

Hyper-raising, evidentiality, and phase deactivation

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1 Introduction

Raising-to-subject out of a finite clause (hereafter *hyperraising*) displays cross-linguistic variations.

- hyperraising-disallowing languages: English, German, etc.
- hyperraising-allowing languages:
 - Greek (Alexiadou and Anagnostopoulou 1999), Japanese (Uchibori 2000), Spanish (Fernández-Salgueiro 2005), Brazilian Portuguese (Nunes 2008; Ferreira 2009), Nguni (Zeller 2006), Zulu (Halpert 2016, 2019), i.a, see also Ura (1994)

A standard approach to rule out hyperraising structures involves two components:

- **Locality:** elements exiting a CP must proceed via the Spec CP, i.e. an A'-position.
- **Chain type:** an A-A'-A chain is disallowed (i.e. the Ban on Improper Movement, Chomsky 1973; May 1979)

Attempts are made to relax the locality constraint in hyperraising-allowing languages.

- **The deficient-CP approach** (Alexiadou and Anagnostopoulou 1999; Uchibori 2000; Zeller 2006; Ferreira 2009):
some CPs are inherently non-phasal, if they lack some relevant properties of ordinary CPs
- **The conditioned phase deactivation approach** (Nunes 2008; Halpert 2016, 2019):
a CP ceases to be a phase if it stands in a particular syntactic relation with a higher head

Today's goal: to provide further evidence from attitude verbs in Cantonese and Vietnamese for the second approach.

- We observe that hyperraising is possible with a subset of attitude verbs.
- We suggest that these hyperraising-allowing verbs all encode indirect evidentiality.
- We propose that the indirect evidence component materializes as a syntactic feature that may void syntactic opacity, or metaphorically, *unlock* a phase.

Note: We do not attempt a unified account to all cases of hyperraising.

Take-home messages:

- **Phasehood as a dynamic properties.**

Locality requirement imposed on a domain are not static and can be (derivationally) voided via syntactic dependencies, echoing Richards (1998), Rackowski and Richards (2005), Nunes (2008), Dikken (2018), Stepanov (2012), Halpert (2016, 2019), and Preminger (2019).

- **The semantic dimension of raising predicates.**

The distribution of raising predicates in different languages may not be entirely idiosyncratic. There may be a non-trivial but less discussed semantic dimension (cf. Yoon 2007; Horn 2008; Şener 2007; Wurmbrand 2019).

Roadmap: §2.1 “Raising” attitude verbs; §2.2 Evidentiality; §2.3 Hyperraising; §3 Phase deactivation

2 Attitude verbs in Cantonese and Vietnamese

The empirical foundations:

§2.1: the matrix subject may be thematically unrelated to a subset of attitude verbs.

§2.2: such pattern correlates with the evidential encoding of the attitude verbs.

§2.3: the matrix subject displays standard movement properties.

2.1 An apparent raising pattern

We observe an apparent raising-to-subject pattern in Cantonese and Vietnamese.

(1) Baseline: transitive use

- | | | |
|----|---|------------|
| a. | Ngo gamgok/tengman waa coeng jyu m-wui ting | Cantonese |
| | I feel.like/hear C CL rain not-will stop | |
| | 'I feel like/hear that the rain will not stop.' | |
| b. | Tôi cảm giác/nghe nói rằng cơn mưa này sẽ không dừng | Vietnamese |
| | I feel.like/hear C CL rain this will not stop | |
| | 'I feel like/hear that the rain will not stop.' | |

Crucially, not all attitude verbs allow such pattern.

(3) Attitude verbs that disallow the “raising” use

- a. *coeng jyü **gamgok-dou/zidou** waa m-wui ting
CL rain feel-RESULT/know C not-will stop
Int.: 'It can be felt/ is heard that the rain will not stop.'
- b. *cơn mưa này **cảm-thấy/biết** rằng sẽ không dừng
CL rain this feel-RESULT/know C will not stop
Int.: 'It can be felt/is heard that the rain will not stop.'

The availability crosscuts the class of attitude verbs in Cantonese and Vietnamese.

Raising attitude verbs (RAVs)			Non-raising attitude verbs (NRAVs)		
<i>gloss</i>	Cantonese	Vietnamese	<i>gloss</i>	Cantonese	Vietnamese
‘feel like’	gamgok	cảm giác	‘feel-RESULT’	gamgok-dou	cảm-thấy
‘hear’	tengman/tenggong	nghe nói	‘hear-RESULT’	teng-dou	nghe-được
‘guess’	gugai	đoán (là)	‘guess-RESULT’	gu-dou	đoán-được
‘suspect’	waaiji	ngghi (là)	‘know’	zidou	biết
‘believe’	soengseon	tin (là)	‘remember’	geidak	nhớ
‘seem (lit. fear)’	paace/taipaa/paahai	e/sợ	‘think’	jingwai/gokdak	nghĩ/cho

Table 1: A (non-exhasutive) list of attitude verbs in Cantonese and Vietnamese

2.2 Evidentiality matters

We observe that RAVs form a homogeneous class in the sense that their clausal complement (i.e. the embedded proposition) is always based on **indirect evidence**.

- (4) RAVs are only compatible with *indirect* (i.e. inferring and reported) evidence

Context with reported evidence: Your friend told you that that Ming is playing piano in his home.

ngo {^{ok}**tengman**/ **#teng-dou**} Aaming taan-gan kam Cantonese

I hear hear-RESULT Ming play-PROG piano

‘I heard that Ming is playing piano.’

- (5) RAVs are incompatible with *direct* (i.e. attested) evidence

Context with direct evidence: It is 10°C. John went out without wearing a coat. Shivering, he said:

Tôi {**#cảm giác**/ ^{ok}**cảm-thấy**} bên ngoài rất lạnh Vietnamese

1SG feel.like feel-RESULT outside very cold

‘I feel that it is cold outside.’

Note: the evidence requirement is reminiscent of the one in epistemic modals (Fintel and Gillies 2010)

Raising attitude verbs (RAVs)			
<i>gloss</i>	Cantonese	Vietnamese	Evidential component
‘feel like’	gamgok	cảm giác	inferential
‘hear	tengman/tenggong	nghe nói	hearsay
‘guess’	gugai	đoán (là)	inferential
‘suspect’	waaiji	ngghi (là)	inferential
‘believe’	soengseon	tin (là)	inferential
‘seem (lit. fear)’	paace/taipaa/paahai	e/sợ	inferential

Table 2: Raising attitude verbs and the associated evidence component

Non-raising attitude verbs (NRAVs)			
<i>gloss</i>	Cantonese	Vietnamese	Evidential component
‘feel-RESULT’	gamgok-dou	cảm-thấy	direct sensory
‘hear-RESULT’	teng-dou	nghe-được	direct sensory
‘guess-RESULT’	gu-dou	đoán-được	direct sensory
‘know’	zidou	biết	factive
‘remember’	geidak	nhớ	factive
‘think’	jingwai/gokdak	nghĩ/cho	underspecified

Table 3: Non-raising attitude verbs and the associated evidence component

An interesting observation is that the evidential component can interact with (i) **verbal suffixes** and (ii) **negation**.

★ Crucially, an attitude verb may lose its “raising” use or acquire the “raising” use.

(i) Suffixes like *-dou/-được* can turn a RAV to a NRAV (cf. Matthews and Yip 2011).

Raising attitude verbs (RAVs)			Non-raising attitude verbs (NRAVs)		
<i>gloss</i>	Cantonese	Vietnamese	<i>gloss</i>	Cantonese	Vietnamese
‘feel like’	gamgok	cảm giác	‘feel-RESULT’	gamgok-dou	cảm-thấy
‘hear’	tengman/tenggong	nghe nói	‘hear-RESULT’	teng-dou	nghe-được
‘guess’	gugai	đoán (là)	‘guess-RESULT’	gu-dou	đoán-được

Table 4: A (non-exhasutive) list of attitude verbs in Cantonese and Vietnamese, partially repeated

Note: the other RAVs cannot take these suffixes for independent reasons.

(ii) the negation prefix *m-* can turn a RAV to a NRAV (cf. Yip 1988).

(6) RAV vs. *m*-RAV

Cantonese

- a. Aaming (**m-*)**soengseon** wui lai
Ming not-believe will come
Int.: 'It is (not) believed that Ming will come.'
- b. Aaming (**m-*)**waaji** jiging zaau-zo
Ming not-doubt already left
Int.: 'It is (not) doubted that Aaming already left.'

Note: the other RAVs cannot be prefixed by *m-* for independent reasons.

Interestingly, those suffixed perception verbs can take a post-verbal negation. In such case, they become RAVs again.

(7) RAV-dou vs. RAV-m-dou

Cantonese

a. coeng jyu { ***gu**-dou/ **gu**-m-dou } wui ting

CL rain guess-RESULT/ guess-not-RESULT will stop

Int.: 'It can (not) be guessed that the rain will stop.'

b. coeng jyu { ***gamgok**-dou/ **gamgok**-m-dou } wui ting

CL rain feel-RESULT/ feel-not-RESULT will stop

Int.: 'It can (not) be felt that the rain will stop.'

The negation can turn a NRAV to a RAV.

(8) NRAV vs. *m*-NRAV

Cantonese

- a. Aaming {***zidou**/ ^{ok}**m-zidou**} heoi-zo bin

Ming know/ not-know went where

Int.: 'Where Ming went is known/ not known.' (see also Yap and Chor [2014](#) for *m-zidou*)

- b. Aaming {***geidak**/ ^{ok}**m-geidak**} heoi-zo bin

Ming remember/ not-remember went where

Int.: 'Where Ming went is remembered/ not remembered.'

Interim summary:

- Attitude verbs come with different evidential components.
- Suffixes like *-dou/-được* overwrite this component with a direct one.
- Negation goes both direction: indirect \rightarrow direct; direct \rightarrow indirect
- Co-occurrence of both the suffix and negation can have a “canceling” effect.

Note: attitude verbs like *jingwai/nghĩ* ‘think’ whose evidential component is underspecified are compatible with direct and indirect evidence and their status is insensitive to the suffix and negation.

2.3 Hyperraising

Following much literature on hyperraising, standard diagnostic tests seek to show:

- Movement, not base generation
- A-movement, instead of A'-movement
- Movement out of a (finite) CP

A preview of the analysis:

- (9) An apparent “raising” use (repeated from 2a)

coeng jyü **gamgok/tengman** waa m-wui ting
CL rain feel.like/hear C not-will stop
‘It is felt/heard that the rain will not stop.’

Cantonese

- (10) Hyperraising: raising-to-subject out of a (finite CP)
S RAV [_{CP} C <S> V O]

2.3.1 Movement, not base generation

Island-sensitivity:

(11) Complex NP islands in Cantonese

*Aaming **tenggong** [waa [_{DP} <Aaming> jiging zau-zo ge siusik] hai gaa ge]
Ming hear C already left MOD rumor be false SFP
Int.: 'It is heard that the rumor that Ming already left is false.'

Preserving idiomatic meanings:

(12) Sentential idioms in RAV-constructions in Cantonese

ni-zek laaihaamou **gamgok** [waa <ni-zek laaihaamou> soeng sik tinngoju:k]
this-CL toad feel.like C want eat swan.meat
"It is felt that (s/he) is aiming at the moon." (lit.: 'It is felt that this toad wants to eat swan meat.')

2.3.2 A-movement, instead of A'-movement

A subject-object asymmetry:

(13) Movement that privileges subjects in Vietnamese

- a. Con bão này e [là <con bão này> sẽ làm đổ cái cây này]
CL hurricane that fear C will make.down CL tree this
'It is feared that that hurricane will perhaps blow down this tree.'
- b. ??cái cây này e [là cơn bão này sẽ làm đổ <rất nhiều cây>]
CL tree this fear C CL hurricane that will make.down
Int.: same as (a)

Binding possibilities:

(14) Vietnamese pronominal binding

a. *Impossible binding on pronouns*

*[Tuỳtheo xuất xứ của nó] tôi **nghe nói** [là mỗi viên kim cương sẽ có
according.to origin of it I hear.say C every CL diamond will have
độ sáng khác nhau]
luster different

Int.: 'According to its origin, I heard that every piece of diamond will have different lusters.'

b. *Possible binding on pronoun*

mỗi viên kim cương [tuỳtheo xuất xứ của nó] **nghe nói** [là <mỗi viên
every CL diamond according.to origin of it hear.say C
kim cương> sẽ có độ sáng khác nhau]
will have luster different

'According to its origin, I heard that every piece of diamond will have different lusters.'

(Lit.) 'Every piece of diamond, according to its origin, (I) heard, will have different lusters.'

2.3.3 Movement out of a (finite) CP

The presence of the overt complementizers (in many previous examples).

Distinct temporal specification:

(15) Different temporal adverbs in Cantonese

baan gei camjat **gugai** [CP gamjat wui ziufei]

CL flight yesterday guess today will depart.as.scheduled

‘Yesterday, the flight is guessed (i.e. estimated) to depart as scheduled today.’

Embedded topics:

(16) Embedded topics in Cantonese

Aaming **gamgok** [[_{TopicP} gam-do-ceot hei] <Aaming> zinghai tai-zo ni-ceot hei]

Ming feel.like so-many-CL film only watched this-CL film

‘It is felt that, among so many films, Ming only watched this one.’

3 The proposal

Taking stock,

- Hyperraising is possible in Cantonese and Vietnamese,
- ... but only a subset of attitude verbs allow such raising pattern,
- and these attitude verbs encode an indirect evidential component, which may interact with verbal suffixes and negation.

★ Direction: hyperraising is licensed by an feature encoding indirect evidence on attitude verbs.

- In NRAV cases, hyperraising is banned by Locality (e.g. PIC) + the Ban on Improper Movement
- In RAV cases, hyperraising is exceptionally allowed due to a syntactic dependency established between the verb and the CP, rendering the CP no longer a syntactic domain (e.g. a phase).

3.1 Implementation

We propose a syntactic feature, [EV]/[uEV], which is responsible for marking **indirect** evidence.

- An (embedded) clause optionally comes with an interpretable [EV] feature.
- RAVs carry the uninterpretable counterpart [uEV], which agrees with the CP.

We suggest that it is this Agree relation that renders subsequent raising possible.

- Following the Principle of Minimal Compliance (Richards 1998), the locality requirement on a particular probe is deactivated on its second Agree.
- RAVs, first agreeing with a CP on [EV], can further probe down into the CP for the subject.
- Accordingly, the subject may move across the CP boundary, which is otherwise disallowed without a prior Agree relation.

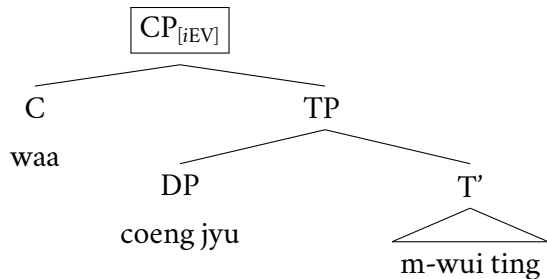
This idea has its root in Rackowski and Richards (2005), Nunes (2008), and Halpert (2016, 2019), with the only difference being the feature in the first Agree operation.

We illustrate this idea step by step with the following example:

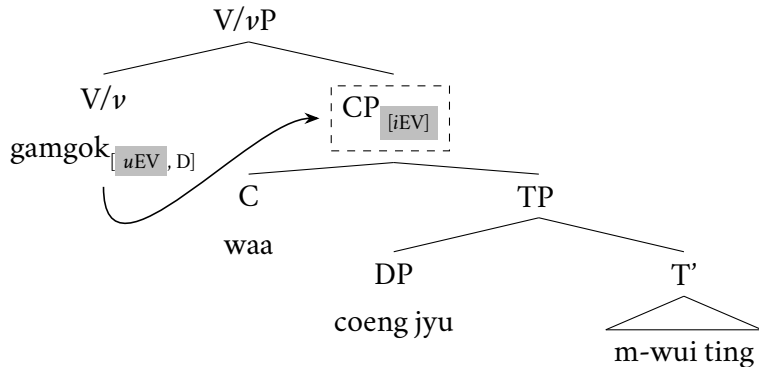
- (17) coeng jyu **gamgok** waa m-wui ting
CL rain feel.like C not-will stop
‘It is felt that the rain will not stop.’

Cantonese

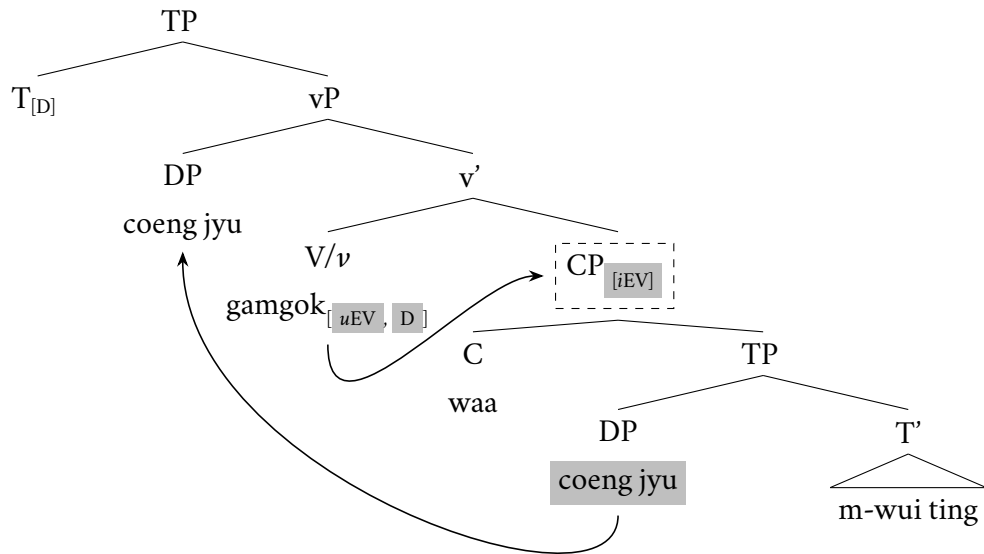
- (18) Step 1: Building the complement CP with the [EV] feature



- (19) Step 2: The matrix verb agrees with its complement CP in terms of the [EV] feature



(20) Step 3: The embedded subject is attracted and moves out of the unphased CP



3.2 Alternative analyses

Another way to relax the locality requirement imposed by CPs:

- **The deficient-CP approach** (Alexiadou and Anagnostopoulou 1999; Uchibori 2000; Zeller 2006; Ferreira 2009):
some CPs are inherently non-phasal, if they lack some relevant properties of ordinary CPs
- In our cases, one may suggest that CPs with indirect evidence are non-phasal, as opposed to CPs with other evidence types.
- Verbs like *jingwai/nghī* ‘think’ (underspecified for direct or indirect evidence) are predicted to allow hyperraising, given appropriate contexts, but this is not the case.

(21) *Context with reported evidence: Your friend told you that that Ming is playing piano in his home.*

*Aaming **jingwai** <Aaming> taan-gan kam Cantonese
Ming think play-PROG piano
‘It is thought that Ming is playing piano.’

Instead of focusing on the locality requirement, a line of research reformulates the nature of Spec CP.

- **Featural distinction on A/A'-positions** (Obata and Epstein 2011; Van Urk 2015; Alboiu and Hill 2016; Fong 2019):
a Spec CP position may be in fact an A-position (or a hybrid one).
- In effect, the chain involved in hyperraising becomes A-A-A, a “proper” movement chain.
- Evidence for this approach includes
 - (i) Overt realization of the intermediate copy
 - (ii) Agreement with C
- ... both of which are lacking in Cantonese and Vietnamese.
- It is also unclear how to build the evidential distinction between two classes of attitude verbs into this approach.

Another possibility is to abandon the Ban on Improper Movement.

- The previous two approaches preserve the Ban on Improper Movement, which does not follow from general principles of the grammar.
- Its status as an empirical generalization is also challenged (Keine [2019](#), [2020](#); Kobayashi [2020](#)).
- Space reasons prevent us from discussing this possibility in details, but encoding the sensitivity to evidentiality may be a non-trivial task.
- A Horizon-based approach (Keine [2019](#), [2020](#)) may allow enough flexibility to allow hyperraising structures, but the question is as how to regulate the distribution of different horizons on attitude verbs.

4 Concluding remarks

Implications on syntactic locality, particularly, phasehood:

- **Phasehood as a *dynamic* property**

Phasal properties are inherent to some maximal projections but these properties interact with other operations during the syntactic derivation.

- phase deactivation (Rackowski and Richards 2005; Nunes 2008; Halpert 2016, 2019);
- phase relocation (Gallego and Uriagereka 2006; Gallego 2010; Dikken 2006; Den Dikken 2007; Stepanov 2012);
- contextual assignment of phasehood (Bošković 2014);
- phase removal (Pesetsky 2019)

Implications on the semantic dimension of raising:

- **A non-idiosyncratic distribution of raising predicates.**

The correlation between evidentiality and raising possibilities suggests that the distribution of raising predicates across languages is not entirely idiosyncratic.

- Raising possibilities are argued to be sensitive to:
 - topic-hood of the raised DP in Turkish (Şener 2007);
 - predicative properties in Korean and Japanese (Yoon 2007; Horn 2008);
 - thematic configuration of the matrix predicates in English (Wurmbrand 2019)
- Potential evidence for the connection between raising and evidentiality:
 - Romanian raising-to-object specifies the source of evidence (Alboiu and Hill 2016);
 - various hyperraising structures in Japanese involve verbs like ‘happen’, ‘seem’, ‘thinking’, ‘think (spontaneously)’, etc. (Uchibori 2000, 2001; Tanaka 2002; Takahashi and Uchibori 2003; Kawai 2006)

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