

# ***Selection and the Unergative- Unaccusative Contrast***

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**Unergative predicates: Architecture and variation**

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- One way to represent the unergative-unaccusative contrast in Mandarin Chinese: s-selection
- One way of s-selection resolution: movement

A known fact:

Unlike other kinds of verb (e.g., raising, ECM verbs),

unaccusatives (aka plain/pure Vunacc)

unergative verbs (Vunerg)

change-of-state verbs (Vcos)

c-select [N] exclusively

Two new claims:

- Unaccusatives s-select a DP of type  $\langle e, t \rangle$ ,  
but the other two types of intransitives reject such a DP.
- C-selection violation is fatal,  
but s-selection violation can be rescued.

# 1. Predicate nominals

- A test for property-denoting elements:

X denotes a property if it can appear in the constructions *be/seem X*, *consider this X*, *regard this as X* (and other “evaluative” verbs) (Zamparelli 2005: 927).

● Predicate nominals are seen in (3) (Poole 2017).

- |     |    |  |                           |
|-----|----|--|---------------------------|
| (3) | a. | There is [a potato] <sub>&lt;e,t&gt;</sub> in the pantry.  | Existential constructions |
|     | b. | Megan painted the house [magenta] <sub>&lt;e,t&gt;</sub> . | Change-of-color verbs     |
|     | c. | Irene called the cat [Snowflake] <sub>&lt;e,t&gt;</sub> .  | Naming verbs              |
|     | d. | Erika became [a teacher] <sub>&lt;e,t&gt;</sub> .          | Predicate nominals        |

## Properties of predicate nominals (Poole 2017):

- |     |    |  |      |
|-----|----|--|------|
| (1) | a. | They do not undergo topicalization             | No T |
|     | b. | They are not pronominalized                    | No P |
|     | c. | They do not have a wide scope                  | No W |
|     | d. | They are not in a strong quantificational form | No S |
- 
- |     |    |  |                           |
|-----|----|--|---------------------------|
| (2) | a. | * [A potato] <sub>1</sub> , there is <u>  </u> <sub>1</sub> in the pantry. |                           |
|     | b. | *There is it in the pantry.  |                           |
|     | c. | There aren't two tractors in the barn.                                     | ✓ not >> two; *two >> not |
|     | d. | *There is/are {each/every/most/both} potato(es) in the pantry.             |                           |

## 2. Transitive verbs that select predicate nominals

- Property arguments of verbs can be either [N] or [A].

- (1)      a.      turn introverted  
          b.      \*turn an introvert

*become, consider*: either [A] or [N] compl.      (Partee 2002: 360)

- (2) I consider him {truly Swedish / a true Swede}. (Zamparelli 2005: 927)

- Not many verbs select predicate nominals.

∴ <e,t> is the unmarked type for VPs, AdjPs, and many PPs,  
but it is a marked type for NPs      (Partee 2002: 378)

- In Chinese, verbs of becoming (*dang* ‘become’, *chengwei* ‘become’, *biancheng* ‘become’) c-select [N] exclusively.

- (1)    LiNa    dang-le      {laoshi/\*youyong}.    [NP/\*AP]  
      LiNa    become-PRF    teacher/\*useful  
      ‘LiNa becomes a teacher.’

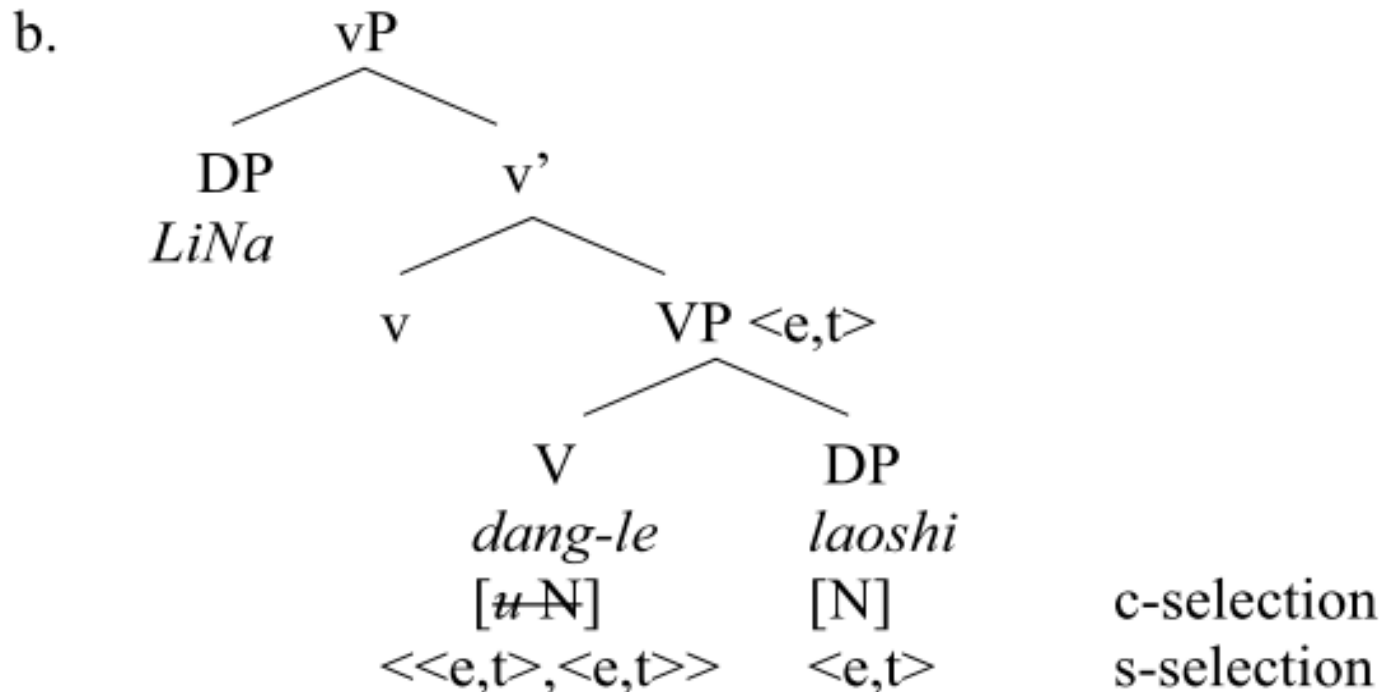
● The selected nominals

- a. do not undergo topicalization (7),
- b. are not pronouns (including *pro* object, which refers to a topic; Huang 1989) (8),
- c. have a narrow scope (9),
- d. are not in a strong quantificational form (10).

- (7) \*Laoshi<sub>i</sub>, wo zhidao LiNa dang-le \_<sub>i</sub>. [\*Topicalization]  
 teacher 1SG know LiNa become-PRF
- (8) \*LiNa dang-le ta. [\*Pron]  
 LiNa become-PRF 3SG
- (9) LiNa meiyou biancheng yi-ge laoshi.  
 LiNa not become one teacher  
 ‘LiNa dis not become a teacher.’  
 Neg>>yi-ge laoshi; \*yi-ge laoshi>>Neg [\*W-Scope]
- (10) \*LiNa dang-le meige laoshi. [\*Strong Q-indef]  
 LiNa become-PRF every teacher

# Such verbs s-select predicate nominals

- (11) a. LiNa dang-le laoshi.  
 LiNa become-PRF teacher  
 'LiNa becomes a teacher.'



# The possible forms of predicative nominals

bare NP,  
CL-initial,  
*yi*-initial

- (12)
- |    |      |            |         |         |         |
|----|------|------------|---------|---------|---------|
| a. | LiNa | dang-le    | laoshi. |         |         |
|    | LiNa | become-PRF | teacher |         |         |
| b. | LiNa | dang-le    | ge      | laoshi. |         |
|    | LiNa | become-PRF | CL      | teacher |         |
| c. | LiNa | dang-le    | yi      | ge      | laoshi. |
|    | LiNa | become-PRF | one     | CL      | teacher |
- All (a, b, c): 'LiNa becomes a teacher.'



# Where are we now?

1. Predicate nominals ✓
2. Transitive verbs that select such nominals ✓
3. Three types of intransitive and such nominals
  - 3.1 Unergative verbs and predicate nominals
  - 3.2 Change-of-state verbs and predicate nominals
  - 3.3 Unaccusative verbs and predicate nominals
4. Analysis
5. Theoretical discussion
6. Conclusion

## 3.1 Unergatives and predicate nominals

A predicate nominal never occurs as an external argument.

- (17) a. \*Yi ge ren xiao-le.  
          one CL person laugh-PRF
- b. \*Xiao-le yi ge ren.  
          laugh-PRF one CL person
- c. \*Zheli xiao-le yi ge ren.  
          here laugh-PRF one CL person

Other unergative verbs:

*shui* 'sleep', *ku* 'cry', *kesou* 'cough', *gongzuo* 'work'

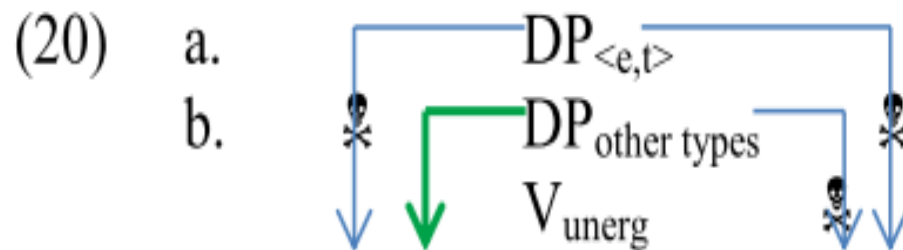
The unique argument of a Vunerg does not have the properties of predicate nominals

- (18) a. Ta xiao-le. [Pron]  
3SG laugh-PRF  
'{He/She} laughed.'
- b. Meige ren dou xiao-le. [Strong Q-indef]  
every person all laugh-PRF  
'Everyone laughed.'

● Unergatives reject predicate nominals.

● The position of the right type of argument:  
preverbal only (Li 1990)

- (19) a. Na ge ren xiao-le.  
that CL person laugh-PRF  
'That person laughed.'
- b. \*Zheli xiao-le na ge ren.  
here laugh-PRF that CL person



It is generally assumed that such an argument is base-generated at Spec of vP.

## 3.2 Change-of-state intransitives and predicate nominals

The same pattern as unergatives

- (21)
- |    |          |          |          |           |           |
|----|----------|----------|----------|-----------|-----------|
| a. | *Yi      | ge       | bingbang | hua-le.   |           |
|    | one      | CL       | popsicle | melt-PRF  |           |
| b. | *Hua-le  | yi       | ge       | bingbang. |           |
|    | melt-PRF | one      | CL       | popsicle  |           |
| c. | *Wan-li  | hua-le   | yi       | ge        | bingbang. |
|    | bowl-in  | melt-PRF | one      | CL        | popsicle  |

Other such verbs:

*dong* 'freeze', *duan* 'break', *xiaotui* 'fade', *pengzhang* 'expand',  
*lan* 'rotten', *lie* 'crack'

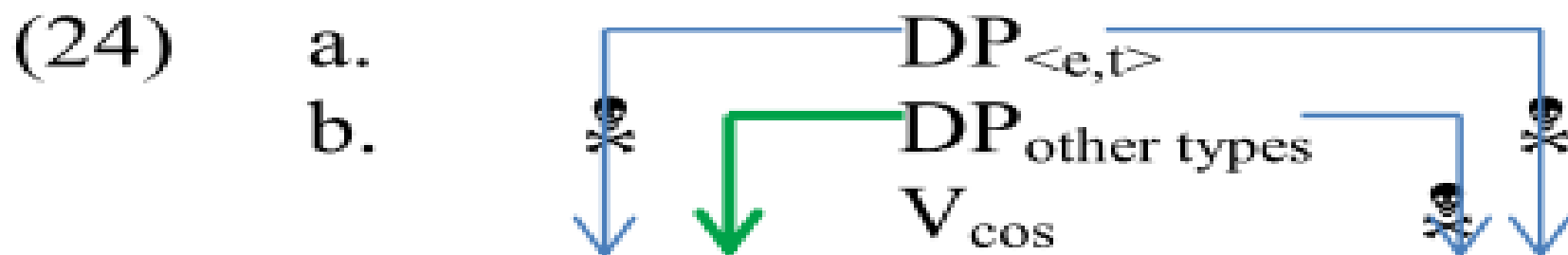
The unique argument of a Vcos does not have  
the properties of predicate nominals

- (22) a. Ta hua-le. [Pron]  
3SG melt-PRF  
'It has melted.'
- b. Meige bingbang dou hua-le. [Strong Q-indef]  
every popsicle all melt-PRF  
'Every popsicle has melted.'

● Change-of-state intransitives reject predicate nominals.

- The position of the right type of argument: preverbal only (= unergative pattern)

- (23) a. Na ge bingbang hua-le.  
 that CL popsicle melt-PRF  
 'That popsicle has melted.'
- b. \*Wan-li hua-le na ge bingbang.  
 bowl-in melt-PRF that CL popsicle



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### 3.3 Unaccusative verbs and predicate nominals

A type-position correlation

In Chinese, a Vunacc is either followed by a nonspecific theme or preceded by a theme of another semantic type.

- (25) a. (Jia-li) lai-le {yi ge ren /\*LiNa}.  
home-in come-PRF one CL person / LiNa  
'A person has come (to the home).'
- b. {LiNa / \*Yi ge ren} lai-le.  
LiNa / one CL person come-PRF  
'LiNa has come.'

Other such verbs: *si* 'die', *chuxian* 'appear', *dao4* 'arrive', *dao3* 'fall', *pao* 'escape', *fei* 'fly away', *chen* 'sink', *liu* 'escape, leave secretly', *fasheng* 'happen'

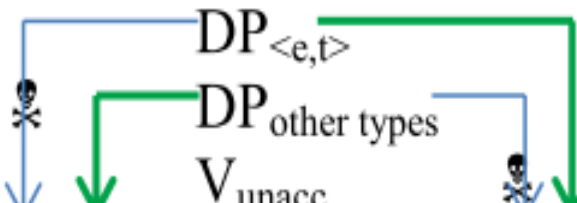
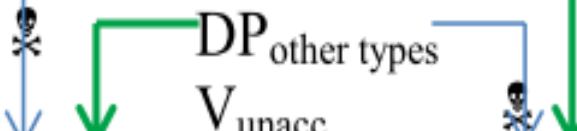
The DP following a Vunacc exhibits the properties of a predicate nominal

- (26) a. \*Yi-ge xiaohai<sub>i</sub>, wo zhidao lai-le <sub>i</sub>. [\*Topicalization]  
 one kid 1SG know come-PRF  
 b. \*Lai-le ta. [\*Pron]  
 come-PRF 3SG  
 c. Jia-li mei lai-guo yi-ge ren.  
 home-in not come-EXP one person  
 'No one has come to the home.'  
 Neg>>*yi-ge ren*; \**yi-ge ren*>>Neg [\*W-Scope]  
 d. \*Lai-le meige ren. [\*Strong Q-indef]  
 come-PRF every person

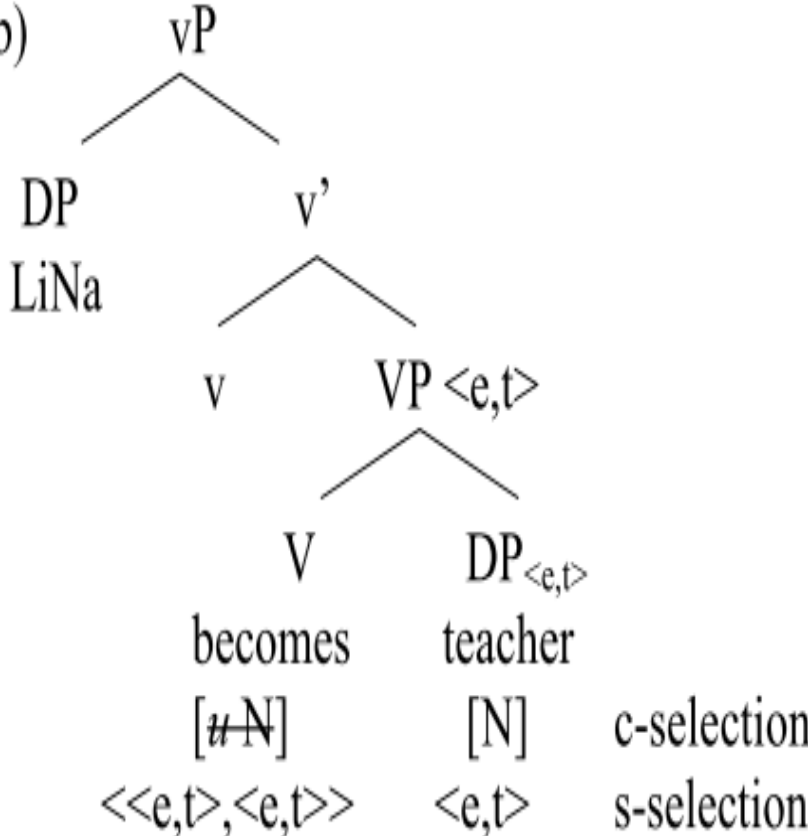
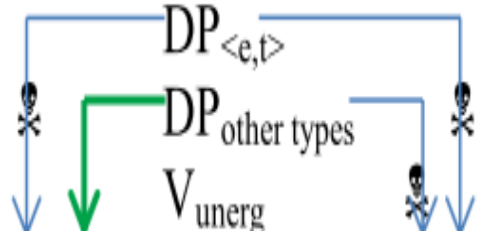

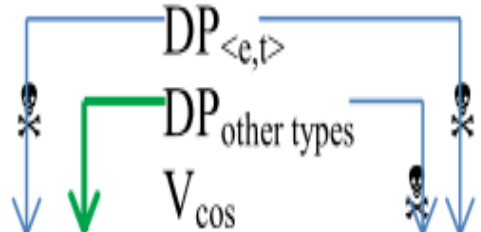

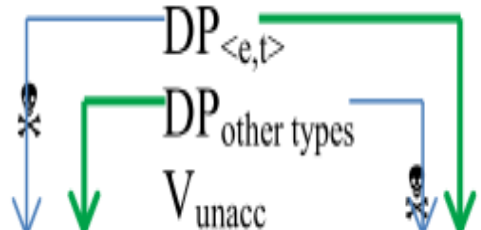
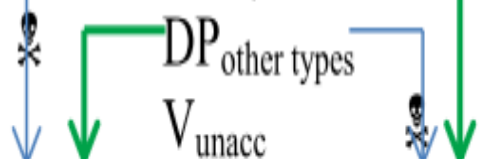
# The DP preceding a Vunacc does not exhibit the properties of a predicate nominal

- (27) a. Nage ren<sub>i</sub>, wo zhidao i lai-le. [Topicalization]  
 that person 1SG know come-PRF  
 ‘That person, I know he has come.’
- b. Ta lai-le. [Pron]  
 3SG come-PRF  
 ‘{It/He/She} has come.’
- c. Meige ren dou lai-le. [Strong Q-indef]  
 every person all come-PRF  
 ‘Everyone has come.’

Generalization:

- (28) a.   
 b. 

(29) Summary

transitive	intransitive
<p>(11b)</p>  <p>             DP LiNa           </p> <p>             vP              v'              v VP &lt;e,t&gt;              V DP &lt;e,t&gt;              becomes teacher              [<del>#N</del>] [N]              &lt;&lt;e,t&gt;, &lt;e,t&gt;&gt; &lt;e,t&gt;           </p> <p>c-selection s-selection</p>	<p>(20)</p> <p>a.</p>  <p>b.</p>  <p>             DP &lt;e,t&gt;              DP other types              V<sub>unerg</sub> </p> <p>(24)</p> <p>a.</p>  <p>b.</p>  <p>             DP &lt;e,t&gt;              DP other types              V<sub>cos</sub> </p> <p>(28)</p> <p>a.</p>  <p>b.</p>  <p>             DP &lt;e,t&gt;              DP other types              V<sub>unacc</sub> </p>

# 4. Analysis

4 parts

**Part A** S-selection: a Vunacc in Chinese s-selects  $\langle e, t \rangle \neq$  other intransitives.

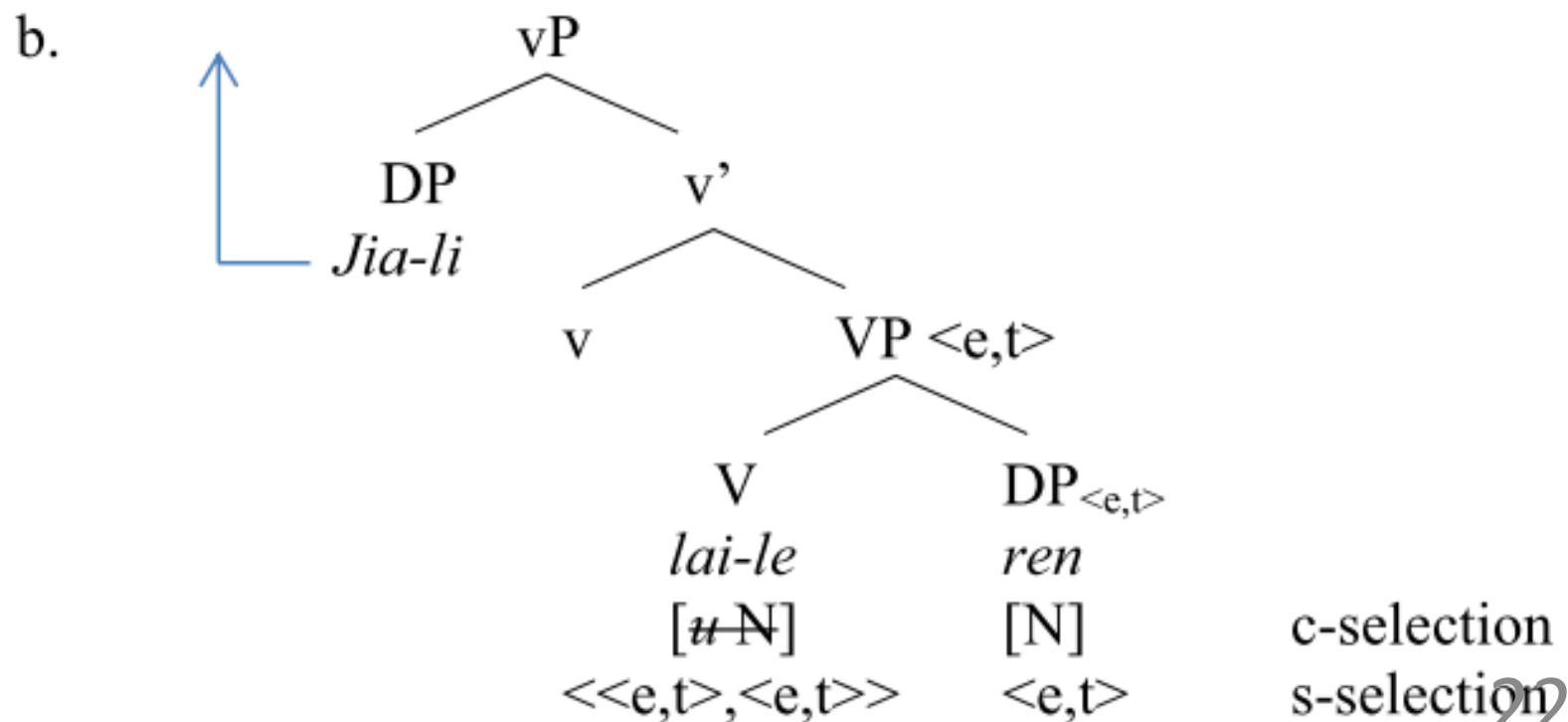
Thus, at the VP-level, a Vunacc is similar to a verb of becoming in the language.

transitive	intransitive
<p>(11b)</p> <p>DP LiNa</p> <p>vP</p> <p>v'</p> <p>v</p> <p>VP <math>\langle e, t \rangle</math></p> <p>V</p> <p>becomes</p> <p><math>[\neq N]</math></p> <p><math>\langle \langle e, t \rangle, \langle e, t \rangle \rangle</math></p> <p>DP <math>\langle e, t \rangle</math></p> <p>teacher</p> <p><math>[N]</math></p> <p><math>\langle e, t \rangle</math></p> <p>c-selection</p> <p>s-selection</p>	<p>(20)</p> <p>a.</p> <p>b.</p> <p>DP <math>\langle e, t \rangle</math></p> <p>DP other types</p> <p>V<sub>unerg</sub></p> <p>(24)</p> <p>a.</p> <p>b.</p> <p>DP <math>\langle e, t \rangle</math></p> <p>DP other types</p> <p>V<sub>cos</sub></p> <p>(28)</p> <p>a.</p> <p>b.</p> <p>DP <math>\langle e, t \rangle</math></p> <p>DP other types</p> <p>V<sub>unacc</sub></p>

If a DP in its base-position satisfies both the c- and s-selection of the verb, no s-selection resolution is needed.

V<sub>unacc</sub>: a predicate nominal follows a V<sub>unacc</sub>

- (30) a.      Jia-li                      lai-le                      ren.  
                  home-in                      come-PRF                      person  
                  ‘{A person has/Some persons have} come to the home.’

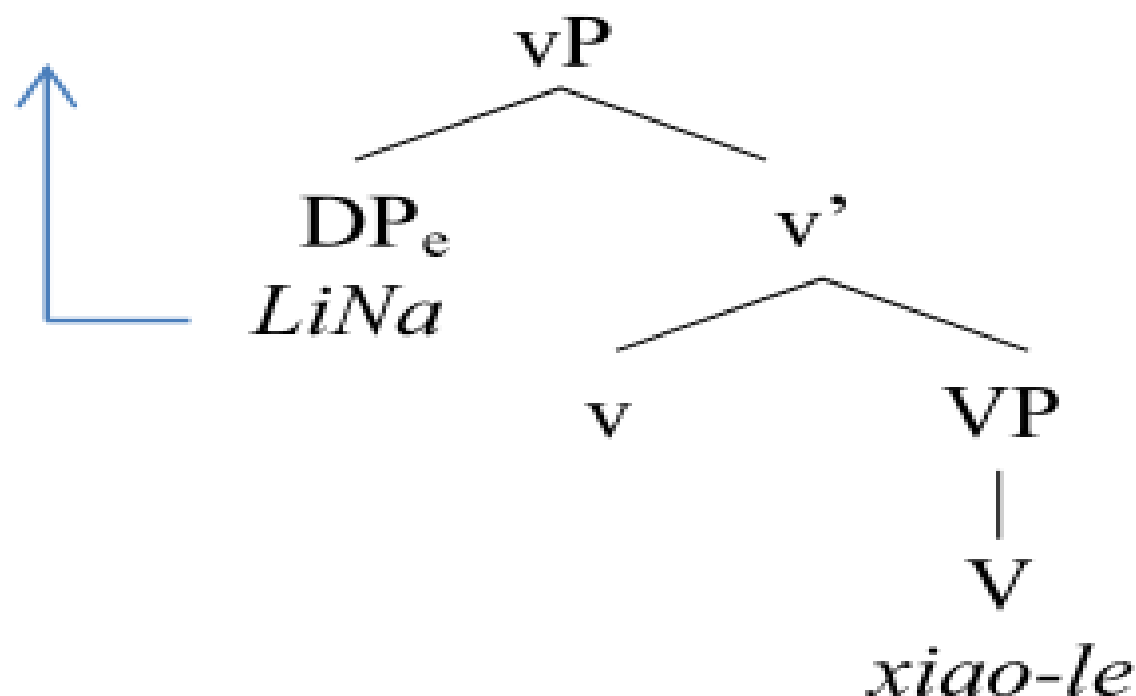


Vunerg

(31) a.

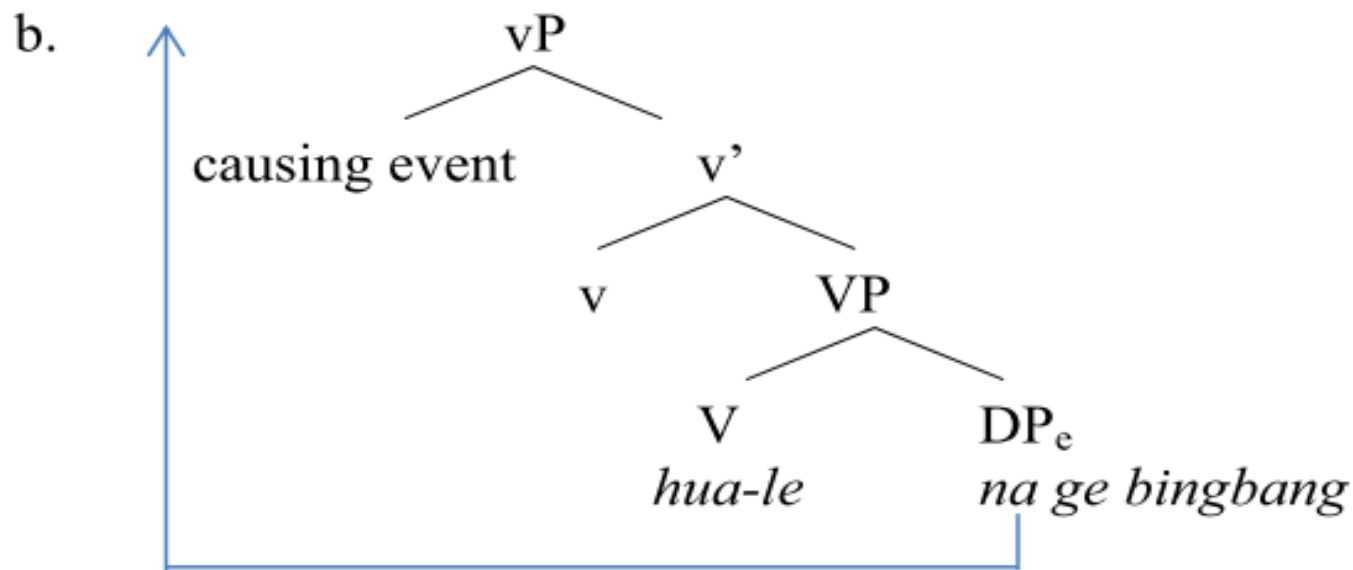
LiNa xiao-le.  
LiNa laugh-PRF  
'LiNa laughed.'

b.



Vcos

- (32) a. Na ge bingbang hua-le.  
that CL popsicle melt-PRF  
'That popsicle has melted.'



Spec of vP of a Vcos construction is taken by an external argument, which is the causing event (Deal 2009: 299).

\*There slowed a train on the eastbound track.

A train slowed on the eastbound track.

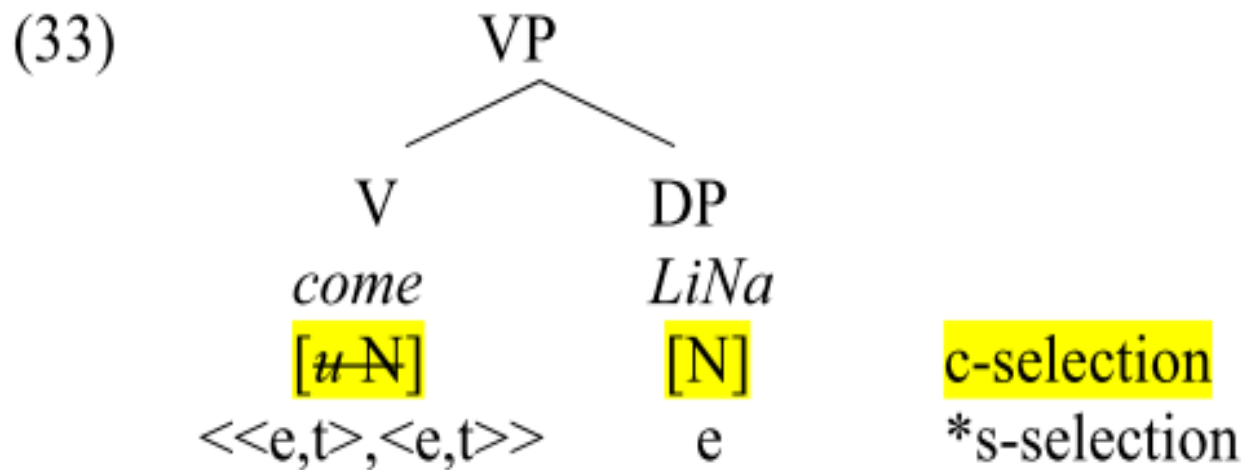
The possible A-movement of the internal argument shows that the null event argument has no [N] feature.



The c-selection of a verb must be satisfied.

- (34) a. We loaded hay onto the wagon. (Speas 2000)  
b. We loaded the wagon with hay.
- (35) a. We loaded hay all day.  
b. We loaded the wagon.  
c. \*We loaded onto the wagon.  
d. \*We loaded with hay.  
e. \*We loaded onto the wagon with hay.
- (36) a. John hit the table with the cricket bat.  
b. John hit the cricket bat against the table.
- (37) a. Wo ba xiangzi zhuang-le shu.  
I BA box fill-PRF book  
'I filled the box with books.'
- b. Wo ba shu zhuang-le xiangzi.  
I BA book fill-PRF box  
'I put the books into the box.'
- c. \*Wo ba {xiangzi/shu} zhuang-le.  
I BA box/book fill-PRF

**Part B** The low-position of the argument of Vunacc and Vcos  
 If a wrong semantic type of argument occurs with a Vunacc,  
 it is merged with the verb to satisfy the c-selection of the verb.  
 ● Thus, the complement position is filled.



● Evidence comes from the non-canonical objects (NCOs)  
 (e.g., Lin 2001; Li 2014; Zhang, to appear)  
 A NCO follows a verb, like a direct object, but it does not denote a theme.

● No NCO may occur with a Vunacc

# Vunerg

- (45) a. LiNa zai baitian shui.  
 LiNa at daytime sleep  
 b. LiNa shui baitian . [NCO: Time]  
 LiNa sleep daytime  
 Both: 'LiNa sleeps in daytime.'

# Vunacc

- (46) a. LiNa zai baitian lai.  
 LiNa at daytime come  
 'LiNa comes in daytime.'  
 b. \*LiNa lai baitian. [NCO: Time]  
 LiNa come daytime  
 Intended: 'LiNa comes in daytime.'

# Vunerg

- (47) a. LiNa yong jia-yin chang.  
 LiNa with fake-voice sing  
 'LiNa sings falsetto.'  
 b. LiNa chang jia-yin. [NCO: manner]  
 LiNa sing fake-voice  
 Both: 'LiNa sings falsetto.'

# Vunacc

- (48) a. LiNa yong jia-huzhao tao.  
 LiNa with fake-passport escape  
 'NiNa escaped with a fake passport.'  
 b. \*LiNa tao jia-huzhao. [NCO: manner]  
 LiNa escape fake-passport  
 Intended: 'LiNa escaped with a fake passport.'

⇒ The complement position of Vunacc is not available for a NCO.

⇒ The wrong type of DP starts from this position.

Vcos does not allow a NCO, as expected.

- (49) a.    Na    tiao    he    zai    dongtian    hui    dong.  
          that   CL    river   at    winter        will   freeze  
          ‘that river will be frozen in the winter.’
- b.    \*Na    tiao    he    hui    dong    dongtian.  
          that   CL    river   will   freeze   winter

The selected DP starts from the complement position of the verb

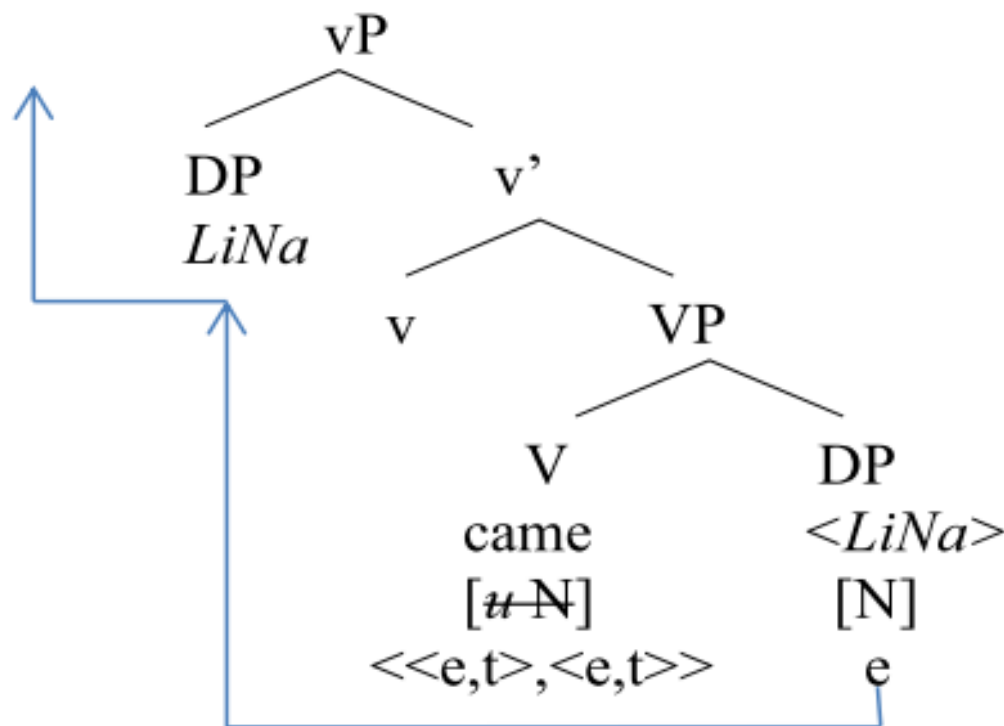
## Part C On the wrong type of argument

If a wrong type of argument occurs with a Vunacc, it does not satisfy the s-selection of the verb. ☹️

However, movement can avoid a problem in merger. 😊

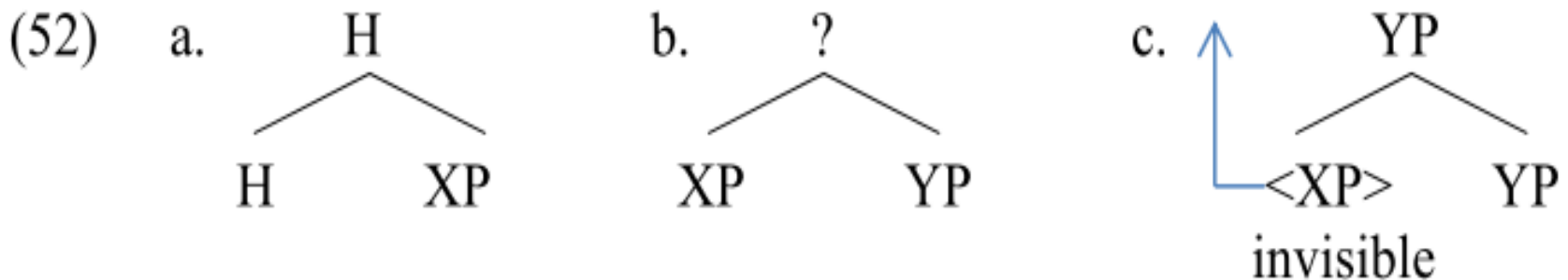
- (50) a. LiNa lai-le.  
LiNa come-PRF  
'LiNa came.'

b.



c-selection  
\*s-selection

- Syntactically, extending Chomsky's (2013: 44) idea in labeling, the "trace" is part of a discontinuous element, hence invisible to the s-selection of the verb, as well as to labeling.
- This move-to-avoid-trouble strategy is similar to Chomsky's (2013: 43) movement strategy to solve a syntactic labelling problem between two phrasal sisters.



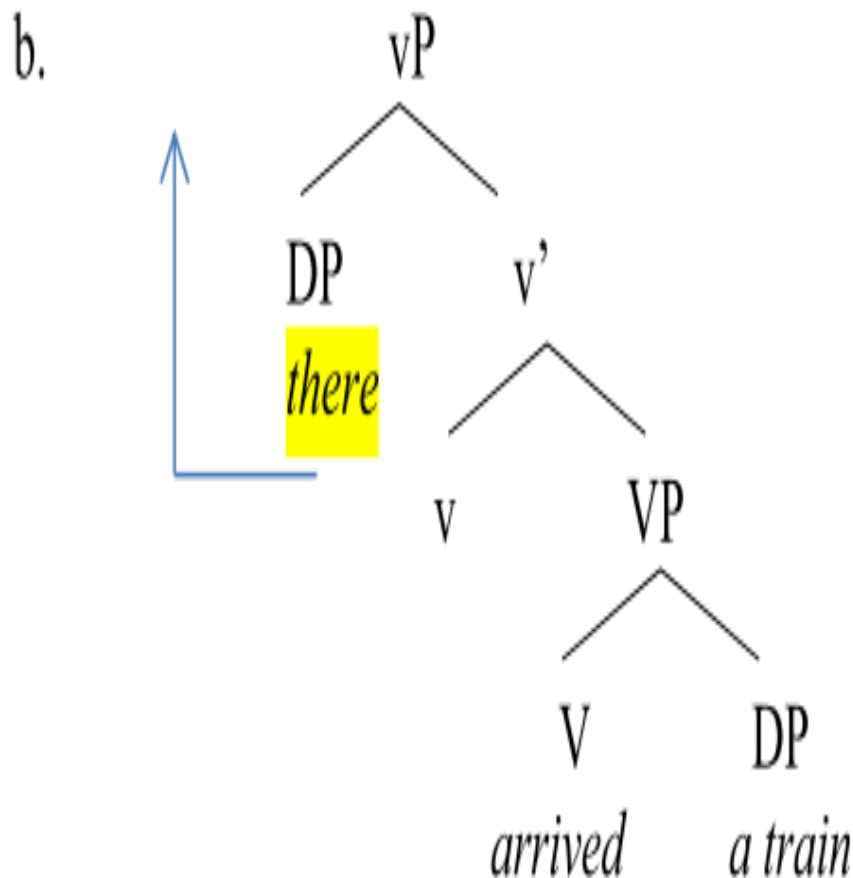
- The wrong type of arg. for a Vunacc is invisible in the base-position.
  - What about the wrong type of arg. for other types of intransitives?
- =>

## Part D The locality

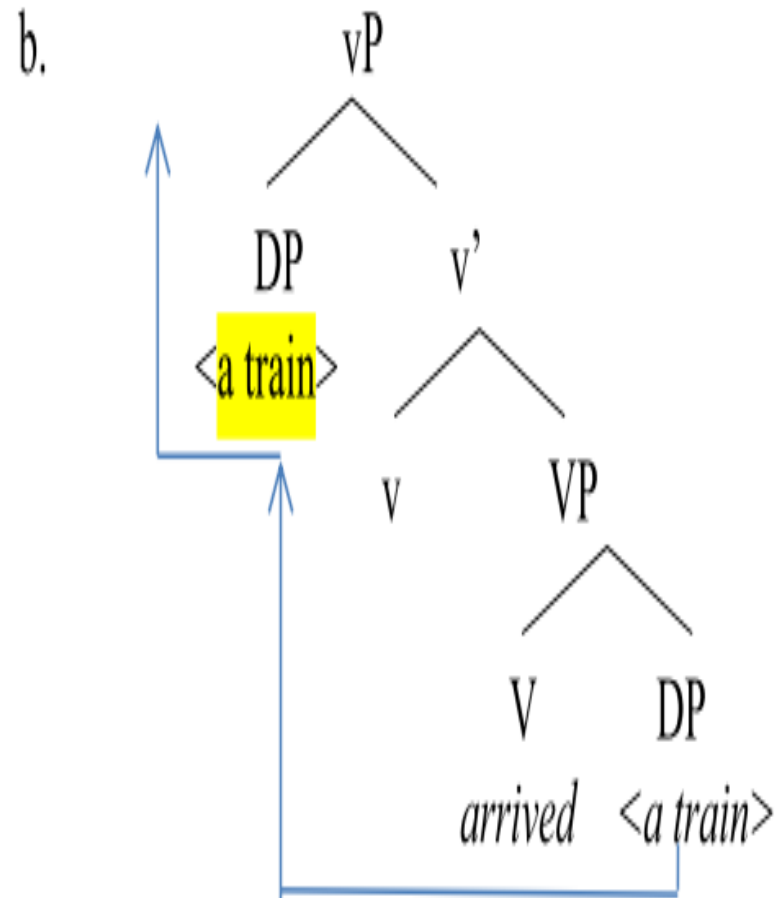
The first landing site of the movement is Spec,vP.

Cf. Deal (2009), Sobin (2014: 394)

(53) a. There arrived a train.



(54) a. A train arrived.



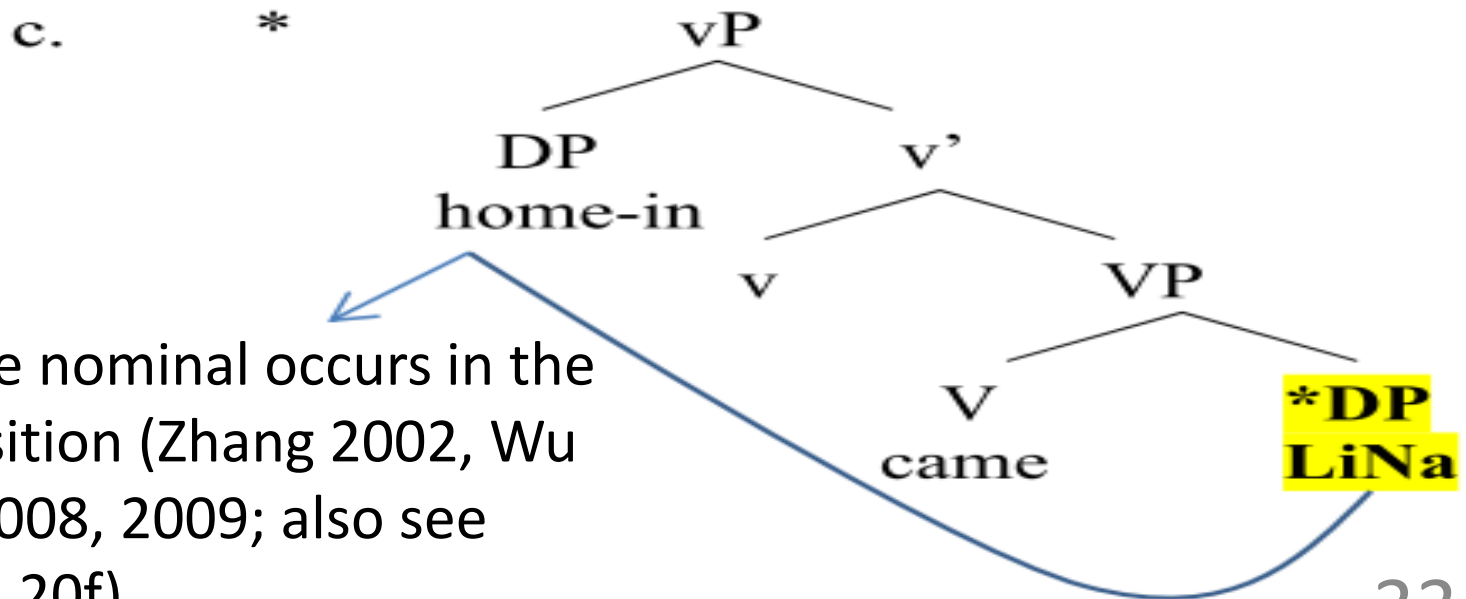
- For Vuners, no expletive is allowed,  
∴ Spec of vP is taken by an agent  
*\*There laughed a man in the hallway.*
- For Vcos, no expletive is allowed (Levin 1993).  
∴ Spec of vP is taken by an external argument, which is the causing event (Deal 2009: 299)  
*\*There melted a block of ice in the front yard.*
- Spec of vP is also not a possible landing site of movement in these two cases.
- Assume that s-selection resolution must be completed in vP.



- One argument for the short movement of the Vunacc construction in Mandarin:

If the external argument position is taken by a locative nominal, no theme nominal may precede a Vunacc.

- (55) a. \*Jia-li LiNa lai-le.  
           home-in LiNa come-PRF
- b. \*LiNa jia-li lai-le.  
       LiNa home-in come-PRF



The locative nominal occurs in the subject position (Zhang 2002, Wu 2008, Lin 2008, 2009; also see Irwin 2016: 20f).

If a verb s-selects a DP of a wrong type

Vunerg	Vcos	Vunacc
<p><b>* vP</b></p> <p><b>*DP<sub>&lt;e,t&gt;</sub></b></p> <p>v'   v VP   V</p>	<p><b>* vP</b></p> <p><b>causing e</b></p> <p>v'   v VP   V <b>*DP<sub>&lt;e,t&gt;</sub></b></p>	<p><b>vP</b></p> <p><b>*DP<sub>e</sub></b></p>

- The s-selection disaster can be avoided within the phase of vP.  
Possible for Vunacc constructions only.

- Case?

Case can be checked by Agree

⇒ it is not responsible for movement.

- EPP?

The merger of *there* and the vP-internal movement in English are driven by EPP (strong D feature of v; Sobin 2014).

EPP in Chinese?

Move or not move depends on the semantic type of the DP.

⇒ The correlation does not support an EPP approach

# Review of the argumentation

- Part A: a new hypothesis of the s-selection contrast in intransitives.  
Vunerg and Vcos are grouped together, in contrast to Vunacc.  
The contrast is attested in transitives (V of becoming).
- Part B: it is possible for a DP to satisfy the c-selection of a verb, while not satisfying the s-selection of the verb.
- Part C: Move-to-avoid-problem strategy in the s-selection resolution.
- Part D: vP-phase locality, to restrict the newly identified movement.

# 5. Theoretical discussion

- This study explores s-selection in the unergative-unaccusative contrast in Chinese.
- It separates c-selection from s-selection in derivations (Zhang 2012, 2016).

When a DP is merged, an s-selection problem can be resolved.

- It identifies one more instance of obligatory movement that avoids computation problems.

This movement can be the initial step of the A-Movement of the argument of a Vunacc.

- The phase locality restricts this movement.
- Johnson (2014): Whatever requires A-Movement in a raising construction cannot be semantic.

Does the s-selection resolution movement have a semantic ingredient?

## 6. Conclusions

- An s-selection contrast:
  - V<sub>unacc</sub> s-selects DP<e,t>
  - V<sub>unerg</sub> rejects DP<e,t>
  - V<sub>cos</sub> rejects DP<e,t>
- If the c-selection of a verb is satisfied, an s-selection problem can be solved by movement, within the first phase (i.e., vP).

## References

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