

Pseudogapping parameters

Yuyang Liu
Yale University

Tommy Tsz-Ming Lee
City University of Hong Kong

100th LSA Annual Meeting, New Orleans, LA



1 Introduction

This talk concerns *gapping* and *pseudogapping* (PG) (Levin 1979):

(1) *English*

a. *Gapping*

John **should eat** three apples, and Mary [~~should eat~~] four oranges.

b. *PG*

John should **eat** three apples, and Mary should [~~eat~~] four oranges.

Chinese languages have constructions resembling gapping and PG (Wei 2008):

(2) *Mandarin*

a. *Gapping-like construction*

Zhangsan **yinggai chi** san ge pingguo. Lisi Δ si ge juzi.

Zhangsan should eat three CLF apple Lisi four CLF orange

‘Zhangsan **should eat** three apples. Lisi [**should eat**] four oranges.’

(Tang 2001: 202, with ‘should’ added)

b. *PG-like construction*

Zhangsan yinggai **chi** san ge pingguo. Lisi yinggai Δ si ge juzi.

Zhangsan should eat three CLF apple Lisi should four CLF orange

‘Zhangsan should **eat** three apples. Lisi should [**eat**] four oranges.’

(3) *Cantonese*

a. *Gapping-like construction*

Zoengsaam **jinggoi sik** saam go pinggwō. Leisei Δ sei go caang.

Zoengsaam should eat three CLF apple Leisei four CLF orange

‘Zoengsaam **should eat** three apples. Leisei [**should eat**] four oranges.’

b. *PG-like construction*

Zoengsaam jinggoi **sik** saam go pinggwō. Leisei jinggoi Δ sei go caang.

Zoengsaam should eat three CLF apple Leisei should four CLF orange

‘Zoengsaam should **eat** three apples. Leisei should [**eat**] four oranges.’

We advance the view in (4).

(4) *First part of the proposal*

- a. Chinese gapping-like construction $\neq$ English gapping.
- b. Chinese PG-like construction $\neq$ English PG.
- c. Chinese gapping-like construction = Chinese PG-like construction = empty verb.
- d. Chinese does not allow a movement plus deletion derivation of gapping and PG.

With regard to the function of the empty verb, we propose that it is a pair-list copula in the sense of [Li 2025](#), albeit phonologically null:

$$(5) \quad \llbracket \emptyset_{\text{pair-list}} \rrbracket^c = [\lambda y. \lambda x. f^c(x) = y]$$

English PG is typically understood to involve moving the remnant (Move-R) followed by VP ellipsis (VPE) (e.g., [Jayaseelan 1990](#)):

(6) *Derivation of English PG*

John should **eat** three apples, and Mary should [four oranges]₁ ~~{eat t₁}~~.

A diagram illustrating the movement of the remnant. A horizontal line connects the underlined phrase "[four oranges]₁" to the ellipsis site "{eat t₁}". An upward-pointing arrow is at the left end of this line, and a downward-pointing arrow is at the right end, indicating the movement of the remnant from the ellipsis site to its new position.

If the view in (4) is true, then as a language that allows Move-R and VPE, Chinese raises a question of why it does not allow two mechanisms combined:

- (7) How is it the case that the following three claims hold simultaneously?
- English allows PG, composed of Move-R and VPE; while
 - Chinese allows Move-R and VPE, but
 - Chinese disallows PG.

In response to this question, we propose (8).

(8) *Second part of the proposal*

The availability of PG in a language results from a conspiracy of multiple “parametric” settings, which include:

- a. the availability of VPE;
- b. the availability and type of Move-R; and
- c. the [E] feature specification of Foc^0 .

Roadmap

- ii. Move-R plus deletion vs. empty verb
- iii. Phonologically null pair-list copula
- iv. PG typology
- v. Conclusion

2 Move-R plus deletion vs. empty verb

While PG is typically understood to involve Move-R followed by VPE, gapping has received multiple analyses:

- (9) *Large conjunct and Move-R plus deletion (e.g., Depiante 2000, Boone 2014)*

John **should eat** three apples, and Mary₁ [four oranges]₂ [_{TP} t₁ ~~should eat~~ t₂].



The diagram shows two curved arrows. The first arrow starts from the trace t_2 in the second clause and points to the verb 'eat' in the first clause. The second arrow starts from the trace t_1 in the second clause and points to the verb 'eat' in the second clause.

- (10) *Small conjunct and Move-R plus deletion (e.g., Coppock 2001, Lin 2002)*

John₁ **should** [_{XP} [_{VP} t₁ **eat** three apples]], and [_{XP} Mary₂ [four oranges]₃ [_{VP} t₂ ~~eat~~ t₃].



The diagram shows two curved arrows. The first arrow starts from the trace t_3 in the second clause and points to the verb 'eat' in the second clause. The second arrow starts from the trace t_2 in the second clause and points to the verb 'eat' in the first clause.

- (11) *Small conjunct and ATB verb movement (e.g., Johnson 1994, 2009, Tang 2001)*

John₁ **should eat**₂ [_{VP} t₁ t₂ three apples], and [_{VP} Mary t₂ four oranges].



The diagram shows two curved arrows. The first arrow starts from the trace t_2 in the second clause and points to the verb 'eat' in the first clause. The second arrow starts from the trace t_1 in the first clause and points to the verb 'eat' in the second clause.

- (12) *In-situ and selective spellout (e.g., Broekhuis 2018)*

John **should eat** three apples, and Mary [_{TP} ~~should eat~~ [four oranges]_F].

- This talk focuses on the Move-R plus deletion analyses (9–10), but the data may pose challenges for extending the other analyses to Chinese as well.
- In what follows, we present three groups of data that distinguish between the following two kinds of analyses of Chinese gapping-like and PG-like constructions.

(13) a. *Move-R plus deletion*

Lisi (should) [four CLF orange]₁ [~~eat~~ ~~t₁~~].



(cf. Cao 2014, Ye 2024)

b. *Empty verb*

Lisi (should) $\emptyset_{\text{pair-list}}$ four CLF orange.

(cf. Tang 2001)

2.1 Adjunct exclusion

English VPE and PG omit verbal adjuncts:

(14) *English VPE*

- a. Mary hasn't ***secretly* dated Bill**, but Sue has [~~***secretly* dated Bill**~~], #though not secretly.
- b. John should ***quietly* eat three apples**, and Mary should [~~***quietly* eat three apples**~~], too.

(15) *English PG*

- a. Mary hasn't ***secretly* dated Bill**, but Sue has [~~***secretly* dated**~~] John, #though not secretly. (Jayaseelan 1990: 64, adapted)
- b. John should ***quietly* eat three apples**, and Mary should [~~***quietly* eat**~~] four oranges.

Chinese VPE also omits verbal adjuncts:

(16) *Mandarin VPE*

Zhangsan yinggai **manman** chi san ge pingguo. Lisi ye yinggai Δ .

Zhangsan should slowly eat three CLF apple Lisi also should

‘Zhangsan should **slowly** eat **three apples**. Lisi should [**slowly** eat **three apples**], too.’

However, Chinese gapping-like and PG-like constructions do not omit adjuncts:

(17) a. *Mandarin gapping-like construction*

Zhangsan **yinggai** *manman* chi san ge pingguo.

Zhangsan should slowly eat three CLF apple

Lisi Δ si ge juzi.

Lisi four CLF orange

‘Zhangsan **should** *slowly* eat three apples.

Lisi [**should** (***slowly**) eat] four oranges.’

b. *Mandarin PG-like construction*

Zhangsan yinggai *manman* chi san ge pingguo.

Zhangsan should slowly eat three CLF apple

Lisi yinggai Δ si ge juzi.

Lisi should four CLF orange

‘Zhangsan should *slowly* eat three apples.

Lisi should [(*)**slowly**] eat] four oranges.’

- (18) Zhangsan keyi yikouqi **zuo** wushi ge fuwocheng.
Zhangsan can in.one.go do fifty CLF push.up
Lisi keyi Δ yibai ge, buguo zhongjian yao xiuxi yi xia.
Lisi can one.hundred CLF but in.between need take.a.break one time
'Zhangsan can **do** fifty push-ups in one go.
Lisi can [**do**] one hundred, but he needs to take a break in between.'

2.2 Resultative suffixes

Verbs with resultative suffixes *-de* (19) or *-dao* can be deleted.

- (19) (Zhe zhi wu,) Zhangsan (keyi) **tiao-de** hen haokan,
this CLF dance Zhangsan can dance-RES very beautiful
er Lisi que (keyi) Δ hen nankan.
and Lisi however can very ugly
'(This dance,) Zhangsan **dances/can dance** very beautifully,
but Lisi [**dances**]/[**can dance**] in a very ugly manner.'

However, resultative complements cannot move to a preverbal position:

(20) *Zhangsan [hen haokan]₁ (keyi) tiao-de t₁.

Zhangsan very beautiful can dance-RES

Intended: 'Zhangsan dances/can dance very beautifully.'

2.3 PG-like construction–licensing heads

Modals, some preverbal aspects (21a), and control verbs (21b) license VPE in Chinese (e.g., Lee & Pan 2024).

(21) a. *Mandarin preverbal aspect: ✓VPE*

Zhangsan you **manman chi san ge pingguo**. Lisi ye you Δ.

Zhangsan PFV slowly eat three CLF apple Lisi also PFV

‘Zhangsan **slowly ate three apples**. Lisi did [**slowly eat three apples**], too.’

b. *Mandarin control verb: ✓VPE*

Zhangsan xiang **manman chi san ge pingguo**.

Zhangsan want slowly eat three CLF apple

Lisi ye xiang Δ.

Lisi also want

‘Zhangsan wants to **slowly eat three apples**.

Lisi wants to [**slowly eat three apples**], too.’

A preverbal aspect does not allow Move-R to the preverbal position within its complement (22a), but a control verb does (22b).

(22) a. *Mandarin preverbal aspect: ✗Move-R*

*Zhangsan you [san ge pingguo]₁ manman chi t₁.

Zhangsan PFV three CLF apple slowly eat

Intended: 'Zhangsan slowly ate three apples.'

b. *Mandarin control verb: ✓Move-R*

Zhangsan xiang [san ge pingguo]₁ manman chi t₁.

Zhangsan want three CLF apple slowly eat

'Zhangsan wants to slowly eat three apples.'

- One might expect control verbs to allow PG(-like constructions), but not preverbal aspects.
- The prediction is borne out for preverbal aspects, but not control verbs, which turn out to disallow PG-like constructions:

(23) *Mandarin control verb: ✗PG-like construction*

Zhangsan xiang (**manman**) **chi** san ge pingguo.

Zhangsan want slowly eat three CLF apple

(*Lisi xiang Δ si ge juzi.)

Lisi want four CLF orange

'Zhangsan wants to (**slowly**) eat three apples.

(*Lisi wants to [(**slowly**) eat] four oranges.)'

Moreover, some other modals like *neng* ‘can’ do not allow PG-like constructions, either:

(24) *Mandarin neng* ‘can’: ~~XPG~~-like construction

Zhangsan neng (**manman**) chi san ge pingguo.

Zhangsan can slowly eat three CLF apple

(*Lisi neng Δ si ge juzi.)

Lisi can four CLF orange

‘Zhangsan can (**slowly**) **eat** three apples.

(*Lisi can [(**slowly**) **eat**] four oranges.)’

(25) a. Zhangsan yinggai **chi** san wan. Lisi yinggai Δ wu wan.

Zhangsan should eat three bowl Lisi should five bowl

‘Zhangsan should **eat** three bowls (of rice). Lisi should [**eat**] five bowls (of rice).’

(Wei 2008: 82)

b. Zhangsan neng **chi** san wan. (*Lisi neng Δ wu wan.)

Zhangsan can eat three bowl Lisi can five bowl

‘Zhangsan can **eat** three bowls (of rice). (*Lisi can [**eat**] five bowls (of rice).)’

(cf. Ye 2024)

	‘Should’/ <i>keyi</i> ‘can’	<i>Neng</i> ‘can’	Control verb	Pre-V Asp
VPE	✓	✓	✓	✓
Move-R	✓	✓	✓	✗
PG-like construction	✓	<u>✗</u>	<u>✗</u>	✗

3 Phonologically null pair-list copula

A phonologically null copula naturally captures the observations in the table. Modals like ‘should’ and *keyi* ‘can’ contrast with control verbs, preverbal aspects, and modals like *neng* ‘can’ in whether they can be immediately followed by a copula:

(26) a. ‘Should’: ✓ *Copula*

Zhangsan yinggai shi chi san ge pingguo.

Zhangsan should COP eat three CLF apple

‘Zhangsan should eat three apples.’

b. *Neng* ‘can’, control verb, or preverbal aspect: ✗ *Copula*

*Zhangsan neng/xiang/you shi chi san ge pingguo.

Zhangsan can want PFV COP eat three CLF apple

Intended: ‘Zhangsan can eat/wants to eat/ate three apples.’

As for the semantics of the copula, we suggest Li's (2025) pair-list copula:

$$(27) \llbracket \text{shi}_{\text{pair-list}} \rrbracket^c = [\lambda y. \lambda x. f^c(x) = y] \quad (\text{Li 2025: 44})$$

This copula is originally proposed for its use in pair-list answers (cf. Dayal 2002, 2016):

(28) Na ge laoshi jiao na men ke?
which CLF teacher teach which CLF class
'Which teacher teaches which class?' (Li 2025: 2)

a. Zhang laoshi jiao Yingwen. Li laoshi jiao shuxue.
Zhang teacher teach English Li teacher teach math
'Teacher Zhang teaches English. Teacher Li teaches Math.'

b. Zhang laoshi shi Yingwen. Li laoshi shi shuxue.
Zhang teacher COP English Li teacher COP math
'Teacher Zhang teaches English. Teacher Li teaches Math.' (Li 2025: 2)

4 PG typology

- The analysis proposed in [sections 2](#) and [3](#) is in favor of the position that Chinese does not allow PG.
- This section aims to provide an account for why Chinese might lack PG, while it does allow Move-R and VPE.

4.1 Japanese PG

- Japanese is argued to allow PG, alongside verb raising out of the ellipsis site (Kim 1997, Funakoshi 2016, Tanaka & Hayashi 2018).
- Evidence includes the recoverability of VP adjuncts (29), similar to English VPE.

(29) *Japanese*

John-wa NYU-ni-wa **han-toshi ryūgaku** su-ru-ga,

John-TOP NYU-at-TOP half-year study.abroad do-NPST-but

MIT-ni-wa Δ shi-na-i.

MIT-at-TOP do-NEG-NPST

‘John will **study abroad for half a year** at NYU,

but he won’t [**study abroad for half a year**] at MIT.’ (Tanaka & Hayashi 2018: 5)

- We adopt [Johnson's \(2008\)](#) view that Move-R in English PG is overt QR and attribute the lack of English-style PG in Chinese to its lack of overt QR (at least for nominals, cf. [Lee 2022](#)).
- We adopt [Tanaka & Hayashi's \(2018\)](#) view that Japanese Move-R is focus movement (30) and discuss why Chinese disallows Japanese-style PG in the next subsection.

(30) *Derivation of Japanese PG*

[_{TP} [_{FoCP} MIT-at-TOP₁ [_{VP} t₁ half-year study.abroad t₂]] do₂-NEG-NPST]



The diagram illustrates the derivation of Japanese PG. It shows a TP structure with a focus phrase (FoCP) and a VP. The focus phrase contains the phrase 'MIT-at-TOP₁' which has moved from its base position to the focus position, indicated by a curved arrow. The VP contains the phrase 't₁ half-year study.abroad t₂' where 't₁' is the trace of the moved focus phrase and 't₂' is the trace of the object 'half-year study.abroad'. The object 'half-year study.abroad' has moved to the object position, indicated by a curved arrow. The TP is headed by 'do₂-NEG-NPST'.

4.2 FocP licensing parameter

The absence of Japanese-style PG in Chinese can be accounted for by Lee's (2023) FocP licensing parameter (31), assuming that focus movement lands in a FocP that takes the VP to be elided as its complement.

(31) *FocP licensing parameter proposed in Lee 2023*

- a. A FocP is only licensed by a covert complement.
- b. A FocP is only licensed by an overt complement.

Japanese

Chinese

This can be implemented as a distinction in the feature specification of focus heads.

- Japanese Foc^0 must bear [E], whereas Chinese Foc^0 must not.
- Since Chinese Foc^0 does not bear [E], it cannot elide its complement after Move-R.

(32) *Chinese Foc^0 complement unelidable $\rightsquigarrow$ XPG*

*want [$_{\text{FocP}}$ [this cup milk] $_{\text{I}}$ [$_{\text{VP}}$ ~~slowly drink t_{I}~~]]



A horizontal line with a vertical arrow pointing up from the center to the underlined phrase "[this cup milk]_I". The line extends to the right, ending under the trace t_{I} in the phrase "[slowly drink t_{I}]", indicating movement of the trace to the focus phrase.

- This distinction in Foc^0 's feature specification is independently motivated by the observation that right dislocation (RD) of focused constituents is allowed in Japanese (33) but not in Chinese (34).
- We can treat RD of focused constituents as involving movement of the dislocated element to FocP followed by ellipsis in the second conjunct (35) under a biclausal analysis à la Yip 2025 a.o.

(33) *Japanese*

Kaet-te ki-ta yo inu-dake-wa.
 return-and come-PST SFP dog-only-TOP
 'Only the dog came back.'

(Nakagawa, Asao & Nagaya 2008: 5)

(34) *Chinese*

a. *Focus without RD: OK*

Zhiyou wo mai-le zhe ben shu la.
 only 1SG buy-PFV this CLF book SFP
 ‘Only I bought this book.’

b. *No focus in RD: OK*

Mai-le zhe ben shu la wo.
 buy-PFV this CLF book SFP 1SG
 ‘I bought this book.’

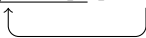
c. *Focus in RD: **

*Mai-le zhe ben shu la zhiyou wo.
 buy-PFV this CLF book SFP only 1SG

Intended: ‘Only I bought this book.’ (Lee 2023: 467, translated into Mandarin)

(35) *Chinese Foc^o complement unelidable $\rightsquigarrow$ ✗focus in RD*

*[_{TP} {only 1SG} buy-PFV this CLF book SFP] [_{FocP} [only 1SG]₁ [_{TP} t_I ~~buy-PFV this CLF book SFP~~]]



4.3 Full proposal

We argue that the (un)availability of PG in a language results from the interaction of multiple syntactic factors, including:

- the (un)availability of VPE;
- the (un)availability of overt QR;
- the (un)availability of focus movement; and
- whether Foc^0 bears [E].

Their interaction is illustrated in the table that follows, where empty cells indicate that the settings do not impact PG's availability.

Type (example)	I (English)	II (Japanese)	III (Chinese)	IV	V
VPE	✓	✓	✓	✓	✗
Move-R	✓overt QR	✓focus movement	✓focus movement	✗	
Foc ^o with [E]		✓	✗		
PG	✓	✓	✗	✗	✗

5 Conclusion

Takeaways

- Chinese gapping-like and PG-like constructions are not derived by Move-R plus deletion but by an empty pair-list copula.
- Chinese lacks English-style PG because it disallows overt QR, and it lacks Japanese-style PG because its Foc⁰ must not bear [E].