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# Licensing $\nu$ P movement and ellipsis in Mandarin and Cantonese

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## 1 Introduction

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

- One well-known licensing condition of VP fronting (VPF) and VP ellipsis (VPE) concerns an auxiliary vs. adverb distinction, or more generally, a head vs. phrase distinction.
- It is suggested that **modal auxiliaries** but not **modal adverbs** license VPF/VPE (Huang 1993; Tsai 2015; Lobeck 1995).
- However, I show that **aspectual verbs**, despite being heads, fail to license VPF/VPE in Mandarin and Cantonese.
- I motivate an account that adopts a contextual approach to phasehood.

N.B.: VP is used as a descriptive label for verb phrases, not to be contrasted with  $\nu$ P.

## 2 The data

### 2.1 The auxiliary-adverb/head-phrase distinction

A VP can be fronted or elided in Mandarin when it follows **modal auxiliaries** (Tsai 2015; Law and Ndayiragije 2017), similar to English (Sag 1976, i.a.).

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- (1) Fronting (Tsai 2015)

[qu xiancheng] Akiu keneng **hui** Δ  
go town Akiu possibly will  
'Go to town, Akiu possibly will.'

- (2) Ellipsis

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

Δ represents the trace or elided site of the bracketed VPs.

This is in contrast with **modal adverbs**. A common suggestion is that VPF and VPE require head licensing (head government, Huang 1993; Tsai 2015).

- (3) Fronting (Tsai 2015)

\*[hui qu xiancheng] Akiu **keneng** Δ  
will go town Akiu possibly  
'Will go to town, Akiu possibly.'

- (4) Ellipsis

\*Lisi bu-bixu [lai], dan Wangwu **bixu** Δ  
Lisi not-must come but Wangwu must  
'Lisi must not (i.e. need not) come, but Wangwu must.'

N.B.: Usually, the availability of VPF/VPE is taken to diagnose the head/phrase distinction among modal elements, which raises concerns of circularity.

In addition to modal auxiliaries, **control verbs** (including ability modals) fit nicely into the picture.

- (5) Fronting

[chuguo nianshu] Lisi yijing **jueding**-le Δ ba  
abroad study Lisi already decide-PERF SFP  
'Lisi already decided to study abroad, right?'

- (6) Ellipsis

Ta **changshi**-le [chi su], wo ye **changshi**-le Δ  
He try-PERF eat vegan I also try-PERF  
'He tried to eat vegan; I also tried.'

Also, the difference extends to VP postposing (VPP, i.e., VP right dislocation to a position after

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the sentence-final particle, (Cheung 2009; Lee 2017).

(7) Cantonese

a. Postposing

Aaming **wui**/ ??**honang** Δ aa3 [faan Hoenggong]

Aaming will/ possibly SFP go.back Hong Kong

‘Aaming will/ possibly go(es) back to Hong Kong.’

b. Postposing

Aaming **soengsi**-gwo/ **soeng** Δ gaa3 [faan Hoenggong]

Aaming try-EXP/ want SFP go.back Hong Kong

‘Aaming tried to/wants to go back to Hong Kong.’

N.B.: VPP (or RD) requires a context where the postposed elements are given/backgrounded/not contrastively focused.

## 2.2 Aspectual elements

### 2.2.1 Aspectual verbs

**Aspectual verbs** (e.g. ‘begin/continue’) consistently disallow their complement clause to be (i) *fronted*; (ii) *elided* and (iii) *postposed*.

(8) Fronting

Mandarin

\*[manman bian hong] zhe-duo hua **kaishi** Δ ne

slowly turn red this-CL flower begin SFP

‘This flower begins to turn red.’

(9) Ellipsis

Mandarin

\*Gupiao **jixu** [pansheng], loujia ye **jixu** Δ

Stock continue rise rent also continue

‘Stock (prices) continue to rise; rents also continue.’

(10) Postposing

Cantonese

\*po faa **hoici** Δ laa3 [maanmaan bin hung]

CL flower begin SFP slowly turn red

‘The flower begins to turn red slowly.’

This extends to other aspectual “verbs”, which are more commonly identified as functional elements, such as the **progressive markers** *zai* in Mandarin and *hai-dou* in Cantonese.

- (11) a. Mandarin  
na-ge dianhua **zai** [xiang]  
that-CL phone at ring  
'That phone is ringing.'
- b. Cantonese  
go-go dinwaa **hai-dou** [hoeng]  
that-CL phone at-here ring  
'That phone is ringing.'

They disallow ellipsis of the complement clause (also for VP fronting and postposing, examples not given here).

- (12) a. Mandarin  
           \*zhe-ge dianhua ye   **zai** Δ  
           this-CL phone   also at  
           ‘This phone is also (ringing).’  
       b. Cantonese  
           \*ni-go   dinwaa dou   **hai-dou** Δ  
           this-CL phone   also at-here  
           ‘This phone is also (ringing).’

### 2.2.2 (Im)perfective markers

On the other hand, there are a family of verbs/pre-verbal markers that mark the perfective/imperfective aspects, such as *you/mei-you* 'have/not-have' in Mandarin.

Importantly, these elements allow VP fronting.

- (13) zoutian you/mei-you [xia yu], jintian ye **you/mei-you** Δ Mandarin  
yesterday have/not-have faill rain, today also have/not-have  
'It rained/didn't rain yesterday. It rained/didn't rain today too/either.'

In Cantonese, *mei* ‘not.yet’ marks imperfective aspect with an additional implicature of the speaker’s expectation that the event will happen. It allows VP ellipsis.

- (14) ni-po faa mei [hoi], go-po dou **mei** Δ Cantonese  
 this-CL flower not.yet blossom, that-CL also not.yet  
 ‘This flower hasn’t blossom yet. That flower hasn’t either.’

### 2.3 Interim summary

Aspectual verbs display a different profile, compared to modals auxiliaries, control verbs and (im)perfective markers, but it patterns with adverbs.

	Modal aux.	Control verbs	(Im)perfective markers	Asp. verbs	Adverbs
VP-fronting	✓	✓	✓	✗	✗
VP-ellipsis	✓	✓	✓	✗	✗
VP-postposing	✓	✓	(✓)	✗	✗

Table 1: Licensing conditions of VPF, VPE and VPP

It may be tempting to suggest that all aspectual verbs are indeed adverbs, hence phrases. But there are some concerns:

- The head/phrase distinction is not easily detectable in Chinese (see Appendix A for discussions).
- Aspectual verbs that show a clear verbal origin must be assumed to be adverbs/phrasal elements.
- (Im)perfective markers such as *mei* ‘not.yet’ in Cantonese that do not show a clear verbal origin must be assumed to be verb/head elements.
- The split between (im)perfective markers and aspectual verbs would be a coincident.

### 3 The proposal

The gist of the proposal:

- Instead of suggesting that aspectual verbs are adverbs/phrases, I maintain that they are heads.
- However, I depart from the common assumption that they are verbal heads.
- I suggest that they are **functional heads**, i.e., Aspect heads.
- Their inability to license VPF/VPE/VPP is **independently constrained by locality constraints**.

N.B.: I do not argue against the role of head/phrase distinction in licensing VPF/VPE/VPP, but I suggest that being a head is *insufficient* to license these constructions.

#### 3.1 Aspectual verbs as functional heads

❶ Aspectual verbs fail to take verbal suffixes, unlike genuine verbs.

- (15) \*zhe-duo hua    **kaishi-le**    manman bian hong    Mandarin  
          this-CL   flower   begin-PERF slowly    turn red  
          Int.: ‘This flower began to turn red slowly.’

This is in line with the observation that modal auxiliaries cannot take verbal suffixes either.

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- (16) \*Wangwu **keyi-le** lai Mandarin  
Wangwu may-PERF come  
Int.: 'Wangwu was allowed to come.'

When *kaishi* is not used as an aspectual verb, but as a transitive/control predicate, it can take verbal suffixes.

- (17) Wo **kaishi-le** xue riyu Mandarin  
I begin-PERF learn Japanese  
'I have begun to learn Japanese.'

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

- (18) zhe-duo hua *yijing* **kaishi** manman bian hung Mandarin  
this-CL flower already begin slowly turn red  
'This flower already began to turn red slowly.'

- (19) Wangwu *yijing* **keyi** lai Mandarin  
Wangwu already may come  
Int.: 'Wangwu was already allowed to come.'

❷ 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).

- (20) \***hoici** po faa hai **hoici** bin hung Cantonese  
begin CL flower FOC begin turn red  
Int.: 'The flower BEGINS to turn red.'

Again, this is consistent with modal auxiliaries.

- (21) ??**hoji** keoi hai **hoji** paau Maalaicung Cantonese  
may s/he FOC may run Marathon  
Int.: 'S/he MAY run in a Marathon.'

Control/transitive *hoici*, however, can be topicalized.

- (22) **hoici** keoi hai **hoici-zo** hok jatman Cantonese  
begin s/he FOC begin-PERF learn Japanese  
'S/he has BEGUN to learn Japanese.'

This suggests that aspectual verbs and modal verbs are different from genuine lexical verbs. One supporting evidence for this division comes from participle fronting in Bulgarian, where the

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fronting operation discriminates against auxiliary verbs (Embick and Izvorski 1997; Harizanov 2019).

(23) Bulgarian

- a. **Pročela** šte si bila <pročela> knjigata  
read will be.2s.prs be.s.f.pst.prt the.book  
'You will have had read the book.'
- b. \***Bila** šte si <bila> pročela knjigata  
be.s.f.pst.prt will be.2s.prs read the.book  
'You will have had read the book.'

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

③ Cross-linguistic evidence suggests that aspectual verbs commonly lose their verbal status and become functional categories, such as in Spanish and Japanese (Wurmbrand 2001; Cinque 2003; Arregi and Molina-Azaola 2004; Fukuda 2008, 2012).

I thus propose that **aspectual verbs in Mandarin and Cantonese are functional categories that head an Aspect projection right above  $\nu$ P**.

(24) A simplified illustration

- a. Aspectual verbs: Subj [<sub>AspP</sub> **Asp.**  $\nu$ P ]
- b. Control verbs: Subj [ <sub>$\nu$ P2</sub> **Control**  $\nu$ P1 ]
- c. Modal verbs: Subj [<sub>ModP</sub> **Mod.**  $\nu$ P ]

In effect, sentences with aspectual verbs are mono-clausal, whereas sentences with control verbs are bi-clausal.

### 3.2 A contextual approach to phasehood

I adopt a contextual approach to phasehood (Bobaljik and Wurmbrand 2005; Wurmbrand 2013, 2014; Bošković 2014; Harwood 2014). Substantially, the size of the clause-internal phase depends on whether AspectP is projected:

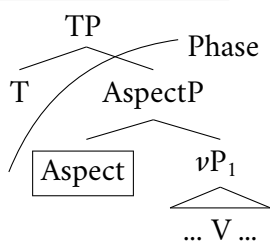
(25) Variable phasehood on the clause-internal phase

- a.  $\nu$ P is a phase when AspectP is not projected.
- b. AspectP is a phase when projected.

This variation does not extend to other higher projections. I return to this issue shortly.

Illustration of the proposal, focusing on the contrast between **aspectual verbs** and **control verbs**:

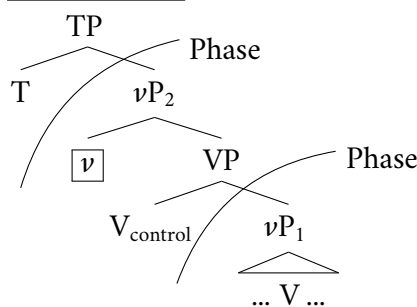
(26) AspectP as a phase



P-stranding  
[P DP]

P - P - P - NP - NP

P-stranding = common  
[P DP]

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

❶ Sentences with aspectual verbs involve a mono-clausal structure, unlike a bi-clausal structure for control sentences (both taking  $\nu P$  as complements, following Huang 2017).

❷ If AspectP is projected, the Aspect head is the phase head. If not, the  $\nu$  head is the phase head.

- Consequently, the status of  $\nu P_1$  in (26) and (27) are different.
- **$\nu P_1$  in (26) is the complement of the phase head** (i.e. Aspect)
- **$\nu P_1$  in (27) is not** (i.e.  $V_{control}$  is not a phase head).

❸ The movement asymmetries between aspectual verbs and control verbs receive an account under the anti-locality constraint (Abels 2003), which disallow the very local Comp-Spec movement.

- **$\nu P_1$  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.

❹ To capture the availability on VP ellipsis, there are two possibilities.

- We may assume with Johnson (2001), Aelbrecht and Haegeman (2012), and Fujiwara (2018) that  $\nu P$ -ellipsis involves a previous step of  $\nu P$ -movement (or  $\nu P$  topicalization) before ellipsis.
- Alternatively, we may assume that Chinese  $\nu P$  ellipsis privileges phases, but not phasal complements (unlike English which displays optionality).

### 3.3 On modal auxiliaries and (im)perfective markers

I suggest that **modal auxiliaries** and **(im)perfective markers** each occupy a separate projection above AspectP, namely, ModP and (Im)perfectP.



(28) The proposed clausal spine

CP > TP > ModalP > (Im)perfectP > AspectP >  $\nu$ P > VP

Crucially, the variation of phasehood does not extend to these projections.

- Otherwise, they would disallow VPF/VPE/VPP in the same way as aspectual verbs.
- Since they are not phase heads, movement of their complement  $\nu$ P is allowed to target the Spec of the phase heads (i.e. Spec CP).

In other words, there is a split in a mono-clausal structure, and the question is why.

- (29) The proposed clausal spine
- |  |            |                  |
|--|------------|------------------|
|  | 阿明開始有黎開會   | 阿明有黎開會, 阿芬都有     |
|  | 黎開會, 阿明開始有 | 阿明開始有黎開會, 阿芬都開始有 |
- CP > TP > ModalP > (Im)perfectP > AspectP >  $\nu$ P > VP

What is special about AspectP? Why does it set the upper boundary of a lower phase?

- **Possibility 1**: by making reference to the notion of extended projections (Grimshaw 2005; Bošković 2014), where AspectP is an extended verbal projection.  
→ but it is unclear why (Im)perfectP is excluded from this extended projection.
- **Possibility 2**: by making reference to the situation-event distinction, where AspectP may represent the core predication layer, i.e. it forms a part of the predicate (Bowers 1993, 2002; Harwood 2014; Ramchand and Svenonius 2014).  
→ it still appears to be a stipulation, but there may be some evidence for this possibility.

❶ The split basically corresponds to the one argued for in English in Harwood (2014).

(30) Harwood's version of contextual phasehood

- a. Phases are determined by sub-numerations.
- b. The last item from a sub-numeration to be merged into the workspace projects the phase, irrespective of what that item is.

- (31) a. [Prog *be*, ProgAsp, Passive/Copula *be*/v, Voice, V]  
b. [C, T, Modal, Inf, Perf *have*, PerfAsp]

The only difference with the current proposal is that AspectP can host aspect markers in addition to the progressive aspect.

❷ Chinese languages, especially Cantonese, have a rich system of (aspectual) verbal suffixes. AspectP may indeed form a part of the predicate, given its correspondence with the aspectual suffixes.

Aspect	Preverbal aspect	Postverbal aspect
Progressive	<i>hai-dou</i>	<i>-gan</i>
Perfective	<span style="border: 1px solid black;"><i>jau</i></span>	<i>-zo</i>
Inceptive	<i>hoici</i>	<i>-hei-soeng-lai</i>
Continuative	<i>gaizuk</i>	<i>-lok-heoi</i>
Experiential	<i>si-gwo</i>	<i>-gwo</i>

Table 2: Aspectual information encoded by different aspect systems in Cantonese

Note that the perfective marker *jau* is the only one that cannot co-occur with the corresponding postverbal aspect, i.e. *-zo*.

(32) \*Aaming **jau** sik-**zo** jyu  
 Aaming have eat-PERF fish  
 ‘Aaming ate fish.’

(33) keoi **hai-dou** se-**gan** mongzi  
 s/he at-here write-PROG blog  
 ‘S/he is writing blogs.’

(Matthews and Yip 2011, p. 231)

## 4 Residue issues

### 4.1 Stacking of aspectual verbs

It is possible to stack aspectual verbs, i.e. multiple AspectP. In such case, the VP is no longer the complement of the phase heads.

(34) gaa-sanman **gaizuk** **hoici** [hai mongsoeng maanjin] Cantonese  
 fake-news continue begin at web spread  
 ‘Fake news continues to begin to spread on the web.’

However, the lower VP is still unmovable.

(35) \*[hai mongsoeng maanjin], gaa-sanman **gaizuk** **hoici**  $\Delta$  Cantonese  
 at web spread fake-news continue begin  
 ‘Fake news continues to begin to spread on the web.’

### 4.2 Other factors constraining VPF/VPE/VPP?

The modal expression *jinggoi* ‘should’ in Cantonese is ambiguous between a deontic reading and an epistemic reading.

(36) Cantonese

- a. ni-po faa **jinggoi** [hoi-zo], (\*go-po faa dou **jinggoi** Δ) Epistemic  
 this-CL flower should blossom-PERF that-CL flower also should  
 ‘This flower should have blossomed. That flower should, too.’
- b. ni-po faa **jinggoi** sung bei jan, (<sup>OK</sup>go-po faa dou **jinggoi** Δ) Deontic  
 this-CL flower should give to someone that-CL flower also should  
 ‘This flower should be given out. That flower should, too.’

Importantly, only deontic *jinggoi* allows VPE (also for VPF/VPP), which does not follow from either a head/phrase distinction or the contextual phasehood approach.

## 5 Take-home messages

Empirically,

	Modal aux.	Control verbs	(Im)perfective markers	Asp. verbs	Adverbs
VP-fronting	✓	✓	✓	✗	✗
VP-ellipsis	✓	✓	✓	✗	✗
VP-postposing	✓	✓	(✓)	✗	✗

Table 3: Licensing conditions of VPF, VPE and VPP

Theoretically,

- The boundary of the clause-internal phase displays certain flexibility (but not too much).
- I motivated a split between (Im)perfectP and AspectP (cf. the one between PerfP and ProgP in English).
- Allowing such flexibility, together with the anti-locality constraint, delivers the empirical landscape.

## Appendix A: A-not-A formation

While A-not-A formation has been said to be unreliable in detecting *verb-hood* (Huang, Li, and Li 2009), it may be able to diagnose headedness, given the contrasts below.

(37) *chang* ‘often’ vs. *pingchang* ‘usually’

Mandarin (Tsai and Yang 2015)

- a. Akiu **chang**-bu-**chang** qu Beijing  
 Akiu often-not-often go Beijing  
 Intended: ‘Does Akiu often go to Beijing?’
- b. \*Akiu **ping**-bu-**pingchang** qu Beijing  
 Akiu usually-not-usually go Beijing  
 Intended: ‘Does Akiu often go to Beijing?’

(38) *renzhen* ‘seriously’ vs. *renzhen-di* ‘seriously’

Mandarin (Lin, Yu, and Chen 2018)

- a. Zhangsan **ren**-bu-**renzhen** nian Yingwen?  
 Zhangsan RED-not-seriously study English  
 ‘Does Zhangsan study English seriously?’
- b. \*Zhangsan **ren**-bu-**renzhen-di** nian Yingwen?  
 Zhangsan RED-not-seriously-ADV study English  
 ‘Does Zhangsan study English seriously?’

If this is the case, then we expect to see a correlation between the ability to form A-not-A and the availability of VPF/VPE/VPP. This does not seem to be the case.

	Modal aux.	Control verbs	(Im)perfective markers	Asp. verbs	Adverbs
VP-fronting	✓	✓	✓	✗	✗
VP-ellipsis	✓	✓	✓	✗	✗
VP-postposing	✓	✓	(✓)	✗	✗

Table 4: Licensing conditions of VPF, VPE and VPP

Modal aux.	Control verbs	(Im)perfective markers	Asp. verbs	Adverbs
hui-bu-hui	jue-bu-jueding	you- <u>mei</u> -you	kai-bu-kaishi	ke-bu-keneng
ke-bu-keyi	chang-bu-changshi	*mei-m-mei [C]	ji-bi-jixu	*bi-bu-bixu
	soeng-m-soeng [C]		*zai-bu-zai	

Table 5: A-not-A formation in Mandarin

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## References

- Abels, Klaus. 2003. "Successive Cyclicity, Anti-locality, and Adposition Stranding." PhD diss., University of Connecticut.
- Aelbrecht, Lobke, and Liliane Haegeman. 2012. "VP ellipsis is not licensed by VP Topicalization." *Linguistic Inquiry* 43 (4): 591–614.
- Arregi, Karlos, and Gainko Molina-Azaola. 2004. "Restructuring in Basque and the Theory of Agreement." In *Proceedings of WCCFL 23*, edited by Vineeta Chand, Ann Kelleher, Angelo J. Rodríguez, and Benjamin Schmeiser, 43–56. Somerville, MA: Cascadilla Press.
- Bobaljik, Jonathan David, and Susi Wurmbrand. 2005. "The Domain of Agreement." *Natural Language and Linguistic Theory* 23 (4): 809–865.
- Bošković, Željko. 2014. "Now I'm a Phase, Now I'm Not a Phase: On the Variability of Phases with Extraction and Ellipsis." *Linguistic Inquiry* 45 (1): 27–89.
- Bowers, John. 1993. "The Syntax of Predication." *Linguistic Inquiry* 24 (4): 591–656.
- Bowers, John. 2002. "Transitivity." *Linguistic Inquiry* 33 (2): 183–234.
- Cheng, Lisa Lai-Shen, and Luis Vicente. 2013. "Verb doubling in Mandarin Chinese." *Journal of East Asian Linguistics* 22 (1): 1–37.
- Cheung, Lawrence Yam-Leung. 2009. "Dislocation focus construction in Chinese." *Journal of East Asian Linguistics* 18 (3): 197–232.
- Cinque, Guglielmo. 2003. "The Interaction of Passive, Causative and 'Restructuring' in Romance." In *The Syntax of Italian Dialects*, edited by Christina Tortora, 50–66. Oxford University Press.
- Embick, David, and Roumyana Izvorski. 1997. "Participle-Auxiliary Word Orders in Slavic." In *Formal Approaches to Slavic Linguistics (FASL): The Cornell Meeting 1995*, edited by Natasha Kondrashova, Wayles Browne, Ewa Dornisch, and Draga Zec, 4:210–239. Ann Arbor: Michigan Slavic Publications.
- Fujiwara, Yoshiki. 2018. "Argument ellipsis involves movement." In *Proceedings of the 55th Annual Meeting of the Chicago Linguistic Society*, 1–15. Chicago.
- Fukuda, Shin. 2008. "Two Syntactic Positions for English Aspectual Verbs." In *Proceedings of the 26th West Coast Conference on Formal Linguistics*, edited by Charles B. Chang and Hannah J. Haynie, 172–180. Somerville, MA: Cascadilla Proceedings Project.

- 
- Fukuda, Shin. 2012. "Aspectual verbs as functional heads: evidence from Japanese aspectual verbs." *Natural Language and Linguistic Theory* 30 (4): 965–1026.
- Grimshaw, Jane. 2005. *Words and Structure*. Standord, CA: CSLI Publications.
- Harizanov, Boris. 2019. "Head movement to specifier positions." *Glossa: a journal of general linguistics* 4 (1).
- Harwood, William. 2014. "Being progressive is just a phase: celebrating the uniqueness of progressive aspect under a phase-based analysis." *Natural Language and Linguistic Theory* 33 (2): 523–573.
- Huang, C.-T. James. 1993. "Reconstruction and the structure of VP: some theoretical consequences." *Linguistic Inquiry* 24 (1): 103–138.
- Huang, C.-T. James. 2017. *On finiteness and the architecture of complements in verbal and nominal domains*. Paper presented at the 11th International Workshop on Theoretical East Asian Linguistics, June 3-4, 2017, Taipei.
- Huang, C.-T. James, Audrey Yen-hui Li, and Yafei Li. 2009. *The syntax of Chinese*. Cambridge, MA: Cambridge University Press.
- Johnson, Kyle. 2001. "What VP ellipsis can do, and what it can't, but not why." In *The handbook of contemporary syntactic theory*, edited by Mark Baltin and Chris Collins, 439–479. Oxford: Blackwell Publishers.
- Law, Paul, and Juvénal Ndayiragije. 2017. "Syntactic Tense from a Comparative Syntax Perspective." *Linguistic Inquiry* 48 (4): 679–696.
- Lee, Tommy Tsz-Ming. 2017. "Defocalization in Cantonese right dislocation." *Gengo Kenkyu* 152:59–87.
- Lin, Tzong-Hong Jonah, Jia Chi Yu, and Tzu Ling Chen. 2018. "'Modifiers' as Verbs: The Case of Mandarin." *Studia Linguistica* 72 (3): 625–661.
- Lobeck, Anne. 1995. *Ellipsis: Functional Heads, Licensing and Identification*. New York: Oxford University Press.
- Matthews, Stephen, and Virginia Yip. 2011. *Cantonese: A Comprehensive Grammar*. 2nd. London: Routledge.
- Ramchand, Gillian, and Peter Svenonius. 2014. "Deriving the functional hierarchy." *Language Sciences* 46:152–174.

- 
- Sag, Ivan. 1976. "Deletion and logical form." PhD diss., Massachusetts Institute of Technology.
- Tsai, Wei-Tien Dylan. 2015. "On the Topography of Chinese Modals." In *Beyond Functional Sequence*, edited by Ur Shlonsky, 275–294. New York: Oxford University Press.
- Tsai, Wei-tien Dylan, and Ching-yu Helen Yang. 2015. "Inner vs. outer A-not-A questions." paper presented on International Workshop on Cartography of Syntax, Beijing Language / Culture University, December 6-7, 2015.
- Wurmbrand, Susi. 2001. *Infinitives: Restructuring and clause structure*. Mouton de Gruyter.
- Wurmbrand, Susi. 2013. "QR And Selection: Covert Evidence For Phasehood." In *Proceedings of the 42th annual meeting of the North East Linguistic Society*, edited by Stefan Keine and Shayne Sloggett, 619–632. Amherst, MA: GLSA.
- Wurmbrand, Susi. 2014. "Merge: A syntactic approach to selection." In *Minimalism and Beyond. Radicalizing the interfaces*, edited by Peter Kosta, Steven Franks, Teodora Radeva-Bork, and Lilia Schürcks, 130–166. Amsterdam: John Benjamins.