

Two distinct Cantonese Sentence Particles

Additive vs. Mirative *tìm*

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1 Introduction

The SFP *tìm*

- The Cantonese sentence final particle *tìm*/添 has two different readings
 - an *additive* meaning close to *too*, *even* or *more* in English (depending on context):
 - (1) Bob s̄ik pòuhmàhn *tìm*.
Bob know Portuguese TIM
Bob also/even knows Portuguese.
 - a *mirative* reading, often described as marking a form of unexpectedness:
 - (2) Bob séi-jó *tìm*.
Bob die-PFV TIM
Bob (unexpectedly) died!

The talk in a nutshell

- Given the apparently distinct readings of *tìm*/添, is it possible to give a unified analysis of the semantics of this particle?
- Previous work argue that it is possible (Lee & Pan, 2010)
- We argue that is necessary to distinguish between two usages of the particle for:
 - Semantic reasons
 - Acoustic reasons
 - Syntactic reasons
- An analysis of each reading is given in a probabilistic framework

2 Previous analysis: a single tim

- A recent *unified* analysis of *tìm/添*.
- Main claims:
 - *tìm/添* is a *scalar additive*
 - Like other elements of this class it conveys:
 - * An existential presupposition
 - * A scalar presupposition
 - It is distinct from other elements in this class (both in Cantonese and cross-linguistically) because:
 - * It does not constrain the type of scale it associates with (e.g. unlike *even* in English).
 - * It does not constrain the position of its associate on the scale (e.g. unlike *oute* and *akomi ke* in Greek).
 - * It is not sensitive to polarity (unlike *even*).

Formalization

- Simplified version of (Lee & Pan, 2010, p. 1798–1799), let:
 - *p*: the host of *tìm/添*
 - *x*: the associate of *tìm/添* (an NP, predicate or proposition)
- A sentence *tim(p)* is true iff *p* is true and triggers two presuppositions:
 - **Existential pp**: there must exist *y*, an alternative to *x* which is also subject to the same predication as *x*.
 - **Scalar pp**: *x* must be higher than *y* on some scale, or there should be a set whose cardinality is increased after the assertion of *p*.

Example: degree scale

- (3) John yám léuhng bui bējáu. Bob yám sām bui tīm.
John drink two CL beer Bob drink three CL TIM
John had two beers. Bob even had three.

- *Associate*: *x* = “three beers”
- *Existential psp*: there is a quantity *y* of beer/liquid that has been drunk, such that $y \neq x$
- *Scalar presupposition*: the *quantity of beer* drunk by Bob is larger than the one drunk by John.

Example: quantity scale

- (1) Bob sīk pòuhmàhn tīm.
Bob know Portuguese TIM
Bob also knows Portuguese.

- *Associate*: $x = \text{Portuguese}$
- *Existential presupposition*: there has to be a language/skill *y* such that Bob masters it and $y \neq x$
- *Scalar presupposition*: set of languages/skills known by Bob is incremented.

2.1 Issues with the analysis

The proposed analysis has several issues.

1. *Antecedent and anaphora*: an antecedent is not always necessary when using *tìm/添*, i.e. the analysis *under-generates*
2. *Triviality*: when the associate is of type *t*, even though its presuppositions can be trivially verified, *tìm/添* is not always be usable, i.e. the analysis *over-generates*

Semantics of *tìm/添*: anaphora

- English *too* has an anaphoric component, it is difficult to use it out of the blue when an antecedent is not salient (Kripke, 2009)

(4) #John is having dinner in Hong Kong too.

- This is also true for some instances of *tìm/添*:

(1) Bob s̄ik pòuhmàhn òim.
Bob know Portuguese TIM
Bob also knows Portuguese.

- However that does not hold for all cases: (5) can be used out of the blue in some contexts.

(5) Bob sihk-jó s̄am wún faahn òim.
Bob eat-PFV three bowls rice TIM
Bob even had 3 bowls of rice

- This is even stronger with (2):

(2) Bob séi-jó òim.
Bob die-PFV TIM
Bob (unexpectedly) died!

Issue 1

The *existential presupposition* of *tìm/添* is not always verified, yet its use remains licensed.

Triviality

- When the associate of *tìm/添* is a full proposition, the activated scale is the likelihood/unexpectedness one.

⇒ As long as a “trivial” proposition has been made salient, the use of *tìm/添* should be licensed with a propositional associate. However:

(6) #A-Mēi hái Hēung-Góng chēutsai ge. Kéuih hái A-gān-tihng duhkgwo syū òim.
A-Mei in Hong-Kong born SFP she in Argentina study-EXP TIM
(int.) A-Mei was born in HK. She studied in Argentina!

- The fact that A-Mei is born in HK is not unexpected/very likely
- The fact that she studied in Argentina is unexpected/very unlikely
- But (6) is not felicitous, even though the conditions of *tìm/添* are satisfied

⇒ *Issue 2*: There are additional constraints on the antecedent proposition.

3 Further arguments for two *tīm*

Two *tīm*s?

- A unified approach to *tīm*/添 raises some issues, because some aspects of its semantics appear difficult to unify (e.g. its existential presupposition).
- We argue that the two usages of *tīm*/添 can be further distinguished based on:
 - Acoustic differences
 - Distribution differences

3.1 Acoustic differences

- *Goal*: test whether there is a difference in production of the additive *tīm*/添 and the mirative *tīm*/添.
 - Intuition:
 - Additive *tīm*/添 (1) is longer than the mirative *tīm*/添 (2).
- (1) Bob sīk pòuhmàhn *tīm*.
Bob know Portuguese TIM
Bob also knows Portuguese.
- (2) Bob séi-jó *tīm*.
Bob die-PFV TIM
Bob (unexpectedly) died!
- This was tested in a production experiment.

Production experiment

Objective to test whether Cantonese speakers produce durational differences for the two /*tīm*/ (long and short)

Task :

- Listen to an audio stimulus
- Read the rest of a dialogue

Test Procedure

- A single binary condition was tested
 - Additive Contexts (6 items)
 - Mirative Contexts (6 items)
- Two lists of items were produced. The sentences involving *tīm*/添 were identical in both lists, but the preceding context changed, triggering either a mirative or additive reading of the particle.
- The items were shown on screen, using a latin-square design and pseudo randomization (IbexFarm platform)

Item Example

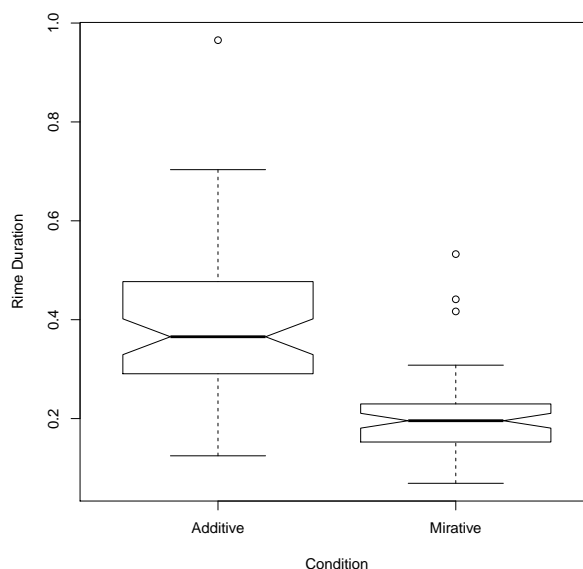
- **Additive context:** 你就好啦嫁人嘞。 Néih jauh hóu lā ga yahn lahk. *It's so good for you that you're getting married.*
- **Mirative context:** 份功課你做完未呀，等陣要交啦。 Fahn gúng fo néih jauh yùhn meih a, dǎng jahn yiu gāau la. *Have you finished your homework? We have to turn it in soon.*
- **Target:** 我仲諗住唔洗做添。 Ngóh juhng nám jyuh nh sai jowh tim. *I am/was counting on not having to work TIM.*

Participants

- Students of The Hong Kong Institute of Education
- 11 participants, 7 female
- Native speakers of Cantonese
- No hearing problems
- Age between 19-25, average: 22

Results

- Only the target utterances were analyzed (12 per participant)
- Target /tim/ utterances were analyzed on Praat and the duration of the rime of /tim/ was measured (vowel+coda).
- The effects of the condition were assessed using model reduction and maximum likelihood ratio test
 - there is a *significant effect* of the condition leading to *longer production* of the rime component of /tim/ in the additive contexts ($\chi^2=15.753$, p-value = 7.219e-05)



3.2 Distribution differences

Tim in SFP-clusters

- *tim/添* typically appears at the end of a sentence, but before other particles (Matthews & Yip, 2011, p. 395)
- More generally, there are distinct slots in the right periphery that allow different particles:

- (7) Kéuih ló-jó daih yāt mihng tìm ge la wo.
 s/he take-PFV number one place TIM SFP SFP SFP
 'And s/he got first place too, you know'

- However, the two *tìm*/添 occupy distinct positions in sfp-clusters:

- Additive *tìm*/添 always come in *first position* in a sequence of SFP (7), and is compatible with question particles (8).

- (7) kéuih ló-jó daih yāt mihng tìm ge la wo
 s/he take-PFV number one place TIM SFP SFP SFP
 And s/he got first place too, you know.

- (8) Bob sīk pòuhmàhn tìm àh?
 Bob know Portuguese TIM SFP
 Bob also/even knows Portuguese?

- Mirative *tìm*/添 has to be *sentence final*, is incompatible with question particles (9) and can be preceded by other sfp (10-b) (contra Matthews & Yip (2011))

- (9) #kéuih séi-jó tìm àh?
 s/he die-PFV TIM SFP
 Did s/he die? (which would be unexpected)

- (10) a. ngóh jeugahn máahn máahn sihk sīuyé fèih-jó hóudō
 I recently every-night eat night-snacks gain-weight a lot
 I recently put on a lot of weight because I eat snacks every night.
 b. Haa, ngóh dōu sìhngyaht gamyeh sihk sīuyé ge tìm.
 EXCL I also all the time that-late eat night-snacks SFP TIM
 I also eat a lot of night snacks (and I realize it might have bad consequences).

Taking stock: differences between tims

	<i>tìm</i> /添 1	<i>tìm</i> /添 2
<i>Reading</i>	Additive	Mirative
<i>Anaphoric</i>	Yes	No
<i>Realization</i>	Long	Short
<i>Syntax</i>	First in a sequence of sfp	Sentence final
<i>Questions</i>	Compatible	Incompatible

4 Proposed analysis

Theoretical Framework

- Both versions of *tìm*/添 are analyzed in an *probabilistic argumentative framework*
- **Key relation:** a proposition *p* argues for a conclusion *C* iff the assertion of *p* raises the *degree of belief* in *C* (written: $\text{rel}(p, C) > 0$)
- The framework allows for a fine-grained description of many discourse markers (Anscombe & Ducrot, 1983; Merin, 1999; Winterstein, 2010).

4.1 Additive tim

Additive tim

- Analysis close to the one proposed for *even/même* by Anscombe & Ducrot (1983, p. 57–67).
- *Core description*: additive *tìm/添* indicates a *stronger argument* than its *antecedent* for some conclusion.
- Semantics of additive *tìm/添*:
 - p : the host of *tìm/添*
 - x : the associate of *tìm/添*, $p = Q(x)$
 - $\mathfrak{A}(x)$: the set of alternatives of x

Existential Presupposition : there must exist y , an alternative to x , subject to the same predication (modulo type-raising) $\exists p' : p' = Q(y) \wedge y \in \mathfrak{A}(x)$

Argumentative constraint : p must be a better argument than its antecedent for some conclusion C . $\exists H : 0 < \text{rel}(p', H) < \text{rel}(p, H)$

- The argumentative approach solves the problems of over-generation mentioned previously (being more likely is not a sufficient condition to be an antecedent of *tìm/添* anymore).

Additive tim: prediction

- Adversative connectives (e.g. *daahnhaih*) indicate that their conjuncts are in argumentative opposition.
 \Rightarrow Additive *tìm/添* should be incompatible with them.

(11) A-Wáih hóu gōu, hóu lengjai, daahnhaih hóu chéun (* *tìm*).
A-Wai very tall very good-looking but very stupid TIM
Intended A-Wai is very tall and good looking, but also very stupid.

- Mirative *tìm/添* is compatible with *daahnhaih*:

(12) Hóu a, daahnhaih ngóh daai-jó fahn *tìm*.
Good idea but I brought-PFV food TIM
Good idea, but I brought food.

4.2 Mirative tim

Mirative tim

- Mirative *tìm/添* does not require an antecedent; it does not compare argumentative strength.
- It encodes a constraint on the *high relevance* of its host to its goal:
Arg. constraint $P(H) \ll P(H|p)$, i.e. $\text{rel}(p, H) \gg 0$, where H is the argumentative goal
- a high relevance can stem from:
 - The strength of the *causal link* between p and H .
 - The *unexpectedness* of p : the more unexpected p is, the more it can positively affect H (keeping the causal link constant).
- The description only applies to declarative sentences (e.g. speakers do not entertain beliefs about questions).

Taking Stock

- We argue that we can and should distinguish between two *tìm*/添:
 - Different interpretations (additive/mirative)
 - Different semantic constraints (anaphoric or not)
 - Different acoustic realizations (long/short)
 - Different distributions (sentence final or not)
- This does not mean that their descriptions are entirely distinct, both have in common a constraint of high relevance, but their usage differ.

Bibliography

Jean-Claude ANSCOMBRE, Oswald DUCROT (1983). *L'argumentation dans la langue*. Liège, Bruxelles: Pierre Mardaga.

Saul KRIPKE (2009). “Presupposition and Anaphora: Remarks on the Formulation of the Projection Problem”. In: *Linguistic Inquiry* 40, 3, pp. 367–386.

Peppina Po-Lun LEE, Hai-Hua PAN (2010). “The landscape of additive particles – with special reference to the Cantonese sentence-final particle *tìm*”. In: *Lingua* 120, pp. 1777–1804.

Stephen MATTHEWS, Virginia YIP (2011). *Cantonese, A Comprehensive Grammar*. Routledge, 2nd edn.

Arthur MERIN (1999). “Information, Relevance and Social Decision-Making”. In: L.S. MOSS, J. GINZBURG, M. DE RIJKE (eds.), *Logic, Language, and computation*, Stanford: CSLI Publications, vol. 2, pp. 179–221.

Robert VAN ROOIJ (2004). “Cooperative versus argumentative communication”. In: *Philosophia Scientia* 2, pp. 195–209.

Dan SPERBER, Deirdre WILSON (1986). *Relevance: Communication and Cognition*. Oxford: Blackwell, 2nd edn.

Grégoire WINTERSTEIN (2010). *La dimension probabiliste des marqueurs de discours. Nouvelles perspectives sur l'argumentation dans la langue*. Ph.D. thesis, Université Paris Diderot.