Subject-oriented resultative compounds in Mandarin Chinese:
a multi-faceted approach
Tham, Shiao Wei
Singapore Summer Meeting 2024
July 10

1 Introduction

The topic of concern: subject-oriented resultative compounds (S-RVCs) in Mandarin Chinese such as the following, in which the result described by the RVC applies to the referent of the subject nominal. In addition, the subject in each case corresponds to the agent of the first member of the compound (V1).

(1) Lǐsì hē-zuì le
NAME drink-drunk PRT[1]
"Lisi drank himself drunk."

(2) Lǐsì zǒu-lèi-le
Lisi walk-tired-PFV
"Lisi walked himself tired"

(3) bǎobao kū-xǐng-le
baby cry-wake-PFV
"The baby cried itself awake."

To be distinguished from object-oriented RVCs (O-RVCs) such as *dǎ-pò* 'hit break', in which the result seems to apply to the surface subject (4a). This is arguably an unaccusative or passive structure: the surface subject can be understood as an underlying object (4b). (4a) is paraphraseable with a BEI passive (4c). Intransitive versions with the agent in subject position (4d) are disallowed.

(4) a. bēizi dǎ-pò le
cup hit-break PRT
"The cup broke."

b. wo dǎ-pò-le bēizi
1sg hit-break-PFV cup
"I broke the cup."

c. bēizi bèi dǎ-pò le
cup BEI hit-break PRT
"The cup was broken."

---
[1]Abbreviations used: ASSOC = associative marker; CL = classifier/measure word; PFV = perfective; NEG = negation; PRT = particle; PL = plural; Q-PRT = question particle; 1, 3 = 1st/3rd person; SG = singular

d. #wǒ dǎ-pò le
1sg hit-break PRT
"I broke." (no metaphorical meaning)

A first question: Is subject-orientation (or object-orientation) a property of individual RVCs or is it simply an argument realization option open to an RVC?

Answer: Both. There are RVCs that can be considered subject-oriented or object-oriented compounds, and these may each give rise to subject- or object-oriented interpretations.

An example: two kinds of S-RVCs: BASIC S-RVCs allow an overt post-verbal nominal that does not describe the result-bearing participant:

(5) Zhāngsān hē-zuì-le jiǔ
NAME drink-drunk-PFV liquor
"Zhangsan drank himself drunk with liquor'
(Cheng and Huang 1994: 200 (23b))

This contrasts with SUBJECT-ORIENTED RESULT INTERPRETATIONS, which may arise with basic O-RVCs that allow these interpretations, such as *kū-xǐng 'cry wake'* (3). For these RVCs, if an overt object nominal is present, the result must apply to the object.

(6) bǎobao kū-xǐng-le (bǎomu)
baby cry-wake-PFV nanny
"The baby cried itself/(the nanny) awake."

But these still contrast with "true" O-RVCs such as *dǎ-pò* 'hit break', as in (4) above, which do not allow what we might call "unergative" RVCs, following Cheng and Huang (1994), which are intransitive structures where agentive subject is also understood as bearing the result.

This work

– An inventory of RVCs that locates S-RVCs within the broader paradigm of resultative compounding based on:

– The type of result predicate (V2) based on the kind of participant role they select for;

– Force transmission

– Inferred causal structure

A roadmap

§2 Some background about RVCs and the assumptions made in this work.

§3 The result predicate determines the subject- or object-orientation of RVCs.

§4 The interpretation of RVCs based on notions of force transmission and conceptual interpretation.

§5 Concluding remarks

2 Setting the scene

2.1 Background

Resultatives and the direct object restriction (DOR) (Simpson 1983):

(7) In a resultative predication, the result is always predicated of the direct object of the clause (at some level of representation).
(Simpson 1983, Levin and Rappaport Hovav 1995)

(8) Pat hammered the metal flat. (TRANSITIVE VERB, OBJECT-ORIENTED)

(9) Pat hammered the metal naked. (SUBJECT-ORIENTED: DEPICTIVE)

(10) The dog barked him awake/Sleep your wrinkles away.
(INTRANSITIVE VERB, NON-SUBCATEGORIZED OBJECT; examples from Levin and Rappaport Hovav 1995: 36)

(11) Dora yelled herself hoarse./*Dora yelled hoarse.
(UNERGATIVE VERB, FAKE REFLEXIVE OBJECT; based on Levin and Rappaport Hovav 1995: 35 (3))

2.2 Basic assumptions

Resultative verb compounds (RVCs) comprise two verbal predicates which I will refer to as V1 and V2 respectively.

RVCs describe an event of change
Following one part of Williams's (2014: 312) outline of what he terms "causal VV" compounds, I assume RVCs to entail "that some individual changes, entering a result condition defined by" V2.

(12) #Lǐsì hē-zuì   le, dànshì tā méi zuì
NAME drink-drunk PRT but   3sg NEG drunk

Intended: "Lisi drank himself drunk, but he did not get drunk."

The V1 event precedes the V2 event
The initial moment of the event described by V1 must take place no later than the initial moment of the event described by V2.

(13) #Lǐsì hē-zuì   le, érqiě tā xiān zuì-le   cái hē de
NAME drink-drunk PRT and 3sg first drunk-PFV then drink PRT

Intended: "Lisi drank himself drunk, and he got drunk first then drank."

2.3 The resultative status of S-RVCs

S-RVCs are theoretically controversial because they violate the Direct Object Restriction (DOR) (Simpson 1983), and the predicational structures they involve are challenging for syntactic representation. But there are reasons to at least investigate Mandarin S-RVCs as part of the resultative canon.

(i) In traditional Chinese linguistics accounts and in language teaching, S-RVCs such as *chī-bǎo* 'eat-full', *hē-zuì* 'drink-drunk', etc. are among the standard examples of RVCs.

(ii) In child language studies, S-RVCs, along with O-RVCs, are produced from 1 year 7 months (Deng 2019).

(iii) Both O-RVCs and S-RVCs participate productively in the potential construction V1-*de*-V2 or V1-*bu*-V2.

The following examples show S-RVCs in the potential construction:

(14) wǒ hē-bú-zuì   de
1sg drink-NEG-drunk PRT

I don't get drunk from drinking.
(CCL: Yao Xueyin 1976, *Li Zicheng* pt 2)//

(15) hē-de-zuì   jiù hǎo
drink-NEG-drunk then good

It's good (as long as) one can get drunk from drinking.
(https://mypaper.pchome.com.tw/enhpix/post/1321847498)

The examples below illustrate O-RVCs in the same:

(16) dǎ-bú-pò   bōli
hit-NEG-BREAK glass

(A certain kind of baseball) does not break glass
(CCL: Wiki Chinese, c.2010)

(17) nǐ bù kěnéng dǎ-de-pò   zhè ge xīguā
2sg NEG possible hit-POT-BREAK this CL watermelon

You won't be able to break this watermelon (without 10 plus years of experience).
https://sports.sohu.com/20100812/n274165345.shtml

The correlation between the potential construction and RVCs is not perfect. Nonetheless, RVCs do generally occur naturally in the potential construction, and that S-RVCs do so is at least consistent with taking them to also be RVCs. Whatever the best representation for S-RVCs, there seems to be some reason prima facie to include them among the resultative structures in Mandarin.

3 Where do subject-oriented RVCs come from? The role of V2

Proposal The result predicate V2 is crucial to whether an RVC counts as subject- or object-oriented.

Assumptions: Predicates allowed as the result predicate, or V2, in an RVC, describe eventualities involving AFFECTEE roles.

AFFECTEE: broadly construed as a non-agentive event participant that participates in, or undergoes a change, to some kind of physical or mental state, location, and potentially some activity construable as being involuntary.

Includes roles traditionally called "patients", and also those traditionally called "experiencers". The distinction will remain relevant in the analysis.

3.1 Four classes of RVCs in terms of subject- and object-orientation

RVCs vary in terms of the flexibility they allow for subject- and object-orientation. RVCs may be:

– solely object-oriented,

– solely subject-oriented,

– alternating (most RVCs). Alternating RVCs may in turn be basically subject- or object-oriented.

3.1.1 Object-oriented only RVCs

These are the best exemplars of RVCs (18a). Examples are the same as those in (4) above, differently ordered. An intransitive use (18b) has a passive or unaccusative interpretation, paraphraseable with a BEI passive (18c). An "unergative" interpretation, where the agent of V1 is interpreted as bearing the result described by V2, is not possible (18d).

(18) a. wo dǎ-pò-le   bēizi
          1sg hit-break-PFV cup
          "I broke the cup."

      b. bēizi dǎ-pò   le
          cup   hit-break PRT
          "The cup broke."   UNACCUSATIVE/UNMARKED PASSIVE

      c. bēizi bèi dǎ-pò   le
          cup   BEI hit-break PRT
          "The cup was broken."   BEI PASSIVE

      d. #wǒ dǎ-pò   le
          1sg hit-break PRT
          "I broke." (no metaphorical meaning)

3.1.2 Alternating object-oriented RVCs

These are RVCs that are fundamentally object-oriented (unergative/transitive per Cheng and Huang 1994).

– If an object is present, the result will apply to the object. But when intransitive, the RVC allows an unergative interpretation that is not always paraphraseable by a BEI passive.

(3) bǎobao kū-xǐng-le
     baby   cry-wake-PFV
     "The baby cried itself awake."

(19) bǎobao kū-xǐng-le   bǎomu
      baby   cry-wake-PFV nanny
      "The baby cried the nanny awake."

The most likely interpretation for (20) is that the baby does not correspond to the crier, i.e., (20) is not a paraphrase of (3).[2]

(20) bǎobao bèi kū-xǐng   le
      baby   BEI cry-wake PFV
      "The baby was cried awake."

(21) kuìjiù de   lèishuǐ zài yě **kū-bù-xǐng** chénshuì de   fùqin
      guilty ASSOC tears   again also cry-NPOT-wake deep.sleep ASSOC father
      Guilty tears will no longer be able to cry father awake
      (Yu Zhaowen *Mèng shì téng-xǐng de sīniàn*)

(22) tā kū-le   yòu kū, zǒngshì **kū-bu-xǐng**
      3SG cry-PFV again cry always cry-NPOT-wake
      She cried and cried, (but) always could not cry herself awake
      (CCL: Wáng Xiǎobō (2001) *2015*)

3.1.3 Alternating subject-oriented RVCs

These are RVCs that allow for a subject-oriented interpretation in the presence of a post-verbal nominal, but also allow for object-oriented uses. That is, the object nominal can also be interpreted as the result-bearer. In the well-known example in (23), the same RVC can produce either interpretation.

(23) Zhāngsān qí-lèi-le   mǎ
      Zhangsan ride-tired-PERF horse
      i. Zhangsan rode the horse tired. OR ii. Zhangsan got tired from riding the horse.

(24) qí-bu-lèi   de   dānchē, fàng-bu-kāi   de   shǒu
      ride-NEG-tired ASSOC bicycle release-NEG-open ASSOC hand
      The bicycle that couldn't tire us from our riding, the hands that couldn't let go
      (Xu Ruoxuan, *Jiǎndān ài* (song lyric))

---

[2]It is possible to say (i), presumably related to the possibility of (ii).

(i) bǎobao bèi zìjǐ kū-xǐng le
     baby   BEI self cry-wake PRT
     "The baby was cried awake by itself."

(ii) bǎobao kū-xǐng-le   zìjǐ
      baby   cry-wake-PFV self
      "The baby itself awake."

3.1.4 RVCs that can only be subject-oriented

Shibata et al. (2004) identify a group of RVCs that can only be subject-oriented. The authors show that RVCs containing the result predicates *guàn* 'accustomed to', *nì* 'bored (with)', *fán* 'annoyed (with)' allow only subject-oriented readings.

(25) ta   chi-ni-le   Riben cai
      3sg eat-bored-PFV Japan food
      He is bored with eating Japanese food.

(26) shāchá miàn,   zěnme chī yě   chī-bú-nì
      shacha noodle how   eat also eat-NEG-sickened
      shacha (a type of sauce) noodles that one can never get sick of eating
      (CCL: WeChat c. 2010)

Appealing to evidence from verb-object idioms, the authors attribute subject-oriented readings to argue for a complementation structure in which the experiencer V2 is the main verb, with V1 and the non-resultee object forming a constituent as the complement of V2.

(27) ta   kai-guan-le   ye   che
      3sg drive-accustomed-PFV night vehicle
      He is accustomed to burning the midnight oil (*lit.* to driving the night car).
      (Shibata et al. 2004: (12a))

If we follow their analysis, it is possible to exclude these examples and restrict RVCs to those compounds describing a change in an individual that at least allow for an object-oriented interpretation.

3.2   Subject- and object-orientation is determined by the result predicate

Proposal: Subject- and object-orientation in RVCs is determined by the type of participant role a result predicate specifies for.

– The discussion is couched in lexicalist terms, but it is also possible to consider these as conceptual distinctions, for those who are inclined towards projectionist approaches.

– A distinction between Agentive, and Non-Agentive roles, which may in turn be divided into Affectee and Rhematic roles.

– Predicates that may participate as V2 in an RVC are those that involve an Affectee role and no Agentive role.

– Two major types of Affectee-taking predicates: those that specify for

(i) a patient role, or

(ii) an experiencer role.

– Certain predicates may fall into both classes: they specify for a patient that can be conceptualized as an experiencer, or for an experiencer that can be conceptualized as a patient.

– This makes for four types of result predicates, those that take

(i) a "true" experiencer (Exp).

(ii) an experiencer conceptualizable as a patient (E/P);

(iii) a patient conceptualizable as an experiencer (P/E);

(iv) a "true" patient (Pt).

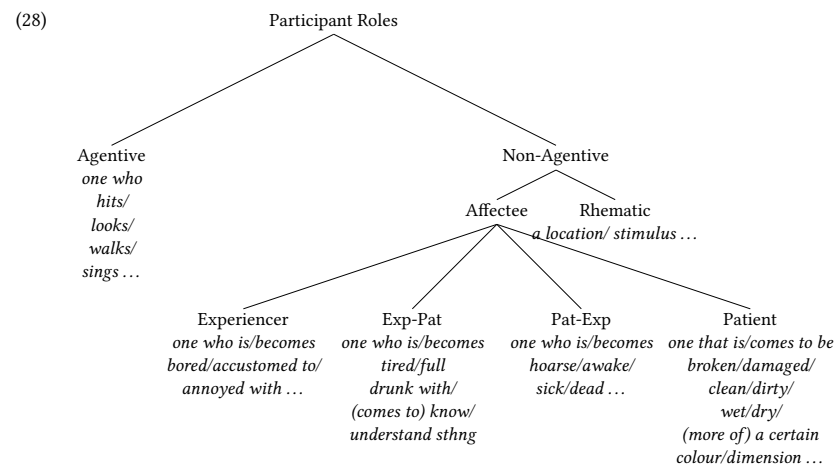The proposed paradigm (with examples rendered in English) is outlined in Figure 1 below:

(28)

Figure 1: An overview of the proposed participant role classifications

– The experiencer predicates require a participant that is animate and sentient. The patient-only predicates do not specify animate participants, and may specify an inanimate participant.

The result predicate categories above yield the following typology of RVCs in terms of subject- and object-orientation.

RVC example	Component predicates					Result on	Example
	Ag	Exp	ExPt	PtEx	Pt		
dǎ-pò 'hit break'	V1				V2	Obj	*dǎ-pò bēizi* 'break the cup'
OBJECT-ORIENTED ONLY						*Subj	*tā dǎ-pò le* Intended: '(S)he hit and broke'
kū-xǐng 'cry wake'	V1			V2		Subj	*tā kū-xǐng le* '(S)he awoke from crying'
						Obj	*tā kū-xǐng le bǎomǔ* '(S)he cried the nanny awake.'
kàn-bǎo 'look full'	V1		V2			Obj	*kàn-bǎo-le yǎnjīng* 'fill one's eyes by looking"
						Subj	*kàn-bǎo-le fēngjǐng* "satiated with looking at the scenery"
xué-huì 'learn know.how.to'	V1		V2			Subj	*xué-huì yīngwen* 'learn and know English'
jiāo-huì 'teach know.how.to'	V1		V2			Obj	*jiāo-huì xuésheng* 'teach and cause students to learn'
kàn-guàn 'look be.used.to'	V1	V2				Subj	*kàn-guàn dìtú* 'used to looking at maps'
SUBJECT-ORIENTED ONLY						*Obj	*kàn-guàn-le dúzhě* Intended: 'readers got used to looking (at something)'

Table 1: Subject- and object-orientation in Mandarin RVCs based on result predicate category

4   Interpreting RVCs

This section draws on the force-transmission model of verb meaning (1976, 1985, further developed in Croft 1991, 2012 as a "causal chain") to capture one facet of Mandarin RVCs.

– In particular: subject-oriented RVCs in Mandarin are associated with a non-canonical force-transmission chain that is CYCLIC – the entity that undergoes the change is also the initiator of the change.

i.e., the option for cyclic causal chain event descriptions is what makes for the general availability of S-RVCs in Mandarin.

– This analysis receives support from event structural characteristics of S-RVCs.

– The non-result-bearing object nominal in an S-RVC, where there is one, must be a shared participant of both eventualities described by V1 and V2.

– In an O-RVC, however, the result-bearing object participant need not be a shared participant of the eventualities described by V1 and V2.

– The force-transmission chain models the relationship between participants in the event described by a resultative.

– I separate force-transmission from causal relations, which may be between events.

4.1 Elements of the analysis

4.1.1 Force transmission chain

– Based on the notion of a causal chain (Croft 1991, 2012) drawn from the force-transmission model of verb meaning developed in Talmy's work (1976, 1985).

(29) A causal chain is a directed, acyclic and nonbranching structure.
(Croft 2012: 198)

(30) Sue broke the coconut for Greg with a hammer.

(31) Sue --→ hammer --→ coconut --→ Greg

(Croft 1991, 2012: 198 (35))

– Croft's causal chain is geared towards simple predicational structures. In what follows, the construct is applied to complex predicational structures.

– Veering off from Croft's approach, the force-transmission chain is not used here to represent surface grammatical relations, but rather to provide an abstract representation of force transmission relations expressed in a predication structure.

– As in Croft's work, I assume a complete force-transmission chain has an initiator and an endpoint, and potentially some intermediate points. It is also possible that a predication structure specifies only a partial chain.

Mandarin RVCs are compatible with

– a cyclic force-transmission chain representation in which the initiator and the endpoint correspond to the same entity.

4.1.2 An underspecified semantic form subject to conceptual interpretation

– Independently of the force-transmission chain, a predication structure is assumed to have an underspecified semantic form (SF) representation that is fully interpreted at a level of conceptual structure (CS) representation (Maienborn 2000, 2001).

– The SF of an RVC sentence specifies only precedence and conjunction.

– The interpretation of a resultative SF is subject to the following conditions (Kaufmann 1995, Wunderlich 1997, Kaufmann and Wunderlich 1998:6 (11)-(12)):

(32) Connexion: The arguments of the predicates in an SF structure are meaningfully related to each other.

(33) Coherence: Subevents encoded by the predicates of a resultative predication must be contemporaneously or causally connected.

4.2 Illustrations

– In what follows, the Semantic Form (SF) representations are underspecified. They contain free variables the identity of which is resolved at Conceptual Structure, presumably invoking our knowledge of the world.

– I assume a semantics with individuals (x, y, z), some of which may be free variables (u, w), and events (e).

– Where a free variable occurs, the ordering of event participants in the relevant part of the representation is assumed to also be underspecified: i.e., …(x; w)(e1) indicates simply that some bound variable x and a free variable w both represent participants of e1, but their relationship is yet to be determined.

4.2.1 An object-oriented RVC:

(34) wo dǎ-pò-le   bēizi
     1sg hit-break-PFV cup
     "I broke the cup."

(35) Spkr — ACT ON$_{hit}$ → cup — CHANGE$_{break}$ → cup

(36) Semantic Form:
     $\lambda e \exists y \exists e1 \exists e2$ [INIT(e)(e1) & FIN(e)(e2) & hit′(spkr; w)(e1) & cup′(y) & break′(y)(e2)]

(37) Conceptual Structure:
     $\lambda e \exists y \exists e1 \exists e2$ [hit′(spkr, y)(e1) & cup′(y) & break′(y)(e2) & CAUSE(e1, e2)(e)]

4.2.2 A subject-oriented interpretation

– Assuming reading (ii)

(23) Zhāngsān qí-lèi-le   mǎ
     Zhangsan ride-tired-PERF horse
     i. Zhangsan rode the horse tired. OR
     ii. Zhangsan got tired from riding the horse.

(38)
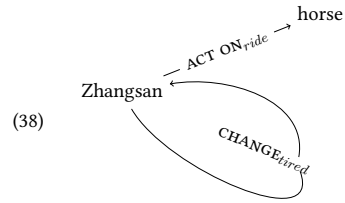
(39) Semantic Form:
$\lambda e \exists y \exists e1 \exists e2$ [INIT(e)(e1) & FIN(e)(e2) & ride$'$(**Zhangsan**; u)(e1) & horse$'$(y) & tired$'$(**Zhangsan**)(e2)]

(40) Conceptual Structure:
$\lambda e \exists y \exists e1 \exists e2$ [ride$'$(**Zhangsan**, y)(e1) & horse$'$(y) & tired$'$(**Zhangsan**)(e2) & CAUSE(e1, e2)(e)]

4.2.3 A "causer subject" RVC

(41) mù-ěr   chī-sǐ rén   le!
wood-ear eat-die person PRT
People died from eating woodear mushrooms! (CCL)

(42) person $\overset{\text{ACT ON}}{\underset{\text{CHANGE}}{\longleftrightarrow}}$ mushroom
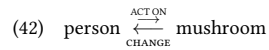
(43) Semantic Form:
$\lambda e \exists y \exists x \exists e1 \exists e2$ [INIT(e)(e1) & FIN(e)(e2) & eat$'$(w; y)(e1) & mushroom$'$(y) & person$'$(x) & die$'$(x)(e2)]

(44) Conceptual Structure:
$\lambda e \exists y \exists x \exists e1 \exists e2$ [eat$'$(x, y)(e1) & mushroom$'$(y) & person$'$(x) & die$'$(x)(e2) & CAUSE(y, e2)(e)]

(1) Zhāngsān hē-zuì-le   jiǔ
NAME   drink-drunk-PFV liquor
"Zhangsan drank himself drunk with liquor'

(45) Semantic Form:
$\lambda e \exists y \exists x \exists e1 \exists e2$ [INIT(e)(e1) & FIN(e)(e2) & drink$'$(**Zhangsan**; w)(e1) & alcohol$'$(y) & drunk$'$(u)e2)]

(46) Conceptual Structure:
$\lambda e \exists y \exists e1 \exists e2$ [drink$'$(**Zhangsan**, y)(e1) & alcohol$'$(y) & drunk$'$(**Zhangsan**)(e2)]

(47) The initiator and the endpoint are the participants furthest apart within a causal chain.

(48) Corollary: The subevents of a cyclic causal chain must be participant-connected.

4.3 Connections in the causal chain

This section demonstrates that S-RVCs show a tighter link between its subevents in that its participants must be shared between the two subevents.

– The S-RVC object (or post-verbal nominal) is always one that satisfies the selectional restrictions of V1, and the description it provides determines how the RVC event is interpreted.

(49) *Zhāngsān hē-zuì-le   fàn
NAME   drink-drunk-PFV rice
Intended: "Zhangsan drank himself drunk with rice/a meal'

– If someone *he-zui jiu* 'drink liquor drunk, i.e., get drunk from drinking liquor', it must also be the case that they did drink liquor. That is, (1) entails (50).

(1) Lǐsì hē-zuì   le
NAME drink-drunk PRT[3]
"Lisi drank himself drunk."

(50) Zhāngsān hē-le   jiǔ
NAME   drink-PFV liquor
"Zhangsan drank liquor'

– The sequence in (51) is, as expected, contradictory.

(51) #Zhāngsān hē-zuì-le   jiù,   dàn tā méi hē   jiǔ
NAME   drink-drunk-PFV liquor but 3sg NEG drink liquor
Intended: 'Zhangsan drank himself drunk with liquor, but he did not drink liquor'

– In the same vein, it is not possible to delink the post-verbal nominal from the event described by V1. If someone *ting-fan* 'listen-tired' something, it must also be true that they listened to whatever they got tired of. So one cannot get tired of listening to say, jazz, by listening to too much of critiques.

(52) ??Zhāngsān tīng   pínglùn, tīng-fán-le   juéshì yuè
Zhangsan listen critique listen-annoyed-PFV jazz   music
Intended: Zhangsan got tired of jazz from listening to critiques.

– This contrasts with O-RVCs, in which, as noted in previous works, the RVC object need not be a participant of the V1 event (as captured, for instance in Li 1995, which requires the argument realized as the object to receive a role only from V2).

(53) zhèi bāo yīshang bǎ xié xǐ-shī   le
this pack clothes BA shoe wash-wet PRT
"This pack of clothes got [my] shoes all wet from washing"
(Sybesma 1999: 188 (11f))

(54)
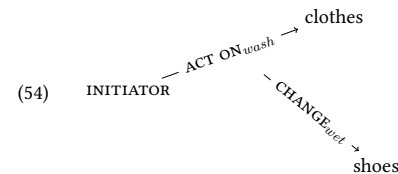
4.4 Extending the analysis

– A further advantage of the current proposal: allows for a wider inventory of RVCs

– A small set of (mostly) intransitive RVCs that are clearly subject-oriented and unergative.

– *diē-dǎo* 'fall, *lit.* fall-topple'; *shuì-xǐng* 'wake, *lit.* sleep-wake'

(55) tā diē-dǎo-le   (*háizi)
3sg fall-topple-PFV child
"He fell down/~~He made the child fall~~."

(56) *guǒpí   diē-dǎo-le   tā
fruit.peel fall-topple-PFV 3sg
Intended: "The fruit peel caused him to fall".

(57) wǒ shuì-xǐng le
1SG sleep-wake PRT
I woke from sleeping.
(CCL: *Duzhe* 1990)

(58) yèwǎn, wǒmen shuì-xǐng   yí jiào
night 1PL   sleep-wake one CL
At night, we woke from sleeping a sleep.
(CCL: People's Daily 1988)

– These presumably do not involve any force transmission, and they are not causal. Nonetheless, they involve a change in their sole participant, and are resultative.

– These compounds can be found in the potential construction, although in some cases they may be of lower frequency.

(59) yǒu nénglì, **diē-bù-dǎo**
have ability fall-NEG-topple
One who is able will not fall
(CCL: People's Daily 2016)

(60) wǒ diē-de-dǎo   jiù **pá-de-qǐ**
1SG fall-POT-topple then crawl-POT-rise
If I am able to fall down, I am able to get up.
(https://www.kanunu8.com/files/chinese/201105/2682/64948.html, accessed July 9 2024)

(61) yǐqián **shuì-bù-xǐng,** xiànzài shuì-bù-zháo
before sleep-NEG-wake now   sleep-NEG-PCOMP
Before, (he) could not wake, now (he) could not fall asleep.
(CCL: People's Daily 1983)

(62) xūyào nàozhōng cái **shuì-de-xǐng**
need alarm   then sleep-POT-wake
need an alarm to wake from sleep
(https://www.familydoctor.com.cn/tangniaobing/a/201304/432615.html, accessed July 9 2024)

– They are incompatible with the BA and BEI constructions.

(63) *bǎ zìjǐ diē-dǎo/shuì-xǐng
BA self fall-topple/sleep-wake
to affect oneself by falling/waking.

(64) *bèi (tā) diē-dǎo/shuì-xǐng
BEI 3SG fall-topple/sleep-wake
to fall/wake by him/her.

– These are possible with other intransitive subject-oriented RVCs.

(65) bǎ/bèi zìjǐ zǒu-lèi/kū-xǐng
BA   self walk-tired/cry-wake
BA: to walk oneself tired/cry oneself awake
BEI: to be walked tired/cried awake by oneself.

– With *diē-dǎo* "fall-topple", I assume e1 and e2 develop over the same interval, represented via the temporal trace function τ. Temporally, there is no strict precedence, the initial moment of e2 is identical to that of e1, but does not precede it.

(66) Dù Xiǎoshuāng diē-dǎo-le
NAME   fall-topple-PFV PRT
"Du Xiaoshuang fell down"

(67) Semantic Form:
$\lambda e\exists e1\exists e2$ [INIT(e)(e1) & FIN(e)(e2) & fall$'$(**Du**)(e1) & topple$'$(Du)(e2)]

(68) Conceptual Structure:
$\lambda e\exists e1\exists e2$ [fall$'$(**Du**)(e1) & topple'(**Du**)(e2) & τ(e) = τ(e1) = τ(e2)]

4.5 A revised inventory of Mandarin RVCs

RVC example	Component predicates					Result on	Example
	Ag	Exp	ExPt	PtEx	Pt		
dǎ-pò 'hit break'	V1				V2	Obj	*dǎ-pò bēizi* 'break the cup'
OBJECT-ORIENTED ONLY						*Subj	*tā dǎ-pò le Intended: '(S)he hit and broke'
kū-xǐng 'cry wake'	V1			V2		Subj	*tā kū-xǐng le* '(S)he awoke from crying'
						Obj	*tā kū-xǐng le bǎomǔ* '(S)he cried the nanny awake.'
kàn-bǎo 'look full'	V1		V2			Obj	*kàn-bǎo-le yǎnjīng* 'fill one's eyes by looking"
						Subj	*kàn-bǎo-le fēngjǐng* "satiated with looking at the scenery"
xué-huì 'learn know.how.to'	V1		V2			Subj	*xué-huì yīngwen* 'learn and know English'
jiāo-huì 'teach know.how.to'	V1		V2			Obj	*jiāo-huì xuésheng* 'teach and cause students to learn'
diē-dǎo 'fall topple'	V1				V2	Subj	*tā diē-dǎo le* '(S)he fell down'.
kàn-guàn 'look be.used.to'	V1	V2				Subj	*kàn-guàn dìtú* 'used to looking at maps'
SUBJECT-ORIENTED ONLY						*Obj	**kàn-guàn-le dúzhě* Intended: 'readers got used to looking (at something)'

Table 2: Subject- and object-orientation in Mandarin RVCs based on result predicate category (revised)

4.6 Remaining issues

– The morphosyntax of RVCs?

– A complex predication analysis is to be preferred.

– V2 is arguably a verb which is able to determine the subject- or object-oriented nature of the compound.

– The actual argument realization pattern of an RVC is, however, also dependent on V1.

e.g. *hē-zuì* 'drink-drunk' is always subject-oriented, but *guàn-zuì* 'force.to.drink-drunk' can show the object-oriented pattern.

(69) Wǔ Xùn …bèi guàn-zuì   jiǔ
     NAME   BEI force.to.drink-drunk liquor
     Wu Xun was forced to drink liquor and got drunk.
     (CCL: People's Daily 2018)

(70) Lǐ Shìmín …guàn-zuì-le   Lǐ Yuān
     NAME   force.to.drink-drunk NAME
     Li Shimin forced Li Yuan to drink and get drunk.
     (CCL: Chinese Wiki, c.2010)

5 Concluding remarks

– Taking RVCs at face value as complex predicates describing a change in an entity, it is possible to present a more precise view of the relationship between the types of RVCs and their constituent predicates.

– This work has shown that V2 is crucial to whether an RVC is basically subject- and object-oriented, contrary to previous works that have argued for V1 as the head of an RVC (e.g. Cheng and Huang 1994, Li 1990).

– Nonetheless, as just discussed, V1 still plays an important role in the actual argument realization patterns of an RVC, supporting a complex predication approach to Mandarin RVCs.

– This work suggests that, apart from event structure, participant role/thematic role types also play an important part in resultative interpretation.

– In addition, a relatively underspecified semantic representation combined with an appeal to conceptual interpretation seems to provide a useful approach towards the interpretation of RVCs, accommodating a broader inventory of RVCs than hitherto entertained.

– Finally, this work points to resultatives in Mandarin as fundamentally describing events of change, and not necessarily of caused change (in agreement with Williams 2024).

References

Cheng, Lisa L.-S. and C.T. James Huang. 1994. On the argument structure of resultative compounds. In M. Chen and O. Tzeng, eds., *In Honor of William Wang: Interdisciplinary Studies on Language and Language Change*, pages 187–221. Taipei: Pyramid Press.

Croft, William. 1991. *Syntactic Categories and Grammatical Relations*. Chicago: The University of Chicago Press.

Croft, William. 2012. *Verbs: Aspect and causal structure*. Oxford, UK: Oxford University Press.

Deng, Xiangjun. 2019. The acquisition of resultative verb compounds in Mandarin Chinese. *Journal of Chinese Linguistics* 47(1):42–81.

Kaufmann, Ingrid. 1995. What is an (im)possible verb? Restrictions on Semantic Form and their consequences for Argument Structure. *Folia Linguistica* .

Kaufmann, Ingrid and Dieter Wunderlich. 1998. Cross-linguistic patterns of resultatives. *Working Papers 'Theory of the Lexicon'* .

Levin, Beth and Malka Rappaport Hovav. 1995. *Unaccusativity: At the Syntax-Lexical Semantics Interface*. Cambridge, MA: MIT Press.

Li, Yafei. 1990. On V-V compounds in Chinese. *Natural Language and Linguistic Theory* 8:177–207.

Li, Yafei. 1995. The thematic hierarchy and causativity. *Natural Language and Linguistic Theory* 13:255–282.

Maienborn, Claudia. 2000. Modification and underspecification: a free variable account of locative modifiers. *ZAS Papers in linguistics* 17:153–176.

Maienborn, Claudia. 2001. On the position and interpretation of locative modifiers. *Natural Language Semantics* 9:191–240.

Shibata, Natsumi, Yasutada Sudo, and Jun Yashima. 2004. On (non-)resultative V-V compounds in Chinese. *Nanzan Linguistics* 2.

Simpson, Jane. 1983. Resultatives. In L. Levin, M. Rappaport, and A. Zaenen, eds., *Papers in Lexical Functional Grammar*, pages 195–96. Indiana Unversity Linguistics Club.

Sybesma, Rint. 1999. *The Mandarin VP*. Dordrecht: Kluwer.

Talmy, Leonard. 1976. Semantic causative types. In M. Shibatani, ed., *The grammar of causative constructions*, vol. 6, pages 43–116. New York: Academic Press.

Talmy, Leonard. 1985. Lexicalization patterns: Semantic structure in lexical forms. In T. Shopen, ed., *Language Typology and Syntactic Description Vol. 3: Grammatical Categories and the Lexicon*, pages 57–149. New York: Cambridge University Press.

Williams, Alexander. 2014. Causal VVs in Mandarin. In Huang, C.T. James and Li, Audrey Y.-H. and Andrew Simpson, ed., *The Handbook of Chinese Linguistics*, pages 311–341. Sussex, UK: John Wiley and sons, Inc.

Williams, Alexander. 2024. The main event. Invited presentation at the workshop RESULTATIVES: NEW APPROACHES AND RENEWED PERSPECTIVES.

Wunderlich, Dieter. 1997. Cause and the structure of verbs. *Linguistic Inquiry* 28:27–68.