

# A comparative study of sentence-final particles: The syntax of *le5* in Cantonese and *ba* in Mandarin in the clausal periphery

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**Background:** The Cantonese sentence-final particle (SFP) *le4* is reported to have two major usages, namely expressing suggestive tone (Tang 2015: 253) and agreement-seeking (Zhang and Ni 1999: 195). Tang (2015: 252) also further analyses that it can only present with dynamic predicates and volitional verbs (2015: 253), so as to mark the imperative modality in the sentence. As *le4* is agreement-seeking, it also spans across two syntactic domains, from Degree to Call on Addressee (CoA) under movement. However, one similar SFP *le5*, which exists in Cantonese conversation (1), is not greatly discussed and categorized into any type of the SFPs.

(1) 張三冇上堂 *le5*

Zoeng-saam            mou    soeng tong    le5

Zoeng-saam            NEG   attend lecture SFP

‘Zoeng-saam did not attend the lecture, did he?’

Another puzzle is that *ba* in Mandarin is also observed with agreement-seeking function (Li and Thompson 1981), and a low speaker’s commitment to the propositional content (Li 2006). I also compare the core semantics, and the syntactic position and movement of *ba* with *le5* and *le4* in Cantonese in the clausal periphery proposed by Tang (2020: 9).

**Proposal:** To provide an answer to my first puzzle, I argue that although *le5* and *le4* share some of the phonological, suprasegmental, syntactic, semantic similarities, they perform different functions, as observed in their requirements to the predicates and verbs of the sentences they mark, as well as their intonation. I further argue that the movement from Degree to CoA of the both particles are driven by different motivation, due to their meaning difference. Specifically, I argue that *le5* should not be the SFP of the imperative type, as it is compatible with non-human verb, non-controllable verb and non-volitional verb. *le5* also accepts both static predicates and dynamic predicates. On the other hand, however, *le4* accepts nothing above except the dynamic predicates, as the speech acts drawn by an imperative sentence must be done by a causer with cognition (Tang 2015: 253). The CoA function of *le5* is also different from *le4*, as it is agreement or confirmation seeking with a rising intonation, without the sole “self-confirmation” meaning expressed by *le4*.

Finally, this analysis also observes some similarities between *le5*, *le4* in Cantonese and *ba* in Mandarin. To provide an analysis for *ba*, I compare the syntactic properties, core semantics and CoA functions of *ba* with *le5* and *le4*, so as to give *ba* a position in the clausal periphery proposed by Tang (2020: 9). I argue that the syntactic position of *ba* in Mandarin also falls on the head of Degree in the periphery, and its motivation to move from Degree to CoA can make reference to the *le4* and *le5* pair in Cantonese.

## References

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# Do Cantonese speakers exhibit distributional learning effects on the acquisition and consolidation of Mandarin tones?

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This research examines the acquisition and overnight consolidation of Mandarin lexical tones by Cantonese listeners through a distributional learning paradigm. Distributional learning refers to a type of statistical learning where no explicit instruction is given to the learner, only implicit exposure to frequency distributions of stimuli along a phonetic continuum of the category to be learned (see Figure 1). This study examines whether there is a distributional learning effect of Mandarin tones, specifically on discriminating between a Tone 1-Tone 2 and a Tone 1-Tone 4 pair, by Cantonese speakers (*RQ1*); and whether similar effects can be seen after an overnight consolidation (*RQ2*).

Young adult Cantonese-speaking participants (age: 18-25) were recruited for the study. Initial screening ensured they had limited years of Mandarin training and a self-reported proficiency of ‘intermediate’ or below. Participants first completed a language history questionnaire, followed by a cognitive battery that tested their pitch threshold, pitch memory, working memory, musical aptitude, and Mandarin vocabulary size. They then completed ABX tone discrimination tasks for both the Tone 1-Tone 2 pair and the Tone 1-Tone 4 pair (order counter-balanced). The two stimuli for the discrimination task were /fao/ and /nua/, as produced by two native Mandarin speakers of different genders. The stimuli were novel to minimize the effect of prior exposure, and multiple syllables and genders were included to test participants’ generalization to untrained settings. Participants, matched in the cognitive tests, were then pseudo-randomly assigned to either the bimodal training group or the unimodal training group (see Figure 1), where they were exposed to a bimodal tonal continuum or unimodal tonal continuum of /nua/ produced by the female talker. The continuum was created by acoustically interpolating a synthesized flat Tone 1 token and a naturally produced Tone 4 (respectively, Tone 2) token using Praat. Immediately after training, the discrimination task was assigned again, and then they repeated the training and discrimination tasks for the other tone pair. They were instructed to wear a Fitbit device to record their sleep quality for the night, and they came back the next morning for the third round of ABX discrimination tasks. The target measure is the accuracy in the three rounds of ABX discrimination tasks.

A summary of data ( $N$  (unimodal) =28;  $N$  (bimodal) =24) is presented in Figure 2. For data analysis, fixed-effects logistic regression models were performed on participants’ response accuracy (binary, 1 for correct and 0 for incorrect). Results show significant group-level differences, showing a bimodal training effect on immediate performance, but only on the harder tone pair (Tone 1-Tone 4) (*Post-test 1 – Pre-test; RQ1*). Results also show that this differential effect may be further enhanced after an overnight consolidation (*Post-test 2 – Pre-test; RQ2*).

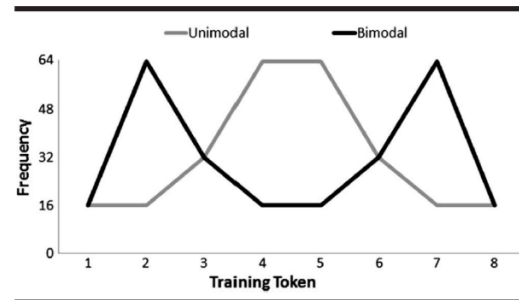


Figure 1. Frequency counts of each token as heard in different conditions (bimodal – dark line; unimodal – shallow line)

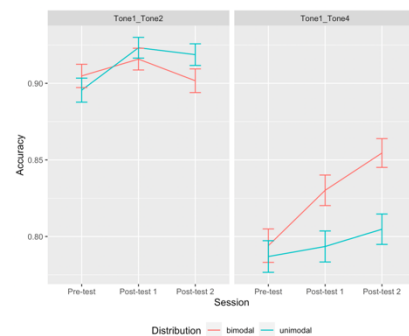


Figure 2. Accuracy in ABX discrimination task by session, by distribution, and by tone pair

## 廣州粵語非疑問句句末的“先”再議

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**提要** 文章考察廣州粵語非疑問句句末“先”的句法分佈及語義特點，提出兩個新觀點：一是重新定義以往認為意義較實在的“先 1”，論證它是表次序在先的形容詞做謂語；二是認為所謂意義較虛的“先 2”應分為“先 2a”和“先 2b”，分別是表先行施動的助詞和表先決條件的助詞。後二者的句法允准、時體特徵都明顯不同，前者表相對非過去事件，聚焦事件的起始點和過程段，後者表絕對將來事件，聚焦事件的瞬間點。因此，三個“先”不能簡單統一成“先行體”助詞。另外，文章還論述了三者存在演變關係：“先 1>先 2a>先 2b”。廣州粵語的個案說明，當前漢語方言所謂“先行體”助詞可能具有不同的時體特徵。漢語“先行體”的概念還需要更精準的定義。

**關鍵字** 粵語、先、焦點、資訊結構、先行體