

The Syntax of the Sentence-final Particle *gaa3* in Cantonese

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Abstract

The present study focuses on the syntax of the sentence-final particle *gaa3* in Cantonese from a cartographic perspective. *Gaa3* can be observed in three distinct constructions (exclamative, declarative and interrogative) with respect to five different contexts (plain statement, simple information-seeking question, exclamation, warning, and quick-answer-demanding question). By examining the grammatical properties and interpretations of each *gaa3*, this paper offers a unified syntactic analysis for the different occurrences of *gaa3*. We argue that Tang's (2020) framework can well account for the different occurrences of *gaa3*, which involve different underlying movements. This adds weight to the neo-performative approach which aims at syntacticizing properties of speech acts with a fine-grained hierarchy at the left periphery.

Keywords

cartography, syntax, sentence-final particle, Cantonese

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1. Introduction

The syntax of the construction of speech acts has been probed by a great many scholars (e.g., Ross 1970; Speas 2004; Tenny 2006; among many others). According to the neo-performative approach, in particular, properties of speech acts can be syntacticized with a fine-grained hierarchy at the left periphery (Tang 2015, 2020; Wiltschko & Heim 2016; Wiltschko 2017a, 2017b, 2017c; etc.). Such a view can be well supported by sentence-final particles (henceforth, SFPs) in Cantonese (Tang 2015, 2020).

In the present study, we focus on the patterns found with the SFP *gaa3* in Cantonese, which serve as a way to probe the syntax of performative projections. Based on the observation of its distribution in the following five distinct environments: plain statement, simple information-seeking question, exclamation, warning, and quick-answer-demanding question, we identify three occurrences of *gaa3* by adopting Tang's (2020) cartographic model of performative projections. Hereafter, in order to clearly distinguish the different usages of markers, we apply subscripts to the symbol *gaa3* across five different contexts.

First, as noted by Fang (2002, 2003), Li (2006), and Mai & Tan (2016), *gaa3₁* is observed in simple declaratives. Example (1) is adopted from Mai & Tan (2016).

- (1) Context: Mary had been sick for a week, and her son John wanted to know whether she had gone to a hospital to get proper treatment. To reassure her son, she gave a definite answer.

Jau ***gaa***.
 yes ***gaa3₁***
 'Yes indeed.'

In (1), the speaker is not only reporting to the hearer, but also emphasizing that the reported information is indeed the situation. As pointed out by anonymous reviewers, *gaa3₁* can occur before the interrogative particle *ho2*. As reported by Lam (2014), Chor et al. (2016), and Tang (2020), *ho2* is felicitous only when the speaker has some assumption about the addressee's belief toward the truth of the proposition and expects an affirmative answer from a question. Thus, *ho2* is best characterized as a confirmation-seeking/solidarity-seeking particle. In this sense, *gaa3₁* is more analogous to a regular affirmative marker, since the *gaa3*-marked construction can be selected by the confirmation-seeking SFP *ho2*.

- (2) Context: John and Bill made plans to meet but John was 30 minutes late. Upset and impatient, Bill called John and made sure he was still coming.

Nei zung lei **gaa** ho?
you still come **gaa3₁** ho2
'You're still coming, aren't you?'

Second, the particle under discussion can also occur in simple interrogative questions (Mai & Tan 2016), as in (3).

- (3) Context: John was planning a party for tomorrow and wanted to make sure whether his friend Mary was going to come to the party. Therefore, he asked for the information.

Nei ting-jat lei-m-lei **gaa?**
you tomorrow come-not-come **gaa3₂**
'Are you coming tomorrow?'

Third, as exemplified in (4), given the relevant context, *gaa3₃* marks an exclamative sentence and assigns it a complaint attitude. According to Fang (2002, 2003), *gaa3₃* not only asserts the factuality of the proposition, but also conveys a sense of complaint and dissatisfaction.

- (4) Context: John was grocery shopping, and when learning about the price of the cakes, he was surprised and complained that the cakes were way too expensive.

Daangou gam gwai **gaa!**
cakes so expensive **gaa3₃**
'The cakes are so expensive!'

Fourth, in addition to making a regular factual statement, *gaa3₄* has been reported to sometimes involve the force of “reminding” (Fung 2000; Fang 2002, 2003), and even “alerting” (Sybesma & Li 2007). It takes a proposition complement as background information, and consequently a declarative sentence with *gaa3₄* can not only report the relevant proposition to the hearer but also remind the hearer of the situation. For instance, given the relevant context, example (5) is produced. According to Li (2006), such a particle can perform the core function of marking the relevance of discourse. In other words, it can make an utterance more contextually related and situationally linked, deriving an effect of reminding, warning, and even threatening. Unlike the simple unmodified declarative marked by *gaa3₁*, the “warning” *gaa3₄* is usually somewhat prolonged for emphasis. Furthermore, different from the three previous usages of *gaa3*, Lau (2019) states that *gaa3₄* is an SFP in the strict sense as it can only be used as the last syllable of any given sentence.

- (5) Context: John was grocery shopping, and some cakes caught his eyes. As he was reaching out for the cakes, a seller warned him about the price, which might be too high for John.

Daangou sap man gau **gaa**.
 cakes ten yuan a.piece **gaa3₄**
 ‘(Note that) a piece of cake costs ten yuan.’

Fifth, *gaa3* can also be used in interrogative constructions with the force of “requesting a quick answer”, as observed by Fung (2000) and Fang (2002, 2003). Specifically, Fang (2002, 2003) points out that in interrogative sentences as in (6), *gaa3₅* marks the interrogative focus and expresses an emotion of impatience and dissatisfaction, as the speaker urges the addressee for a quick answer.

- (6) Context: John and Bill made plans to meet but John was 30 minutes late. Upset and impatient, Bill called John and asked if he was still coming.

Nei zung lei-m-lei **gaa?**
 you still come-not-come **gaa3₅**
 ‘Are you still coming (or not)?’

Furthermore, similar to the distinction between *gaa3₁* and *gaa3₄*, *gaa3₅* in (6) differs from *gaa3₂* in (3) in two aspects: (i) the vowel of the former is most naturally pronounced longer; (ii) while the latter usage can be followed by other particles, the former cannot.

To summarize, the usages of *gaa3* can be generalized as in Table 1: it can be used in plain statement, simple information-seeking question, exclamation, warning, and quick-answer-demanding question. In what follows, by adopting Tang’s (2020) cartographic model of performative projections, we will classify the five occurrences of *gaa3* into three syntactic realizations.

Table 1. Different usages of *gaa3*

	Environment	Example
<i>gaa3₁</i>	plain statement	(1), (2)
<i>gaa3₂</i>	simple information-seeking question	(3)
<i>gaa3₃</i>	exclamation	(4)
<i>gaa3₄</i>	warning	(5)
<i>gaa3₅</i>	quick-answer-demanding question	(6)

This paper is organized as follows. In the next section, we will present previous studies that are relevant to the current discussion. In Section 3, we will investigate the distributional properties of different usages of *gaa3*, depending on its co-occurrence with other SFPs.

Section 4 presents the syntactic analysis of the five occurrences of *gaa3*. Finally, conclusions will be generalized in Section 5.

2. Theoretical framework

To the best of our knowledge, there is only a limited amount of research on *gaa3* in the previous literature. The common analysis, as proposed in Fung (2000), Fang (2002, 2003), Li (2006), and Sybesma & Li (2007), dissociates a certain SFP into smaller meaningful units and describes their semantic content independently. According to this approach, the semantics of *gaa3* results from the combination of *ge3* (or *g-*) and *aa*. Although those who adopt this approach may assign different semantics to *ge3* (or *g-*) and *aa*,¹ they all arrive at the similar conclusion that *gaa3* can be used to make assertion, mark focus, and highlight discourse relevance, and to convey a sense of alert/reminding.² Taking it a further step, following the spirit of split CP hypothesis (cf. Zwart 1993; Hoekstra & Zwart 1994; Rizzi 1997; Cinque 1999; among others), Sybesma & Li (2007) relate their findings to the structure of the CP domain, assigning the meaningful units a determined position in the structure with respect to the given context. As in (7), four layers of

¹ Some scholars claim that the initial *g-* (or the base particle *ge3*) is used to convey what the speaker is certain about (e.g., Kwok 1984; Leung 1992), some argue that it performs the function of focus-marking (e.g., Light 1983; Matthew & Yip 1994; Fung 2000), and others state that it has the core feature of marking a situation given in the communicative context. As for the rhyme *-aa*, it is generally reported that it makes an utterance sound softer, less abrupt, and more natural, as discussed in Law (1990), Matthew & Yip (1994), Fang (2002, 2003), and Sybesma & Li (2007). It has also been reported that *-aa* functions as a discourse marker which marks the relevance of discourse (see Li 2006). Finally, it is widely acknowledged that the suprasegmental property, i.e., tone 3, is the default tone which contributes nothing to the meaning of the SFP; it is simply out of phonological necessity (see Law 1990; Yip 2002). The current study merely adopts a cartographic perspective and is not concerned with the functions of the subparts of the SFP.

² For example, Li (2006) and Sybesma & Li (2007) propose that by combining the feature hosted by *g-* (*ge3*) and *-aa*, *gaa3* emphasizes that the reported information is relevant and alerts the addressee. This is illustrated by the following examples, which are modified by *aa3*, *ge3*, and *gaa3*, respectively.

- (i) a. Cin-min jau hou-do jan aa.
front have very-many people *aa3*
'There are lots of people in front.'
- b. Cin-min jau hou-do jan ge.
front have very-many people *ge3*
'(It is a relevant fact that) there are lots of people in front.'
- c. Cin-min jau hou-do jan gaa.
front have very-many people *gaa3*
'(It is a relevant fact that) there are lots of people in front.'

They claim that (ib), with *ge3*, bluntly presents the situation as a relevant fact and *ge3* marks the situation as given background information (Fung 2000). (ia), featuring the particle *aa3*, is neutral in that it reports on a situation, and the addition of *aa3* only makes it a natural alert to the hearer. Therefore, *gaa3* in (ic) incorporates both semantic features: it emphasizes that the fact reported is relevant and also adds to the utterance a sense of "reminding" (Fang 2002, 2003).

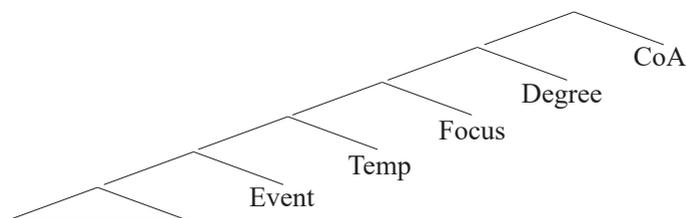
the left periphery are identified: epistemic domain, speech act domain, propositional-discourse domain, and sentential domain. Central to the current discussion, it is proposed against Cheung (2007) that *ge3* is not only an assertion marker but also an actuality marker making the sentence especially relevant to the conversational context, as proposed by Sybesma (2004). This suggests that *ge3* should be in FinP. As for *-aa*, they propose that it is in DiscourseP, performing a discourse function-alerting the relevance of its content.

- (7) {Epist₁P > Epist₂P} > {ForceP > Mood_{Evid}P > Mood_{Eval}P > Mood_{Inf}P} > {DiscourseP > FocusP} > {DeikP > FinP > IP}

Although the prior analyses have offered a valuable and insightful perspective, certain nuances of the linguistic facts remain underexplored. On the one hand, most previous studies such as Fang (2002, 2003), Li (2006), and Sybesma & Li (2007) adopting the dissection approach merely focus on the “reminding/warning” use of *gaa3*, while this SFP can actually be found in other different contexts, as it is observed in the previous section. On the other hand, it is supposed that *gaa3_i* and *gaa3_s* occupy a higher syntactic position, for the former encodes the speech act of warning and the latter requests a quick answer. In this regard, Sybesma & Li’s (2007) structure is not plausible to describe the syntactic distribution of *gaa3*. Instead, the present study adopts Tang’s (2020) hypothesized cartographic syntax of performative projections, which has proposed a finer structure to syntactically encode speech acts.³

Tang (2015) classifies Cantonese SFPs into the following seven types: event (e.g., *sin1*, *tim1*), temporal (e.g., *gam3zai6*, *lei4*, *mei6*), focus (e.g., *zaa3*), modality (e.g., *gwa3*, *le5*), interrogative (e.g., *maa3*, *me1*), imperative (e.g., *baa2laa1*), and emotion (e.g., *aa3*). Based on the classification, Tang (2020) has further proposed the fine structure of speech acts, as in (8).

- (8) Tang’s (2020) proposal for the structure of speech acts



In (8), “Event” is related to the eventualities and the aspectual properties denoted by the predicate, and “Temp” is associated with the temporal and aspectual properties of the clause.

³ Note that although we opt to base our study on Tang’s (2020) framework rather than the dissection view, their ideas are compatible with ours, as will be clarified in the following sections.

Both of them are beyond the scope of the current research, for we restrict the discussion to the other three elements. Event and Temp are subsumed under the “proposition layer” that constitutes the core of the sentence, and these two nodes correspond to SFPs of the event type and the temporal type, respectively. Above Temp is “Focus”, which is an evaluative device, indicating that the speaker considers asserted or inquired information to be of particular importance. For instance, *neI* of the focus type in (9) can be used to draw the attention of the addressee to the information denoted by the wh-word of the clause.

- (9) Keoi jam meje ne?
he drink what *neI*
'What does he drink?'

Tang (2020) proposes that “Degree” is a position for hosting SFPs of modality, interrogative, and imperative. Following Li (2006), he assumes that Degree is a functional category associated with the different degrees of the speaker’s commitment to the assertion. For instance, in Cantonese, *gwaa3* is a typical SFP of the modality type which can mark a low degree of the speaker’s commitment to the proposition. As in (10), *gwaa3* indicates that the speaker is not quite certain about whether the proposition uttered is true or not.

- (10) Keoi jiu jat-bun gwaa.
he want one-CL *gwaa3*
'(I guess) he wants one.'

The example in (11) is used by Tang (2020) to prove that SFPs of modality, interrogative, and imperative are not permitted to co-occur, and therefore they are subsumed under the same node of “Degree”. The three types of SFPs are instantiated by *gwaa3*, *meI*, and *baa2laa1* respectively.

- (11) *[[Nei heoi] gwaa baalaa/ baalaa gwaa/ me baalaa/ baalaa me].
you go *gwaa3 baa2laa1 baa2laa1 gwaa3 meI baa2laa1 baa2laa1 meI*
'I guess/wonder whether you should go.'

The ungrammaticality of (12) shows that such SFPs of the emotion type as *aa3* cannot co-occur with Degree-type particles which are instantiated by the interrogative particle *meI*,⁴ and therefore they should be in the same position.

⁴ As noted in Tang (2020), “Emotion” is also known as “Attitude” in Paul (2014) and Pan & Paul (2016).

- (12) *Keoi hou gou me aa/ aa me?
 he very tall *me1 aa3 aa3 me1*
 ‘Is he tall?’

Such a classification echoes the analysis of Lau (2019), who also claims that *aa3* should be grouped with other Degree-type particles, which are used to mark the speech attitude. Along the lines in Heim et al. (2016) and Wiltschko (2017a, 2017b, 2017c), Tang (2020) argues that Focus and Degree form a “grounding layer” which is dedicated to encoding the speaker’s attitude toward the proposition.

Finally, “CoA” is short for *Call on the Addressee*, which independently constitutes the “response layer” responsible for encoding what the speaker wants the addressee to do with the utterance, hence the name. Such a syntactic head can be instantiated by the SFP *ho2*, analyzed by Tang (2020) and others to introduce the speech act of calling on the addressee to provide confirmation of the marked proposition. This can be illustrated in (13).

- (13) Keoi heoi o ho?
 he go *o3 ho2*
 ‘He goes, doesn’t he?’

Relevant to the above discussion, Table 2 represents the schema proposed by Tang (2020) and which accommodates the classification of SFPs established by Tang (2015).

Table 2. Tang’s (2020) structural representation of SFPs

Tang (2015)	Event	Temp	Focus	Modality	Interrogative	Imperative	Emotion	/
Tang (2020)	Event	Temp	Focus	Degree				CoA
	proposition		grounding				response	

Given the observations on *gaa3* presented in Section 1, we take Tang’s (2020) structural analysis as a more plausible framework for the characterization of *gaa3* in different uses. In the next section, we will try to distribute the different types of *gaa3* in this structure, and we shall see in Section 4 that while some usages of *gaa3* are generated in grounding layer and stays there, others play a role in both the grounding layer and the response layer.

3. The syntactic distribution of *gaa3*

As discussed in the previous section, the seven types of SFPs in Cantonese can be analyzed as occupying the head positions of EventP, TempP, FocusP, DegreeP, and CoAP. They can be used to examine the distribution of *gaa3*.

We start with the distribution of *gaa3₁*. *Gaa3₁* can follow the eventive SFP such as *sin1* ‘first’ in (14a),⁵ and the temporal SFP such as *zyu6* ‘stop’ in (14b).

- (14) a. Ngo lei sin *gaa*/ **gaa* sin.
 I came *sin1₁* *gaa3₁* *gaa3₁* *sin1₁*
 ‘I came here first.’
- b. Ngo wui tai-zyu *gaa*/ **gaa* zyu.
 I will watch-zyu6 *gaa3₁* *gaa3₁* zyu6
 ‘I will keep watching.’

However, *gaa3₁* cannot co-occur with focus SFPs such as *aalmaa3*, as in (15).⁶

- (15) *Ngo lei sin *gaa* aa-maa/ aa-maa *gaa*.
 I come first *gaa3₁* *aalmaa3* *aalmaa3* *gaa3₁*
 ‘(Note that) I came here first.’

Gaa3₁ can precede “Degree” heads instantiated by particles of the modality type such as *zilmaa3* ‘only’, the interrogative type such as *me1*, and even the imperative type such as *bo3*, as in (16).

- (16) a. Keoi gong-siu *gaa* zi-maa.
 he joke *gaa3₁* *zilmaa3*
 ‘He is just joking.’
- b. Nei lei sin *gaa* me?
 you come first *gaa3₁* *me1*
 ‘Is it the case that you came first?’
- c. Koei lei sin *gaa* bo.
 you come first *gaa3₁* *bo3*
 ‘Note that he came first.’

⁵ According to Cheng (1990) and Tang (2006, 2015, 2020), there are two general types of *sin1* in Cantonese, and the *sin1₁* in (14) modifies the predicate, indicating the sequence of events. *Sin1₂* can be found in interrogative constructions, which strengthens the interrogative tone. *Sin1₂* can only be attached to matrix/root sentences, indicating that something should be clarified before the conversation continues. As observed in Tang (2006: 229–231), the two types of *sin1* can even co-occur, as in (i). *Sin1₂* will be used for the anchoring of *gaa3₂*.

(i) Bingo heoi sin sin?
 who go *sin1₁* *sin1₂*
 ‘Who will go first? (Clarify this first.)’

⁶ It is reported in Lau (2019) that *gaa3* can be incorporated into *a1maa3* to produce *ga1maa3*. This further supports our view that *gaa3₁* is in the Focus head.

Finally, recall the observation in Section 1, *gaa3₁* can also occur before the confirmation-seeking/solidarity-seeking particle *ho2* which generates as Degree and then moves into the CoA head, as in (17).

- (17) Nei zung lei **gaa** ho?
 you still come **gaa3₁** ho2
 ‘You’re still coming, aren’t you?’

In summary, *gaa3₁* is able to follow SFPs of the Event type, the Temp type, the Degree type, and the CoA type,⁷ but unable to co-occur with those of the Focus type, suggesting that it occupies the head of FocusP.

Now we turn to the distribution of *gaa3₂*, which can be attached to a simple interrogative construction. *Gaa3₂* can follow the eventive SFP such as *sin1₁* ‘first’ and the temporal SFP such as *zyu6* ‘stop’, as in (18).

- (18) a. Bin go lei sin **gaa**/ ***gaa** sin?
 which one came *sin1₁* **gaa3₂** **gaa3₂** *sin11*
 ‘Who came first?’
 b. Bin go tai-zyu **gaa**/ ***gaa** zyu?
 which one watch-zyu6 **gaa3₂** **gaa3₂** *zyu6*
 ‘Who is watching?’

Similar to *gaa3₁*, *gaa3₂* cannot co-occur with Focus particles either. This is exemplified in (19).

- (19) *Bin go lei sin **gaa** aa-maa/ aa-maa **gaa**?
 which one came first **gaa3₂** *aalmaa3* *aalmaa3* **gaa3₂**
 ‘(Note that) Who came here first?’

Next, we use the *sin1₂* of the interrogative type to examine the distribution of *gaa3₂*, as shown in (20), where *gaa3₂* can actually occur between *sin1₁* and *sin1₂*. Notably, according to Tang (2020), *sin1₂* instantiates a Degree head.

⁷ Recall crucially from Section 2 that Degree-type particles in the sense of Tang (2020) include particles of modality, imperative, interrogative, and emotion types in the sense of Tang (2015).

- (20) Bin go lei sin **gaa** sin?
which one came *sin1₁* ***gaa3₂*** *sin1₂*
'Who came first? (Clarify this first.)'

As previously mentioned, *sin1₂* can be found in interrogative constructions, strengthening the interrogative force. This kind of *sin1₂* can only be attached to matrix/root sentences with a [+Q] feature, signaling that something should be clarified between the interlocutors before the conversation carries on. In other words, the addressee is called on to cooperatively respond so that the conversation can proceed smoothly. Therefore, we can assume that the SFP *sin1₂* is generated under the Degree head and subsequently moves to CoA head, which is similar to *ho2* as discussed in Tang (2020). Accordingly, we conclude that *gaa3₂* can co-occur with particles under Event head, Temp head, Degree head, and CoA head, but not with Focus head. This suggests that *gaa3₂* should be situated under the Focus head. This claim is further supported by (21), in which *gaa3₂* is sandwiched between a Temp-type SFP (*zyu6*) and a Degree-plus-CoA-type SFP (*sin1₂*).

- (21) Bin go tai-zyu **gaa** sin?
which one watch-*zyu6* ***gaa3₂*** *sin1₂*
'Who is watching? (Clarify this first.)'

To summarize, our analysis proposes that *gaa3₂* is essentially identical to *gaa3₁*, for they both occupy the head position of FocusP. They differ in the clause types to which they are attached. We now move on to examine *gaa3₃* which bears the exclamative reading. Similar to the two previous usages of *gaa3*, *gaa3₃* can follow SFPs of the event type such as *sin1₁* 'first' in (22a), and those of the temporal type such as *gam3zai6* 'almost' in (22b).

- (22) a. Nei haang sin **gaa!**
you leave *sin1₁* ***gaa3₃***
'You left first!'
b. Nei sik-saai gamzai **gaa!**
you eat-finish *gam3zai6* ***gaa3₃***
'You almost ate everything!'

However, *gaa3₃* cannot follow or precede particles of the focus type such as *aa1maa3*, as shown in (23).

- (23) *Nei haang sin (***gaa**) aa-maa (***gaa**)!
 you leave first **gaa3₃** *aa1maa3* **gaa3₃**
 ‘(Note that) you left first!’

Gaa3₃ cannot co-occur with SFPs of the modality type, either. For example, *gwaa3*, as in (24) cannot be followed by *gaa3₃*.⁸

- (24) Lok jyu (***gaa**) gwaa (***gaa**)!
 fall rain **gaa3₃** *gwaa3* **gaa3₃**
 ‘I guess it rains.’

Based on the observation in Section 1 that *gaa3₃* marks an exclamatory sentence and assigns it a complaint attitude of the speaker, it should be predicted that the co-occurrence of *gaa3₃* with SFPs of the interrogative type or those of the imperative type would be unacceptable due to semantic incompatibility. This prediction is borne out, as in (25).⁹

- (25) a. Keoi jam gaafe (***gaa**) maa (***gaa**)?
 he drink coffee **gaa3₃** *maa3* **gaa3₃**
 ‘Does he drink coffee?’
 b. Keoi heoi (***gaa**) baalaa (***gaa**).
 he go **gaa3₃** *baa2laa1* **gaa3₃**
 ‘Let’s suggest that he should go.’

Finally, SFPs of the emotion type neither follow nor precede *gaa3₃*, as exemplified in (26). Meanwhile, Lau (2019) points out that *gaa3₃* in this type of exclamatory sentence is actually a combination of the assertion marker *ga3* and the emotion intensifier *aa3*.¹⁰ Informed by his analysis, we assume that the exclamative *gaa3₃* spans across two syntactic heads: the Focus head and the Degree head.

- (26) Keoi gei gam gou (***gaa**) aa (***gaa**)!
 he how that tall **gaa3₃** *aa3* **gaa3₃**
 ‘How tall he is!’

⁸ According to Matthew & Yip (1994), *gwaa3* conveys a sense of uncertainty.

⁹ Cheung (2007) and Gao (1980) posit that *maa3* is an interrogative SFP which turns a statement into a yes-no question; Tang (2015) suggests that *baa2laa1* conveys a request of the speaker.

¹⁰ Strictly speaking, the *gaa3* in the first two usages is actually pronounced as “*ga3*”. However, for the sake of uniformity in writing we will use *gaa3* for now.

Now we turn to *gaa3₄*. It can follow SFPs of the event type such as *sin1₁* ‘first’ in (27a), and those of the temporal type such as *gam3zai6* ‘almost’ in (27b).

- (27) a. Ngo lei sin **gaa**.
I came *sin1₁* **gaa3₄**
‘(Note that) I came here first.’
- b. Keoi zou-jyun gamzai **gaa**.
he work-finish *gam3zai6* **gaa3₄**
‘(Note that) he has almost finished.’

However, *gaa3₄* cannot co-occur with SFPs of the focus type, as exemplified in (28).

- (28) Ngo lei sin (***gaa**) aa-maa (***gaa**).
I came first **gaa3₄** *aa1maa3* **gaa3₄**
‘(Note that) I came here first.’

Gaa3₄ cannot be attached to propositions marked by SFPs of the modality type, either. For example, *gwaa3* as in (29) cannot be followed or preceded by *gaa3₄*.

- (29) Lok jyu (***gaa**) gwaa (***gaa**).
fall rain **gaa3₄** *gwaa3* **gaa3₄**
‘I guess it rains.’

Next, SFPs of the interrogative type such as *maa3* in (30a) and those of the imperative type such as *baa2laa1* in (30b) cannot co-occur with *gaa3₄*. This is in fact easily understood, since, as analyzed by many scholars (cf. Fung 2000; Fang 2002, 2003; Li 2006), *gaa3₄* is a particle used to mark declaratives. It follows that the co-occurrence of *gaa3₄* and SFPs of the interrogative type or the imperative type would lead to semantic incompatibility.

- (30) a. Keoi jam gaafe (***gaa**) maa (***gaa**)?
he drink coffee **gaa3₄** *maa3* **gaa3₄**
‘Does he drink coffee?’
- b. Keoi heoi (***gaa**) baalaa (***gaa**).
he go **gaa3₄** *baa2laa1* **gaa3₄**
‘Let’s suggest that he should go.’

Gaa3₄ cannot follow an SFP of the emotion type, either, as in (31).



- (31) Keoi gei gam gou (***gaa**) aa (***gaa**)!
 he how that tall **gaa3₄** aa3 **gaa3₄**
 ‘How tall he is!’

In sum, *gaa3₄* can co-occur with Event-type particles and Temp-type particles, but not with the Focus-type or the Degree-type particles. This indicates that *gaa3₄* can be situated in the head positions of both FocusP and DegreeP. Similar to the exclamative *gaa3₃*, *gaa3₄* is postulated to span across at least two syntactic heads with respect to its syntactic behavior and phonological property: compared to *gaa3₁* that is used to mark simple declaratives, its vowel is lengthened. Examples in (32) show the contrast between the regular assertion marker *gaa3₁* and the “warning” *gaa3₄*. The sentence in (32a) provides a reference price for grocery shopping, and *gaa3₁* is pronounced short, marking the assertion as relevant. By contrast, (32b) is used to warn the poor customer against touching the expensive cakes, with the syllable *gaa3₄* prolonged for emotion intensification.

- (32) a. Context: John and Mary were talking about what to purchase for a dinner party and casually mentioned the price of cakes for reference.
 Daangou sap man gau **gaa**.
 cakes ten yuan a.piece **gaa3₁**
 ‘(It is a relevant fact that) a piece of cake costs ten yuan.’
- b. Context: John was grocery shopping, and some cakes caught his eyes. As he was reaching out for the cakes, a seller warned him about the price, which might be too high for John.
 Daangou sap man gau **gaa**.
 cakes ten yuan a.piece **gaa3₄**
 ‘(Note that) a piece of cake costs ten yuan.’

We finally consider *gaa3₅*. Similar to *gaa3₄*, it can follow SFPs of the event type such as *sin1* ‘first’ in (33a) as well as those of the temporal marker *mei6* as in (33b) without causing any grammatical violation.

- (33) a. Hai mai nei lei sin **gaa**?
 be not you come *sin1* **gaa3₅**
 ‘Did you come first?’
- b. Keoi sik-zo faan mei **gaa**?
 he eat-ASP food *mei6* **gaa3₅**
 ‘Has he eaten food yet?’

However, *gaa3₅*, cannot modify sentences marked by SFPs of the focus type such as *ne1*.¹¹ *Gaa3₅* cannot precede the focus particle *ne1*, either, as shown below.

- (34) Bingo heoi (***gaa**) ne (***gaa**)?
who go *gaa3₅* *ne1* *gaa3₅*
'Who should go?'

Next, *gaa3₅* cannot co-occur with such SFPs of the modality type as *le5* in (35).¹²

- (35) Keoi zau-zo (***gaa**) le (***gaa**)?
he go-ASP *gaa3₅* *le5* *gaa3₅*
'He has gone, hasn't he?'

Among the questions in Cantonese, *gaa3₅* can be directly attached to wh-question, A-not-A question, disjunctive question, and VP Neg question, as in (36).

- (36) a. Keoi jam meje **gaa**?
he drink what *gaa3₅*
'What does he drink?'
- b. Keoi jam-m-jam gaafe **gaa**?
he drink-not-drink coffee *gaa3₅*
'Does he drink coffee?'
- c. Keoi jam gaafe ding naaicaa **gaa**?
he drink coffee or milk-tea *gaa3₅*
'Does he drink coffee or milk tea?'
- d. Keoi heoi mei **gaa**?
he go not *gaa3₅*
'Has he left or not?'

Nevertheless, *gaa3₅* cannot be attached to questions that are formed by SFPs of the interrogative type, such as yes-no questions with *maa3*, as in (37).

¹¹ According to Cheung (2007), the focus particle *ne1* is typically found in interrogative constructions such as wh-questions, disjunctive questions, and A-not-A questions.

¹² According to Peng (2010), *le5* is used to seek confirmation on the speaker's expectation.

- (37) Keoi jam gaafe maa (***gaa**)?
 he drink coffee *maa3* ***gaa3₅***
 ‘Does he drink coffee?’

Given that *gaa3₅* is used to mark interrogative constructions, it cannot directly occur next to an SFP of the imperative type like *baa2laa1*, as in (38a). Similarly, the unacceptability of (38b) is not surprising, for *gaa3₅* cannot occur with SFPs of the emotion type such as *aa3*.

- (38) a. Keoi heoi (***gaa**) baalaa (***gaa**).
 he go ***gaa3₅*** baa2laa1 ***gaa3₅***
 ‘Let’s suggest that he should go.’
 b. Keoi gei gam gou (***gaa**) aa (***gaa**)!
 he how that tall ***gaa3₅*** *aa3* ***gaa3₅***
 ‘How tall he is!’

In sum, *gaa3₅* can co-occur with Event-type particles and Temp-type particles, but not with the Focus-type and the Degree-type particles. This suggests that these latter types may be competing for the same syntactic position with *gaa3₅*. The contrast between the two sentences in (39) justifies the distinction between *gaa3₂* and *gaa3₅*.

- (39) a. Context: John and Bill made plans to meet but John was 30 minutes late. Upset and impatient, Bill called John and asked if he was still coming.
 Nei zung lei-m-lei **gaa** (*sin)?
 you still come-not-come ***gaa3₅*** *sin1₂*
 ‘Are you still coming (or not)?’
 b. Context: John and Mary made plans to meet, but John was a bit late. Mary wanted to call off the date but was afraid that John might be already on his way. Feeling conflicted, she called John to make sure if he was still coming.
 Nei zung lei-m-lei **gaa** (sin)?
 you still come-not-come ***gaa3₂*** *sin1₂*
 ‘Are you still coming? (Your answer matters to my next steps.)’

In (39a), the speaker prolongs the vowel of *gaa3₅* to express the emotion of impatience and dissatisfaction, thereby urging the addressee for a quick answer. Besides, *gaa3₅* cannot be followed by the interrogative particle *sin1₂*, which we assume to occupy the head position of DegreeP and that of CoAP. This aligns well with our intuition, since *sin1₂* is performing precisely the same function as *gaa3₅* in this context, namely, pressing the hearer for a quick answer. In contrast, *gaa3₂* in (39b) is pronounced relatively short, and the interrogative construction can be further modified

by *sin1*₂. Moreover, only with the addition of *sin1*₂ can the example in (39b) achieve the same pragmatic effect as (39a), which requires a quick answer from the addressee.

To conclude, among the seven types of SFPs in Cantonese, the five *gaa3* variants under discussion can all co-occur with Event-type and Temp-type particles. They, however, differ in their ability to co-occur with the other five types of SFPs. The compatibility of each *gaa3* variant with the seven types of SFPs is summarized in the following Table 3, in which “YES” indicates acceptability and “NO” indicates unacceptability.

Table 3. The distribution of the five usages of *gaa3*

	Event	Temp	Focus	Degree				CoA
	event	temporal	focus	modality	interrogative	imperative	emotion	/
<i>gaa3</i> ₁	YES	YES	NO	YES	YES	YES	YES	YES
<i>gaa3</i> ₂	YES	YES	NO	YES	YES	YES	YES	YES
<i>gaa3</i> ₃	YES	YES	NO	NO	NO	NO	NO	YES
<i>gaa3</i> ₄	YES	YES	NO	NO	NO	NO	NO	NO
<i>gaa3</i> ₅	YES	YES	NO	NO	NO	NO	NO	NO

Based on Table 3, we propose that the five occurrences of *gaa3* under discussion are all associated with FocusP. We further propose that *gaa3*₁ and *gaa3*₂ are essentially the same, though they differ only in the clause type to which they are attached. As for *gaa3*₃, following Lau’s (2019) analysis that it is a combination of *gaa3*_{1/2} (what he refers to as *ga3*) and *aa3*, we propose that *gaa3*₃ occupies both the Focus head and the Degree head. With respect to the “warning” *gaa3*₄ and the “urging-for-a-quick-answer” *gaa3*₅, we propose that they span across three syntactic heads: Focus, Degree, and CoA. A more detailed syntactic analysis is provided in the next section.

4. Syntactic analysis of *gaa3*

We have investigated the distribution of *gaa3* in its five different usages. The observation seems to suggest that the various usages of *gaa3* have distinct syntactic derivations. In this section, we provide a syntactic analysis of the five variants of *gaa3*, aiming to capture their similarities and differences in terms of grammatical properties as well as semantic properties.

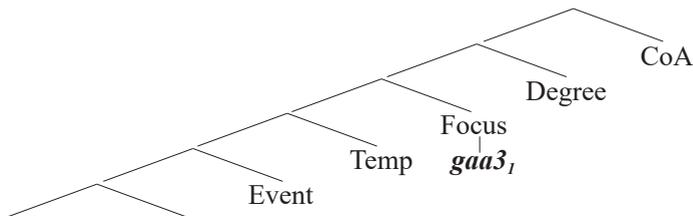
Given the distributions of *gaa3*₁ and *gaa3*₂ as previously shown, we propose that these two occurrences of *gaa3* are essentially the same. They are both generated as the Focus heads serving as evaluative devices, indicating that the speaker considers the matter conveyed by the proposition to be of great importance. In this sense, they are probably best characterized

by what Sybesma (2004) refers to as “actuality markers”.¹³ According to Sybesma (2004), an actuality marker asserts that the statement to which it is added is highly relevant to the current conversation. That being said, *gaa3₁* is indeed involved in asserting (or questioning the assertion of) the factuality of the content conveyed by the sentence that they are attached to. Here is an example containing *gaa3₁*. The sentence in (40) illustrates the use of *gaa3₁* as an assertion marker: the speaker wants to show the hearer that s/he is absolutely sure of what s/he is saying. It is also an actuality marker, because the addition of *gaa3₁* makes the sentence especially relevant to the conversational context. Without *gaa3₁*, the sentence is no more than a neutral statement, without any necessary link to any aspect of the conversation.

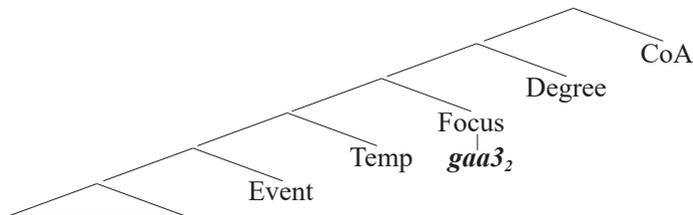
- (40) Daangou sap man gau (**gaa**).
 cakes ten yuan a.piece ***gaa3₁***
 Without *gaa3₁*: ‘A piece of cake costs ten yuan.’
 With *gaa3₁*: ‘A piece of cake costs ten yuan – so I’ll only buy two pieces for tonight.’

Based on such a semantic property as well as the distributional properties observed in Section 3, we propose that *gaa3₁* and *gaa3₂* should be placed under the Focus head, as schematized in (41a) and (41b), respectively. Whether they are used for a question or a statement ultimately depends on clause type of the proposition they mark. Their presence renders the statement or the question highly relevant to the discourse, drawing the hearer’s attention to the issue in focus.

(41) a.

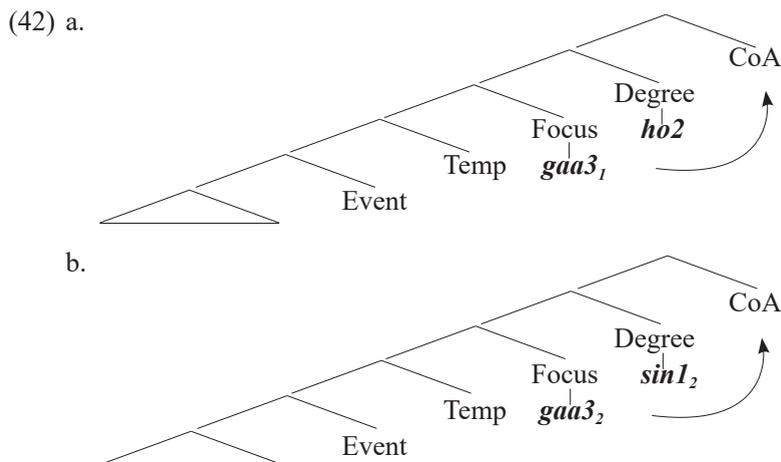


b.

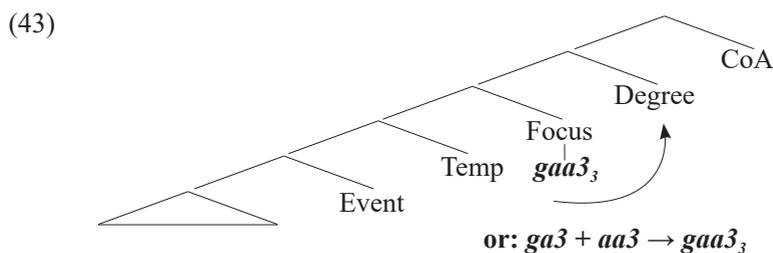


¹³ Sybesma (2004: 176–177) proposes the term “actuality marker” to characterize *ge3* in Cantonese, which is highly similar to *gaa3*.

Recall the discussion in Section 3, if confirmation-seeking is needed in the context, *gaa3₁*-marked constructions can be further modified by Degree/CoA particles such as *ho2*. The syntactic derivation is illustrated in (42a). Similarly, when a quick answer is to be urged in the context, the *gaa3₂*-marked constructions can be further modified by Degree/CoA particles such as *sin1₂*, as shown in (42b).



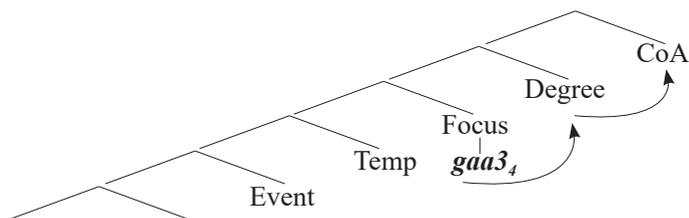
As for *gaa3₃* bearing the exclamative reading, we propose that it is also generated as the Focus head, serving as an evaluative device and indicating that the speaker considers the matter conveyed by the proposition to be of great importance. Given its distributional behaviour, we propose that *gaa3₃* then raises from Focus to Degree to convey a strong degree of the speaker's commitment to the assertion. Note that *gaa3₃* stops at Degree without further moving into CoA, for it does not request any action from the addressee. In other words, *gaa3₃* does not enter the response domain for it does not solicit a response from the addressee. The syntactic derivation is schematized in (43). Such an analysis explains why *gaa3₃* can modify sentences that are marked by SFPs of the event type and the temporal type but not those marked by SFPs of focus, modality, interrogative, imperative, or emotion type. Since these types of particles and *gaa3₃* compete for the same syntactic positions, i.e., Focus and Degree, they are in complimentary distribution.



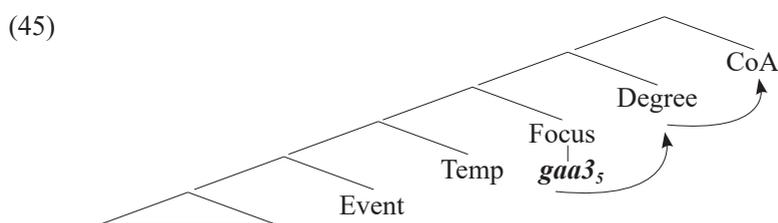
As discussed in the previous section, we can alternatively follow Lau's (2019) spirit and analyze the exclamative $gaa3_3$ as the fusion of the focus particle $gaa3_{1/2}$ (or $ga3$) and the emotion particle $aa3$. According to Tang (2020), the focus particle should be a Focus head while the emotion particle is subsumed under the Degree node. The two approaches both suggest that the relevant particle $gaa3$ hosts the features of Focus and Degree, and they differ only in the way of explaining the fusion of features. In this regard, we maintain to be consistent with Tang's (2020) for theoretical simplicity.

As for $gaa3_4$ which yields a reminding/warning effect in addition to a regular declarative reading, we propose that it is base-generated as the head of FocusP, indicating that the speaker considers the matter denoted by the proposition to be of significance. The corresponding tree diagram is given in (44). Analyzing $gaa3_4$ as a realization of Focus also complies with Li (2006) and others, who argue that $gaa3_4$ makes an utterance more contextually related and situationally linked. Recall from our previous discussion that the speech act introduced by $gaa3_4$ consists of (i) "asserting", i.e., assuming that the hearer has no knowledge of a situation that should have been known and (ii) "reminding/warning", which provides background for the following action that the addressee is supposed to take accordingly. For example, consider the sentence (5) in combination with the context provided in Section 1, John is expected to refrain from touching the cake after being warned about its price. Now let us return to (44), which shows that $gaa3_4$ undergoes double movement from Focus to Degree then to CoA, so as to derive the complex speech act that it introduces. The first movement strengthened the assertive force of the original declarative sentence, marking a high degree of the speaker's commitment to the proposition. In other words, $gaa3_4$ encodes that the speaker has a firm judgement about the factual status of the proposition. Subsequently, $gaa3_4$ undergoes movement from Degree to CoA to perform the speech act of warning the addressee. Note that while the asserting is brought about by Degree at the grounding layer, the reminding/warning is associated with CoA at the response layer. Such an analysis also well accounts for the fact that $gaa3_4$ cannot co-occur with SFPs of the focus type, the modality type, the interrogative type, the imperative type, or the emotion type, as demonstrated in Section 3. This is because they are competing for the same syntactic positions.

(44)



Finally, given the observation in Section 3 that *gaa3₅* can co-occur with SFPs of the event type and the temporal type but not with those of the other types, the derivation in (45) is proposed. As schematized in (45), *gaa3₅* is originally an overt realization of Focus, which undergoes double movement to Degree and then to CoA. Following Fang (2002, 2003), we propose that *gaa3₅* encodes the focus that is being inquired about in interrogative sentences. Next, considering that *gaa3₅* has been analyzed as an SFP of the interrogative type in the literature (cf. Fung 2000; Fang 2002, 2003; Mai & Tan 2016), its movement into Degree to mark the interrogative construction is unsurprising.¹⁴ Finally, its second movement into CoA is triggered to prompt the addressee to give a quick answer, consistent with our previous generalizations. As pointed out by the anonymous reviewers of this paper, although *gaa3₅* can be used in interrogatives, the particle does not bear an inherent [+Q] feature to type the clause it takes, a point with which we agree. For instance, the interrogative nature of (6) is primarily due to the A-not-A form. However, considering the semantic contrast between (39a) and (39b), along with other examples exhibiting the distributional properties of *gaa3₅* in Section 3, it is highly plausible to infer that *gaa3₅* differs from the ordinary focus particle *gaa3₂*.¹⁵



The syntactic derivations for each *gaa3* above show a general pattern in which *gaa3* always generates as a Focus head, presenting the marked proposition as highly relevant to the discourse. The exclamative *gaa3₃*, the “warning” *gaa3₄*, and the “urging-for-a-quick-answer” *gaa3₅* subsequently move into the Degree head. This movement captures their shared semantic properties of functioning as an evaluative device and encoding the speaker’s commitment to the proposition. Notably, while *gaa3₃* and *gaa3₄* encode a high level of the speaker’s commitment to what is being proposed, *gaa3₅* is used to modify an interrogative sentence, marking the speaker’s commitment to the proposition as relatively low. *Gaa3₄* and

¹⁴ Tang (2020) subsumes SFPs of the interrogative type under the Degree node.

¹⁵ In this regard, *gaa3₅* is similar to *sin1₂*, which originates as a Degree particle of the interrogative type as discussed in Tang (2020). Furthermore, like *sin1₂*, *gaa3₅* emphasizes interrogation and urges for clarification from the hearer, whose vowel is lengthened to highlight the speaker’s skepticism, dissatisfaction, and impatience. For the detailed discussion on *sin1₂*, see Tang (2006, 2015).

*gaa3*₅ then move into CoA, crossing both the grounding layer and the response layer, whereas *gaa3*₃ does not. This distinction reflects the linguistic observation that the former requires a response from the hearer, while the latter does not. To summarize, although there are five distinct environments where *gaa3* can be found, there are only three occurrences of it in syntactic terms. This is displayed in Table 4, where “√” indicates the syntactic position(s) a given *gaa3* variant occupies.

Table 4. Syntactic derivations of the five *gaa3* variants

	Focus (to evaluate the marked proposition as important)	Degree (to encode the speaker's commitment to the proposition)	CoA (to call on the addressee to take actions)
<i>gaa3</i> ₁ , <i>gaa3</i> ₂	√		
<i>gaa3</i> ₃	√	√	
<i>gaa3</i> ₄ , <i>gaa3</i> ₅	√	√	√

5. Conclusion

This paper explores how Tang's (2020) proposed cartographic analysis of the syntax of the performatives can capture the grammatical as well as semantic properties of the Cantonese SFP *gaa3*, which, in turn, lends empirical support to the syntactic encoding of speech acts.

In brief, this paper argues that *gaa3* can be observed in five distinct environments: plain statement, simple information-seeking question, exclamation, warning, and quick-answer-demanding question. All of the five occurrences of *gaa3* originate as the Focus head, among which *gaa3*₃, *gaa3*₄, and *gaa3*₅ differ from the other two counterparts in further having exclamative, warning, and quick-answer-demanding readings. On the one hand, *gaa3*₃ bearing the exclamative reading undergoes movement from Focus to Degree. On the other hand, *gaa3*₄ bearing the warning reading and *gaa3*₅ bearing the quick-answer-demanding reading undergo double movement to Degree then to CoA at the response layer, posing a request for the hearer to react accordingly or give a quick answer.

In summary, this paper adds weight to the neo-performative approach that is aimed at syntacticizing properties of speech acts with a fine-grained hierarchy at the left periphery. Importantly, this approach is not a competitor to the dissection approach (cf. Fung 2000; Li 2006; Sybesma & Li 2007; among others), which is concerned with how internal structure of SFPs relate to their semantic features. Instead, the two approaches are compatible and complementary.

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粵語句末語氣詞“㗎”的句法結構

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提要

本文從製圖角度研究粵語句末助詞“㗎”的句法結構。基於五種不同語境（普通陳述、信息詢問、感歎、警告、回應尋求），“㗎”可見於以下三種結構：感歎句、陳述句或疑問句。本文通過考察每種“㗎”的語法屬性和語義闡釋，為“㗎”的不同出現情況提供了統一的句法分析。我們認為，鄧思穎（2020）的框架能夠很好地解釋“㗎”的不同用法，“㗎”的句法語義差異是其在左緣結構中經歷不同句法位移的結果。

關鍵詞

製圖理論，句法，句末助詞，粵語

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