Conceptualization of Event Packaging in Chinese Action-Motion SVC

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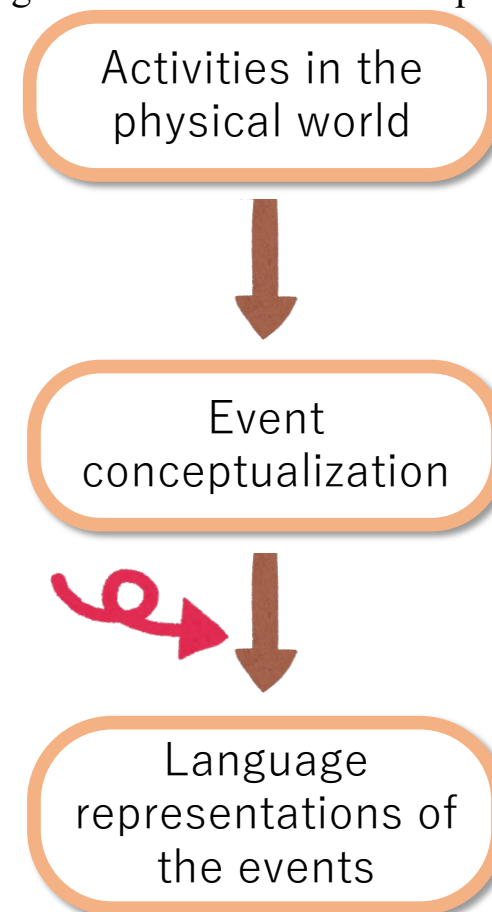yuqi2394[at]gmail.com

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Introduction

Figure 1 Event verbalization process

- Goal of this study
  - To investigate the **cognitive constraints** on event conceptualization in monoclausal **serial verb construction** (Li and Thompson 1989) that describes **Action-Motion** event in Mandarin Chinese.
  - To provide empirical evidence for the language-concept mapping (isomorphism, Givón 1991a)
    - → compact form – compact concept

Activities in the physical world

Event conceptualization

Language representations of the events

Chinese Action-Motion Serial Verb Construction

- "A Serial Verb Construction (SVC) is a sequence of verbs which **act together as a single predicate**, **without any overt marker** of coordination, subordination, or syntactic dependency of any other sort." (Aikhenvald 2006:1)

(1) *Tā   mǎi   shū   huí   jiā   le.*
     3SG   buy   book   return home LE
     'S/he bought a book/books and went home.'

Chinese Action-Motion SVC

(2) *Tā   mǎi   le   shū,   zàinàzhīhòu   (tā)   huí   le   jiā.*
     3SG   buy   LE   book   after.that   3SG   return LE   home
     'S/he bought a book/books and went home after that.'

biclausal

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Eventhood of SVCs

- An SVC describes a compact event (Aikhenvald 2006, 2018; Bisang 2009; Durie 1997; etc.).
  - empirical studies in other languages: Givón (1991b); Defina (2016); Cole (2016)
- SVCs in Chinese are often claimed to be representing compact events (Fan 2016; Gao 2020; Liu 2015; Peng 2019; Yin 2010).
  - not yet any empirical work

Measure of Conceptualization: Event Continuity

- Event Segmentation Theory (Zacks et al. 2007; Zacks and Swallow 2007)
  - fail in predictions make event boundaries
- Event Continuity
  - Perception of uninterrupted progression across event segments (time, space, maintenance of result and/or effect)
  - Why this measure: Independent of linguistic expressions → conceptually independent and empirically testable (cf. Haspelmath 2016)

Research Questions and Hypotheses

- RQ: What are the factors (**spatio-temporal continuity**, **result continuity**) that affect the **event continuity in Chinese Action-Motion SVCs**, in comparison to their biclausal counterparts?

  – H1: SVCs are **less appropriate/preferred** than their biclausal counterparts to represent **spatio-temporally disrupted** event complexes.

  – H2: SVCs are **less appropriate/preferred** than their biclausal counterparts to represent **result-nullified** event complexes.

Appropriateness Rating Task: Design

- Participants: 30 (Avg. age = 29.8)

- Stimuli: 30 target / 82 total stimuli in random order

- Material:

  – Set A = uninterrupted event complex

  – Set B = spatio-temporally disrupted event complex

  – Set C = result-nullified event complex

Appropriateness Rating Task: Design

Pictorial stimuli
Text stimuli

"Can the sentence on the screen be used to describe the situation in the pictures?"

Set A (SVC)

张三 买 书 回 家 了。
Zhangsan buy book return home PRT

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*11. 画面中的情况是否能用屏幕上的句子来描述?

请您根据提供的画面来判断，画面中的情况是否能用屏幕上的句子来描述。
1星为"这个句子不能描述图中的情况"，5星为"完全能用这个句子描述画面的情况"。

1   5

★ ★ ★ ☆ ☆

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张三 买 了 书， 在那之后 他 回 了 家。
Zhangsan buy PFV book After.that he return PFV home

回 家 前 他 跟 朋友 喝 了 咖啡。
return home before he with friend drink PFV coffee

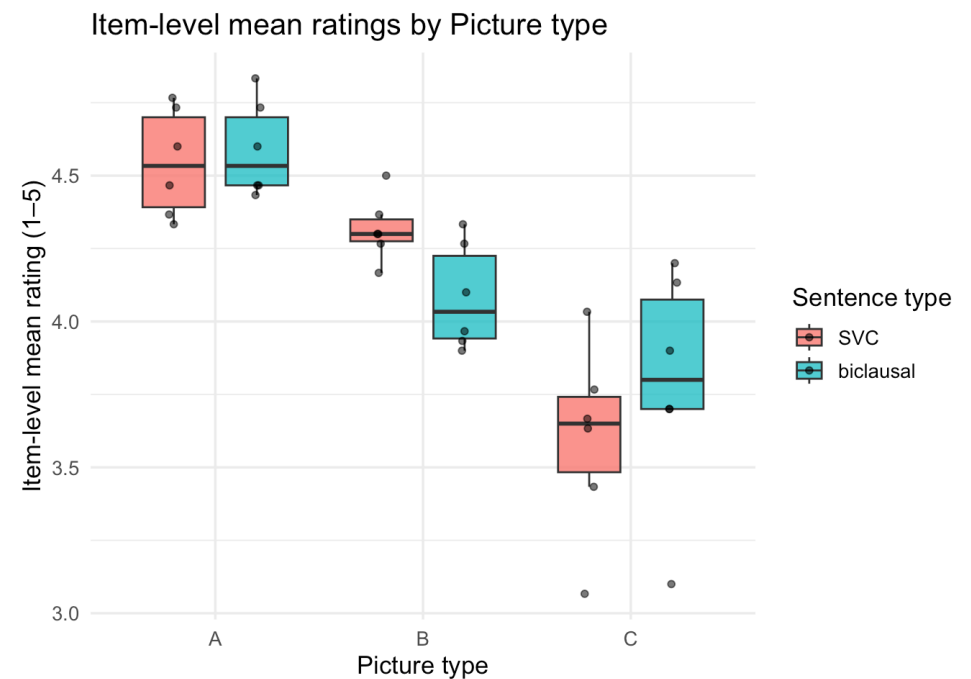张 三 买 书 回 家 了。
Zhangsan buy book return home PRT

回 家 前 他 把 书 放 在 办公室 了。
return home before he OM book put LOC office PRT
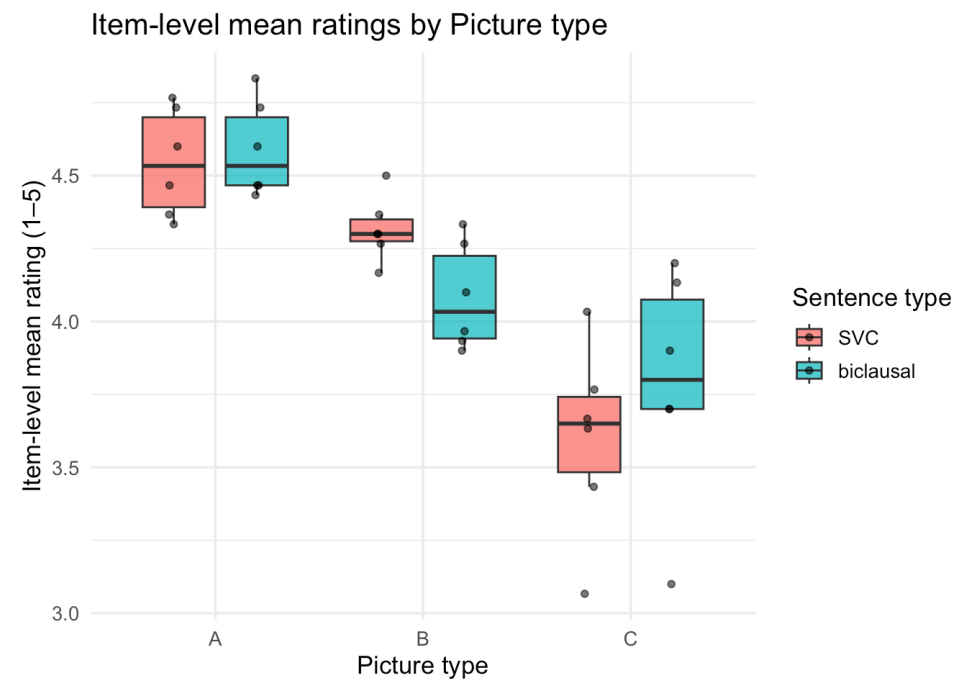
Appropriateness Rating Task: Results

Key findings (R, version 4.4.1, function "clmm()"))

- Significant **general tendency** of disruption effect (A>B>C, p<.001)

- From Set A to B, SVCs were rated **similarly** to biclausal sentences (p= .2764)

- From Set B to C, SVCs were rated significantly **lower** than their biclausal counterparts (p= .0477);
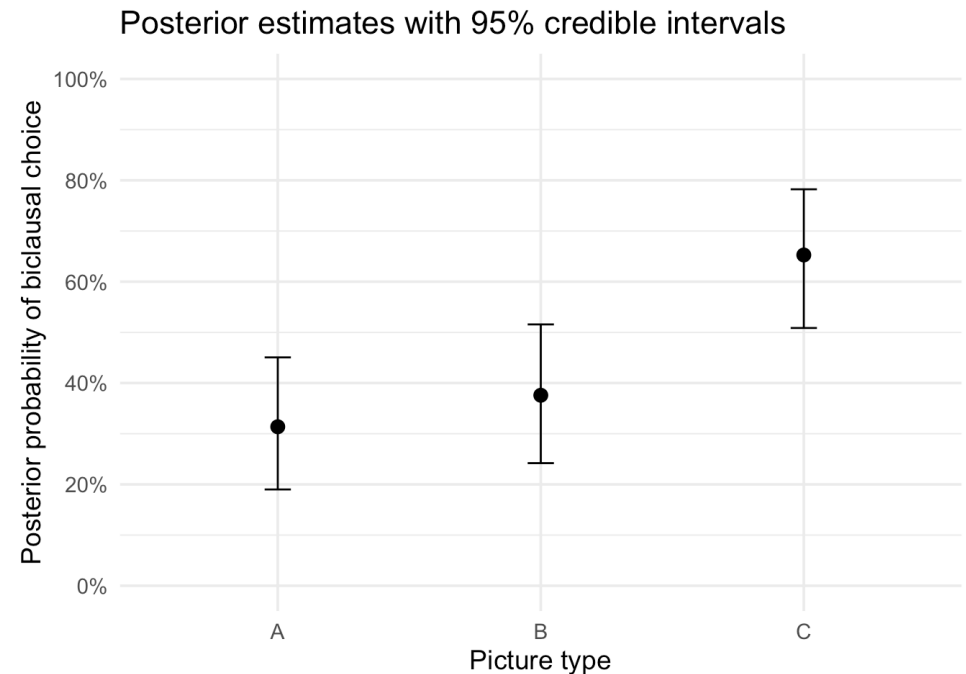

Item-level mean ratings by Picture type

Appropriateness Rating Task: Results

- Some questions
  - Set A: possible **ceiling effect** of SVC and biclausal
  - Set B: influence of disruption not differentiable between grammar structures → appropriateness rating task was not sensitive enough?

- Therefore, a **Forced-Choice Task** with more sensitivity to grammar structure was conducted.

Item-level mean ratings by Picture type

Forced-Choice Task (more grammar-sensitive)

- 12 participants (Avg. age = 27.5)
- Bayesian multilevel logistic model (R, version 4.4.1, function "brm()"))

- Confirmation of previous results
- Novel findings
  - Set A: SVC > biclausal
  - Set B: indifferent
  - Set C: SVC < biclausal

Posterior estimates with 95% credible intervals

General Discussion (1)

- Isomorphic relationship is sensitive to continuity type
  - Ratings drop with spatio-temporal disruption but do **not** effective **shift preference of grammar structure**.
  - Spatio-temporal disruption was **strong enough to affect the appropriateness ratings** but was **not strong enough to affect the choice on grammar**.

H1

(1) 张三拿书去教室了。去教室前他去玩了一会儿跳舞机。
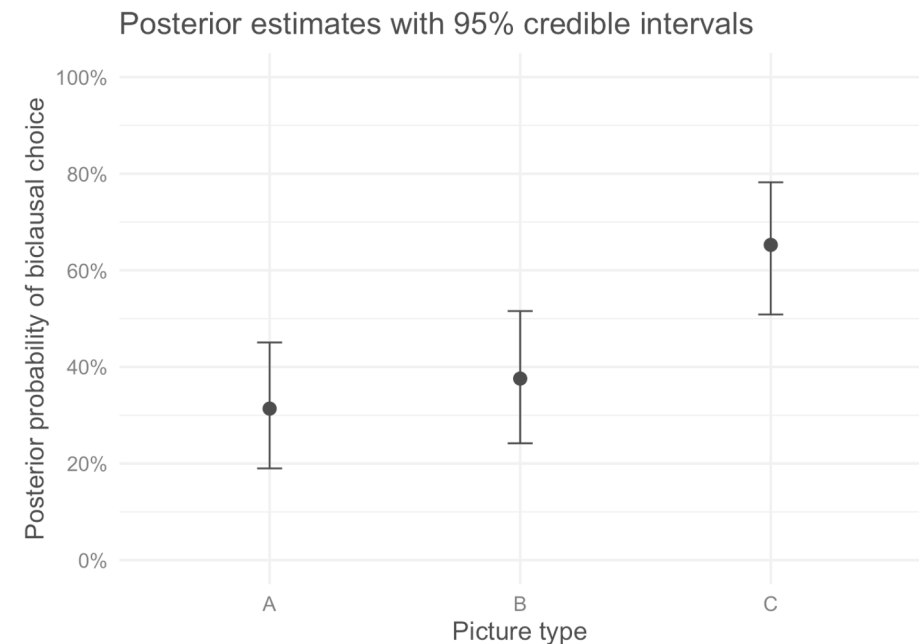(2) 张三拿了书，在那之后去了教室。去教室前他去玩了一会儿跳舞机。

General Discussion (2)

- Cognitive constraints found in Action-Motion SVCs
  - **Disruption** to result continuity **shifts the preference** from SVC to their biclausal counterparts.
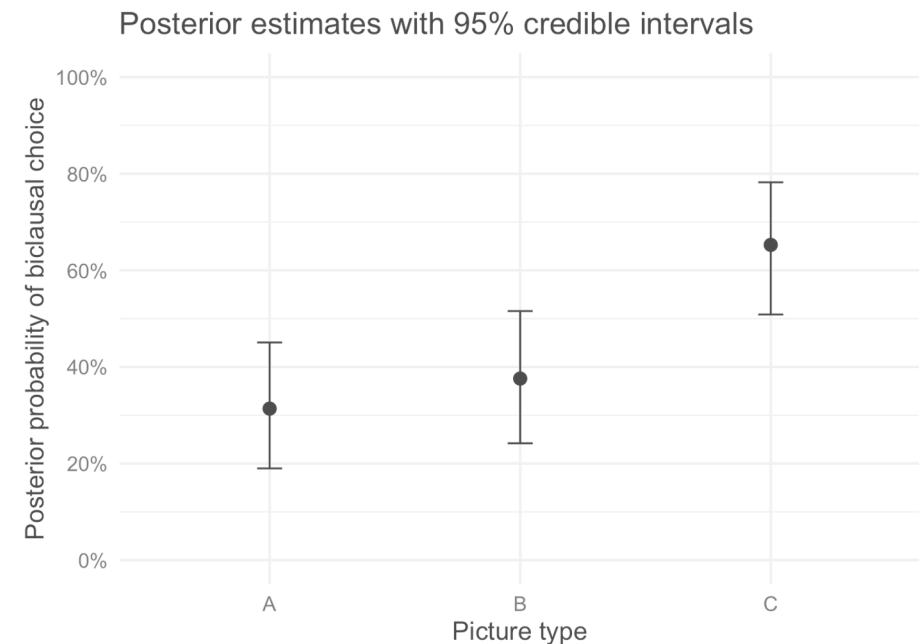 - Isomorphic tendency

H2

Posterior estimates with 95% credible intervals

General Discussion (3)

- Cognitive constraints found in Action-Motion SVCs
  - **Compact form** (SVCs) are favored for reporting **compact events** (uninterrupted Action-Motion event complexes).
  - Isomorphic tendency

Posterior estimates with 95% credible intervals

Limitations and Outlook

- Limitations
  - Pictorial stimuli can be less effective than video stimuli

- Outlook
  - Beyond Action-Motion SVCs: Action-Action / purposive continuity / cross-linguistic investigations

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Conclusion

- **Isomorphic relationship found**
  - SVCs are preferred for descriptions of compact events;
  - Disruption such as nullification of results shifts preference away from SVCs
- **Not all disruptions differentiate grammar structures**
  - Change of space and time do not shift preference.
- Contribution: This study provides an **empirically testable framework** for analyzing language-concept mapping in event conceptualization. Besides presenting **empirical evidence** for the isomorphic relationship, it refines our understanding of **internal connections of event complexes** in language descriptions.

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Glossary

LE = sentence-final particle expressing the change of a new situation/state

LOC = location

OM = object marker

PFV = perfective