

## Explaining Mandarin resultative constructions: A force-theoretical approach

Peng Han, University of Calgary

**Introduction** Resultative Constructions (RCs) in Mandarin take the form of a ‘V<sub>1</sub>-V<sub>2</sub>’ complex, with V<sub>1</sub> signifying the causal action, and V<sub>2</sub> the result state. Unlike their English counterparts, Mandarin RCs can surface with reversed positions of Theme and Agent (Li, 1998), as demonstrated in sentence (1).

- (1) na ping jiu **he-zui-le** wo.  
that bottle wine drink-drunken-PERF me  
‘I got drunk because of drinking that bottle of wine.’

The other issue concerning Mandarin RCs is the direct causer constraint (Huang et al., 2009), which excludes indirect causers such as *yumen-de xinqing* ‘bad mood’ from serving as subjects in (1). Based on the force-theoretical framework (Copley and Harley, 2015), this study provides a new analysis for Mandarin RCs, which well resolves the above issues.

**Background** The force-theoretical framework originates as an alternative account for non-culmination of Accomplishment verbs, e.g. *open* in *Mary was opening the door, but she didn’t succeed*. The verb *open* refers to a force, which is inherently defeasible and thus entails no necessary effect. This force is realized as the semantic type  $f: \langle s, s \rangle$ , denoting the function from an initial situation (S<sub>0</sub>) to a final situation (S<sub>1</sub>) that occurs if nothing external intervenes. In the example *Mary opened the door*, S<sub>1</sub> is represented by a small clause [<sub>SC</sub> the door open], and S<sub>0</sub> is the situation with at least a closed door and *Mary*’s readiness to open the door. This account is then extended to all verbs, with dynamic predicates considered as forces, and stative ones as situations.

**Proposal** This study begins with an analysis of the argument selections in various Mandarin resultative constructions. It is found that the internal arguments obtain their basic roles from V<sub>2</sub> while the external arguments unanimously bear the basic thematic role of Causer. Other additional thematic roles optionally appear and are not basic to the constructions. For instance, the basic thematic roles in (1) only cover the causer *jiu* ‘wine’ and *wo* ‘me’ as the experiencer of *zui* ‘drunk’, although *wo* ‘me’ appears to be assigned the surplus role of Agent by *he* ‘drink’. Following the force-theoretical approach, Mandarin RCs express a transition from S<sub>0</sub> to S<sub>1</sub>, as a result of the force exerted by the causer. S<sub>1</sub> portrays the resultative situation especially of the affected entity, and S<sub>0</sub> characterizes the immediate predecessor situation with necessary entities and conditions to produce the force. In the case of sentence (1), *wo* ‘me’ reached the new situation of intoxication, driven by the causer *jiu* ‘wine’. Structurally, V<sub>2</sub> in the form of a verb root, is embedded in the small clause [<sub>SC</sub> me drunk] dominated by the vP of BECOME. V<sub>1</sub> is then adjoined to this vP denoting the manner of the force, after which a VoiceP merges in and selects for the causer *wine*. The derivation of surface forms ‘V<sub>1</sub>-V<sub>2</sub>’ utilizes morphological operations in Distributed Morphology (Halle and Marantz, 1993). This proposal explains the reversed theta-role assignment in (1) as embodying the reaction force from wine to the drinker, rather than a force from the drinker to wine. Causers in Mandarin RCs only allow force producers in S<sub>0</sub>, the situation immediately preceding S<sub>1</sub>. The reason why the indirect causer *yumen-de xinqing* ‘bad mood’ fails here is that there is an intermediate stage between the situation with a bad mood and the situation of drunkenness. This also provides evidence to distinguish the causers in VoiceP (e.g. [<sub>VoiceP</sub> Mary open the door]) from those in phrases of causative verbs (e.g. [<sub>vP</sub> Mary make the door open]), as only the former are subject to the direct causer constraint.

**Conclusions** This research reconceptualizes Mandarin resultative constructions as forces exerted on an initial situation S<sub>0</sub> to reach a new situation S<sub>1</sub>. The external and internal arguments represent the force producer in S<sub>0</sub> and the affected entity in S<sub>1</sub> respectively. V<sub>1</sub> describes the manner in which the force is exerted, and V<sub>2</sub> denotes the resultative state or activity. The proposed analysis not only accounts for the convoluted theta-role assignment and the direct causer constraint, but contributes to the force-theoretical framework by introducing the notion of reaction force and identifying VoiceP’s distinction of only allowing direct causers.

## References

- Copley, Bridget, and Heidi Harley. 2015. A force-theoretic framework for event structure. *Linguist and Philosophy* 38:103–158.
- Halle, Morris, and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In *The view from Building 20*, ed. K. Hale and S. J. Keyser, chapter 3, 111–176. Cambridge, Mass: MIT Press.
- Huang, C.-T. James, Y.-H. Audrey Li, and Yafei Li. 2009. *The Syntax of Chinese*. Cambridge: Cambridge University Press.
- Li, Yafei. 1998. Chinese resultative constructions and the Uniformity of Theta Assignment Hypothesis. In *New Approaches to Chinese Word Formation*, ed. Jerome Packard, 285–310. Berlin: Mouton De Gruyter.