

# Wh-doublets in Cantonese, and their encoding of evidentiality and plurality

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## Introduction

- Cantonese *wh*-expressions can be reduplicated in different forms.

## ① Bare *wh*-doublets:

[<sub>XP</sub> *wh*-*wh* ] (category-preserving)

(1) 阿明話 [ 佢喺自助餐食咗 乜野乜野 ] 。 SG/PL  
Aaming waa [keoi hai zizocaan sik-zo matje matje ]  
Aaming say he at buffet ate what what  
(lit.): 'Aaming said he ate **what what** at the buffet.'

## Introduction

## ② Non-bare, nominal *wh*-doublets:

[Nominal  $wh+\alpha$   $wh+\alpha$ ] (where  $\alpha$  = nominal elements)

(2) 阿明話 [ 佢喺自助餐食咗 乜野蛋糕乜野蛋糕 ] 。 PL only  
Aaming waa [keoi hai zizocaan sik-zo matje daangou matje daangou ]  
Aaming say he at buffet ate what cake what cake  
(lit.): 'Aaming said he ate **what cake what cake** at the buffet.'

## Introduction

### ③ Non-bare, clausal *wh*-doublets:

[Clause *wh*+ $\alpha$  *wh*+ $\alpha$ ] (where  $\alpha$  = verbal elements)

(3) 阿明話 [ 佢喺自助餐 食咗乜野 食咗乜野 ] 。 PL only  
Aaming waa [keoi hai zizocaan sik-zo matje sik-zo matje ]  
Aaming say he at buffet ate what ate what  
(lit.): 'Aaming said he **ate what ate what** at the buffet.'

## More examples

- Bare *wh*-doublets

(4) a. 邊間機構捐錢唔捐錢，捐幾多都要比較。  
邊個邊個 有無出post哀悼又要批評。 *who who*

b. 就算我有自己嘅習慣用法，我都淨係會話，  
我因為某某原因，所以會 點樣點樣 寫。 *how how*

c. 最近身邊好多朋友吹爆「蒸爐」，  
話佢 點解點解 好、 邊度邊度 靚。 *why why, where where*

- Non-bare *wh*-doublets

- Non-bare *wh*-doublets

(5) a. 我夠識講呢個人 邊度唔好邊度唔好。 *what bad what bad*  
b. 我經常教fd 點樣做點樣做，但到自己又做唔出。 *how do how do*  
c. 越攬越唔掂，個人又成日好蚊佢 點解噏點解噏。 *why so why so*

# Introduction

Key properties of Cantonese *wh*-doublets:

- **Productivity:**

They share similar productivity, in that they can apply to any *wh*-expressions.

- ***Wh*-indefinites:**

All of them involve an existential interpretation of *wh*-expressions.

- **Evidentiality:**

They all convey an evidential component, different from the more studied existential *wh*-singlet cases (Li 1992; Lin 1998).

- **Plurality** (of clausal *wh*-doublets):

An important distinction between bare *wh*-doublets from non-bare *wh*-doublets lies in plurality. The latter is obligatorily plural in number.

# Introduction

- A comparison among different existential *wh*-expressions is given below.

Non-Q- <i>wh</i>	<b><i>Wh</i>-singlets</b>	<b>Bare doublets</b>	<b>Non-bare doublets</b>
Form	<i>wh</i>	<i>wh-wh</i>	<i>wh+<math>\alpha</math></i> <i>wh+<math>\alpha</math></i>
Meaning	number-neutral	number-neutral	plural only
Presupposition	No $\exists$ -entailment	Access to source	Access to source

- In this talk, we focus on the encoding of evidentiality, and plurality.
- We start with a typological overview.

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## Wh-doublets

### (Bare) *wh*-singlets

- interpreted interrogatively or non-interrogatively (or both)
- number-neutral

## (6) Wh-singlets

a. Who came? *wh*-interrogatives in English  
(John./ John and Mary.)

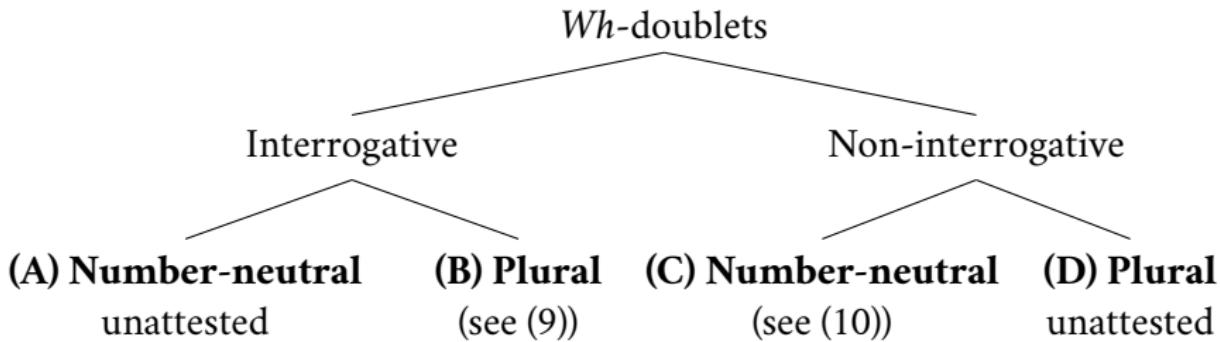
b. 好像 誰 來了。 *wh*-indefinites in Mandarin  
Haoxiang shei lai-le  
seems who come-PFV  
'(It) seems that someone came.'  
→ (Yes. John came./ John and Mary came.)

## Wh-doublets

## Wh-doublets

- **Wh-doublets** exhibit a similar interrogative vs. non-interrogative split.
- They are not always number neutral.

### (7) Types of *wh*-doublets across languages



# Wh-doublets

- Example: Korean *wh*-doublets

(8) Wh-doublets in Korean (Chung 1999, p.282-283)

a. *wh*-interrogatives

  nwukwu-nwukwu o-ess-ni?  
  who-who                  come-Pst-Q  
  ‘Who<sub>plural</sub> came?’

b. *wh*-indefinites

  yeysnal-ey     sokumcangswu-ka eti-eti -lul      ka-ess-nuntey  
  long;time;ago  salt;seller-Nom  where-where-Acc  go-Pst-when

*Singular*: ‘A long time ago, a salt seller went to a place, ...’

*Plural*: %‘A long time ago, a salt seller went to some (several) places, ...’

# Wh-doublets

- Type (B): interrogative, plural *wh*-doublets

(9) Type B: Wh-doublets as plural interrogatives

- a. **Korean** (Kim 1999; Chung 1999)
- b. **Yaeyaman** (Davis 2016)
- c. **Japanese (Kansai dialect)** (Kudo:2021)
- d. Khalkha Mongolia (Jang & Lim 2024)
- e. Guinean Maninka (Vydrin & Diane:2016)
- f. Okinawan (**Tamamoto:2021**)
- g. Tagalog (**Hong:2016**)
- h. Tibetan-Burmese (Rinzingwangmo 1987, Zhang 2016)
- i. Turkish (Lim & Jang 2024)

- Type (C): non-interrogative, number-neutral *wh*-doublets

1997)

(10) a. **Mandarin** (Yu:1964; Hua:2001; Xu:2010; DongSong:2011; Luo:2013)

b. **Korean** (Chung 1999)

c. **Japanese** (Kudo:2021; Sudo 2008, 2013)

d. Ainu (Refsing:1986)

e. Altai (Bylinina:2010)

f. Bagandi (Hercus:1982)

g. Burmese (JennyHnin:2016)

h. Da'a (Barr:1988)

i. Hindi/Urdu (Haspelmath

j. Hungarian (Haspelmath 1997)

k. Ila (Haspelmath 1997)

l. Khasi (Moravcsik:1978)

m. Kristang (Baxter:1988)

n. Latin (Haspelmath 1997)

o. Moksha Mordva (Feoktistov:1966)

p. Russian (Apresjan 2024)

q. Saisiyat (Tsai 2008)

r. Slovak Romani (Racova & Samko 2015)

# Wh-doubles

By studying Cantonese *wh*-doublets,

- we uncover the so far unattested Type (D).
- Clausal *wh*-doublets: non-interrogative + plural
- Also, Cantonese *wh*-doublets are best characterized by their encoding of evidentiality.
- the meaning non-interrogative *wh*-doublets are not uniform across languages,
- ranging from specific indefinites, non-specific indefinites, free choice items, universal quantifiers, free relatives, metalinguistic quantifiers, concessive-adversative expressions, and so on.

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# Evidentiality

- We break down the evidential component in *wh*-doublets in two parts.
- We argue that they encode both
  - ① Speakers' knowledge
  - ② Speakers' access to the source of information
- We argue that the evidential component is realized as a presupposition associated with *wh*-doublets.

## Evidentiality: Speakers' knowledge

- We delmit the subtle meaning of *wh*-doublets by contrasting them with *jat* 'one' indefinites and *mau* 'certain' indefinites.
- Scopal specificity

(11) Wide scope indefinites ( $\exists > \forall$ )

- a. *Jat* 'one': 阿明話尋日每個遊客都買咗 一種水果，  
喺種水果係台灣特有既。
- b. *Mau* 'certain': 阿明話尋日每個遊客都買咗 某一種水果，  
喺種水果係台灣特有既。
- c. *Wh-doubles*: 阿明話尋日每個遊客都買咗 乜野乜野水果  
喺種水果係台灣特有既。

→ Aaming said every tourist bought some fruit, which is signature in Taiwan.

## Evidentiality: Speakers' knowledge

- Referential intentions/ epistemic specificity

(12) #Non-specific reading

- a. *Jat*: 阿明話想買 一種水果 黎整蛋糕，但未諗到係咩。
- b. *Mau*: #阿明話想買 某一種水果 黎整蛋糕，但未諗到係咩。
- c. *Bare*: #阿明話想買 兮野乜野水果 黎整蛋糕，但未諗到係咩。
- d. *Clausal*: #阿明話想 買乜野買乜野黎 整蛋糕，但未諗到係咩。

→ Aaming said he wants to buy some fruit to make a cake, but he hasn't decided which one yet.

## Evidentiality: Speakers' knowledge

- Speakers' knowledge/ The lack of the ignorance component

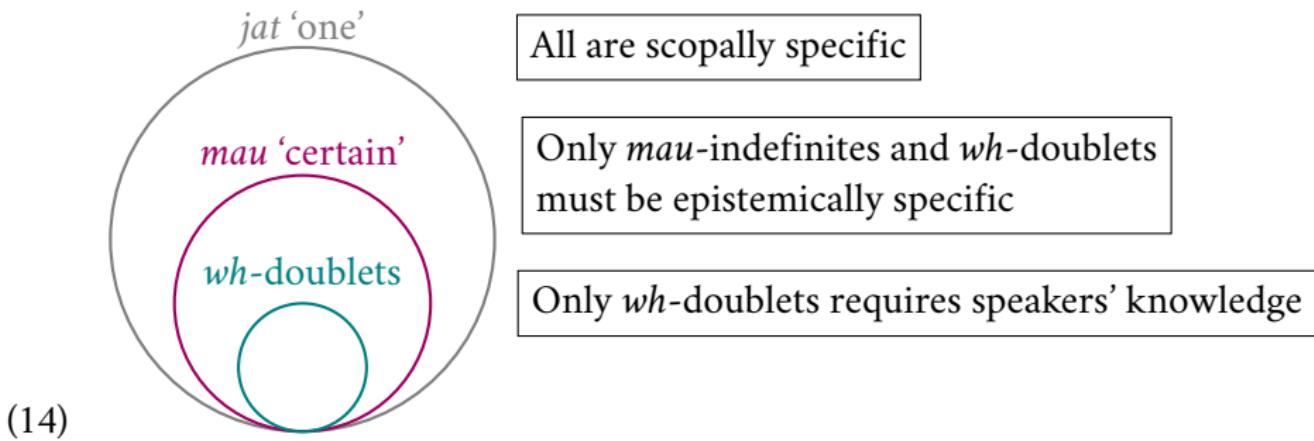
### (13) Speakers' knowledge

- a. *Jat*: 阿明話佢尋日攷咗 一樣野，但我唔知係乜。
- b. *Mau*: 阿明話佢尋日攷咗 某一樣野，但我唔知係乜。
- c. Bare: #阿明話佢尋日攷咗 乜野乜野，但我唔知係乜。
- d. Clausal: #阿明話佢尋日 扱咗乜野攷咗乜野，但我唔知係乜。

→ Aaming said he threw away something yesterday, but I don't know what.

# Evidentiality: Speakers' knowledge

- Summary: The relation between *jat*-indefinites, *mau*-indefinites, and *wh*-doublets in terms of specificity



# Evidentiality: Access to source of information

- It has been reported that wh-doublets, or expressions serving similar functions, generally appear in **quotative contexts**.

## ① Inside a closed quotation (Sudo 2013)

(15) 「送 **乜野乜野** 罢 **邊個邊個** 」係雙賓語結構。 (Wong 2018, (61))

"sung matje matje bei bingo bingo" hai soengbanjyu gitkau  
give what what to who who be double.object construction  
(lit.): "*Give what what to who who*" is a double object construction.'

## Evidentiality: Access to source of information

- It has been reported that wh-doublets, or expressions serving similar functions, generally appear in **quotative contexts**.

② Under the scope of a verb of saying (Cieschinger and Ebert 2011; Koev 2017)

(16) 阿明 話 [ 佢喺自助餐食咗 乜野乜野 ] 。 (=1))  
Aaming waa [keoi hai zizocaan sik-zo matje matje]  
Aaming say he at buffet ate what what  
(lit.): 'Aaming said he ate *what what* at the buffet.'

# Evidentiality: Access to source of information

- It has been reported that wh-doublets, or expressions serving similar functions, generally appear in **quotative contexts**.
- ③ With the presence of the hearsay particle *wo5* (Wong 2018)

(17) 阿明喺自助餐食咗 乜野乜野 喎 。

adapted from (1)

Aaming hai zizocaan sik-zo matje matje wo5

Aaming at buffet ate what what HEARSAY

(lit.): 'I was told that Aaming ate *what what* at the buffet.'

## Evidentiality: Access to source of information

- Interestingly, **non-verbal quotative contexts** also license the use of wh-doublets.

## ① Written

(18) 報紙寫住尋日邊個邊個囚犯逃獄。 (Wong 2018, (85))

escape.from.prison  
(lit.): 'It is written in the newspaper that *which* prisoner escaped from the prison.'

# Evidentiality: Access to source of information

- Interestingly, **non-verbal quotative contexts** also license the use of wh-doublets.

## ② Signing

(19) 手語老師 示範 隻手要 點樣點樣 郁先打到手語。

saujyu            lousi        sifaan            zek sau    jiu        dimjoeng dimjeong

sign.language teacher demonstrate CL hand need how how

              juk    sin    daa-dou-saujyu

              move then sign-ACP

(lit.): 'The sign language teacher demonstrated *how how* move the hand to sign.'

# Evidentiality: Access to source of information

- Interestingly, **non-verbal quotative contexts** also license the use of wh-doublets.

## ③ Visual

(20) 閉路電視 影住 個賊向 邊個邊個 方向逃跑。 (Wong 2018, (86))

bailoudinsi jing-zyu go caak hoeng bingo bingo  
CCTV capture-DUR CL thief towards which.CL which.CL  
fonghoeng toupaau  
direction run.away

(lit.): 'It has been captured by the CCTV that the thief runs away towards *which which* direction.'

# Evidentiality: Access to source of information

- While quotative contexts are at best preferred, there are cases where no quotation is involved (e.g. imaginary quotations on speaker mind).

(21) a. 減肥最重要唔係限制食 乜野乜野 。

gaamfei zeoi zungjiu mhai haanzai sik matje matje  
diet most important not.be limit eat what what

(lit.): 'Dieting, most importantly, isn't limiting to eat *what what*.'

b. 生仔之前要注意 乜野乜野 ，已經令好多人好大壓力。

saangzai zicin jiu zyuji matje matje, jicing ling  
give.birth before need pay.attention what what already cause  
houdo jan hou daaiaatlik  
many people very big stress

(lit.): 'The consideration of *what what* before giving birth has already stressed out many people.'

# Evidentiality: Access to source of information

- The resolution stems from the following suggestion.

(22) Quotative implication of *wh*-doublets (Wong 2018, (93))

The use of a *wh*-doublet implies a quotative context such that the corresponding information has been received in another discourse by any means.

# Evidentiality: Access to source of information

- We reformulate this implication with an evidential character.

(23) A (non-at-issue) evidential component in *wh*-doublets

The use of a *wh*-doublet indicate a discourse context such that **the speaker has access to the source of information** of the referent denoted by the *wh*-expressions.

- We propose that this is realized as a presupposition in *wh*-doublets in Cantonese.

# Evidentiality: Access to source of information

- The infelicitous use of a *wh*-doublet in an out-of-the-blue context (e.g. under the scope of a story starter) supports its nature of evidentiality.

(24) a. # 有一日，阿明食咗 乜野乜野 。

# jaujatjat, Aaming sik-zo matje matje

one.day Aaming ate what what

(lit.): 'One day, Aaming ate *what what*.'

b. 有一日，阿明食咗 某樣野 。

jaujatjat, Aaming sik-zo mau joeng je

one.day Aaming ate certain kind thing

'One day, Aaming ate a certain kind of things.'

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# Co-occurrence with frequency adverbs

- Given clausal *wh*-doublets usually co-occur with verbs of thinking/saying, they are most natural in contexts where there are multiple thinking/saying events, especially with the presence of frequency adverbs.

(25) a. 阿明 成日 話佢 邊度買衫 邊度買衫

Aaming singjat waa keoi bindou maai saam bindou maai saam

Aaming always say he where buy clothes where buy clothes  
(int.): 'Aaming always said he buys clothes at some places.'

b. 阿明 不斷 投訴 邊個嘈邊個嘈

"repeatedly"

c. 阿明 嘰喰 讚 邊間餐廳好食 邊間餐廳好食

"keep on"

# Obligatory plurality

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

(26) Incompatibility with singular contexts - sole referent

- 新聞有提到男歌手金獎係 **邊個邊個** 拎。  
(但我唔記得咁佢講邊個。) bare: sg
- #新聞有提到男歌手金獎係 **邊個** **拎邊個** 拎。  
(但我唔記得咁佢講邊個。) clausal:#pl  
→ *The news report has mentioned that the winner of the Best Singer Award goes to a certain person (, but I forgot who).*
- 阿明有提到嗰個同學姓 **乜野乜野**。  
(但個姓太難讀我就唔重覆喇。) bare: sg
- #阿明有提到嗰個同學 **姓乜野姓乜野**。  
(但個姓太難讀我就唔重覆喇。) clausal:#pl

# Obligatory plurality

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

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

- 阿明喺佢既遺言透露咗佢既親生父親係 **幾時幾時** 死。
- #阿明喺佢既遺言透露咗佢既親生父親係 **幾時死幾時死**。  
→ *In his last words, Aaming revealed that his biological father was dead at a certain time.*
- 份攻略講咗呢把劍只可以 **點樣點樣** 拎。
- #份攻略講咗呢把劍只可以 **點樣拎點樣拎**。

# Obligatory plurality

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

(28) Incompatibility with singular contexts - degree

- 阿明話扭計骰最少要扭到 幾快幾快 先破到世界紀錄。
- #阿明話扭計骰最少要 扭到幾快扭到幾快 先破到世界紀錄。  
→ *Aaming said the Rubik's cube has to be solved at a certain speed the slowest in order to break the world record.*
- 頭先把間尺度到阿明 幾高幾高，證明咁佢講大話。
- #頭先把間尺 度到幾高度到幾高，證明咁佢講大話。

# Nature of plurality: Distributivity

- Clausal *wh*-doublets allow a distributive interpretation over plural subjects.

(29) a. 新聞有提到男歌手金銀銅獎係 邊個拎邊個拎。  
(我就唔逐一講喇。)

→ *The news report has mentioned that the winner, the first runner-up, and the second runner-up of the Best Singer Award go to certain people (, but I don't repeat them one by one).*

b. 政府文件有紀錄歷屆六合彩係 邊個一注中邊個一注中。

c. 阿明喺佢既遺言透露咗佢嘅親生父母 幾時死幾時死。  
(實際係幾時我就唔方便透露。)

d. 份攻略講咗呢幾把劍只可以 點樣拎點樣拎。

- This property can be handled by the distributive operator proposed by Lasersohn (1998).

# Nature of plurality: Event plurality

- Crosslinguistically, an event plurality marker shows an effect of distributivity over various dimensions (e.g. time, space, and participants to the events) (Hofherr and Laca 2012).
- For Cantonese wh-doublets, the dimension of distributivity is contingent on the choice of the *wh*-expression.
  - e.g. 幾時 *geisi* - time, 邊度 *bindou* - location, 邊個 *bingo*/乜嘢 *matje* - participants

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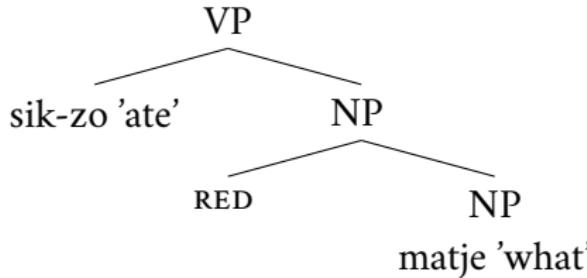
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# Derivation

- Bare *wh*-doublets, as in many languages, arguably involve a reduplication morpheme (i.e., RED) in the syntax.
- It applies to *wh*-expressions, resulting in doublets.
- An illustration (Lee and Wong 2018)

(30) Bare *wh*-doublets



# Derivation

- Given that bare and clausal doublets differ in plurality, we argue that they are derived differently, despite surface similarities.

## (31) **Bare *wh*-doublets:**

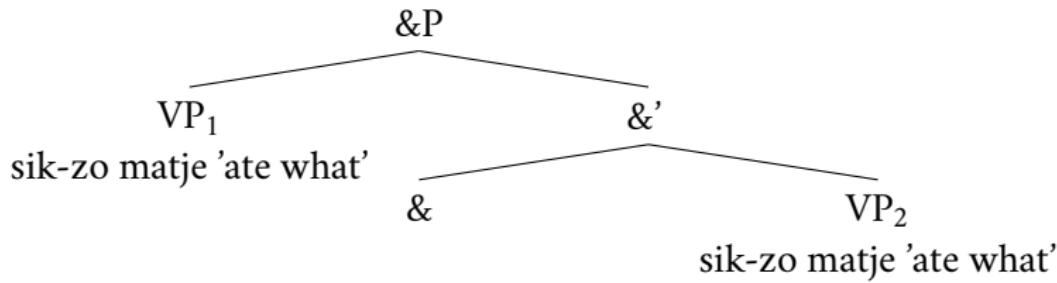
- A RED morpheme that is phonologically dependent on the adjacent *wh*-expressions.
- It imposes no restriction/requirement on plurality.

## (32) **Non-bare *wh*-doublets:**

- A covert conjunction morpheme that conjoins two nominal clauses.
- It conveys plural readings by virtue of the general nature of conjunction.

## Derivation

(33) An illustration with clausal *wh*-doublets



- The plural reading comes from the two VPs denoting different events.
- Conjunction applies to constituents (hence \*Adv-V Adv-V O)

# A prediction

- Compared to a reduplication approach, a conjunction approach allows more flexibility of the two conjuncts.
- There are cases where the two conjuncts do not have identical forms.

(34) a. 阿明話佢想 食龍蝦食乜 ，但佢邊有錢 。

Aaming waa heoi soeng sik lunghaa sik mat, daan keoi  
Aaming say he want eat lobster eat what but he  
bin jau cin  
how.come have money

(int.): 'Aaming said he wants to *eat things like lobsters*, but how come he would have the money.'

b. 阿明話呢把劍可以 抽獎拎點樣拎 ，有心一定拎到 。

- But they are still syntactically identical, and semantically coherent, following general conditions on conjunction.

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# Conclusions

Non-Q- <i>wh</i>	<b><i>Wh</i>-singlets</b>	<b>Bare doublets</b>	<b>Non-bare doublets</b>
Form	<i>wh</i>	<i>wh-wh</i>	<i>wh+α wh+α</i>
Meaning	number-neutral	number-neutral	plural only
Presupposition	No $\exists$ -entailment	Access to source	Access to source

- An evidential component in all *wh*-doublets in Cantonese

(35) A (non-at-issue) evidential component in *wh*-doublets  
The use of a *wh*-doublet indicate a discourse context such that **the speaker has access to the source of information** of the referent denoted by the *wh*-expressions.

# Conclusions

- Plurality in non-bare *wh*-doublets: a non-uniform derivation

(36) **Bare *wh*-doublets:**

- A RED morpheme that is phonologically dependent on the adjacent *wh*-expressions.
- It imposes no restriction/requirement on plurality.

(37) **Non-bare *wh*-doublets:**

- A covert conjunction morpheme that conjoins two nominal clauses.
- It conveys plural readings by virtue of the general nature of conjunction.

- Link to slides: [www.tinyurl.com/LeeWong-whwh](http://www.tinyurl.com/LeeWong-whwh)

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