Reading resultative verb compounds in Chinese sentences: An eye-tracking study

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1. BACKGROUND: RESULTATIVE VERB COMPOUND (RVC) INTERPRETATIONS IN CHINESE

Chinese resultative verb compounds (RVCs) are composed of two verbal morphemes (i.e., V1, V2) involved in a causative/resultative relation (e.g., V1 RESULTING IN V2). Two sets of thematic relations are involved, including assigning the AGENT and PATIENT of V1 and the THEME of V2 to the subject an object NPs and interpreting the CAUSATIVE reading. Only 3 of the 4 logically possible interpretations (1a-1d), are acceptable in Mandarin Chinese (Cheng & Huang, 1994; Li, 1990, 1995, 1999; Her, 2009).

Factors of interest:
- Structural probability
- Thematic role order & grammatical functions
- Layers of causative structures (external vs. internal)
- Overt use of the causative light verb (i.e., ba)

How are Chinese RVCs of different thematic and causative interpretations processed in sentences?

Unambiguous sentences with the 3 types of RVCs in (a) the canonical SVO order (N1 V1 V2 N2) and (b) the causative BA order (N1 N2 V1 V2) for an eye-tracking experiment. (N = 49, paid)

2. EXPERIMENTAL DESIGN

3. RESULTS: COMPARISONS ACROSS RVC TYPES IN SVO & BA SENTENCES

Data were analyzed using Linear Mixed Effects Models, focusing on the RVC, N2, and the regions after these two.

Critical regions: RVC-N2 in SVO and (ba) N2-RVC in BA sentences

- Effect of Structural Frequency: In both canonical and BA sentences, TRANSITIVE RVCs had the shortest first-pass RTs, regression path duration, and total fixation times (t=3.0; t=2.6). This reflects the greater frequencies of RVCs and BA structures for TRANSITIVE RVCs (in contrast with the greater frequencies of the SV structure for the UNERGATIVE and CAUSATIVE RVCs).

- Cost of Causativity: Within SVO sentences, CAUSATIVE RVCs had the longest re-reading time (t=2.69; t=3.4), suggesting the greater cost for constructing a causative reading external to the RVCs. This effect was not found when the RVCs appeared in the BA structure, suggesting that when the causativity is spilled out by an overt causative marker (i.e., ba), the cost for constructing a causative reduction is reduced.

4. CONCLUSION

- Structural probabilities guided the expectations of object NPs across different RVC types.
- Thematic roles of RVCs are assigned to preferred grammatical positions. The theme argument of V2 is preferably assigned to the external subject NP (rather than the object NP or the NP following ba)
- (Coerced) causative interpretations in SVO sentences are costly to construct.
- Overt morphological marking of causativity facilitates the processing of causativity external to the RVCs.

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