

Phrasal *wh*-doublets in Cantonese

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Introduction

The object of study

- *Wh*-reduplication is observed cross-linguistically, but what it generates differs by language variation.
- Existential group: **quotative/reportative readings**
 - Mandarin: non-interrogative use (Yu 1964)
 - Cantonese: reportative implicatures (Wong 2018, Lee & Wong 2018)
 - Japanese: quantifiers over quotations (Sudo 2008, 2013)
- Interrogative group: **plural readings**
 - Korean: plural-*wh* questions (Chung 1999; Kim 1999)
 - Yaeyeman: *wh*-questions with a non-atomic presupposition (Davis 2015)
 - Mongolian: plural-*wh* questions (Jang & Lim 2024)

The object of study

- We distinguish two types of *wh*-reduplication in Cantonese, provided their different grammatical distributions (to be elaborated).

- (1) 阿明話 [佢啲自助餐食咗 乜嘢乜嘢], 幾巴閉。 bare *wh*-doublet
- (2) 阿明話 [佢啲自助餐 食咗乜嘢食咗乜嘢], 幾巴閉。 phrasal *wh*-doublet

- So far, the phrasal type has not been reported in any other language that also has the bare type.

Bare vs. phrasal *wh*-doublets: similarities

1. Morphological productivity

Argument *wh*

乜/乜嘢/咩、邊個/乜水、邊度、邊樣

Adjunct *wh*

幾、幾點/幾時、點/點樣、點解/做乜

2. Non-interrogative existential reading

(3) 阿明話佢嘅自助餐食咗 乜嘢乜嘢, 我就唔再重複喇。

(4) 阿明話佢嘅自助餐 食咗乜嘢食咗乜嘢, 我就唔再重複喇。

Bare vs. phrasal *wh*-doublets: differences

1. Syntax: Scope of reduplication

bare: *wh*-word itself

(5) 阿明話佢嘅自助餐食咗 乜嘢乜嘢。

phrasal: (typically) smallest clause enclosing *wh*

(6) 阿明話佢嘅自助餐 食咗乜嘢食咗乜嘢。

(7) ?阿明話佢 嘅自助餐食咗乜嘢嘅自助餐食咗乜嘢。

(slightly redundant, but not unacceptable)

Bare vs. phrasal *wh*-doublets: differences

2. Semantics: Plurality requirement

bare: singular or plural (Wong 2018)

(1) 阿明話 [佢喺自助餐食咗 乜嘢乜嘢], 幾巴閉。

phrasal: plural only (to be elaborated)

(2) 阿明話 [佢喺自助餐 食咗乜嘢食咗乜嘢], 幾巴閉。

Goals and road map for today

- This study aims to:
 - explore the syntactic and semantic properties of phrasal *wh*-doublets
 - offer a grammatical account for bare and phrasal *wh*-doublets
- Major issues for today
 - Syntax: Scope of reduplication
 - Licensing conditions
 - Semantics: Event plurality
 - Analysis: A non-uniform approach to *wh*-doublets

Scope of reduplication

Scope of reduplication: VO-structures

(8) Wh-objects

- a. 留言有人講 姓乜姓乜, 咩家族向邊邊乜乜柒柒
- b. 減肥最重要唔係限制 食乜食乜
- c. 每一間公司 做乜嘢做乜嘢
- d. Peter叫我喺張紙度mark低 做啲乜做啲乜
- e. 呢條柒頭成日話 識邊個識邊個, 然後講人是非
- f. 嗰啲唔識股票又要喺度問人 買邊隻買邊隻
- g. 我平均一個月獨遊一次, 以前會plan好晒 去邊去邊

Most commonly, VO-structures are reduplicated.

Scope of reduplication: VO-structures

- The VO-structures can contain additional materials.
- (9)
- a. Suffix: 個 file寫晒每一間公司 做過乜嘢做過乜嘢
 - b. Classifier: Peter 叫我喺張紙度mark低 做啲乜做啲乜
 - c. Duration: 我一個人去旅行嘅話, 就會plan好晒 去一日邊度去一日邊度
 - d. Frequency: 開心就係唔洗限制自己每日只可以 食一次乜食一次乜
-
- The VO-structures, unsurprisingly, have to be string-identical (with an exception; see last section).
- (10)
- a. *呢條友成日話 見過邊個 見咗邊個, 然後講人是非
 - b. *嗰啲唔識股票又要喺度問人 買邊隻 買邊隻股票
(cf. 嗰啲唔識股票又要喺度問人 買邊隻股票 買邊隻股票)

Scope of reduplication: SV-structures

- If the wh-expression is in the subject position, the whole clause is reduplicated.

(11) Wh-subjects

- 講到佢 乜嘢好乜嘢好
- 成班衝出嚟話 邊個嚟邊個嚟
- 又未有料做到WDC, 贏啲幾場就打晒飛機話 邊個要邊個要
- 一個好大問題就係不停睇到 邊樣好邊樣好, 之後最後有更好

Scope of reduplication: SV-structures

- It is acceptable to reduplicate additional elements other than the SV-structures, with a slight sense of redundancy.

(12) Wh-subjects

- 阿明數返晒套鬼片 乜嘢嚇親佢 乜嘢嚇親佢
- 成班衝出嚟話 邊個嚟咗香港 邊個嚟咗香港
- 佢係噉講 邊樣食過好難食 邊樣食過好難食, 搞到大家都好掃興

Scope of reduplication

Note: When 乜 alone is used, the second occurrence undergoes tone change.

- (13) a. 我唔係怪獸家長, 唔會逼佢 做乜做物
b. 成日見有人放閃光彈, 話女友 整乜整物
c. 最近有好多英國 乜好物好 嘅post
d. 你阿爺同你講, 美國經濟好差呀, 乜差物差 呀
e. 話人寫得衰, 乜乜乜物

Scope of reduplication: [Adjunct-V]-structures

- Reduplication can also target *wh*-adjuncts, which are commonly reduplicated together with their modifiee or complement clause.

(14) Wh-adjuncts

- 大肚嘅時候成日都講話遲啲要同豬仔去 邊度玩邊度玩
- 會長表示:成撚日問 幾時有幾時有
- 我經常教friend 點樣做點樣做, 但到自己又做唔出
- 今日聽到有個同事係噉話韓紅 點勁點勁
- 千祈唔好去特登搵啲問題出嚟令到自己擔心, 又話 點解噉點解噉
- 個人又成日好攰佢 點解噉點解噉
- 講咗N咁多個Ellie同Abby 點解噉點解噉 嘅理由

Scope of reduplication: [Adjunct-V]-structures

- Reduplication is not strictly confined to *wh*-V string.

(15) Wh-adjuncts

- 大肚嘅時候成日都講話遲啲要同豬仔去邊度玩遙控車 去邊度玩遙控車
- 會長表示:成撚日問 部機幾時有 部機幾時有
- 我經常教friend 點樣做project 點樣做project, 但到自己又做唔出
- 今日聽到有個同事係噉話韓紅 唱歌點勁唱歌點勁
- 講咗N咁多個Ellie同Abby 佢地點解遲到佢地點解遲到 嘅理由

Scope of reduplication

- A complication: bare doublets or phrasal doublets?

- (16) a. 前面講到個裝置運算, 自己運算啲AI 幾勁幾勁, 都係唔夠㗎
b. 前面講到個裝置運算, 自己運算啲AI 有幾勁有幾勁, 都係唔夠㗎

- We will argue that (a) is a case of bare doublets, whereas (b) is a case of phrasal doublets, as they differ in **event plurality**.

Interim summary

- Generalizations
 1. Reduplication can maximally apply at the clausal level, which may produce a sense of redundancy.
 2. The most natural cases are reduplication of **the smallest clause that contain the *wh*-expression, with no or minimal additional elements.**
 - i. VO
 - ii. SV
 - iii. Adjunct-V

More Natural Examples of Phrasal *Wh*-doublets

(13) Word internal

- a. 成日同我講 星期幾星期幾 得唔得閒
- b. 阿明頭先同我講佢係六天工作, 逢星期幾星期幾 放假。
- c. 你又話六天工作, 逢星期幾幾幾放假

Licensing conditions

Licensing condition: Existential *wh*-interpretation

- Phrasal *wh*-doublets can only be interpreted existentially, but not interrogatively.

Incompatibility with interrogative embedding

(17) a. *阿明頭先 問／想知道 邊樣好邊樣好。

b. 阿明頭先 話 邊樣好邊樣好。

(18) a. *唔知 阿明講到佢 幾勁幾勁 呢？

b. 阿明頭先 講到 佢 幾勁幾勁。

Compatibility with polar question particles

(19) 阿明唔係話佢尋晚 食咗乜嘢食咗乜嘢 咩？

Licensing condition: Quotative context?

- It is common to find phrasal *wh*-doublets in a quotative/reportative context.

- (20) a. 阿媽成日同我講廿幾年前 點樣湊大我點樣湊大我。
- b. Peter叫我喺張紙度mark低 做啲乜做啲乜 嗰。 (modified from 8d)
- c. 根據政府新措施, 收入 低過幾多低過幾多 可以申請唔同嘅津貼。
- d. 個人又成日好攞佢 點解噉點解噉。 (=14f)

Licensing condition: Quotative context?

- Different from the quotative requirement of Japanese *wh*-doublets (Sudo 2013), Cantonese phrasal *wh*-doublets do not have such requirement.
(21) a. 減肥最重要唔係限制 食乜食乜 (= 8b)
b. 達斯拿根本唔差, 你覺得桑尼會好過佢? 就因為佢踢英超 點勁點勁?
c. 手語老師教我隻手要 點郁點郁 先打到手語
- Quotative Implication of Cantonese *wh*-doublets (Wong 2018)
The use of a *wh*-doublet implies a quotative context such that the corresponding information has been received in another discourse by whatever means.

Licensing condition: Epistemic requirement

- The use of phrasal *wh*-doublets requires the speaker's ability to identify original information.

(22) Incompatibility with “but-I-don’t-know” continuation

- 阿明話佢會去書局 買邊本書買邊本書, #但佢冇講過啲書名。
- 阿明話佢嚟緊會 去邊度去邊度 擺市集, #但佢死都唔肯講啲地方。

(23) Compatibility with ignorance contexts

- 阿明話佢會去書局 買邊本書買邊本書, 但個list太長我唔重覆喇。
- 阿明話佢嚟緊會 去邊度去邊度 擺市集, 但太多地方我唔重覆喇。

Licensing condition: Information-structural requirement

- The use of phrasal *wh*-doublets requires the information not to be focused.

(24) Incompatibility with out-of-the-blue/storytelling contexts

- a. #阿明 去咗邊度去咗邊度。
- b. #從前, 阿明入咗去一間日本餐廳 食咗乜食咗乜。

(25) Compatibility with right dislocation

- a. 阿明已經plan好晒㗎喇, 玩乜嘢玩乜嘢。
- b. 阿明話佢買咗幾本書㗎, 喺邊度喺邊度。

Interim summary

- The licensing conditions of phrasal *wh*-doublets are indeed identical to bare *wh*-doublets (Wong 2018).
- With minor modifications, the conditions can be stated as follows:

(26) Licensing conditions of phrasal *wh*-doublets

- a. Epistemic requirement: **Speakers' knowledge of the denotation of the *wh*-expressions**
 - i. Incompatible with “but-I-don’t-know” continuation
 - ii. Compatible with lack-of-ignorance contexts
- b. Informational-structural requirement: **Defocus** (Lee 2017, 2021)
 - i. Incompatible with out-of-the-blue/storytelling contexts
 - ii. Compatible with right dislocation

Event plurality

Event plurality

- There is an obligatory plural reading on phrasal *wh*-doublets.

(27) Compatibility with plural contexts

- 阿明有提到早兩年 邊個邊個 開始同居。
- 阿明有提到早兩年 邊個嚟咗邊個嚟咗, 然後好快就開始同居。

Event plurality

(28) Incompatibility with singular contexts - sole referent

- a. 新聞有提到最受歡迎男歌手金獎係 邊個邊個 拎, 但我唔記得咗佢講邊個。
- b. #新聞有提到最受歡迎男歌手金獎係 邊個拎邊個拎, 但我唔記得咗佢講邊個。

- c. 政府文件有記錄今期六合彩係 邊個邊個 中。
- d. #政府文件有記錄今期六合彩係 邊個中邊個中。

- e. 阿明有提到嗰個同學叫 乜嘢乜嘢 名, 但個名太難讀我就唔重覆喇。
- f. #阿明有提到嗰個同學 叫乜嘢名叫乜嘢名, 但個名太難讀我就唔重覆喇。

Event plurality

(29) Incompatibility with singular contexts - one-time event

- a. 阿明喺佢嘅遺言透露咗佢嘅親生父親係 幾時幾時 死。
- b. #阿明喺佢嘅遺言透露咗佢嘅親生父親係 幾時死幾時死。

- c. 阿媽終於肯講我嘅 邊度邊度 出世。
- d. #阿媽終於肯講我 喺邊度喺邊度 出世。

- e. 份攻略講咗呢把劍只可以 點樣點樣 拎。
- f. #份攻略講咗呢把劍只可以 點樣拎點樣拎。

- g. 阿明畀咗一個原因, 解釋今日佢 點解點解 遲到。
- h. #阿明畀咗一個原因, 解釋今日佢 點解遲到點解遲到。

Event plurality

- Phrasal *wh*-doublets tend to co-occur with adverbials indicating multiple events.

- (30) a. 阿明不斷解釋佢點解遲到點解遲到。
- b. 唔同party都喺度解釋層樓點解冧點解冧, 但仍然冇人知道真相。

Event plurality

- Resolving a complication earlier:

- (31) a. 阿明成日話自己幾高幾高, 但咪又係一米七。
b. 阿明成日話自己有幾高有幾高, 但咪又係一米七。
(plurality may arise from multiple speech events of how tall Ming is)
- (32) a. 頭先把尺度到阿明幾高幾高, 不過我有mark低。
b. #頭先把尺度到有幾高有幾高, 不過我有mark低。

Distributivity

- Phrasal *wh*-doublets generally induce a distributive interpretation. The events denoted by the phrasal *wh*-doublets are distributed over plural subjects, each of which is incompatible with a multiple event reading.

- (33)
- 新聞有提到最受歡迎男歌手金銀銅獎係邊個拎邊個拎，我就唔逐一講喇。
 - 政府文件有記錄歷屆六合彩係邊個中邊個中。
 - 阿明有提到新嚟嘅同學叫咩名叫咩名，個list太長我就唔再讀喇。
 - 阿明喺佢嘅遺言透露咗佢嘅親生父母係幾時死幾時死，但我就唔方便講喇。
 - 份攻略講咗呢幾把劍只可以點樣拎點樣拎。
 - 阿明畀咗幾個原因，解釋今日佢點解遲到點解遲到。

Distributivity

- This observation can be handled by a distributive operator.

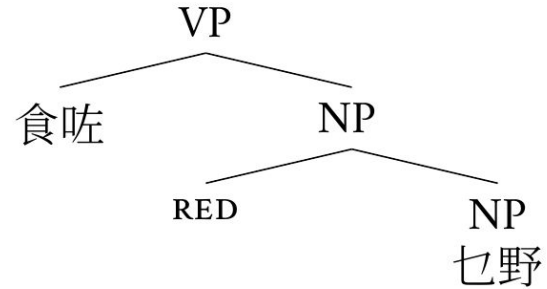
(34) Distributive operator D (Lasersohn 1998)

For any (one-place) predicate P and sum of individuals x : ${}^D P$ holds of x iff P holds of each individual part of x .

A non-uniform approach to *wh*-doublets

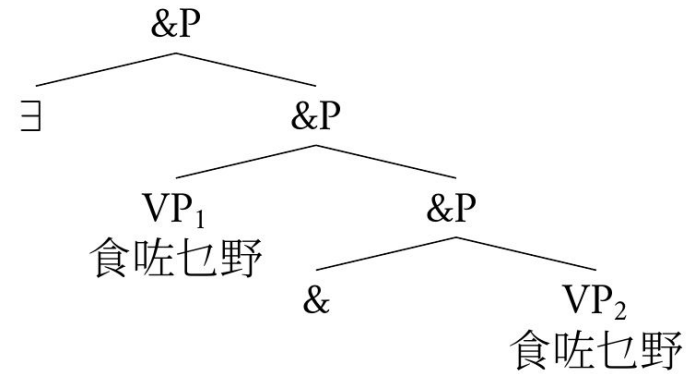
A non-uniform approach to *wh*-doublets

- A non-uniform approach to *wh*-doublets, despite surface similarities.
- Lee & Wong (2018) argues that bare *wh*-doublets involve a reduplicator that applies directly on *wh*-expressions.
- The operator RED is responsible for:
 - existential closure
 - reduplication of its complement
- Importantly, Wong (2018) reports no obligatory plural reading in these case.
 - different from Korean, Mongolian, Yaeyaman



A non-uniform approach to *wh*-doublets

- To handle the plurality difference in the two types of *wh*-doublets, we suggest that they differ substantially in structure.
- VP conjunction, rather than reduplication
 - The string-identical requirement resulted from conjunction
 - Existential closure applies at clausal level
 - Event plurality resulted from conjunction
- We do not adopt clausal reduplicator, since:
 - RED does not account for pluractionality
 - Yaeyaman/Korean/Mongolian-style RED involves partial reduplication



Supporting argument #1: Right dislocation

- Clausal conjunction is independently motivated in Cantonese RD (Cheung 2015; Yip 2024), where RD involves a conjunction of an identical clause followed by massive deletion.

Supporting argument #2: *Wh*-triplets

- Triplets are acceptable as well, which follows from a conjunction approach but not a reduplication approach.

- (35) a. 阿明係噉講佢見到 邊個邊個邊個。 (singular: * / plural: OK)
- b. 阿明係噉講佢 見到邊個見到邊個見到邊個。

Supporting argument #3: Non-iconicity of reduplication

- In addition to bare *wh*-doublets, Cantonese reduplication does not necessarily give rise to plurality.

- (36) a. Delimitative aspect: 我哋想去 睇一睇。 (Lam 2020)
- b. Degree intensifier: 我哋知道阿明 好高高高。
佢哋已經進步咗 好多好多。 (Pai)

Supporting argument #4: Distinctness requirement

- A conjunction approach to *wh*-doublets open up a possibility that pluractionality is resulted from a distinctness requirement on *wh*-interpretation, which further follows from a pragmatic constraint.

(37) Distinctness requirement

In phrasal *wh*-doublets, the denotations of the two *wh*-expressions must be distinct, in avoidance of triviality.

- (38) a. # 阿明話 [佢嘅自助餐 食咗乜嘢₁食咗乜嘢₁], 幾巴閉。
b. # 阿明話 [佢嘅自助餐 食咗龍蝦食咗龍蝦], 幾巴閉。
c. 阿明話 [佢嘅自助餐 食咗乜嘢₁食咗乜嘢₂], 幾巴閉。
d. 阿明話 [佢嘅自助餐 食咗龍蝦食咗長腳蟹], 幾巴閉。

Supporting argument #4: Distinctness requirement

- A conjunction approach does not require strict identity of the conjoined clauses, allowing single-*wh* cases (unexpected if reduplication is involved).

(39) 阿明話 [佢啲自助餐 食咗龍蝦₁ 食咗乜嘢₂], 幾巴閉。

- We, however, did not fully understand why the order of the clauses are restricted.

(40) 阿明話 [佢啲自助餐 食咗乜嘢₂ 食咗龍蝦₁], 幾巴閉。

- There is a “specific > general” requirement, which does not follow from the current proposal.

Some natural utterances from WOC-24

(41) 個terms of reference寫明要做呢啲嘢要做呢啲嘢

(Cheung)

(42) 同學可以揸制啦, 或者點樣啦

(Lam)

Concluding remarks

Theoretical significance

- This study contributes to the study of the existential use of *wh*-expressions in a non-nominal domain.
- It also substantiates the cross-linguistic observation that *wh*-doublets fall into existential and interrogative types.

Thank you!