# Subordinate affixes in Cantonese and intervention effects

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# Recall: Tsai (2008)

- ▶ Incompleteness effects (完句問題) and tense anchoring
- Outer aspect vs. Middle/Inner aspect

  OKAsp-to-T

  \*Asp-to-T
  - (1) Akiu zai ku. 阿Q在哭 (1st type) 'Akiu is crying.'
  - (2)% Akiu ku-zhe. %阿Q哭著 (2nd type)
- Can be 'salvaged' by quantificational adverbs (QAs)
  - (3) Akiu yizhi pao-zhe. 阿Q一直跑著 'Akiu is running continuously.'

# "Third" type of aspects

- ▶ Tang (2016): Cantonese VV-haa (Mandarin V-zhe-V-zhe)
  - (4) \* Aaming haamhaam-haa. \*阿明喊喊吓 (3<sup>rd</sup> type)
  - (5) \* Akiu ku-zhe-ku-zhe. \*阿Q哭著哭著
- Cannot be 'salvaged' by QAs
  - (5) \* Aaming jatzik haamhaam-haa. \* 阿明一直喊喊吓
  - (6) \* Akiu yi-zhi ku-zhe-ku-zhe. \*阿Q一直哭著哭著
- ▶ Can only form subordinate clauses:
  - (7) [Aaming haamhaam-haa] fan-zoek-zo. [阿明喊喊吓]瞓著咗
  - (8) [Akiu ku-zhe-ku-zhe] shui zhao le. [阿Q哭著哭著]睡著了 'Ming/Akiu fell asleep while crying.'



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▶ The paradox:

Scope mismatch:

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[Subordinator [Clause]] [Main clause]
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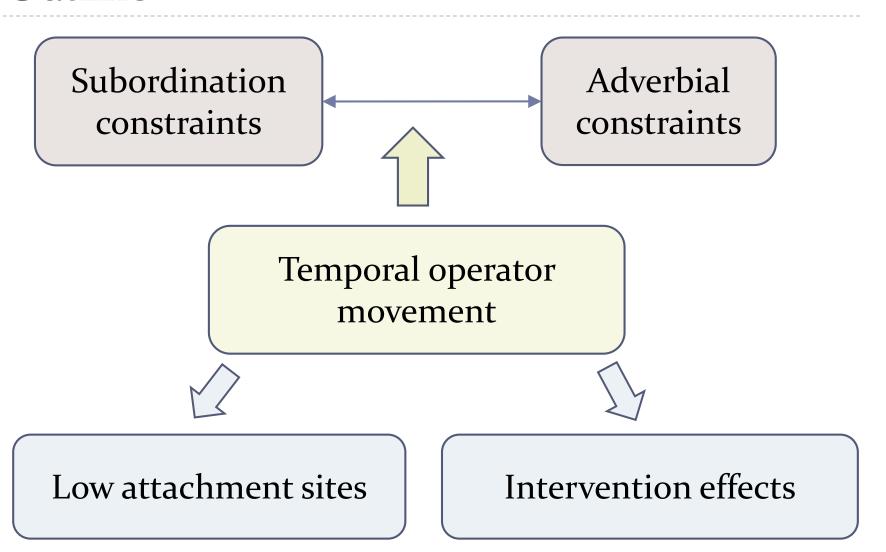
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#### Outline











# Two constraints

#### Subordination constraints

▶ (9) (hai) Aaming haamhaam-haa (gozan), \*(ngo-zau-zo). (喺)阿明喊喊吓(嗰陣), \*(我走咗) 'While Ming is crying, I left.'

- Obligatory subordination
- With temporal interpretation only
- Compare:
  - (10) Staying in New York, they did not visit their parents. (temporal/concessive/causal)

- Cannot occur in subordinate clauses other than temporal ones [Context: I hate crying,]
- ▶ (11) \* janwai Aaming haamhaam-haa, soji ngo zau-zo.

  \*因為阿明喊喊吓,所以我走咗

  'Since Ming is crying, I left.' (causal)
- 🕨 (12) \*seoijin wai Aaming haamhaam-haa, daan ngo m-wui zau.
  - \*雖然阿明喊喊吓,但我唔會走
  - 'Although Ming is crying, I am not leaving.' (concessive)

# Adverbial constraints: QAs vs. non-QAs

- QAs:
- ▶ (13) \*keoi **jatzik** haamhaam-haa, ngo zau-zo.
  - \* 但一直喊喊吓,我走咗
  - 'I left while he was crying continuously.'
- ▶ (14) \*ngo **singjat** taitai-haa syu (gopaai), keoi heoi-zo leoihang.
  - \*我成日睇睇吓書(嗰排),但去咗旅行
  - '(In the period that) I am often reading books, he went to a trip. '

- Non-QAs: Temporal
  - (15) keoi camjat haamhaam-haa, ngo zau-zo.

但<u>尋日</u>喊喊吓,我走咗'I left while he was crying yesterday.'

- Non-QAs: Locative
  - (16) keoi **hai deitit-dou** haamhaam-haa, ngo zau-zo.

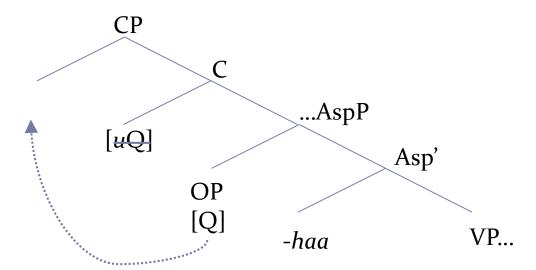
但<u>喺地鐵度</u>喊喊吓,我走咗

'I left while he was crying on the subway.'

# Proposal

Temporal operator movement

# Proposal: temporal operator movement



The temporal operator moves to check u[Q]



# Rizzi (2001, 2004): Feature-based Relativized Minimality

- X, Z, Y: same structure types (in terms of superfeatures)
  - a. Argumental: person, number, gender, case [Arg]
  - b. Quantificational: *wh*, neg, measure, focus ... [Q]
  - c. Modifier: evaluative, epistemic, neg, measure ... [Mod]
  - d. Topic
- ▶ Z intervenes between X, Y (Z c-commands Y but does not c-command X)
- X ... Z ... Y
  [Q] ... [Q] ... [Q]

Intervention effects

# Deriving adverbial constraints

▶ Intervention effects by QAs (measure) (17) \*He *jatzik* cry-cry-*haa*, I left.

```
OP<sub>j</sub> ... continuously ... t_j [Q] ... [Q, Mod] ... [Q]
```

No intervention effect is induced by non-QAs (18) He *camjat* cry-cry-*haa*, I left.

# Temporal adverbial clauses as relatives

- ▶ Demirdache & Uribe-Etxebarria (2004):
- ▶ Temporal arguments ZeitP (introduced by P) are at Spec, AspP, which can be modified by temporal relatives
  - ▶ The base-generation site of temporal operators: AspP

 $[CP \text{ when}_i \text{ Sheila } [AspP \text{ left the office } t_i]]$ 

▶ The attachment site of temporal adverbial clauses: AspP



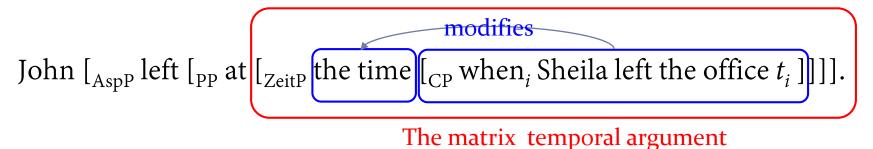
The matrix temporal argument

# Temporal adverbial clauses as relatives

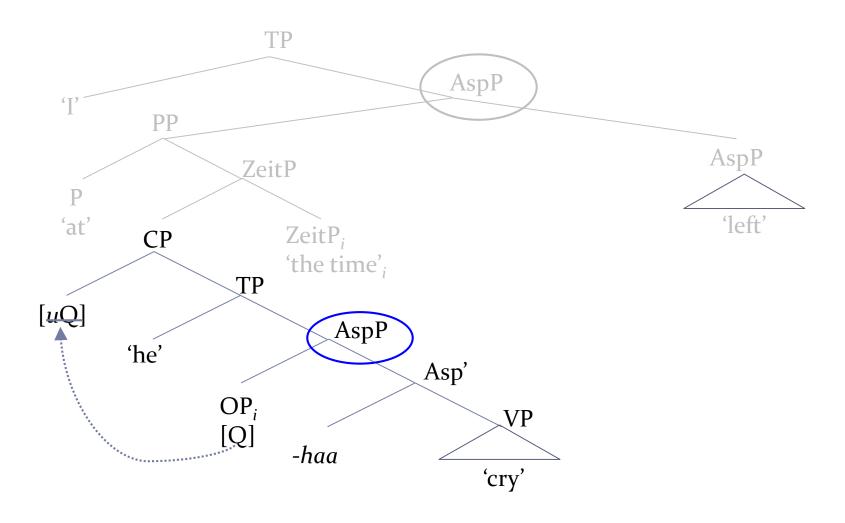
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[CP] when Sheila [ASP] left the office  $t_i$ 

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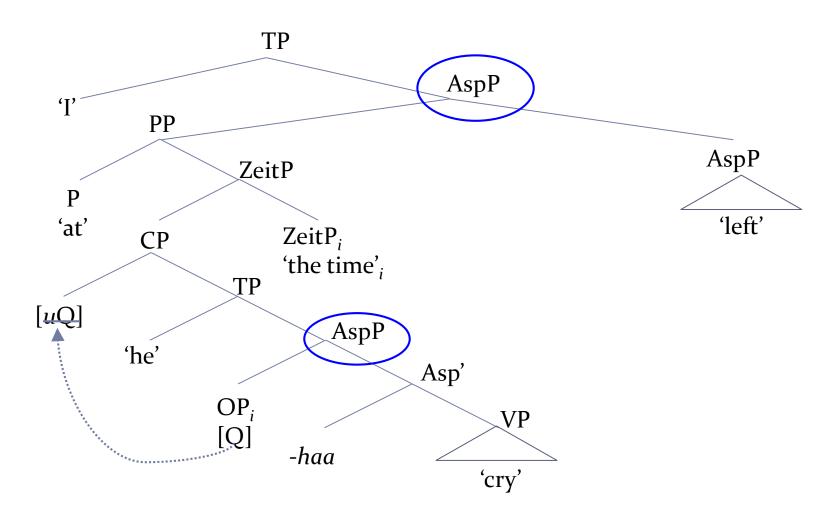


# Ngo [hai keoi haamhaam-haa gozan] zau-zo 我喺佢喊喊吓嗰陣走咗'I left while he was crying.'





Ngo [hai keoi haamhaam-haa gozan] zau-zo 我喺佢喊喊吓嗰陣走咗'I left while he was crying.'





# Deriving subordination constraints

- ▶ Modifiers need a modifiee → obligatory subordination
- ▶ Temporal interpretation arises with temporal operator movement → temporal interpretation only
- ► Attaches to AspP → cannot occur in non-temporal subordinate clauses having different attachment sites
  - Causal clauses: CP (Haegeman 2003)
  - ▶ Concessive clauses: CP (Haegeman 2003)

#### Low attachment sites

- ▶ Dynamic modals: lower than  $\nu$ P (D. Tsai 2015)
  - (19) keoi [vp m-gam [[taitai-haa syu] fan-zoek] gaa. 佢 [vp 唔敢 [[睇睇吓書] 瞓著]] 喫 'He dare not to fall asleep while reading books.'
- ▶ vP-particle faat 法 (Cheng 2011, Tang 2017)
  - (20) keoi [vp dim coeng go faat]? 佢 [vp 點唱歌<u>法</u>]? 'How did he sing the song?'
  - (21) keoi [vp dim [[taitai-haa syu] fan-zoek] faat]? 佢 [vp 點 [[睇睇吓書] 瞓著] 法]? 'How did he fall asleep while reading books?'

# Intervention effects

#### Intervention effects

- ▶ Rizzi (2001, 2004)
  - Quantificational: *wh*, neg, measure, focus......

[Q]

- ▶ Two [Q]-operator movements recognized in Chinese:
  - ▶ A-not-A operators: move to CP (Huang 1991)
  - Weishenme 'why': move to CP (Tsai 1994, 1999)
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#### **Focus**

- ▶ Soh (2005)
  - (22) \*ni zhi xi-bu-xihuan yige ren? \*你只喜不喜歡一個人? 'Do you only like one person?'
  - (23) \*ni zhi renwei Lisi weishenme kan zhentan-xiaoshuo \*你只認為李四為什麼看偵探小說?
    - 'What is the reason x such that you only think Lisi reads detective novels for x?'
- ▶ Intervention effects to VV-haa by focus:
  - (24) \*Aaming zinghai siksik-haa ni wun min, ngo zyu-zo zek daan.
    - \*阿明淨係食食吓呢碗麵,我煮咗隻蛋。
    - 'While Ming is eating only the noodles, I boiled an egg.'

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# Existential operator: you 有

- Wu (1997), Soh (2005)
  - (25) \*youren/ \*meiyouren pao-bu-pao?
    - \*有人/\*沒有人跑不跑?
      - 'Does somebody/ nobody run or not?'
  - (26) \*youren/ \*meiyouren weishenme cizhi?
    - \*有人/\*沒有人為什麼辭職?
    - 'What is the reason x such that for x somebody/ nobody resigned?'
- ▶ Intervention effects to VV-haa by jau 有:
  - (27) \*jaujan/ \*moujan paaupaau-haa, haauzoeng zau lai-zo.
    - \*有人/\*冇人跑跑吓,校長就嚟咗。
    - 'While somebody/nobody is running, the principal comes.'

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# Negation

- ▶ (28) \*Ta mei/bu pao-bu-pao? \*他<u>沒/不</u>跑不跑? 'Does he not run (yet)?'
  - (29) \* Ta mei/ bu weishenme cizhi? \*他沒/不為什麼辭職? 'What is the reason x such that for x he did not resign (yet)?'
- ▶ Intervention effects to VV-haa by negations:
  - (30) \* ngo mei/m-/mhai taitai-haa syu, keoi lai wan ngo.
    - \*我未/唔/唔係睇睇吓書,佢嚟搵我。
    - 'While I am not reading books (yet), he looks for me.'



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# Quantificational adverbs

- Law (2006)
  - (31) \*Zhangsan changchang tiao-bu-tiao wu?
    - \*張三常常跳不跳舞?
    - 'Does Zhangsan often dance?'
  - (32) \*Zhangsan changchang weishenme tiaowu?
    - \*張三常常為什麼跳舞?
    - 'What is the reason *x* such that for *x* ZS often dances?'
- ▶ Intervention effects to VV-haa by QAs:
  - (33) \*ngo singjat taitai-haa syu (gopaai), keoi heoi-zo leoihang.
    - \*我成日睇睇吓書(嗰排),但去咗旅行。
    - '(In the period that) I am often reading books, he went to a trip.'

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#### Wh-nominals

- Huang (1982)
  - (34) ni xiang zhidao [shui xi-bu-xihuan ta]?
    你想知道 [<u>誰</u>喜不喜歡他]?
    'For which person x, you wonder whether x like him?'
  - (35) ni xiang zhidao [shui weishenme da-le Zhangsan]? 你想知道 [<u>誰</u>為什麼打了張三]? 'For which person x, you wonder why x beat Zhangsan?'
- ▶ Chinese *wh*-arguments/ nominals (D. Tsai 1994 etc.)
  - As variables without inherent quantificational force  $\rightarrow$  no [Q]
  - Unselectively bound by the interrogative operator
  - Alternatively (Dong 2009, E. Tsai 2015): introduce Hamblin sets quantified by Q



- ▶ NO intervention effect to VV-*haa* by *wh*-nominals :
- ▶ (36) bingo fanfan-haa, lousi zau faatnau ne?

  \_ 邊個瞓瞓吓,老師就發嬲呢?

  'Who is the person x such that the teacher gets angry while x is sleeping?'
  - (37) Aaming binjat siksik-haa faan (gozan), jaujan wan keoi aa? 阿明邊日食食吓飯(嗰陣),有人搵佢啊? 'Which date is the date that someone looks for Ming while he is having meals?'

# Intervention effects (summary)

	Interveners	VV-haa	A-not-A	weishenme
a.	Focus	*	*	*
b.	Existential operator <i>you</i>	*	*	*
c.	Negation	*	*	*
d.	Quantificational adverbs	*	*	*
e.	<i>Wh</i> -nominals	OK	OK	OK









# Conclusion

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- Motivated by adverbial constraints & subordination constraints:
  - $\rightarrow$  Temporal operator movement in *haa-*clauses
- Derives the "incompleteness effects"
- Predicts the attachment sites
- Predicts the intervention effects

Also constitute a new piece of evidence to a movement derivation to temporal adverbial clauses without *haa* (cf. Liou 2003)

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# An implication: Aspects are not just aspects

	Туре	Related to:	Standalone?
zai	1 <sup>st</sup>	Asp, T	Yes
-zhe	2 <sup>nd</sup>	Asp	No, incompleteness effects
VV-haa/ V-zhe-V-zhe	3 <sup>rd</sup>	Asp, <b>CP</b>	No, subordination constraints



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# Thank you!