective language.

Although there are indisputable differences in how cleft SFPs are used in Cantonese, Mandarin and Hokkien (see Chan 2020:156-9), it is striking that, in all three languages, cleft SFPs or their homophones cover the same range of functions as listed in Table 6. Hence, despite differing in the details, the similar array of functions that *ge3* (Cantonese), *de* (Mandarin), and *e* (Hokkien) play is likely to facilitate interlingual identification of the three items with each other in multilingual speakers, following Gast & van der Auwera (2012).

Table 6. Virtually the same set of grammatical functions fulfilled by one grammatical item each in Cantonese, Mandarin, and Hokkien.

Function	Cantonese	Mandarin	Hokkien
<i>marker of predicative adjective</i>	<i>ge3</i>	<i>de</i>	<i>e</i>
<i>possessive marker</i>	<i>ge3</i> (or classifiers)	<i>de</i>	<i>e</i>
<i>relativiser</i>	<i>ge3</i>	<i>de</i>	<i>e</i>
<i>nominaliser</i>	<i>ge3</i>	<i>de</i>	<i>e</i>
<i>SFP in cleft</i>	<i>ge3</i>	<i>de</i>	<i>e</i>

The same probably holds for the forms *zaa3* (Cantonese)/ *éryǐ* (Mandarin)/ *nia* (Hokkien), which all express restrictive focus in their respective language. Analogously to the cleft SFPs, these three SFPs will be glossed as [ONLY].

(24) Cantonese, Mandarin and Hokkien each have a restrictive focus SFP

a. [Cantonese, constructed]

gin6 si6 m4 hai6 gam2 **zaa3**
 CLF matter NEG COP thus [ONLY]

b. [Mandarin, constructed]

shiqíng bù zhǐ shì zhèyàng **éryǐ**
 matter NEG only COP thus [ONLY]

c. [Hokkien, constructed]

tai-chi m si an-ne **nia**
 matter NEG COP thus [ONLY]

‘There is more to this matter than meets the eye.’ (lit. ‘This matter isn’t only like that.’)

Importantly, in both Mandarin and Hokkien, cleft SFPs (Mandarin *de*, Hokkien *e*) cannot co-occur with restrictive focus SFPs. Hence, the clusters **de éryǐ* (Mandarin) and **e nia* (Hokkien), in whichever order, are invalid. This contrasts with Cantonese, which allows the SFP cluster *ge3 zaa3* ([CLEFT]+[ONLY]).

(25) Only Cantonese allows its cleft SFP to co-occur with its restrictive focus SFP

a. [Cantonese, constructed]

neilgaan1 caan1tengl (dak1)
 PROX-CLF restaurant (only)

gam3 do1 jan4 **ge3 zaa3** / ***zaa3 ge3**
 such many people [CLEFT] [ONLY] / [ONLY] [CLEFT]

b. [Mandarin, constructed]

zhèjiā jiǔlóu (zhǐ)shì
 PROX-CLF restaurant (only)-COP

nàme duō rén ***de éryǐ** / ***éryǐ de**
 such many people [CLEFT] [ONLY] / [ONLY] [CLEFT]

c. [Hokkien, constructed]

tsit-keng chhai-koan
 PROX-CLF restaurant

an-ne choe lang ***e nia** / ***nia e**
 such many people [CLEFT] [ONLY] / [ONLY] [CLEFT]

‘There are (usually) only this many people in the restaurant.’

In Mandarin, there seems to be an inherent incompatibility between restrictive focus items and the cleft SFP, as removing from (25b) the restrictive focus SFP *éryǐ* while retaining the preverbal ‘only’ (*(zhǐ)shì*) does not make it grammatical. No such problem exists in Hokkien, as (25c) without the restrictive focus SFP is acceptable. For simplicity, I assume the ineffability of [CLEFT]+[ONLY] SFP combinations in both languages to be structurally engendered. The above-mentioned disparities are due to cross-linguistic differences in how the semantic features on each SFP-bearing head interact with semantic features elsewhere in the same clause.

To account for the violations of the generalisation in Section 4, I propose that non-native SFPs transferred into a certain recipient language are not automatically able to freely combine with native SFPs because SFPs are borrowed in their contexts of use instead of as independent grammatical items. This means to say that clusters containing borrowed SFPs may in fact be calques from the source language, instead of comprising a borrowed SFP tacked onto a native cluster. This would result in the borrowed SFPs having co-occurrence properties highly similar or identical to the source forms.

To illustrate this point, we now turn to the source forms of the two borrowed SFPs *baa3* (GZC) and *laa6* (SGC), respectively Mandarin *ba* and Hokkien *la*. I will assume these to be functionally identical to the borrowed forms. In particular, I will scrutinise the interaction of these source forms with close functional equivalents of the Cantonese *ge3* (‘cleft SFP’) and *zaa3* (‘restrictive focus’) in Mandarin and Hokkien.

Table 7. Co-occurrence properties of the source forms of *baa3* (GZC) and *laa6* (SGC) with the cleft SFP and restrictive focus SFP in Mandarin and Hokkien respectively.

Combination	<i>ba</i> (Mandarin) – cf. <i>baa3</i> (GZC) (A = <i>de</i> , B = <i>éryǐ</i> , C = <i>ba</i>)	<i>la</i> (Hokkien) – cf. <i>laa6</i> (SGC) (A = <i>e</i> , B = <i>nia</i> , C = <i>la</i>)
[CLEFT] + ~	<i>de ba</i> (AC ✓)	<i>e la</i> (AC ✓)
[ONLY] + ~	<i>éryǐ ba</i> (BC ✓)	<i>nia la</i> (BC ✓)
[CLEFT] + [ONLY]	* <i>de éryǐ</i> (AB ✗)	* <i>e nia</i> (AB ✗)
[CLEFT] + [ONLY] + ~	* <i>de éryǐ ba</i> (ABC ✗)	* <i>e nia la</i> (ABC ✗)

Comparing Tables 5 and 7, we see that the co-occurrence behaviour of the borrowed SFPs *baa3* and *laa6* with cleft and restrictive focus SFPs is identical in both the recipient (GZC/SGC) and source languages (Mandarin and Hokkien). The source forms cannot cluster with both the cleft SFP and restrictive focus SFP at the same time, presumably because the latter two SFPs are not mutually compatible, as shown earlier.

It is perhaps as a result of the borrowed SFP conforming to the co-occurrence properties of the source SFP, instead of to those of similarly high speaker-attitude SFPs native to the recipient language, that the Cantonese cleft and restrictive focus SFPs are unable to co-occur in the presence of a borrowed SFP. This may be the reason that both borrowed SFPs covered here violate the generalisation on mutual compatibility as laid out in Section 4. Of note is that the source SFPs (Mandarin *de* and Hokkien *e*) in Table 7 do themselves conform to the generalisation.

Building on this analysis, I reiterate my hypothesis that when in the source language an SFP is found in a cluster, during borrowing it is this cluster, instead of any one SFP contained by the cluster, that is transferred into the recipient language. By this hypothesis, *ge3 baa3* in GZC (Table 5) would be a calque of *de ba* in Mandarin – both clusters consisting of the cleft SFP for the language followed by the speaker-attitude SFP expressing uncertainty – instead of *ba* in Mandarin being first borrowed into Cantonese, then added to native *ge3* in the latter's contexts of use.

5.2. Structural transfer?

For the calquing hypothesis to hold, a further observation requires clarification, namely that clusters containing exclusively non-native SFPs are not allowed. Examples of such prohibited clusters are **de ba* (Mandarin cleft SFP + Mandarin speaker-attitude SFP) in GZC and **nia la* (Hokkien restrictive SFP + Hokkien speaker-attitude SFP) in SGC. As shown in the foregoing examples, the structurally lower SFPs (i.e. placed further left) in clusters containing borrowed SFPs are invariably native in form, e.g. *ge3 ba* (= *baa3*) (native Cantonese cleft SFP + Mandarin speaker-attitude SFP) in GZC and *zaa3 la* (= *laa6*) (native Cantonese restrictive SFP + Hokkien speaker-attitude SFP) in SGC.

To account for this fact, I postulate that when clusters are calqued from another language, only higher SFPs are allowed to retain their non-native phonetic form, while lower SFPs are obligatorily replaced by semantically similar native SFPs. The functional and semantic proximity between Cantonese *ge3* and Mandarin *de*/Hokkien *e* ('cleft SFP'), and between Cantonese *zaa3* and Mandarin *éryi*/Hokkien *nia* ('restrictive focus'), has already been discussed above.

To explain why non-native co-occurrence restrictions seem to be transferred into the language borrowing SFPs, I further propose that during the process of calquing, what is first borrowed is the structure underlying a cluster, i.e. the array of functional projections, along with the semantic/syntactic properties associated with each projection. Lexical items are subsequently inserted after the structural transfer during Spellout, with lower projections in the structure selecting for semantically matching SFPs in native form, while higher projections are able to select for SFPs in non-native form.

For example, the cluster *ge3 baa3* (GZC) comprising the native cleft SFP and the borrowed speaker-attitude SFP *baa3* may have resulted from structural transfer from the source language of *baa3*, Mandarin. In Mandarin, the surface form of the cluster would be *de ba*, i.e. cleft SFP + 'uncertainty', underlain by the projections for the cleft SFP and speaker attitude SFPs respectively. During borrowing into GZC, this set of projections would have been transferred wholesale into GZC, with the structurally lower cleft SFP projection only able to select for the native Cantonese cleft SFP (as opposed to the Mandarin, or any other non-Cantonese, equivalent), while the higher speaker attitude projection is not subject to such selectional restrictions and accepts non-Cantonese SFPs as well, so long as these SFPs have semantic features matching those of the projection (i.e. the SFPs express speaker attitude).

A reviewer requests for direct evidence for the calquing of lower SFPs. The aforementioned cleft SFP + 'uncertainty' combination (*ge3 baa3*) constitutes just such evidence. It is clearly calqued from Mandarin, because the native uncertainty SFP, *gwa3*, cannot co-occur with the cleft SFP in non-Mandarin-influenced Cantonese varieties. For further evidence that structurally lower items – not only SFPs – tend to be calqued as opposed to borrowed, we examine a cleft construction in Mandarin, <copula ... *de* object>, that has the cleft marker *de* appearing non-sentence-finally within TP.

- (26) [Mandarin, constructed] Mandarin permits TP-internal, non-sentence-final *de* ('cleft marker')

wǒ shì Guǎngzhōu dú de bēnkē
 1SG COP Guangzhou study [CLEFT] bachelor's
 'I did my bachelor's in Guangzhou.'

This construction is alien to Cantonese, which invariably has a sentence-final cleft marker (Lee & Yiu 1998). It has however been adopted in innovative GZC, where, the cleft marker loan-translated as native *ge3* instead of borrowed directly as Mandarin *de*.

- (27) [innovative GZC, corpus] TP-internal cleft marker *ge3* calqued from Mandarin must appear in native form

ngo5 hai6 Gwong2zau1 duk6
 1SG COP Guangzhou study

 ge3/*de bun2fo1
 [CLEFT]/[MANDARIN CLEFT] bachelor's
 =(26)

As a second demonstration, take the illicit cluster **ge3 zaa3 laa6* in SGC, where the first two SFPs are native to Cantonese and the third borrowed from Hokkien. Analogously to the first example, these three SFPs would be underlain by projections for the cleft SFP, restrictive focus SFP and speaker-attitude SFPs respectively. The projections for the cleft SFP and restrictive focus SFP can co-occur in Cantonese but not in Hokkien (25c). To reiterate, I propose that clusters containing borrowed SFPs are inherently non-native in their underlying structure, i.e. the underlying structure of such clusters is transferred wholesale from the language from which the borrowed SFP originates. Because the source language of borrowed SFP *laa6*, Hokkien, does not allow its cleft SFP and restrictive SFP projections to co-occur, the array of projections underlying **ge3 zaa3 laa6*, [CLEFT] + [ONLY] + [SPEAKER ATTITUDE], is impossible in Hokkien and would not be calqued into SGC. Therefore, the cluster **ge3 zaa3 laa6* is illicit.

What I have proposed above is reminiscent of the exoskeletal approach adopted to language mixing involving verbs and DPs (e.g. Áfarli 2015), which however involves mechanisms not theorised for SFPs, such as agreement.

5.3. Calquing of clusters: predictions

Basically, the above predicts that when borrowed SFPs are used to form clusters, clusters that are non-existent in the source language likewise cannot exist in the recipient language. Recall that the source languages disallow their cleft and restrictive focus SFPs from co-occurring (see Table 7). If SFPs are indeed borrowed between languages in their contexts of use, the reason *ge3* ('cleft SFP') cannot co-occur with *zaa3* ('restrictive focus') in both GZC and SGC when in the presence of a borrowed SFP is that no corresponding cluster with the underlying projections [CLEFT] + [ONLY] + [SPEAKER ATTITUDE] in this order exists in the source language for transfer into the corresponding variety of Cantonese during calquing.⁹

5.4. Irregular co-occurrence properties of *lai4*

To reiterate, my proposal predicts that when a cluster with a borrowed SFP is impossible in the language from which the SFP is borrowed, that cluster would also be impossible in the language into which the SFP has been borrowed. However, the native Cantonese SFP *lai4* ('recently completed action', 'innate characteristics') challenges these predictions.

We have seen in (16) that Cantonese allows both aspectual SFPs *lai4* and *laa3* to co-occur, while the source languages Mandarin and Hokkien prohibit clusters containing multiple aspectual SFPs. Hence, for GZC and SGC, the calquing hypothesis would rule out clusters containing two aspectual SFPs (*lai4 laa3*) followed immediately by a borrowed SFP.

In addition, the same source languages lack an SFP equivalent to *lai4* that, when interacting with a copula, refers to the innate characteristics of the immediately preceding noun phrase. Consequently, if we adopt an account pre-

⁹ See Chan (2020:188–191) for a more nuanced discussion involving one other borrowed SFP in SGC.

supposing that the projections underlying SFP clusters in Mandarin or Hokkien are transferred into Cantonese with their semantic and structural features intact, we would predict the co-occurrence of ‘innate-characteristics’ *lai4* with an SFP loaned from Mandarin or Hokkien to be impossible.

However, both predictions are not borne out. Contradicting the first, the aspectual clusters *lai4 laa3 baa3* (GZC) and *?lai4 laa3 laa6* (SGC)¹⁰ are in fact at least marginally acceptable.

- (28a) [GZC, constructed] [ASP]+[ASP]+baa3 is acceptable in GZC but illicit in Mandarin

keoi5 ji4gaa1 m4 tou5ngo6, tau4sin1 jing1goi1 hai6
3SG now NEG hungry, just.now probably COP

‘Seeing how he isn’t hungry,

sik6jyun4 faan6 **lai4** **laa3** baa3
eat-finish rice [ASP] [ASP] BAA3

it’s probably the case that he had already eaten just now.’

- (28b) [SGC, constructed] [ASP]+[ASP]+laa6 is mostly acceptable in SGC but illicit in Hokkien

keoi5 sik6jyun4 faan6 **lai4** **laa3** laa6
3SG eat-finish rice [ASP] [ASP] LAA6,

gang2hai6 m4 tou5ngo6 laa1
of.course NEG hungry SFP

‘He’d already eaten after all, of course he isn’t hungry!’

The combination aspectual SFP + cleft SFP is also impossible in Mandarin and Hokkien, but permissible in Cantonese as *lai4 ge3*. Yet, we find that *lai4 ge3 baa3* (GZC) and *lai4 ge3 laa6* (SGC) are acceptable clusters, with the *lai4*

¹⁰ The reason for which this cluster is not universally acceptable may be more phonetic than syntactic or semantic, with three L-initial SFPs in a row perhaps sounding too repetitive to some speakers.

expressing the ‘innate characteristics’ meaning lacking in the source languages.¹¹ This contradicts the second prediction.

- (29) [GZC, constructed] [ASP]+[CLEFT]+baa3 is acceptable in GZC but illicit in Mandarin

nei1di1 m4 hai6 keoi5 di1 je5 lai4 ge3 baa3,
 PROX-PL NEG COP 3SG PL thing [ASP] [CLEFT] BAA3,
 ‘These probably aren’t his,

bei2 keoi5 zou6 me1 zek1
 give 3SG do what SFP
 why are you handing them over to him?’

- (30) [SGC, constructed] [ASP]+[CLEFT]+laa6 is acceptable in SGC but illicit in Hokkien

ji1di1 m4 hai6 keoi5 di1 je5 lai4 ge3 laa6,
 PROX-PL NEG COP 3SG PL thing [ASP] [CLEFT] LAA6,
 ‘These aren’t his at all,

bei2 keoi5 zou6 me1 zek1
 give 3SG do what SFP
 why are you handing them over to him?’

However, those GZC and SGC informants who have the borrowed SFPs in their repertory in fact accept clusters such as *lai4* + [BORROWING] (i.e. baa3 or laa6), *lai4* + [CLEFT] + [BORROWING], *lai4* + [ONLY] + [BORROWING], but still not *lai4* + [CLEFT] + [ONLY] + [BORROWING], featuring the [CLEFT]+[ONLY] combination not allowed in the source languages.

In sum, the behaviour of *lai4* as illustrated here differs from that of *ge3*, the latter of which abides by the calquing hypothesis.

While it may be tempting to hence dismiss the calquing hypothesis, I here propose instead that the divergent behaviour of *lai4* is due to it being in a lower phase than the other SFPs covered.

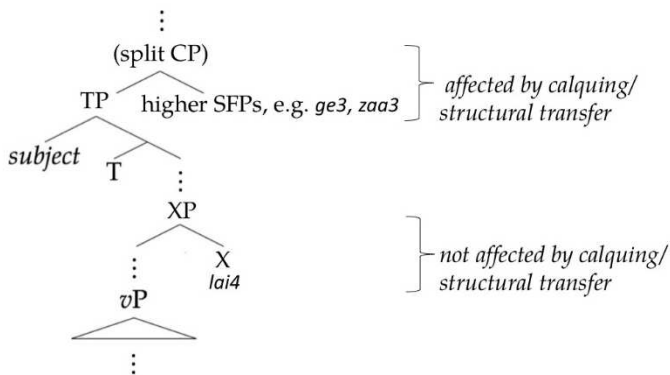
¹¹ Such clusters seem to be possible in L2 Mandarin in Guangzhou and L2 Hokkien in Singapore, but these varieties are not considered here.

6. Proposal

6.1. SFPs in different phases undergo Spellout separately

Because Spellout occurs one phase at a time, we can justifiably assume that items in the same phase would show a greater tendency to be borrowed as a unit than items occupying different phases. My proposal of placing SFPs in different phases thus neatly explains how clusters of SFPs above TP are transferred between languages with their co-occurrence restrictions intact. *Lai4*, conversely, is associated with the vP-phase (2.4). Because it is spelled out separately from items in the CP-phase and beyond, *lai4* is not affected by the wholesale structural transfer of SFP clusters into Cantonese.

- (31) Structural representation of proposal: *lai4* in vP is not affected by the structural transfer inherent in calquing of SFP clusters from other languages, whereas higher SFPs above the vP-phase are (head-final configuration assumed for SFPs, based on Erlewine 2017)



6.2. Saving the cartographic hypothesis: Different-phase SFPs are categorially distinct

We now turn our attention to the challenge near-synonymous SFPs in distinct syntactic positions pose to cartographic assumptions. Cardinaletti (2011) pro-

vides a lead, demonstrating that modal particles and adverbs in German and Italian are categorially distinct. Therefore, despite being closely affiliated etymologically, both categories cluster separately but each nonetheless abides by the same semantically determined sequence as cartography would dictate.

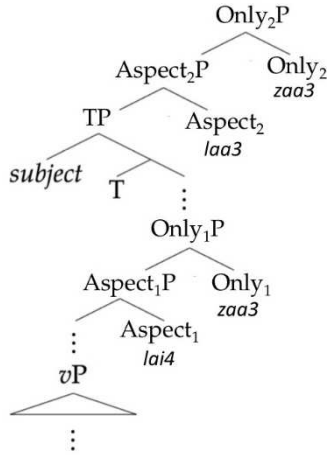
Hence, without adopting Cardinaletti's assumption that SFPs are categorially deficient, we could take the SFPs in each phase to belong to disparate grammatical categories. This would permit, in a manner compatible with cartography, near-synonymous SFPs to occupy different structural positions, so long as each is in a different phase and lexical category.

The foregoing has largely only emphasised the contrast between TP-internal and TP-external SFPs, with the former not being affected by structural transfer. However, 5.2 has further observed that of the TP-external SFP projections, only the highest group, those housing speaker-attitude SFPs, may take non-native exponents, while all lower nodes obligatorily take native exponents. We could explain this by assuming categorial differences between speaker-attitude SFPs and all other TP-external SFPs. In such a case, structurally lower SFPs (TP-internal and TP-external ones not expressing speaker attitude) would form closed classes and higher ones (expressing speaker attitude) a relatively open class receptive to borrowing.

This dovetails with certain proposals spreading SFPs across at least three phases, *vP*, *CP* and a higher Attitude phase (Erlewine 2017; cf. Biberauer 2017). In fact, if we take each SFP to represent a phase head, we could theoretically postulate up to five phases to accommodate the five-part clusters possible in Cantonese (see (19)). Splitting TP-external SFPs between multiple phases would not conflict with my theory that structural transfer during borrowing treats all SFPs above TP (i.e. in the *CP*-phase and above) as one whole, as that is congruent with complementiser borrowing attested elsewhere (e.g. Bidese et al 2013).

- (32) Simplified representation of two functional projections each to house aspectual SFPs (*Aspect_{1P}* and *Aspect_{2P}*) and restrictive focus SFPs (*Only_{1P}* and *Only_{2P}*), the first of each set being in the *vP*-phase, the second in the *CP*-phase (modified from Erlewine 2017)¹²

¹² (32) incorrectly rules in clusters disallowed in Cantonese. I assume additional phonetic constraints at work.



6.3. SFPs are not obligatorily heads

Although I assume SFPs to be heads, my proposal is equally compatible with works defining them as adjuncts to silent heads (Biberauer & Sheehan 2011; Biberauer 2017). In such a case, the fixed clustering order of SFPs could be analogous to the mechanisms determining which adverbs may adjoin to which specific maximal projections, with adjunction to the wrong XP yielding ungrammaticality (Radford 2006:225).

7. Conclusion

The foregoing has argued that aspectual and restrictive focus SFPs in Cantonese and Mandarin, which likely occupy different structural positions despite their semantic proximity, do not in fact challenge the one-meaning-one-node principle in cartography.

Admittedly, the analysis above is based on a limited sample of languages and SFPs. However, while this paper cannot claim to have offered any definitive explanation for the irregular co-occurrence properties SFPs exhibit in contact situations, it makes certain predictions (e.g. *lai4* is in the same phase as Mandarin *le*; only the highest SFPs may be spelled out in non-native form) that could be further tested on new empirical data.

Appendix

Note 1: “Acceptable” in the case of each cluster means that it is theoretically possible given the correct context. Such “acceptable” clusters are contrasted with clusters which informants thought impossible regardless of context.

Note 2: Owing to space constraints, pairs only permitted in one variety are not shown. These include *zaa3 laa3* in Guangzhou Cantonese and *laa3 laa1*, *laa3 lo1* and *zaa3 lo1* in Singapore Cantonese. They however abide by the generalisation on mutual compatibility.

Note 3: The tables include 25 SFPs, whose meanings are of little relevance to my proposal. They are namely: *aa1maa3*, *aa3*, *aa3maa5*, *aa4*, *aak3*, *bo3*, *ge3*, *gwaa3*, *laa1*, *laa3*, *laak3*, *lai4*, *le5*, *lo1*, *lo3*, *lo4*, *lok3*, *me1*, *ne1*, *wo3*, *wo4*, *wo5*, *zaa3*, *ze1*, *zek1* (discourse, D), *zek1* (restrictive focus, RF).

Table I. List of SFP pairs acceptable in GZC, HKC, and SGC.

	Underlying form	Phonetic realisation	Example context
1	<i>ge3 aa1maa3</i>	<i>gaa1maa3</i>	成件事唔係嘍～。
2	<i>ge3 aa3</i>	<i>gaa3</i>	成件事唔係嘍～。
3	<i>ge3 aa3maa5</i>	<i>gaa3maa5</i>	件事唔係嘍～？邊有可能 <i>zek1</i> ？
4	<i>ge3 aa4</i>	<i>gaa4</i>	件事係嘍～？
5	<i>ge3 aak3</i>	<i>gaak3</i>	成件事唔係嘍～，唔好聽叫亂講！/ 佢明明退咗休冇收入～，點解又突然間發咗達 <i>ge2</i> ？
6	<i>ge3 bo3</i>	<i>ga3 bo3</i>	件事唔係嘍～，唔好亂講！
7	<i>ge3 laa1</i>	<i>ga3 laa1</i>	你知件事唔係嘍～，好難搞掂 <i>gaa3</i> 。
8	<i>ge3 laa3</i>	<i>ga3 laa3</i>	呢啲嘢你唔識～，唔好咁多事 <i>laa1</i> 。
9	<i>ge3 laak3</i>	<i>ga3 laak3</i>	呢啲嘢你唔識～，唔好咁多事 <i>laa1</i> 。
10	<i>ge3 le5</i>	<i>ga3 le5</i>	件事唔係嘍～，唔好亂講！
11	<i>ge3 lo1</i>	<i>ga3 lo1</i>	原來，佢會辛苦～，做出嚟嘅嘢會對佢傷害好大。(違規路段高危青少年服務理論與實踐:127)
12	<i>ge3 lo3</i>	<i>ga3 lo3</i>	嘍嘍罪肯定判重刑～，冇得網開一面。
13	<i>ge3 lo4</i>	<i>ga3 lo4</i>	平結係唔係嘍嘍？唔係嘍 <i>ge3 lo4</i> 。

	Underlying form	Phonetic realisation	Example context
14	<i>ge3 lok3</i>	<i>ga3 lok3</i>	噉嘅罪肯定判重刑～，冇得網開一面，你唔使再求我 <i>laa3</i> 。
15	<i>ge3 mel</i>	<i>ga3 mel</i>	件事係噉～？乜我唔知 <i>ge2</i> ？
16	<i>ge3 nel</i>	<i>ga3 nel</i>	你點知件事係噉～？
17	<i>ge3 wo3</i>	<i>ga3 wo3</i>	件事唔係噉～，唔好亂講！
18	<i>ge3 wo4</i>	<i>ga3 wo4</i>	原來件事係噉 <i>ge3 wo4</i> ，我哋怪錯咗人 <i>laa3</i> 。
19	<i>ge3 wo5</i>	<i>ga3 wo5</i>	佢話件事唔係噉～，叫我哋唔好亂咁估。
20	<i>ge3 zaa3</i>	<i>ga3 zaa3</i>	聽日得我一個人嚟～，我啲朋友通通唔得閑。
21	<i>ge3 ze1D</i>	<i>ga3 ze1</i>	佢都好醒目～，唔會畀人靠害 <i>ge2</i> 。/ 成件事係噉～。
22	<i>ge3 ze1RF</i>	<i>ga3 ze1</i>	成件事係噉～。/ 得我嚟～，唔駛買到咁多餸。
23	<i>ge3 zek1D</i>	<i>ga3 zek1</i>	個秘密邊個話你知～？/ 成件事係噉～。
24	<i>ge3 zek1RF</i>	<i>ga3 zek1</i>	成件事係噉～。/ 原來得我一個人嚟～，真係白歡喜一場。
25	<i>laa3 aa1maa3</i>	<i>laa1maa3</i>	佢食咗飯～。
26	<i>laa3 aa3</i>	<i>laa3</i>	佢食咗飯～。
27	<i>laa3 aa3maa5</i>	<i>laa3maa5</i>	你唔係咁快就食晒～？
28	<i>laa3 aa4</i>	<i>laa4</i>	佢食咗飯～？
29	<i>laa3 aak3</i>	<i>laak3</i>	佢食咗飯～。
30	<i>laa3 bo3</i>	<i>la3 bo3</i>	佢食咗飯～。
31	<i>laa3 gwaa3</i>	<i>la3 gwaa3</i>	佢食咗飯～。
32	<i>laa3 mel</i>	<i>la3 mel</i>	佢食咗飯～？
33	<i>laa3 wo3</i>	<i>la3 wo3</i>	我哋好走～。
34	<i>laa3 wo4</i>	<i>la3 wo4</i>	我哋好走～。
35	<i>laa3 wo5</i>	<i>la3 wo5</i>	佢話好走～。
36	<i>lai4 aa1maa3</i>	<i>lai4 aa1maa3</i>	佢去完美國～。
37	<i>lai4 aa3</i>	<i>lai4 aa3</i>	學校喺邊度～？
38	<i>lai4 aa3maa5</i>	<i>lai4 aa3maa5</i>	佢唔係去完美國～？咁快 <i>ge2</i> ？
39	<i>lai4 aa4</i>	<i>lai4 aa4</i>	學校喺呢度～？
40	<i>lai4 aak3</i>	<i>lai4 aak3</i>	學校喺呢度～！
41	<i>lai4 bo3</i>	<i>lai4 bo3</i>	佢去完美國～。
42	<i>lai4 ge2</i>	<i>lai4 ge2</i>	佢係外賣仔～？我唔知 <i>ge3 wo3</i> 。

	Underlying form	Phonetic realisation	Example context
43	<i>lai4 ge3</i>	<i>lai4 ge3</i>	佢係外賣仔～。
44	<i>lai4 gwaa3</i>	<i>lai4 gwaa3</i>	佢去完美國～，所以先會用咗咁多錢。
45	<i>lai4 laa1</i>	<i>lai4 laa1</i>	佢都去過美國～，仲會恨去 ge2？
46	<i>lai4 laa3</i>	<i>lai4 laa3</i>	佢去完美國～。
47	<i>lai4 laak3</i>	<i>lai4 laak3</i>	佢去完美國～，你唔知 ge3 me1？
48	<i>lai4 le5</i>	<i>lai4 le5</i>	我今日有返過學～，乜你唔信我 zek1？
49	<i>lai4 lol</i>	<i>lai4 lol</i>	佢又唔恨去美國 ge2？ -- 佢去過～，仲會恨去 ge2？
50	<i>lai4 lo3</i>	<i>lai4 lo3</i>	美國佢去過好多次～，屋企咁多錢。
51	<i>lai4 lo4</i>	<i>lai4 lo4</i>	佢又唔恨去美國 ge2？ -- 佢去過咁多次。
52	<i>lai4 lok3</i>	<i>lai4 lok3</i>	佢又唔恨去美國 ge2？ -- 佢去過咁多次～，仲會恨去？
53	<i>lai4 me1</i>	<i>lai4 me1</i>	美國佢去過～？
54	<i>lai4 ne1</i>	<i>lai4 ne1</i>	美國佢幾時去過～？乜我唔知 gaa3？
55	<i>lai4 wo3</i>	<i>lai4 wo3</i>	呢個唔係咖啡～，係茶。
56	<i>lai4 wo4</i>	<i>lai4 wo4</i>	原來呢個唔係咖啡～，係茶。
57	<i>lai4 wo5</i>	<i>lai4 wo5</i>	佢話呢個唔係咖啡～，係茶。
58	<i>lai4 zaa3</i>	<i>lai4 zaa3</i>	佢係外賣仔～，邊有咁多錢賺 aa1？
59	<i>lai4 ze1D</i>	<i>lai4 ze1</i>	佢係醒目仔～，唔會畀人靠害 ge3。(??)
60	<i>lai4 ze1RF</i>	<i>lai4 ze1</i>	佢係外賣仔～，唔駛咁志在佢啲說話。
61	<i>lai4 zek1D</i>	<i>lai4 zek1</i>	你點知佢係老闆～？
62	<i>lai4 zek1RF</i>	<i>lai4 zek1</i>	原來佢係外賣仔～，仲估佢係老闆 tim1。
63	<i>zaa3 aa1maa3</i>	<i>za1maa3</i>	部粒入得四個人～，等下一架 laa1。
64	<i>zaa3 aa3</i>	<i>zaa3</i>	佢睇落廿歲～，邊處有四廿歲咁老 zek1？
65	<i>zaa3 aa3maa5</i>	<i>zaa3maa5</i>	部粒唔係入得四個人～？咁離譜 ge2？
66	<i>zaa3 aa4</i>	<i>zaa4</i>	部粒入得四個人～？
67	<i>zaa3 bo3</i>	<i>za3 bo3</i>	佢睇落廿歲～，邊處有四廿歲咁老 zek1？
68	<i>zaa3 gwaa3</i>	<i>za3 gwaa3</i>	睇佢個樣我估佢十歲～？/ 佢睇落廿歲～，邊處有四廿歲咁老 zek1？
69	<i>zaa3 me1</i>	<i>za3 me1</i>	部粒入得四個人～？
70	<i>zaa3 wo3</i>	<i>za3 wo3</i>	部粒入得四個人～，等下一架 laa1。
71	<i>zaa3 wo4</i>	<i>za3 wo4</i>	部粒入得四個人～，等下一架 laa1。
72	<i>zaa3 wo5</i>	<i>za3 wo5</i>	佢話部粒入得四個人～，叫我哋等下一架。

Table II. List of clusters with more than two SFPs acceptable in GZC, HKC, and SGC.

	Underlying form	Phonetic realisation	Example context
1	<i>ge3 laa3 aa1maa3</i>	<i>ga3 laa1maa3</i>	佢退咗休～，梗係得閑環遊世界 laa1。
2	<i>ge3 laa3 aa3</i>	<i>ga3 laa3</i>	佢退咗休～，冇乜嘢收入。
3	<i>ge3 laa3 aa3maa5</i>	<i>ga3 laa3maa5</i>	佢退咗休～？
4	<i>ge3 laa3 aa4</i>	<i>ga3 laa4</i>	佢退咗休～？
5	<i>ge3 laa3 aak3</i>	<i>ga3 laak3</i>	佢退咗休～，唔好再煩佢 laa1。
6	<i>ge3 laa3 bo3</i>	<i>ga3 la3 bo3</i>	佢退咗休～，邊有錢借畀你 zek1？
7	<i>ge3 laa3 me1</i>	<i>ga3 la3 me1</i>	佢退咗休～？乜我唔知 ge2？
8	<i>ge3 laa3 wo3</i>	<i>ga3 la3 wo3</i>	原來佢退咗休～，年紀都有咁上下 ge3 laa3。
9	<i>ge3 laa3 wo4</i>	<i>ga3 la3 wo4</i>	原來佢退咗休～，年紀都有咁上下 ge3 laa3。
10	<i>ge3 laa3 wo5</i>	<i>ga3 la3 wo5</i>	佢話佢退咗休～。
11	<i>ge3 zaa3 aa1maa3</i>	<i>ga3 za1maa3</i>	你知屋企部粒幾細 ge3 laa1，企得四個人～。(internet)
12	<i>ge3 zaa3 aa3</i>	<i>ga3 zaa3</i>	部粒入得四個人～，等下一架 laa1。
13	<i>ge3 zaa3 aa3maa5</i>	<i>ga3 zaa3maa5</i>	部粒唔係入得四個人～？咁離譜 ge2？
14	<i>ge3 zaa3 aa4</i>	<i>ga3 zaa4</i>	部粒入得四個人～？
15	<i>ge3 zaa3 bo3</i>	<i>ga3 za3 bo3</i>	部粒入得四個人～，等下一架 laa1。
16	<i>ge3 zaa3 me1</i>	<i>ga3 za3 me1</i>	部粒入得四個人～？
17	<i>ge3 zaa3 wo3</i>	<i>ga3 za3 wo3</i>	部粒入得四個人～，等下一架 laa1。 //我同亞仁都係諗住玩下～，點知會玩到咁大先得 gaa2！(online)
18	<i>ge3 zaa3 wo4</i>	<i>ga3 za3 wo4</i>	原來部粒入得四個人～，等下一架 laa1。
19	<i>ge3 zaa3 wo5</i>	<i>ga3 za3 wo5</i>	佢話部粒入得四個人～，叫我哋等下一架。
20	<i>lai4 ge3 aa1maa3</i>	<i>lai4 gaa1maa3</i>	人哋女仔～，學踢波要慢慢嚟。(internet)
21	<i>lai4 ge3 aa3</i>	<i>lai4 gaa3</i>	電視嗰個係我～。

	Underlying form	Phonetic realisation	Example context
22	<i>lai4 ge3 aa3maa5</i>	<i>lai4 gaa3maa5</i>	電視嗰個唔係你～？
23	<i>lai4 ge3 aa4</i>	<i>lai4 gaa4</i>	電視嗰個係你～？
24	<i>lai4 ge3 aak3</i>	<i>lai4 gaak3</i>	佢明明係退休人士～，冇咩收入。 點解又突然間發咗達 <i>ge2</i> ？
25	<i>lai4 ge3 bo3</i>	<i>lai4 ga3 bo3</i>	佢退休人士～，冇咩錢駛 <i>gaa3</i> 。
26	<i>lai4 ge3 laa1</i>	<i>lai4 ga3 laa1</i>	佢而家退休人士～，邊有之前咁多 錢駛 <i>zek1</i> ？
27	<i>lai4 ge3 laa3</i>	<i>lai4 ga3 la3</i>	佢退休人士～，冇之前咁多錢駛 <i>ge3 laa3</i> 。
28	<i>lai4 ge3 laa3 aa1maa3</i>	<i>lai4 ga3 laa1maa3</i>	佢退休人士～，點會有之前咁多錢 <i>zek1</i> ？
29	<i>lai4 ge3 laa3 aa3</i>	<i>lai4 ga3 laa3</i>	佢退休人士～，冇之前咁多錢駛 <i>ge3 laa3</i> 。(=27)
30	<i>lai4 ge3 laa3 aa3maa5</i>	<i>lai4 ga3 laa3maa5</i>	佢唔會咁後生已經係退休人士 <i>lai4 ge3 laa3maa5</i> ？
31	<i>lai4 ge3 laa3 aa4</i>	<i>lai4 ga3 laa4</i>	佢退休人士～？
32	<i>lai4 ge3 laa3 aak3</i>	<i>lai4 ga3 laak3</i>	佢退休人士～，冇之前咁多錢駛 <i>ge3 laa3</i> 。
33	<i>lai4 ge3 laa3 bo3</i>	<i>lai4 ga3 la3 bo3</i>	佢退休人士～，冇之前咁多錢駛 <i>ge3 laa3</i> 。
34	<i>lai4 ge3 laa3 me1</i>	<i>lai4 ga3 la3 me1</i>	佢退休人士～？乜我唔知 <i>ge2</i> ？
35	<i>lai4 ge3 laa3 wo3</i>	<i>lai4 ga3 la3 wo3</i>	佢退休人士～，冇之前咁多錢駛 <i>ge3 laa3</i> 。
36	<i>lai4 ge3 laa3 wo4</i>	<i>lai4 ga3 la3 wo4</i>	原來佢係退休人士～，佢睇落完全 唔似 <i>lo1</i> 。
37	<i>lai4 ge3 laa3 wo5</i>	<i>lai4 ga3 la3 wo5</i>	佢話亞明係退休人士～。
38	<i>lai4 ge3 laak3</i>	<i>lai4 ga3 laak3</i>	佢退休人士～，冇之前咁多錢駛 <i>ge3 laa3</i> 。
39	<i>lai4 ge3 le5</i>	<i>lai4 ga3 le5</i>	佢係退休人士～，做乜你唔信我 <i>zek1</i> ？
40	<i>lai4 ge3 lo1</i>	<i>lai4 ga3 lo1</i>	佢成日喺屋企唔返工 <i>ge2</i> ？-- 因為 佢係退休人士～。
41	<i>lai4 ge3 lo3</i>	<i>lai4 ga3 lo3</i>	佢係退休人士～，想搵佢幫手都難 <i>aa3</i> 。
42	<i>lai4 ge3 lo4</i>	<i>lai4 ga3 lo4</i>	佢唔返工 <i>ge2</i> ？-- 佢係退休人士～ 。

	Underlying form	Phonetic realisation	Example context
43	<i>lai4 ge3 lok3</i>	<i>lai4 ga3 lok3</i>	佢唔返工 ge2? -- 都話佢係退休人士~, 要我講幾多次 zek1?
44	<i>lai4 ge3 mel</i>	<i>lai4 ga3 mel</i>	呢個係電腦~? 睇唔出 wo3。
45	<i>lai4 ge3 wo3</i>	<i>lai4 ga3 wo3</i>	呢個係電腦~, 小心啲搬 aa3!
46	<i>lai4 ge3 wo4</i>	<i>lai4 ga3 wo4</i>	原來呢個係電腦~, 小心啲搬 aa3!
47	<i>lai4 ge3 wo5</i>	<i>lai4 ga3 wo5</i>	佢話呢個係電腦~, 要小心啲搬。
48	<i>lai4 ge3 zaa3</i>	<i>lai4 ga3 za3</i>	我哋都係人~, 邊都要啱吓 gaa1maa3。
49	<i>lai4 ge3 zaa3 aalmaa3</i>	<i>lai4 ga3 za1maa3</i>	我哋都係人~, 邊都要啱吓 ge3。
50	<i>lai4 ge3 zaa3 aa3</i>	<i>lai4 ga3 zaa3</i>	我哋都係人~, 邊都要啱吓 gaa1maa3。(=48)
51	<i>lai4 ge3 zaa3 aa3maa5</i>	<i>lai4 ga3 zaa3maa5</i>	佢係個普通外賣仔 lai4
52	<i>lai4 ge3 zaa3 aa4</i>	<i>lai4 ga3 zaa4</i>	佢係學生~? 仲估佢係先生 tim1!
53	<i>lai4 ge3 zaa3 bo3</i>	<i>lai4 ga3 za3 bo3</i>	佢哋係普通朋友~, 唔係男女朋友。
54	<i>lai4 ge3 zaa3 mel</i>	<i>lai4 ga3 za3 mel</i>	佢哋係普通朋友~, 唔似 wo3。
55	<i>lai4 ge3 zaa3 wo3</i>	<i>lai4 ga3 za3 wo3</i>	我哋係普通朋友~, 唔係男女朋友。 (internet, adapted)
56	<i>lai4 ge3 zaa3 wo4</i>	<i>lai4 ga3 za3 wo4</i>	原來佢哋係普通朋友~, 唔係男女朋友。
57	<i>lai4 ge3 zaa3 wo5</i>	<i>lai4 ga3 za3 wo5</i>	佢話佢哋係普通朋友~, 唔係男女朋友。
58	<i>lai4 ge3 ze1RF</i>	<i>lai4 ga3 ze1</i>	佢哋係普通朋友~, 唔好搞到人哋咁老靸 laa1。
59	<i>lai4 ge3 zek1RF</i>	<i>lai4 ga3 zek1</i>	原來佢哋係普通朋友~, 仲估佢哋拍緊拖 tim1。
60	<i>lai4 laa3 aa1maa3</i>	<i>lai4 laa1maa3</i>	佢洗過架車~, 唔會污糟 ge3。
61	<i>lai4 laa3 aa3</i>	<i>lai4 laa3</i>	佢洗過架車~, 好乾淨 ge3。
62	<i>lai4 laa3 aa3maa5</i>	<i>lai4 laa3maa5</i>	佢洗過架車~?
63	<i>lai4 laa3 aa4</i>	<i>lai4 laa4</i>	佢洗過架車~? 唔見有乾淨到 ge2?
64	<i>lai4 laa3 aak3</i>	<i>lai4 laak3</i>	佢洗過架車~, 好乾淨 ge3。
65	<i>lai4 laa3 bo3</i>	<i>lai4 la3 bo3</i>	佢洗過架車~, 點可以話人哋冇做嘢 zek1?

	Underlying form	Phonetic realisation	Example context
66	<i>lai4 laa3 gwaa3</i>	<i>lai4 la3 gwaa3</i>	今次佢應該洗過架車 <i>lai4 laa3 gwaa3</i> , 睇落幾乾淨。
67	<i>lai4 laa3 mel</i>	<i>lai4 la3 mel</i>	佢洗過架車～？睇落仲咁污糟 <i>ge2</i> ？
68	<i>lai4 laa3 wo3</i>	<i>lai4 la3 wo3</i>	佢洗過架車～，點會污糟 <i>zek1</i> ？
69	<i>lai4 laa3 wo4</i>	<i>lai4 la3 wo4</i>	原來佢洗過架車 <i>lai4 laa3 wo4</i> , 噉而家即係唔駛洗 <i>laa1</i> 。
70	<i>lai4 laa3 wo5</i>	<i>lai4 la3 wo5</i>	佢話亞明洗過架車～，好乾淨 <i>ge3</i> 。
71	<i>lai4 zaa3 aa1maa3</i>	<i>lai4 za1maa3</i>	我哋都係人 <i>lai4 za1maa3</i> , 劫都要喇吓 <i>ge2</i> 。
72	<i>lai4 zaa3 aa3</i>	<i>lai4 zaa3</i>	我哋都係人～，劫都要喇吓 <i>gaa1maa3</i> 。
73	<i>lai4 zaa3 aa3maa5</i>	<i>lai4 zaa3maa5</i>	佢係個普通外賣仔 <i>lai4 zaa3maa5</i> ？邊似臥底 <i>aa3</i> 佢？
74	<i>lai4 zaa3 aa4</i>	<i>lai4 zaa4</i>	佢係個外賣仔～？仲估佢係經理 <i>tim1</i> ！
75	<i>lai4 zaa3 bo3</i>	<i>lai4 za3 bo3</i>	佢係個外賣仔～，又會忽然間發達 <i>ge2</i> ？
76	<i>lai4 zaa3 gwaa3</i>	<i>lai4 za3 gwaa3</i>	佢係個普通外賣仔 <i>lai4 zaa3 gwaa3</i> , 邊似臥底啊佢？
77	<i>lai4 zaa3 mel</i>	<i>lai4 za3 mel</i>	佢降咗職之後係經理～？
78	<i>lai4 zaa3 wo3</i>	<i>lai4 za3 wo3</i>	佢降咗職之後係經理～，唔駛咁驚佢。
79	<i>lai4 zaa3 wo4</i>	<i>lai4 za3 wo4</i>	佢降咗職之後係經理～，唔駛咁驚佢。
80	<i>lai4 zaa3 wo5</i>	<i>lai4 za3 wo5</i>	佢話亞明降咗職之後係經理～，唔駛咁驚佢。

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