

Cantonese Sentence-final Particles Pertaining to the TP Domain

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Abstract

Current studies on Cantonese sentence-final particles (SFPs) are mainly tied to the outmost CP domain. They overshadow earlier attempts to identify SFPs in the lower TP domain. This paper aims to revive the discussions by broadening the candidacy of Cantonese SFPs in this domain. New SFPs might be added to this family. They include *gam3zai6*, *mat1zai6*, *ge3waa6(2)*, *gam2*, *gam2joeng2* and *ge3*. An overriding issue is to determine how these SFPs are connected with the nature of the TP domain. In this regard, this paper endeavors to apply the insights from previous scholars and suggests that there is a strong connection between possible worlds and time. A “second” Reference Time is proposed, which allows the possible worlds to arise. Therefore, such items as approximatives and counterfactuals can be construed as temporals in that they involve possible world semantics, initiated by this second Reference Time. Cantonese SFP *ge3*, which seems to be free of temporal characteristics, is also shown to be a temporal in the same way as an approximative SFP is shown to be temporally related. As Cantonese is rich in SFPs, this paper is a preliminary exploration of the Cantonese SFPs of the TP domain, which allows further investigations of the split-TP approach in connection with Cantonese.

Keywords

possible world semantics, modality, reference time, TP, sentence-final particle

1. Introduction

Recent concerns over Cantonese sentence-final particles (hereafter SFPs) are mainly tied to the outmost CP (Complementizer Phrase) domain and various proposals are given.¹ These new proposals, though illuminating, overshadow earlier attempts to identify SFPs in the lower inflectional layer, now commonly given as Tense Phrase or TP. The candidates that pertain to TP include 嚟 *lei4*, 喇 *laa3* and 咗 *zaa3* (Tang 1998), etc.² This paper aims to broaden the candidacy of Cantonese SFPs in TP by examining the core semantic value of all SFPs that are said to pertain to this domain. It follows that such elements as 咁滯 *gam3zai6*, 乜滯 *mat1zai6*,

¹ See Lau (2019), Tang (2020), among others.

² Cantonese romanizations in this paper follow the Linguistic Society of Hong Kong Cantonese Romanization Scheme (*Jyutping*); tone numerals are retained since Cantonese SFPs are tone-sensitive.

噉 *gam2*, 噉樣 *gam2joeng2*, 噉話 *ge3waa6(2)* and arguably 噉 *ge3* should also be treated on par with *lei4*, *laa3* and *zaa3* and viewed as SFPs pertaining to the TP domain (hereafter known as TP-SFPs). The following sections will focus on 1) the nature of TP-SFPs in comparison to those in a higher layer; 2) the categorization and justification of these TP-SFP candidates; and 3) the co-occurrence of TP-SFPs and its implications.

1.1. Issues at stake

An overriding issue is to offer a clear definition of SFPs. Lee (1986) and Tang (1989) are among the first to discuss SFPs in accordance with the formal syntactic framework. Tang in particular mentions that SFPs occur only in root clauses. Many later works, however, do not limit SFPs to root clauses. Tang (1998), for instance, suggests that SFPs occur either in root or embedded clauses. An example sentence is taken from Cheng (2015: 5) to illustrate the embeddability of some SFPs as found in Cantonese:³

- (1) 落完 雨 嚟 噉 空氣 最 清新。
 Lok6-jyun4 jyu5 lei4 ge3 hung1hei3 zeoi3 cing1san1.
 fall-finish rain SFP REL air most fresh
 ‘The air after it has rained is the freshest.’

This calls for a clearer definition of SFPs. Given the ambiguity of the term “particle” in Chinese grammatical traditions, the definition of “SFP” is also destined to be problematic. Here, a broad definition, as given in Cheng and Tang (2022), is adopted, and an SFP is construed as “an umbrella term for all relatively independent elements that do normally (but not necessarily) occur at the end of a sentence” (2022: 578). This applies to *lei4* in (1), as well as all those SFPs that are going to be discussed.

1.2. TP-SFPs

There is a need to limit the scope of this study. According to Rizzi (1997), structural representation consists of three kinds of structural layers, namely the lexical layer, the inflectional layer and the complementizer layer. Technically speaking, TP-SFPs refer to just any SFPs posited below the complementizer layer. However, this paper limits the scope of TP-SFPs to only include those that are found in the “middle” layer, i.e., the inflectional layer. SFPs of the lexical layer, though well justified to be members of TP-SFPs, are excluded in

³ The example sentences are (re-)glossed by following the Leipzig Glossing Rules, with the exception that “SFP” is used in giving glosses for all possible candidates of Cantonese SFPs.

the discussions here. Thus, 添 *tim1*, as proposed by Law (1990) as an SFP found in VP, will not be studied here. Similarly, if Erlewine's (2017) analysis is correct, Mandarin restrictive focus particle 而已 *eryi* and its equivalents in Cantonese might well be thought of as SFPs at the light verb level and should not be further pursued. Therefore, although restrictive focus marker *zaa3* is argued to be a T, as in Tang (1998), later studies suggest that its position can be higher or even lower.⁴ The syntactic position of focus-related SFPs appears to be rather fluid and their syntactic position, or positions, remains a largely open question. In Cantonese, those that are safely considered TP-SFPs (in a narrow sense) include *lei4* and *laa3*, and their status is well justified, since both of them are time-related (Tang 1998). The former expresses recent past time, and the latter conveys a change of situations. So far, Cantonese TP-SFPs narrowly (and justifiably) refer to SFPs that are tense- or time- related and exclude any SFPs that are higher and lower in their positions.

1.3. Broadened candidacy?

If TP-SFPs refer to any SFPs that are found in the inflectional layer, it appears that there are two likely candidates. According to Cheng (2015), clause-final *gam3zai6* is argued to be below CP and can be viewed as a TP-SFP. This paper explicates this and includes it as a member. The discussions below will focus on this. In addition, clause-final 住 *zyu6* can also be said to be a TP-SFP, as shown in the sentence below (Cheung 2007: 161):

- (2) 咪 嘈 我 住。
Mai5 cou4 ngo5 zyu6.
not disturb me SFP
'Don't disturb me just yet.'

In fact, it is easier to justify *zyu6* as a TP-SFP than *gam3zai6*. Cheng (2015) argues that clause-final *zyu6* is same as another *zyu6* that occurs immediately after the verb and is essentially an imperfective aspect marker. It is closely related to time and so its position in the inflectional layer is certainly convincing. What is uncertain is why *gam3zai6* can also be regarded as a TP-SFP. Apparently, approximative *gam3zai6* is not as readily related to time as the other items. Section 2 is going to explain this with the aid of a theoretical framework based on semantics.

⁴ See Law (2004) and Cheng (2015) for alternative analyses.

2. Proposal: TP-SFPs as broadly-time-based T heads

It is well known that the T head was first analyzed as an auxiliary head, or Aux, later labeled as I (head of Inflectional Phrase) before being given as the T head of TP. In the case of English, such modals as *would*, *may*, *should* and *might* can now be all analyzed as T heads. By analogy, this paper suggests that Cantonese T heads should also include more candidates, such as *gam3zai6*, *mat1zai6*, *ge3waa6(2)*, *gam2*, *gam2joeng2* or even *ge3*. These elements are all examples of TP-SFPs, and they occupy the T position (or as a matter of fact, the T positions; to be discussed). These TP-SFPs can be grouped into three categories in terms of their semantic properties:

- (3) Approximative: *gam3zai6*, *mat1zai6*, *gam2*, *gam2joeng2*
 Conditional: *ge3waa6(2)*
 Assertive: *ge3*

Two points distinguish this proposal from previous accounts. First, as far as Mandarin is concerned, only two SFPs are usually considered T heads, namely 了 *le* and 來著 *laizhe* (see Tang 2010 and He 2011).⁵ The proposal here greatly extends the scope by not only including their equivalents in Cantonese, *lei4* and *laa3*, but also those that function as approximative, conditional or assertive markers. If this analysis is on the right track, Mandarin equivalents of Cantonese TP-SFPs, such as assertive 的 *de* in Mandarin, might well be regarded as T as well.⁶ This contrasts with some of the previous literature in that some, if not all, of these SFPs should be given as C heads (complementizers). Second, and more importantly, how are these Cantonese SFPs related to T? If we interpret T as “tense”, are they related to tense at all? If we adopt a broader sense of T and interpret it as time-related, it is necessary to justify the relationship between approximatives / conditionals / assertives and time. It is natural to see that the two distinctive features of this proposal (those SFPs are not Cs, and they are Ts) are one and the same. A time-based theoretical framework is going to be proposed, but before that, let us review some of the previous discussions on the syntactic nature of some of their Mandarin equivalents.

2.1. Paul’s classification of complementizers

Based on Rizzi’s (1997) split-CP approach and Zhu’s (1982) three classes of SFPs, Paul (2007 et seq.) indicates that these SFPs are structured in three complementizer layers, C₁, C₂ and C₃,

⁵ Tone marks are not used for Mandarin words, which are given mainly for the purpose of comparison.

⁶ Simpson and Wu (2002; to be discussed below) already proposed that Mandarin *de* is a T element. Thanks to one of the reviewers who has pointed this out.

which correspond to low C, Force and Attitude respectively. The structural representation is given as follows (Paul 2015: 284):

(4) C ₁ (low C)	C ₂ (Force)	C ₃ (Attitude)
了 <i>le</i> currently relevant state	吧 <i>ba</i> _{IMP} (advisative <i>ba</i>)	呀 <i>a</i> softening
來著 <i>laizhe</i> recent past	吧 <i>ba</i> _Q confirmation	罷了 <i>bale</i> understatement
呢 <i>ne</i> ₁ continuing situation	嗎 <i>ma</i> yes/no question	欸 <i>ei</i> gentle reminder
	呢 <i>ne</i> ₂ follow-up question	嚟 <i>ma</i> dogmatic assertion
		呢 <i>ne</i> ₃ exaggeration
		嘔 <i>ou</i> impatience
		著呢 <i>zhene</i> intensifier

Amongst them, the items that concern us are what she calls C₁ or low C. Unlike Tang (1998, 2010) and He (2011), such SFPs as *le* and *laizhe* are said to be Cs, not Ts. Regarding the specialty of C₁, Paul indicates that C₁ can occur in non-root contexts, whereas the upper C₂ and C₃ cannot. Besides, Paul also argues that in Mandarin 的話 *dehua* and 的 *de* are exclusively non-root. In this regard, they resemble low Cs. It is easy to infer that both low Cs and *dehua* / *de* are SFPs that are posited one level above T, but they are not Ts themselves. With the rise of the Minimalist Program and the Bare Phrase Structure Theory, it appears that the syntactic labeling of *le*, *de*, *dehua* and so on is a trivial issue. They can well be labeled as Cs or Ts as one wishes since what really matters now is whether they are heads (or non-heads) in the Merge operation. However, considering that also in the Minimalist Program, CP is a Spell-out domain, we still need to decide whether they are Cs, which lead to Spell-out, or not. In this paper, I argue that Paul's low Cs and *sui generis* collectivity of *dehua* and *de* are in fact Ts and so these SFPs and their equivalents in Cantonese are all TP-SFPs.

2.2. General scheme for TP-SFPs

TP, as the later-developed unit that was previously labeled as S (Sentence), denotes a proposition, and CP is a larger unit, the role of which gradually evolved since the late 1970s. A proposition has a truth value (true or false), and its truth value cannot be determined without the input of time. Recall Russell's famous example "The present king of France is bald." The truth value of this sentence cannot be determined if the time factor is ignored. It is false at the time when this paper is published and true when said by a hypothetical time traveler back to the time when there was a bald French king. Therefore, TP is proposition-related and hence time-constrained. TP-SFPs contribute to the sentence by setting a time frame for the proposition to be evaluated. This "time" does not necessarily equate the speech time, but as given in the following parts, the time in connection is closely related to the speech (or utterance) time.

2.3. A “second” reference time

To answer the question as to why some Cantonese approximatives, conditionals and assertives are TP-SFPs, it is necessary to recall and modify the three-point time system originated from Reichenbach (1947). The time points are speech (utterance) time, reference (topic) time and event time (hereafter called S, R, E respectively). Tense was first construed as the relationship between S and E, and later as that between S and R. For example, the past tense refers to the situation where R (or E) precedes S. And aspect is about the relationship between R and E. Based on these assumptions, I would like to further propose a second reference time, or R', which differs from the commonly-known R. There is a *raison d'être* for this time point. Aspect in Chinese is usually associated with verbal suffixes like 過 *guo* and 著 *zhe* in Mandarin or 㗎 *zo2* and 緊 *gan2* in Cantonese. R is more related to these verbal suffixes than to SFPs. A second reference time R' is needed for the non-suffixal, clausal-final time elements. Moreover, a sentence with an SFP is increasingly viewed as being of a biclausal structure (see Tang 2015, for example). The so-called “second” clause, filled by an SFP, should also be given a second reference time. In this regard, the recent past marker *lei4* is marked by the representation of R'—S, which means that the reference time conveyed by *lei4* precedes the speech time. In the case of *lei4*, R' might coincide with the traditional, Reichenbachian R, but it is not always the case for TP-SFPs:⁷

- (5) The temporal representation of *lei4* (the future is to the right):



This solves the problem as to whether the suffixal or clausal-final elements express the reference time, as they now give rise to R and R' respectively. As for R', it relates to S but differs from R, which is commonly associated with verbal aspect markers. It is also argued that R' is associated with modality. In many cases regarding TP-SFPs, R' is essentially the “modal time.” By this, I would like to resort to the possible world semantics for illustration. My analysis below, which connects time and possible worlds, is based on various previous studies (see Condoravdi 2002; Arregui 2005; Broekhuis & Verkuyl 2014; Lin 2016, etc.). A possible world is a world that we imagine could be the case. R' is said to be a time point from which different possible worlds arise. By connecting R' with possible worlds, we can clearly see why Cantonese TP-SFPs of the categories of approximatives, conditionals, assertives as

⁷ As noted by one of the reviewers, it is dubious if R and R' can co-occur in the same *clause*. It is suggested here that, if the “biclausal-structure” analysis is upheld, then R and R' occur in different *clauses*, but in the same *sentence*. There is a need to distinguish clauses and sentences. I concur with Tang (2010) that a clause is a CP and a sentence has one more projection above it, known as FP.

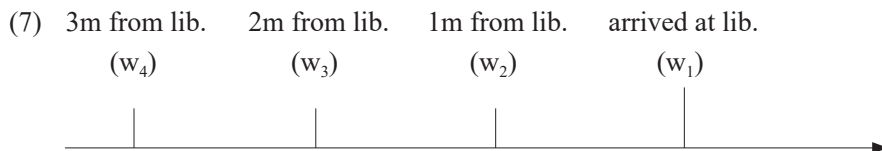
given in (3) are also time-related. In the following sections, a TP-SFP from each category will be taken for illustration. But before that, this section ends by recapturing the criteria for TP-SFPs. A TP-SFP 1) might occur in non-root clausal-final contexts; and 2a) might have a direct relation to temporality; or 2b) might have an indirect relation to temporality, mediated by modality, assuming that R' marks the emergence of possible worlds.

2.4. Case one: Approximative *gam3zai6*

Cantonese approximatives include *gam3zai6*, *mat1zai6*, *gam2* and *gam2joeng2*, of which the first two are most studied. Cheng (2015) and Lee (2016) have already linked approximatives to possible world semantics, respectively resorting to the frameworks by Broekhuis and Verkuyl (2014) and Portner (1998). In particular, Cheng argues that, contra Tang (2009), *gam3zai6* and *mat1zai6* are minimally different. They are both approximatives occupying the same syntactic position, only differing in that the use of *mat1zai6* is fading out and it contains a negative polarity item that must be governed. Therefore, the more common *gam3zai6* is used for illustration. Approximative *gam3zai6*, translated as ‘almost’, has a scalar reading as follows (Cheng 2015: 211):

- (6) 張三 跑 到 圖書館 咁滯。
 Zoeng1saam1 paau2 dou3 tou4syu1gun2 gam3zai6.
 Zoengsaam run to library SFP
 ‘Zoengsaam almost ran to the library.’

According to Cheng (2015) and Lee (2016), the scalar reading conveyed by a sentence with *gam3zai6* can be understood as a scale of possible worlds. The use of *gam3zai6* brings out an approximation situation, which is a possible world, and a terminal situation, which is another possible world. With the use of *gam3zai6*, it approximates on a terminal situation, meaning that the possible world that pertains to the approximation situation is the actual world, but the terminal-point possible world is not. The scale given for (6) can be illustrated as follows (Cheng 2015: 211):

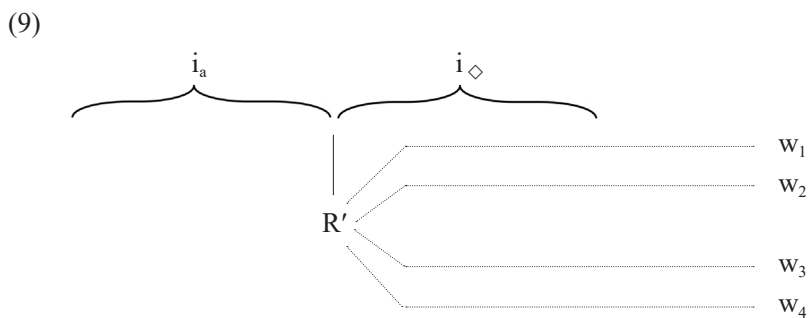


As shown above, the possible world w_2 is said to be the actual world. The terminal-point world, w_1 , as well as all other possible worlds, is not the actual world. Therefore, it is right

to say that what *gam3zai6* approximates on are the possible worlds. Opponents might argue that this approximation is only a temporal one. In other words, the scale as shown in (7) is just a time scale. It is more apparent than real. The sentence below shows that a chronological reading is unlikely:

- (8) 張三 唔 識字 咁滯。
 Zoeng1saam1 m4 sik1zi6 gam3zai6.
 Zoengsaam not literate SFP
 ‘Zoengsaam is almost illiterate.’

The approximation situation where Zoengsaam is almost illiterate cannot evolve into the terminal situation where Zoengsaam is completely illiterate, under almost all sensible interpretations. Besides, the “evolution-into-illiteracy” reading is also quite counterintuitive. It is argued here that the approximation situation rather brings out a possible world (corresponding to w_2 above) which is an actual world, differing from the un-actualized possible world conveyed by the terminal situation (corresponding to w_1 above). Cheng (2015) states that is why *gam3zai6* can be used for non-dynamic predicates. Based on the system proposed by Broekhuis and Verkuyl (2014), R' is given as a time point that marks the emergence of possible worlds. It divides the time scale into the time spans of i_a and that of i_{\diamond} .⁸ The former span refers to the actualized time range, and the latter one marks the time range for possible worlds, hence a unary operator “ \diamond ” is used to convey possibility. A simplified representation is given below:



It is necessary to define *actualization* before moving to the case of approximative *gam3zai6*. By “actualized,” I mean that at the time point R' , the time before is a reality; different possible situations are only allowed after it. It is essentially a viewpoint upheld by the speaker.

⁸ In other words, R' marks the beginning of i_{\diamond} .

Whether any possible world at $i \diamond$ turns out to be the actual world depends on the relative position of S. If R' precedes S, then there must be one possible world that becomes the actual world at S, given that the possible worlds arise in the past. If R' is posited at S, it would be the case that one of the possible worlds just arises (in the present) immediately becomes the actual world. As long as R' does not follow S, we refer to the non-future time. As for the case of *gam3zai6*, it is shown that its use is limited to non-future situations:⁹

- (10) (五年前 / 而家 / ^{??} 五年後) 佢 供完 樓 咁滯。
 (Ng5nin4cin4 / Ji4gaa1 / ^{??}Ng5nin4hau6) keoi5 gung1-jyun4 lau2 gam3zai6.
 5-years-ago/ now/ 5-years-later he pay-finish flat SFP
 ‘(Five years ago / Now / ^{??}Five years later) he almost finishes his flat installment.’

My language informants and I also confirm that the use of *gam3zai6* conveys a sense of “backward-looking.” The un-predictability of the future does not accord well with the requirement to approximate with *gam3zai6*. Taken altogether, the past-time option of (10) is given as follows, with R' preceding S:



An actual world is determined by the speaker at S; it is the world where the speaker finds herself in. It is said that w_2 is the actual world and w_1 is the terminal-point possible world (an un-actualized world) whose situation is approximated on by *gam3zai6*.

2.5. Case two: Conditional *ge3waa6(2)*

Cantonese *ge3waa6(2)* corresponds to Mandarin *dehua* and English *if*. As for the past literature regarding *dehua*, it is indicated that it conveys a sense of informality, subjectivity and connectivity (Zhao 2009; Sun 2019). Cantonese *ge3waa6(2)* shares the same properties.

⁹ As indicated by one of the reviewers, the addition of 會 *wui3* before the verb can improve the plausibility of the future reading. Section 2.6 below will explain why, according to Lin (2016), it is actually not the case of the approximative being in agreement with future time.

More precisely, like its Mandarin counterpart, it can be used with or without conditional 如果 *jyu4gwo2* ‘if’, causing the co-occurrence of clause-initial *jyu4gwo2* and clause-final *ge3waa6(2)* to appear to be “redundant”:¹⁰

- (12) (如果) 我 去 嘅話 我哋 會 見。
 (Jyu4gwo2) ngo5 heoi3 ge3waa6(2) ngo5dei6 wui3 gin3.
 if I go SFP we would meet
 ‘If I go, we will meet.’

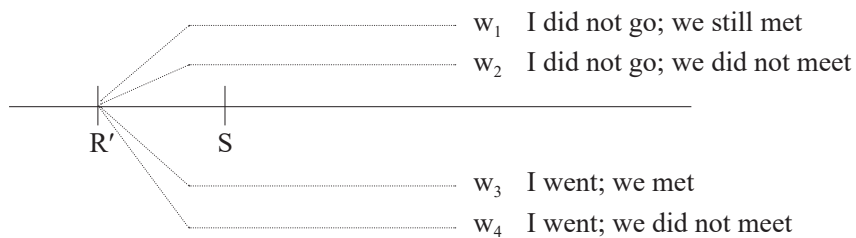
There seems to be no substantial work discussing the difference between these two conditionals, whether with regard to Mandarin or Cantonese. In addition to the indication that the clause-final element is more informal than the clause-initial one, it is sometimes suggested that Mandarin *dehua* enhances hypotheticality. A sentence with *dehua* can be translated as something like *If (and it's a big if)...*, and it is also the case for its Cantonese equivalent. The mystery about the differentiation between the clause-initial and clause-final conditionals remains to be solved. It is also noted that in Cantonese, *ge3waa6* and its variant *ge3waa2* differ in terms of the possibility of the eventualities concerned. In my accent as well as that of some of my informants, *ge3waa2*, in which the tone of *waa* changes to a high rising one, causes the conditional sentence to have a higher chance to be interpreted as a counterfactual conditional. By comparison, a sentence with *ge3waa6*, where *waa* is in its base tone, will be more likely interpreted as an indicative conditional. In English, they correspond to Type 1 (indicative) and Type 2 or Type 3 (counterfactual) conditionals, and the English translations of the following Cantonese sentences can be used for illustration:

- (13) 我 去 嘅話 我哋 會 見。 (indicative > counterfactual)
 Ngo5 heoi3 ge3waa6 ngo5dei6 wui3 gin3.
 I go SFP we would meet
 ‘If I go, we will meet.’
- (14) 我 去 嘅話 我哋 會 見。 (counterfactual > indicative)
 Ngo5 heoi3 ge3waa2 ngo5dei6 wui3 gin3.
 I go SFP we would meet
 ‘If I went (had gone), we would meet (would have met).’

¹⁰ One of the reviewers cast doubt on whether *ge3waa6(2)* can really occur in the sentence-final position. In fact, sentences with a post-posed conditional clause are quite common in Cantonese. As such, *ge3waa6(2)* does occur sentence-finally. In non-formalist traditions, this type of sentences is said to be “Westernized.” Whereas I confirm the commonality and naturality of this sentence type in Cantonese, this paper is non-committal when it comes to the value judgment associated with it.

Let's start with counterfactual conditionals. It is possible to connect counterfactuality with the temporal representation as well as the possible world semantics. In the spirit of Arregui (2005) and Lin (2016), counterfactuality is linked to pastness. That is, the possible worlds arise in the past, and one of them is intended to be the world the speaker refers to. That intended possible world, however, is not deemed the actual world, hence counterfactuality. The counterfactuality of (14) can be shown as follows:

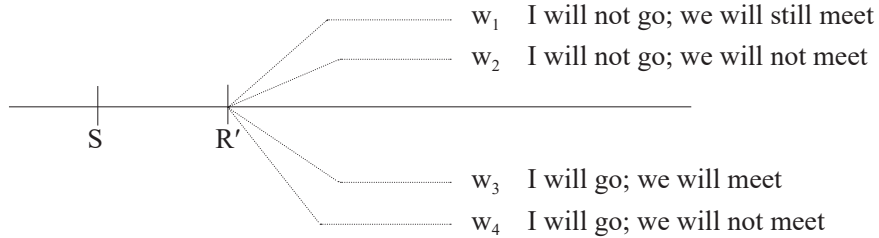
(15)



Similar to (11), R', where the possible worlds arise, precedes S. Here, the possible world intended by the speaker is considered by the same person to be different from the actual world she finds herself in. Sentence (14) can be variably translated as a Type 2 or Type 3 conditional, with the *if*-clause in the past tense form and past perfect form respectively. In Arregui (2005), she suggests that, in the English language variety she studies, the former conditionals have present or future reference, and the latter ones have past, present or future reference. It has to do with the eventuality and its time (termed E here), which follows R' but might precede, coincide with or follow S. A possible world with E in the future can also be determined as counterfactual when it is deemed so at S. For instance, at S, the speaker is a dying person and is certain of her impossibility to go for a future meeting with the addressee.¹¹ In (15), the counterfactual reading of (14) is brought out when w₃ is the intended possible world and, say, w₂ is considered the actual world. Meanwhile, in an indicative conditional, R' does not precede S. Rather, it follows S. The indicative conditional reading of (13) is represented as follows:

¹¹ I take the prohibition of Type 2 conditionals to have a past reference as a prohibition of R' in this type of English conditionals to precede S; R' is not allowed to precede S, so there is no case of E preceding S while producing a counterfactual reading. Future research might help see if the sub-categorization of Type 2 and Type 3 conditionals also applies to Cantonese.

(16)



The intended possible world conveyed in (13) is w_3 . Since the possible world arise in the future and hence in the “unknown” time span after S, there is no actual world that is determined at S. The indicative conditional reading is thus borne out. As there is no actual world after S to be identified at S, there is also no case of counterfactuality to speak of. The intended possible world w_3 might or might not become the actual world in the future, but at S, it is yet determined.

2.6. Case three: Assertive *ge3*

It is not a new idea to propose that an assertive marker can be viewed as a T element. Simpson and Wu (2002) argue that Mandarin *de* in 是 - 的 *shi-de* form is reanalyzed from being a D into a T, resulted from “the strengthening of a past time conversational implicature commonly associated with the *shi-de* construction” (2002: 169). Their proposal can be brought over to depict the case of Cantonese *ge3*. There is also a way to prove the status of *ge3* as a T head simply by deductive methods. Lin (2003a, 2003b) argues for the existence of two empty tenses, i.e., covert present tense and covert past tense, and he further indicates that the former tense selects a homogeneous situation as its complement, and the latter one selects a heterogeneous situation as its complement. “Homogeneous” and “heterogeneous” complements roughly correspond to stative and dynamic predicates respectively. Although Lin does not put forth a syntactic T head for tense, other scholars do. As mentioned above, Tang (1998, 2010) and He (2011) postulate a T position for Chinese; as for Cantonese, Tang (1998) argues that *lei4* is a T head. It is observed that *lei4* occurs with a dynamic predicate, not a stative predicate, and even in a sentence with the dynamic predicate, the use of *lei4* is sometimes optional:

- (17) 我 游過水 (嚟) 。
- Ngo5 jau4<gwo3>seoi2 (lei4).
- I swim<PRF> SFP
- ‘I (just) swam.’

The difference between Lin on the one hand, and Tang and He on the other lies on the question as to whether tense in Chinese is determined by semantic inference (Lin) or

syntactic positioning (Tang and He). As I stated earlier that TP is related to proposition, it is also suggested that a T head always exists in Cantonese. This is not meant to oppose the existence of covert tense as suggested in Lin. Rather, that the covert past tense exists means that an empty category occupies T, and its overt realization is *lei4*. It is tempting to also assume that there is an overt realization of the covert present tense. To the best of my knowledge, no scholars hint on this overt T in Cantonese which is responsible for the present tense. As mentioned, a sentence containing a stative predicate is, by default, in present tense. The optionality of Mandarin *de* and Cantonese *ge3* in such a sentence reminisces the case in (17) and they can be understood as the stative equivalent of *lei4*. Take *ge3* as an example:

- (18) 我 鍾意 佢 (嘅)。
Ngo5 zung1ji3 keoi5 (ge3).
I love him SFP
'I love him.'

Notwithstanding the fact that, as in (18), *ge3* is used in a sentence that is by default present, the temporal presentation of *ge3* is by no means limited to the present tense. Lin (2016) unifies previous discussions on sentence-final *de* in Mandarin and argues that *de* accords with non-future time. Based on others' observations, he indicates that *de* cannot normally co-occur with an adverb conveying the future time (2016:138):

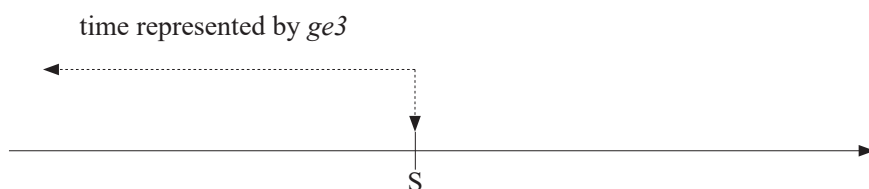
- (19) 我 明天 通知 你 (*的)。
Wo mingtian tongzhi ni (*de).
I tomorrow inform you SFP
'I will inform you tomorrow.'
- (20) 我 昨天 通知 你 的。
Wo zuotian tongzhi ni de.
I yesterday inform you SFP
'I informed you yesterday.'

As can be seen above, *de* can co-occur with a past-time temporal adverb but not a future one.¹² The same pattern also applies to Cantonese *ge3*. It is therefore appropriate to assert that, based on Lin's (2016) analysis of Mandarin *de*, Cantonese *ge3* also only accords with

¹² Simpson and Wu (2002) and Lin (2016) differ on whether the present time should also be included in the conversational implicature. This is a controversial issue given that the very nature of the "present time" might be called into question. The debate in connection is left open. The label "non-future" used here captures the essence of the main arguments.

non-future time. A revised representation based on Lin (2016) is given as follows to illustrate the temporal requirement of *ge3*:

(21)

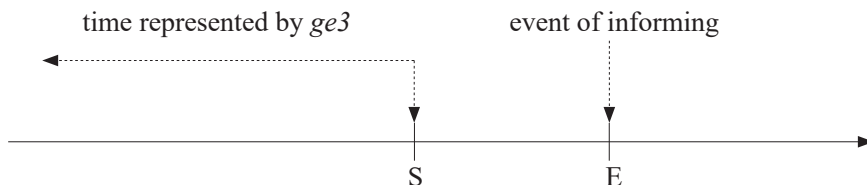


There are also some apparent counterexamples. Lin indicates that we do have cases where Mandarin *de* can go with a future-time adverb. For example, (19) becomes grammatical again when 會 *hui* is added (2016: 138):

- (22) 我 明天 會 通知 你 的。
 Wo mingtian hui tongzhi ni de.
 I tomorrow will inform you SFP
 'I will inform you tomorrow.'

Another word that can grammaticalize (19) is 要 *yao*. Regarding this, Lin suggests that *hui* and *yao* are auxiliaries and stative verbs, so they offer a present modal time by default. It is the event time (termed E here) that is posited in the future. Therefore, a present-time representation contributed by an auxiliary can accord with *de*. In our discussions of Cantonese *ge3*, the same effect applies. Therefore, the diagram in (21) can be modified to become (23) to accommodate the case of Cantonese:

- (23) 我 聽日 會 通知 你 嘅。
 Ngo5 ting1jat6 wui3 tung1zi1 nei5 ge3.
 I tomorrow will inform you SFP
 'I will inform you tomorrow.'



Lin's proposal also explains why the co-occurrence of a modal and *de* creates a counterfactual reading. In our terms, R' can only coincide with or precede S, given the temporal requirement

imposed by *de*. In any case, an actual world, out of many possible worlds arising at R', must be determined at S. According to Lin, the reason why the actual world is not the intended world is due to the fact that, if the two worlds are the same, the use of modals will simply violate the pragmatic maxims given in Grice (1975). The fulfillment of Grice's maxims ensures that only a counterfactual reading is accepted. As for the case of Cantonese *ge3*, its co-occurrence with a modal, such as 應該 *jing1goi1*, also leads to a counterfactual reading. I use the following sentence, adapted from Lin's analysis, to illustrate the case of Cantonese, assuming that R' precedes S:



Since a counterfactual reading must be given, the intended world, w₃, cannot be the actual world. We can assume that w₂ is the actual world whose situation is different from that of w₃. It is fair to say that *ge3* does not directly contribute to the arising of possible worlds, yet its use relates to the possible world semantics of a sentence by means of its temporal requirement and also the pragmatic control as a result of its co-occurrence with a modal.

2.7. Toward a split-TP theory for Cantonese

Three categories of TP-SFPs have been examined. Together with previously-proposed *lei4*, *laa3* and *zaa3*, the number of TP-SFPs is raised to a dozen or so. In some analyses, *laa3* and *zaa3* should rather be decomposed into a TP-level element (*la* or *za*) plus a CP-level element (*a*), hence *laa* or *zaa* (see Tang 2006; Cheng 2015). Nonetheless, such an approach does not decrease the number of TP-SFPs, only seeing them in a different light. If the “decomposition” approach is adopted, it might be the case that Fung's (2000) classification of Cantonese SFPs by their onset into the three families of Z-, L- and G- particles can well be interpreted as that each group has its own respective TP component.¹³ It is also tempting to view 至奇 *zi3kei4*, a

¹³ Beyond the scope of this paper, this idea will not be further pursued.

quasi-negator in Cantonese, as a potential TP-SFP.¹⁴ Illuminating as broadened candidates of TP-SFPs, they also seem to follow a fixed sequencing pattern. Consider these sentences:

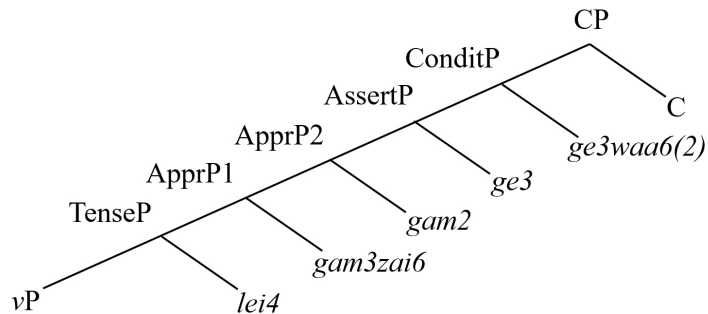
- (25) A B
 落 雨 嚟 咁滯。
 Lok6 jyu5 lei4 gam3zai6.
 fall rain SFP SFP
 ‘It just almost rained.’
- (26) B C
 好似 冇 聲音 咁滯 噉。
 Hou2ci5 mou5 sing1jam1 gam3zai6 gam2.
 seem no sound SFP SFP
 ‘It seems like there is almost no sound.’
- (27) C D
 佢 好似 想 講嘢 噉 嘅。
 Keoi5 hou2ci5 soeng2 gong2je5 gam2 ge3.
 she seem want speak SFP SFP
 ‘She seems like she wants to speak.’
- (28) D E
 ? 你 去 嘅 嘅話……
 Nei5 heoi3 ge3 ge3waa6(2)…
 you go SFP SFP
 ‘If you do go…’

By transitivity, a sequencing pattern can be drawn, with A labeled for *lei4*, B for *gam3zai6*, C for *gam2*, D for *ge3* and E for *ge3waa6(2)*. As can be seen, the sentences above are largely felicitous, though a prosodic rule favoring haplology might make the co-occurrence of *ge3* and *ge3waa6(2)* slightly awkward. The acceptability of (28) is greatly improved if a small pause is added between *ge3* and *ge3waa6(2)*. It is observed that any re-ordering of these TP-SFPs will cause the sentence to become infelicitous or downright ungrammatical. For instance, placing *lei4* (termed A) in any position other than the first of the sequence is unacceptable, such that the sequences of B-A or C-A are out. Also, *gam3zai6* (B) must precede *gam2* (C); and *ge3* (D) must precede *ge3waa6(2)* (E). Therefore, such sequences as C-B or E-D are infelicitous. Moreover, D-E-(A/B/C) is also disallowed as *ge3 / ge3waa6(2)* must follow the other three TP-SFPs. A generalized sequencing pattern can be concluded,

¹⁴ Thanks to Zoe Lam for pointing this out. Further research should be undertaken.

with A given as Tense, B as Approximative 1, C as Approximative 2, D as Assertive and E as Conditional. The diagram below illustrates their syntactic arrangement:¹⁵

(29)



The diagram above is in reminiscent of Rizzi's (1997) Split-CP Hypothesis, and more specifically Pollock's (1989) Split Inflection Hypothesis. What the study of Cantonese TP-SFPs here can show is that a more semantically-based categorization of heads, as seen in Rizzi, can also apply to the inflectional layer, which is split by Pollock in a less semantic manner. Further studies are needed so as to clarify the semantic content of these heads and make a claim on the cross-linguistic universality of this proposal.

3. Conclusion

In this paper, I argue that Cantonese should include more TP-SFPs than previously assumed; these candidates include *gam3zai6*, *mat1zai6*, *gam2*, *gam2joeng2*, *ge3* and *ge3waa6(2)*. A major hurdle has been overcome: these TP-SFPs are related to the inflectional layer, i.e., the TP layer sandwiched between CP and vP, in that they are connected with the speech time S, directly or via a second reference time R'. Possible world semantics is used to justify the role of R' and the relationship between these TP-SFPs and time. As a new account for Cantonese clause-final elements, this proposal is not *avant garde* as it is wished to be. It conforms to the TAM (Tense Aspect Modality) framework as many other studies do with regard to the inflectional layer. Only in this paper is more focus put on modality, which is associated with

¹⁵ Given the length of this paper, the differentiation of Approximative 1 and Approximative 2 will not be further pursued. As a quick note, the difference between the two approximatives might have to do with the degree of difference when the actual world and the terminal-point possible world are compared.

the arising of possible worlds. It is shown that the inflectional layer should better be termed the “propositional” layer given that TAM elements contribute to the determination of the truth value of a proposition. And the TP-SFPs under study are all contributors. Cantonese is famously marked for its distinctive feature of being rich in SFPs, and it is likely to help formulate a more precise version of Split-TP Theory through the studies of Cantonese TP-SFPs, eventually leading to a conglomeration of split Cs, Ts and vs.

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References

- Arregui, Ana. 2005. *On the accessibility of possible worlds: The role of tense and aspect*. Amherst, MA: University of Massachusetts dissertation.
- Broekhuis, Hans & Henk J. Verkuyl. 2014. Binary tense and modality. *Natural Language Linguistic Theory* 32. 973–1009.
- Cheng, Siu-Pong (鄭兆邦). 2015. *Xianggang Yueyu dongci qianhouzhi chengfen de jufa yuyi guanxi* 香港粵語動詞前後置成份的句法語義關係 Xianggang: Xianggang Zhongwen Daxue boshi xuewei lunwen 香港：香港中文大學博士學位論文。
- Cheng, Siu-Pong & Sze-Wing Tang. 2022. Syntax of sentence-final particles in Chinese. In Chu-Ren Huang, Yen-Hwei Lin, I-Hsuan Chen & Yu-Yin Hsu (eds.), *Cambridge Handbook on Chinese Linguistics*, 578–596. Cambridge: Cambridge University Press.
- Cheung, Hung-Nin (張洪年). 2007. *Xianggang Yueyu Yufa de Yanjiu* 香港粵語語法的研究 Xianggang: Xianggang Zhongwen Daxue Chubanshe 香港：香港中文大學出版社。
- Condoravdi, Cleo. 2002. Temporal interpretation of modals: Modals for the present and for the past. In David Beaver, Luis Casillas, Brady Clark & Stefan Kaufmann (eds.), *The construction of meaning*, 59–87. Stanford: CSLI Publications.
- Erlewine, Michael Yoshitaka. 2017. Low sentence-final particles in Mandarin Chinese and the Final-over-Final Constraint. *Journal of East Asian Linguistics* 26. 37–75.
- Fung, Suk-Yee Roxana. 2000. *Final particles in Standard Cantonese: Semantic extension and pragmatic inference*. Columbus, OH: Ohio State University dissertation.
- Grice, Paul. 1975. Logic and conversation. In Peter Cole & Jerry Morgan (eds.), *Syntax and semantics, volume 3: Speech acts*, 41–58. New York: Academic Press.
- He, Yuanjian (何元建). 2011. *Xiandai Hanyu Shengcheng Yufa* 現代漢語生成語法 Beijing: Beijing Daxue Chubanshe 北京：北京大學出版社。
- Lau, Chaak-Ming (劉擇明). 2019. *Cong Yueyu jumo zhuci “aa3” kan juzi de bianyuan jiegou* 從粵語句末助詞“啊”看句子的邊緣結構 Xianggang: Xianggang Zhongwen Daxue boshi xuewei lunwen 香港：香港中文大學博士學位論文。
- Law, Sam-Po. 1990. *The syntax and phonology of Cantonese sentence-final particles*. Boston, MA: Boston University dissertation.
- Law, Yan-Kei Ann. 2004. *Sentence-final focus particles in Cantonese*. London: University College London dissertation.

- Lee, Chui-Yi. 2016. *Revisiting the particles matzai and gamzai in Cantonese*. Hsinchu: Tsing Hua University MA thesis.
- Lee, Thomas Hun-Tak. 1986. *Studies on quantification in Chinese*. Los Angeles: University of California, Los Angeles dissertation.
- Lin, Jo-Wang. 2003a. Selectional restrictions of tenses and temporal reference of Chinese bare sentences. *Lingua* 113. 271–302.
- Lin, Jo-Wang. 2003b. Temporal reference in Mandarin Chinese. *Journal of East Asian Linguistics* 12. 259–311.
- Lin, Jo-Wang (林若望). 2016. “De” zi jiegou, motai yu weishi tuili “的”字結構、模態與違實推理 *Zhongguo Yuwen* 中國語文 2. 131–151.
- Paul, Waltraud. 2007. The fine structure of the (right) periphery in Mandarin Chinese. Paper presented at Journées d'études: la structure des types de phrases, Paris, 16–17 November.
- Paul, Waltraud. 2015. *New perspectives on Chinese syntax*. Berlin: De Gruyter Mouton.
- Pollock, Jean-Yves. 1989. Verb movement, universal grammar, and the structure of IP. *Linguistic Inquiry* 20:365–424.
- Portner, Paul. 1998. The progressive in modal semantics. *Language* 74. 760–787.
- Reichenbach, Hans. 1947. *Elements of symbolic logic*. New York: Macmillan.
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed.), *Elements of grammar*, 281–337. Dordrecht: Kluwer Academic Publishers.
- Simpson, Andrew & Zoe Wu. 2002. From D to T – Determiner incorporation and the creation of tense. *Journal of East Asian Linguistics* 11. 169–209.
- Sun, Jingyi (孫婧一). 2019. “Lianci + dehua” de jufa yuyi tezheng yu huayu gongneng “連詞+的話”的句法語義特徵與話語功能 Wuhan: Huazhong Shifan Daxue Shuoshi xuewei lunwen 武漢：華中師範大學碩士學位論文.
- Tang, Sze-Wing. 1998. *Parametrization of features in syntax*. Irvine: University of California Irvine dissertation.
- Tang Sze-Wing (鄧思穎). 2006. Yueyu yiwenjumo “sin” zi de jufa tedian 粵語疑問句末“先”字的句法特點 *Zhongguo Yuwen* 中國語文 3. 225–232.
- Tang, Sze-Wing. 2009. The syntax of two approximatives in Cantonese: Discontinuous constructions formed with *zai6*. *Journal of Chinese Linguistics* 37. 227–256.
- Tang, Sze-Wing (鄧思穎). 2010. *Xingshi Hanyu Jufaxue* 形式漢語句法學 Shanghai: Shanghai Jiaoyu Chubanshe 上海：上海教育出版社.
- Tang, Sze-Wing. 2015. A generalized syntactic schema for utterance particles in Chinese. *Lingua Sinica* 1. 1–23.
- Tang, Sze-Wing. 2020. Cartographic syntax of performative projections: Evidence from Cantonese. *Journal of East Asian Linguistics* 29. 1–30.
- Tang, Ting-Chi (湯廷池). 1989. *Hanyu Cifa Jufa Xuji* 漢語詞法句法續集 Taipei: Xuesheng Shuju 台北：學生書局.
- Zhao, Guojun (趙國軍). 2009. Biao jiashe de “ba” yu “dehua” 表假設的“吧”與“的話” *Hanyu Xuexi* 漢語學習 4. 50–55.
- Zhu, Dexi (朱德熙). 1982. *Yufa Jiangyi* 語法講義 Beijing: Shangwu Yinshuguan 北京：商務印書館.

屬於時間詞短語範圍的粵語句末助詞

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提要

時間詞短語（TP）範圍的粵語句末助詞於近期少受重視。本文旨在帶起討論，指出這些成分還有更多，如“咁滯、乜滯、嘅話、噉、噉樣、嘅”，其身分與 TP 性質相關。本文按過去論述聯結可能世界與時間，提出“第二參考時間”作為可能世界產生的時點。表近似或違實義的句末助詞也是時間詞，涉及可能世界語義學。“嘅”看似沒有時間特徵，但也是時間詞，與時間建立關係的道理相同。本文對 TP 句末助詞的初探有助於日後有關粵語 TP 分解的研究。

關鍵詞

可能世界語義，情態，參考時間，時間詞短語，句末助詞

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