A COMPULSIVE FORCE SCHEMA MODEL FOR INVESTIGATION INTO EVENT TYPES OF THE BA RESULTATIVES IN MANDARIN

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Abstract
This paper presents four event types of the BA resultatives which involve metaphorical extensions of FORCE relative to COMPULSION. This paper further proposes constructional analyses of event types of the BA resultatives in the framework of Construction Grammar.

Keywords
Resultative, Force, Event, Mandarin

1. Introduction
This study proposes four event types encoded by the BA resultatives. The typological work on “event type” is often based on aspecual properties: events are basically classified into four types including states, activities, accomplishments, and achievements (Vendler 1967; Dowty 1979; Andersen 1990; Smith 1991; VanValin and LaPolla 1997). More precisely, therefore, event types refer to aspecual event types. Studies on Chinese linguistics also typically use the same term “event types” to discuss verbal categories in terms of aspecual attributes (e.g. Shi 1988: 59; Cheng and Huang 1994; Tai 1984). In this paper, however, I define event types
differently: they do not relate to aspectual properties; instead, they are used to depict different semantic templates encoded by different BA resultatives.

Furthermore, the paper further shows that all four event types are connected by the same “Compulsive Force Schema” (Johnson, 1987). Essentially, the idea of the Compulsive Force Schema is that the object is moved by the force, or compulsion. This paper is organized as follows: In section 2, I show four event types of the BA resultatives. In section 3, I discuss the Compulsive Force Schema and how it is associated with the event types of the BA resultatives with the constructional interpretation.

2. Four Event Types of the BA Resultatives

Since there were no terms available for generalizing semantic distinctions among different types of BA resultative expressions, I propose four parameters which form a correlated set of constraints/criteria by which four types of the BA resultatives are characterized and classified: the first one is [+/-volitional instigator]. The instigator in the BA resultatives could be volitional or non-volitional, as in English (see e.g. Dixon 2000). The second parameter is [+/-direct causation] which refers in this paper to whether the instigator contacts the object to perform a direct action or not. With regard to “directness” (e.g. Wierzbicka 1975; Cristofaro 2003), Hollmann (2006: 206-208) summarizes three parameters including “unity of time”, “unity of space”, and “the absence or presence of another causal participant in between the causer and the causee”. Here, although I am aware that directness concerns another two parameters, I mainly consider the third parameter of directness (i.e. “the absence or presence of another causal participant in between the causer and the causee”) for distinguishing direct causation from indirect causation. Essentially, the difference lies in whether someone or something directly transfers the force and makes an event occur. The third parameter for defining the event types is [+/-intentional result], which concerns whether the (volitional) instigator intentionally brings about a certain result to the object. The fourth parameter is [+/-visible change] which concerns whether a visible change occurs to the object in the real world. Interactions of these parameters constitute the semantic complexity, leading to four event types of the BA resultatives, including
HANDLE, ACTIVATE, DRIVE and LEAD TO. In the following discussion, I analyze each type with examples and constructional representations.

The first event type is HANDLE: an object is in the control of a volitional subject and changes in a certain direction as the subject intends; it is like that the object is subject to manipulation. The values of the four parameters of this type are all positive: [+Volitional Instigator], [+ Direct Causation], [+ Intentional Result], [+ Visible Change], and the HANDLE type is the canonical member. In (1), the animate and volitional subject wo (1SG) consciously and directly acts upon the object wo de chizi (‘my spoon’) with an intention. As a consequence, the object wo de chizi is entirely under the control of the subject and then undergoes a visible change. The resultative ganjing (‘clean’) expresses the new state of the object (as opposed to a presupposed dirty state), as desired by the subject.

(1) woba wo-de chizi ca ganjine le
   1SG OBJ marker 1st POSS spoon wipe clean ASP
   ‘I wiped my spoon clean.’

Compared with HANDLE, the other three event types have the values of at least one parameter negative. They are less canonical members. The constructional representation of all the event types (including HANDLE) will be given shortly. The second event type is AFFECT which features a non-intentional result caused by a volitional instigator. This type can be further divided into two subtypes including Direct AFFECT and Indirect AFFECT. The following (2) is an instance of Direct AFFECT, the parameters of which are [+Volitional Instigator], [+ Direct Causation], [- Intentional Result], [+ Visible Change]. In (2), the subject refers to a volitional instigator who directly caused her two eyes to be swollen as big as two peaches. Obviously, this result is not intentional but produced by the effect of the action ku (‘cry’) (denoted by an intransitive verb). In addition, the result is visible.

(2) Hu Liu BAliang-zhiyanjingku de he taoziyiyang
    NAME OBJ marker two-CL eyes cry DE alike peach same
    ‘Hu Liu cried (so sadly that) her two eyes were (swollen) like two peaches.’
    (Ku Dou, 1959)
The other subtype is Indirect AFFECT the parameters of which are [+Volitional Instigator], [- Direct Causation], [- Intentional Result], [+ Visible Change]. In (3), the instigator zhe-ge yuzu (‘this prison-policeman’) is volitional. According to the general knowledge, it should be not the policeman’s intention to let his prisoner escape. In line with this understanding, the prisoner’s escape is not directly caused by the policeman. Obviously, a visible change is witnessed. In an instance of the Indirect AFFECT subtype, the action is designated by an intransitive verb such as pao (‘run/escape’):

(3) Zhe-ge yuzu BA ta-de fanrenpao le
    DEM-CL prison-policeman OBJ marker 3rd POSS prisoner escape ASP
    ‘This prison-policeman let his prisoner escape.’

This seems to be an exception to the general BA resultatives as discussed previously: there is not a separate resultative element, but only an intransitive verb pao (‘escape’). Ta-de fanren (‘his prisoner’) is not a direct patient object of transitive verb, “exceptional to the semantic constraint of patient-hood ” (Goldberg 1991: 67). So, how should we interpret this kind of instance? As will be represented, pao has two polysemies: the intransitive verb pao (‘escape’) is coerced to be a causative verb (‘to non-intentionally let sb escape’). According to Talmy (1988), there are distinctions between the strong and the weak causatives. For example, English cause and prevent are instances of the strong causative, while let and hinder are the weak causatives. The coerced pao is such a weak causative verb meaning ‘let’. Accordingly, ta-de fanren (‘his prisoner’) is coerced to fit into the obligatory constructional argument role of theme: “the resultative can only apply to arguments which bear the thematic role of patient” (Goldberg 1991: 66).

Let us move on to the third event type DESIRE, which differs from the previous two types HANDLE and AFFECT, in terms of values of parameters: [+Volitional Instigator], [- Direct Causation], [+ Intentional Result], [- Visible Change]. The instigator is still volitional. However, this event type features indirect causation and invisible change. As in (4), the object, a text, is not directly caused by the instigator ta (3SG) to be changed (e.g. in terms of properties);
in other words, the event is not accompanied by transfer of force. The instigator desires to memorize (designated by the main verb bei) the text in order to be familiar (designated by the resultative adjective shu) with it, which is an intentional result (goal).

(4) Ta BA Ba-shan-ping beishu le
3SG OBJ marker TEXT NAME memorize familiar ASP
‘He got familiar with (the texts of) Ba-shan-ping by memorizing.’
(Hou Yaowenchushan Ji, 1995)

The fourth event type of the BA resultative is TRIGGER: [-Volitional Instigator], [+ Direct Causation], [- Intentional Result], [+ Visible Change]. As in (5), the natural force dong-nan feng (‘south-east wind’) is a non-volitional instigator, which distinguishes this type with the other three event types. Accordingly, the result jinlai (‘inwards’) is non-intentional which is attributed to an inanimate instigator. In addition, the causation is direct involving the causer dong-nan feng (‘south-east wind’) and the causee haishang-de shuiqi (‘brume on the sea’), towards a visible change (‘inwards’). Considering the values of these parameters, this event type is termed as TRIGGER: a non-volitional instigator triggers (by way of “personification”, Lakoff and Johnson, 1980: 7) a direct causation in a non-intentional manner leading to a visible change.

(5) Dong-nan feng bahai-shang de shuiqi chuijinlai le
South-east wind OBJ marker on the sea REL brume blow inwards ASP
‘The south-east wind blew the brume on the sea inwards (towards the land).’

Now I summarize four event types of the BA resultatives based on the discussion in this section. These distinct event types are characterized by different combinatorial patterns of parameters, as in Table 1:

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Volitional Instigator</th>
<th>Direct Causation</th>
<th>Intentional Result</th>
<th>Visible Change</th>
</tr>
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</table>

Table 1: Parameters values in Event Types of the BA Resultatives
The current section has discussed four event types of the BA resultative. In the following section, I will show how these four event types are based on the same conceptual model, i.e. the Compulsive Force Schema.

2. The BA resultatives based on the Compulsive Force Schema

As mentioned in section 1, the BA resultative expresses change-of-state. Here I further investigate the foundation of this constructional semantics, i.e. “Compulsive Force Schema” (Johnson, 1987: 2). Before discussing the Compulsive Force Schema, I firstly introduce the motion schema. Lakoff and Johnson (1980) propose that change-of-state is a metaphorical extension of change-of-location, particularly by means of the “Location Event-Structure” metaphor (Lakoff and Johnson, 1999: 179). To be specific, the “Location Event-Structure” suggests four points: (1) states are locations; (2) changes are movements; (3) actions are self-propelled movements; (4) causation is forced movement (Lakoff and Johnson, 1999: 179 ). In a word, causation is “forced movement” (Lakoff and Johnson, 1999: 184). Furthermore, Goldberg (1995: 84, 152) reveals how the resultative construction metaphorically links to the caused-motion construction, as represented in Figure 1:
As shown above, the resultative construction is the extension of the caused-motion construction via metaphorical link (IM). In the caused-motion construction, the object is caused to change its location. By comparison, the object in the resultative construction is caused to change its state. As a consequence, there is a metaphorical extension from the source domain (location) to the target domain (state).

As far as the BA resultatives are concerned, the four event types all pertain to the change of state. Therefore, they are all related to the motion schema via inheritance links as diagrammed in Figure 1. Goldberg (1995: 74-81) proposes a variety of inheritance links including “Ip (polysemy link)”, “Im (metaphorical extension link)”, “li (instance link)”, and “ls (subpart link)”). The subpart links will be mentioned later while illustrating the constructional representation of the Indirect AFFECT event type. Here I concentrate on other three types of inheritance links: a metaphorical mapping can be established between the caused-motion construction and the resultative construction by a metaphorical link. In other words, the BA resultative is a metaphorical extension of the caused-motion schema. With respect to a polysemy link (Ip), the canonical HANDLE and other three event types (AFFECT, DESIRE, and TRIGGER) constitute the polysemes of the BA resultative (cf. “scene-encoding hypothesis”, Goldberg 1998: 205). These event types are syntactically unified in terms of identical syntactic specifications, but vary in semantic specifications. Regarding an instance link (Ii), it is used...
“when a particular construction is a special case of another construction” (Goldberg 1995: 79).

For example, the framed constructional representation is a lexically filled and fully specified version of the HANDLE event type of the BA resultatives.

I have shown that the BA resultative is a metaphorical extension of MOTION. Next I explain how the event structure of the BA resultative can be thought of from the perspective of the theory of the Compulsive Force Schema, in which FORCE plays a role in COMPULSION (Johnson 1987: 42-43):

1. FORCE always involves “interaction”.
2. FORCE has a “vector quality” and is always manifested in some direction.
3. There is always a “path” for FORCE in association with a directional movement.
4. FORCE has “origin” or “source” and is directed toward a “target” or “goal”.
5. FORCE has “degree of power or intensity” and thus can be measured quantitatively.
6. There is always a “structure or sequence of causality” involved.

Regarding the importance of FORCE, Johnson (1987) further proposes the “Compulsive Force Schema” as diagrammed in Figure 2. The object is moved by force, more precisely, COMPULSION (Johnson, 1987: 45).

![Figure 2: Compulsive Force Schema (Johnson, 1987)](image)

To be specific, Figure 2 symbolizes the indispensable elements in the Compulsive Force Schema, including FORCE (F), object, origin, direction, path and goal. There is a force that metaphorically pushes the object from the origin (“A”) to the goal (“B”). Accordingly, the object changes its old state towards a new state which is the focus. Syntactically, the origin is
associated with the object, while the goal is projected to the resultative element. And, the main verb (V) expresses the path through which the change of state occurs. The whole event is viewed from the perspective of the speaker who subjectively construes the subject to be the source of force. As in an earlier instance (3), the Instigator-Subject in the Indirect-AFFECT event type is construed to be responsible even for the non-intentional result. Also, in (5), the non-volitional subject is treated as the instigator because it provides a (natural) FORCE for triggering a result.

3. Conclusion

This paper has presented four event types of the BA resultatives, including HANDLE, AFFECT, DESIRE, and TRIGGER. Moreover, the BA resultatives of all event types involve metaphorical extensions of Compulsive Force Schema, which are further discussed and illustrated in the framework of Construction Grammar.

REFERENCES


