# Licensing VP movement and ellipsis in Mandarin and Cantonese

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# 1 Introduction

This talk investigates the licensing conditions of VP movement and ellipsis in two Chinese varieties (Mandarin and Cantonese).

- New data reveal that the licensing conditions of VP movement/ellipsis are more fine-grained than is discussed in the literature (cf. Li and Wei 2014; Tsai 2015)
- The status of being a head does not sufficiently license VP movement/ellipsis in Mandarin and Cantonese (cf. Lobeck 1995).
- We motivate an account under a contextual approach to phasehood.

The novel empirical observation concerns **aspectual verbs** (e.g. 'begin/continue')

- They consistently disallow their VP complement to be (i) fronted; (ii) elided and (iii) postposed.
- This is in contrast to **modal verbs** (e.g. 'will/may') and **control verbs** (e.g. 'try/decide').

Table 1	Modal	Control	Aspectual
VP-fronting	<b>✓</b> (1)	<b>✓</b> (3)	<b>X</b> (5)
VP-ellipsis	<b>✓</b> (2)	<b>✓</b> (4)	<b>X</b> (6)
VP-postposing	<b>√</b> (7)	<b>√</b> (7)	<b>X</b> (8)

## 2 Data

A VP can be fronted (1) or ellided (2) in Mandarin when it follows a modal verb (**Law:2017**; Tsai 2015), similar to English (Sag 1976, i.a.).

# (1) Fronting

[qu xiancheng] Akiu keneng **hui**  $\Delta$  go town Akiu possibly will 'Go to town, Akiu possibly will.' (Tsai 2015)

## (2) Ellipsis

Lisi bu-keyi [lai], dan Wangwu **keyi**  $\Delta$  Lisi not-may come but Wangwu may 'Lisi may not come, but Wangwu may.'

 $\Delta$  represents the trace or elided site of the bracketed VPs. The same applies to control verbs.

#### (3) Fronting

[chuguo nianshu] Lisi yijing **jueding**-le  $\Delta$  ba abroad study Lisi already decide-PERF sfi 'Lisi already decided to study abroad.'

#### (4) Ellipsis

Ta **changshi**-le [chisu], wo ye **changhsi**-le  $\Delta$  He try-perf eat.vegan I also try-perf 'He tried to eat vegan; I also tried.'

... but not aspectual verbs.

#### (5) Fronting

\*[manman bian hong] zhe hua **kaishi**  $\Delta$  ne slowly turn red this flower begin sfp Int.: 'This flower begins to turn red.'

# (6) Ellipsis

\*Gupiao **jixu** [pansheng], loujia ye **jixu**  $\Delta$  Stock continue rise rent also continue 'Stocks continue to rise; rents also continue.'

The difference between modal/control verbs and aspectual verbs is also observed in Cantonese.

Additionally, the difference extends to VP postposing (or right dislocation to a position after the sentence-final particle, (Cheung 2009; Lee 2017).

#### (7) RD of control/modal verbs

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keoi soengsi-gwo/hoji \Delta aa3 [sik sou] s/he try-exp/may sfp eat vegan 'S/he tried to/may eat vegan.'
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#### (8) RD of aspectual verbs

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*po faa hoici \Delta laa3 [maanmaan bin hung] CL flower begin SFP slowly turn red 'The flower begins to turn red slowly.'
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Aspectual verbs thus display a unique profile of disallowing VP movement/ellipsis.

# 3 Two ingredients of the proposal

- (i) Aspectual verbs as functional heads.
  - Following Wurmbrand (2001), Cinque (2003), Arregi and Molina-Azaola (2004), and Fukuda (2008, 2012), Wee propose that aspectual verbs in Chinese are functional categories that head an Aspect projection above νP, different from control verbs.
  - Consequently, sentences with aspectual verbs are mono-clausal and aspectual verbs are within
    the extended verbal projection, different from modal verbs (Bošković 2014).
  - (ii) A contextual approach to phasehood.
  - We suggest that the asymmetry observed with aspectual verbs receives an explanation under a
    contextual approach to phasehood proposed in Bošković (2014), in tandem with a version
    of anti-locality (Abels 2003).

# 3.1 Evidence for aspectual verbs as functional categories

- Aspectual verbs fail to take verbal suffixes (9), unlike genuine verbs (see (3) and (4), where the control verbs are suffixed with *le*). In this regard, modal verbs patterns with aspectual verbs (10).
- (9) \*zhe hua **kaishi**-le manman bian hong this flower begin-PERF slowly turn red Int.: 'This flower began to turn red slowly.'

(10) \*Wangwu keyi-le lai

Wangwu may-perf come

Int.: 'Wangwu was allowed to come.'

Note that it is not that they cannot co-occur with other aspectual elements, since they can be modified by the aspectual adverb *yijing* 'already' as in (11) and (12). Data is given in Mandarin.

- (11) zhe hua *yijing* **kaishi** manman bian hung this flower already begin slowly turn red 'This flower already began to turn red slowly.'
- (12) Wangwu *yijing* **keyi** lai
  Wangwu already may come
  Int.: 'Wangwu was already allowed to come.'
- ② Aspectual verbs cannot undergo verb topicalization (resulting in doubling, Cheng and Vicente (2013)), as in (13), unlike control verbs (14), but similar to modal verbs (15). Data is given in Cantonese.
- (13) \*hoici po faa hai hoici bin hung begin cl. flower Foc begin turn red Int.: 'The flower BEGINS to turn red.'
- (14) **kyutding** keoi hai **kyutding**-zo heoi duksyu decide s/he FOC decide-PERF go study 'S/he has DECIDED to go for study.'
- (15)??**hoji** keoi hai **hoji** paau Maalaaicung may s/he Foc may run Marathon Int.: 'S/he MAY run in a Marathon.'

This suggests that aspectual verbs and modal verbs are different from genuine lexical verbs.

One supporting evidence for this bifurcation comes from participle fronting in Bulgarian, where the fronting operation discriminates against auxiliary verbs ((16), Embick and Izvorski 1997).

(16) \*Bila šte si pročela knigata be.s.f.pst.prt will be.2s.prs read the.book 'You will have had read the book.'

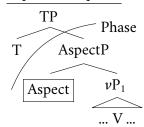
(cf. OK Pročela šte si bila knigata)

We take this as evidence for the suggestion that fronting associated with discourse effects do not apply to functional categories.

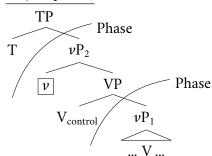
Based on evidence from verbal suffixes and verb topicalization, We conclude that aspectual verbs in Mandarin and Cantonese are not lexical verbs, but functional categories.

# 3.2 An illustration of the proposal





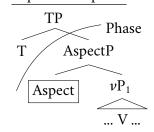
# (18) $\nu P_{1,2}$ as phases



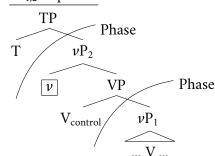
- Sentences with aspectual verbs, then, involve a mono-clausal structure (17), unlike a bi-clausal structure for control sentences (18) (both taking  $\nu$ P as complements, following Huang 2017).
  - 2 Assume with Bošković (2014) in that:
  - (i) AspectP is within the extended projection of the verbal domain (to the exclusion of TP/CP)
  - (ii) the highest phrase in the extended projection functions as a phase

The status of  $\nu P_1$  in (17) and (18) are different:  $\nu P_1$  in (17) is the complement of the phase head (i.e. Aspect), whereas  $\nu P_1$  in (18) is not (i.e.  $V_{control}$  is not a phase head).

### (19) AspectP as a phase



#### (20) $\nu P_{1,2}$ as phases



- 3 The movement asymmetry receives an account under anti-locality (Abels 2003).
- $vP_1$  in (17) fails to exit the phase via movement to Spec AspectP because it is too "local" (i.e. it does not create a new structural relationship for feature checking).
- It is different from the  $\nu P_1$  in (18), which is free to employ Spec  $\nu P_2$  as an escape hatch for subsequent movement.

- As for modal verbs, we suggest that they are (non-phasal) T heads and belong to the next extended projection.
- Movement of their complement νP is thus allowed to target the Spec CP or proceed via Spec CP.

**4** Lastly, the ellipsis facts follow if we assume with **Fujiwara:2018**; Johnson (2001) and Aelbrecht and Haegeman (2012) that  $\nu$ P-ellipsis involves a previous step of  $\nu$ P-movement (or  $\nu$ P topicalization) before ellipsis.

The availability of  $\nu$ P-ellipsis is thus tied with that of  $\nu$ P-movement, delivering the empirical landscape in Table 1.

Table 1	Modal	Control	Aspectual
VP-fronting	<b>✓</b> (1)	<b>✓</b> (3)	<b>X</b> (5)
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VP-postposing	<b>√</b> (7)	<b>√</b> (7)	<b>X</b> (8)

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