

V₁-le vs. RVC-le in expressing resultant state in learners' Mandarin interlanguage: evidence of two states of mind?

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1. Introduction. There exists an interesting paradox: English-speaking learners of Mandarin tend to significantly underuse the Resultative Verb Compounds in speech production tasks (Wen 1995 and 1997, Christensen 1997, Duff & Li 2002) but at the same time demonstrate understanding of the compositional nature – and therefore, the meaning – of RVCs in sentence acceptability judgment tasks (Qiao 2008, Yuan & Zhao 2011). In addition, learners significantly overuse the perfective aspect marker *-le*. The main goal of this study is to investigate this discrepancy and effect of *-le* on understanding of change-of-state events. Theoretical evidence suggests that speakers of two languages construe change of state in general and result specifically differently. I adapt the cognitive linguistics framework and specifically Talmy's (1991, 2000) conceptual approach: namely, event conflation and crosslinguistic analysis of verbal patterns of how change-of-state is conceived and habitually expressed in English and Mandarin.

Following Talmy, I view both languages as belonging to a satellite-framed group of languages. However, there are several points in which English and Mandarin differ significantly with respect to understanding and thus linguistically expressing change of state. English speakers mainly use resultative verbs (*break*) and the resultative construction (*wipe the table dry*). And thus, in English, both the Resultative Construction and monomorphemic resultative verbs are habitually used to express change of state. With respect to Mandarin, it is commonly asserted that in order to convey change of state an RVC must be used. However, Mandarin also has a list of single-root verbs carrying resultative meaning. The perfective aspect marker *-le* is affixed to these verbs. For example, *zou-le* (leave-PFV) means 'leave' and *guan-le* (close-PFV) means 'turn off'. Even though Mandarin has a very limited number of monomorphemic resultatives, the most common way of expressing change-of-state situation is to use an RVC. One of the typical examples of RVCs is *ku-shi* (cry-wet):

- (1) Ta **ku- shi** le shoujuan.
He cry-wet PFV handkerchief
'He cried the handkerchief wet.'

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Lexically, RVCs are a combination of two or more morphemes (verbs or adjectives) forming a single verb (among many others, Chao 1968, Thompson 1973, Li & Thompson 1981). The components of the RVC can be either transitive or intransitive with V_1 expressing a cause and V_2 expressing result. Syntactically, RVCs involve two or sometimes three verbs forming a construction that schematically looks like V_1+V_2 . RVC acts like a single verb meaning that (1) nothing can be inserted between its constituents, (2) the aspect marker, which often accompanies RVCs, follows the compound treating it as one unit, and (3) arguments follow the entire RVC rather than being inserted between the action and result predicates (Chao 1968, Li & Thompson 1981, Chen 2008).

Leonard Talmy's (1991 and 2000) classification of English and Mandarin Resultatives shows that speakers of these two languages construe change-of-state events differently. It also provides the key-explanation of why there should be a problem with English speakers using Mandarin RVCs. First of all, English speakers view many change-of-state events as consisting of a single event, where two subevents are conflated in such a way that speakers do not necessarily view this event as consisting of two subevents (take *kick*, for example). As a result, in addition to having a wide array of resultative constructions, English is rich in monomorphemic resultatives. Chinese speakers, on the other hand, for the vast majority of cases view resultative events as clearly consisting of two subevents. In order to say that Actor kicked Patient, an RVC *ti-zhao* (propel.the.foot.as.to.kick-come.into.contact.with) has to be used. An important factor that plays a role here is that Mandarin is rich in verbs with what Koenig and Chief (2008) call an *incompleteness effect* which is based on Talmy's idea of *strength of implicature*. Secondly, if we look at classification of resultatives based on how speakers understand change of state events, we will find how exactly they differ. Talmy identified four patterns: (1) attainment fulfillment (*kick* something *flat*); (2) moot fulfillment (*hunt* somebody *down*); (3) implied fulfillment (*wash* something *clean*); (4) intrinsic fulfillment (*drown* as opposed to **drown* somebody *dead*). English is rich in the first and fourth patterns when it comes to expressing change of state. It only has a few instances of the third pattern. Mandarin, however, has an extensively developed third pattern when if V_1 is taken in isolation, it only implies that an action that took place with certain intention of a result and the implicature that the intention was realized. A V_2 has to be used in order for an RVC to actually express realized change of state. In addition to this, in Mandarin a number of subtypes has developed where V_2 in addition to fulfillment and confirmation, also has 'underfulfilment', 'overfulfilment', 'antifulfilment', and 'other event' types of results.

What also has great influence on ability to use RVCs by English speakers is the perfective aspect marker *-le*, L2 acquisition of which is a widely acknowledged problem of its own. Both RVC and *-le* contribute to the aspectual properties of a sentence (Xiao & McEnery 2004, Christensen 1997, Smith 1991). RVCs exemplify a lexical aspect and *-le* – a grammatical aspect. The fact that verb-final *-le* is used to perfectivise situations is a well-known and accepted phenomenon; however, RVCs function to perfectivise situations as well. The evidence yielded in the experiment discussed further suggests that there is a transfer of association from past tense

marker *-ed* in English to the perfective aspect marker *-le* in Mandarin: possibly because English speakers correlate it with a past tense marker, or possibly because of the fact that simple past in English is the most common indicator of perfectivity. Thus, because of this strong L1 transfer, English speakers are strongly predisposed to use the verb-final *-le* with resultatives, whether it be RVCs or monomorphemic verbs which are treated as resultative in learners' interlanguage.

2. Experiment description and findings. In response, I conducted an experiment, which included 16 target video clips ranging from 5 to 25 seconds long. Video clips depicted an actor or actors performing certain actions. These 16 clips consisted of 8 pairs of clips where one clip showed an action where a result took place and another clip showed the same action but with no result achieved. No subject (48 L1 English speakers) watched both members of a pair. Each subject watched 8 target video clips (4 depicting change-of-state and 4 depicting no-change-of-state events) and performed 2 tasks: (1) a description task (where each participant described the clips in English) and (2) an acceptability judgment task with 2 sentences for each clip. Both sentences in each pair were the same except the first sentence contained an RVC plus *-le* and in the second sentence contained V_1 of an RVC plus *-le*. The acceptability judgment task was performed using a continuum scale where answers ranged in the following fashion: 'completely unacceptable', 'probably unacceptable', 'I don't know', 'probably acceptable', and 'completely acceptable.' In the analysis the following scores were assigned to each value: '-2', '-1', '0', '+1', and '+2.' Statistical analysis (ANOVA) was applied in evaluating outcomes of the experiment. Subjects' description of the video clips in English showed that they treated change-of-state events and no-change-of-state as such and that with change-of-state events used in the experiment they would not use monomorphemic resultatives with two subevents conflated.

I used 8 RVCs which were divided into four groups depending on how V_1 -*le* was related to V_1 of an RVC in meaning: (1) RVCs where V_1 -*le* has the same meaning as V_1 of an RVC-*le*; (2) RVCs where V_1 -*le* does not have the same meaning as V_1 of an RVC-*le* and at the same time may have some resultative meaning but different from the meaning expressed by the RVC-*le*; (3) RVCs where V_1 -*le* has the same meaning as RVC-*le*; and (4) RVCs where V_1 -*le* has ambiguous meaning as it may or may not be interpreted as having the same meaning as RVC-*le*. The overall goal of this experiment was to see whether English speakers would favor Mandarin single-root verbs along with *-le* in describing change-of-state events. Specific questions addressed were: (1) whether English-speaking learners of Mandarin understand that a two-constituent RVC must be used to express a change-of-state event and (2) whether they equate the V_1 -*le* combination with RVC thus taking the perfective aspect marker *-le* as having resultative connotation.

The outcomes show that both advanced and intermediate groups of learners understand that RVCs have to be used to describe change-of-state events. I conclude this based on the data that show that learners assigned high scores to RVCs in those situations where change of state took place and low scores in those situations where no change of state occurred. This happened with all RVC types except RVC Type (4), but the RVC belonging to this type have an ambiguous meaning and is not treated as decisive for this conclusion.

The data show that learners do not treat the aspect marker *-le* as carrying resultative meaning in those situations where in their L1 they would not use monomorphemic resultatives. If they were to treat the verb-final *-le* as such, we would see that non-native speakers assigned high scores to V_1-le in change-of-state situations and low scores in no-change-of-state situations. In other words, they would treat these V_1-le combinations as RVCs. This was not the case. With the RVC Type (1) advanced learners behaved like native speakers. Intermediate learners behaved in a similar fashion as well with the exception of two situations both occurring with no-change-of-state events. In one situation the data barely showed significant difference ($p < 0.05$) between V_1V_2-le and V_1-le and in another situation there was no significant difference at all even though there should be a clear gap and, therefore, significant difference. With the RVC Type (2), learners' reaction is not as clear as with the RVC Type (1) because of the individual meanings of the V_1-le combinations. RVC's V_1-le counterparts proved to be more challenging for learners. Learners did not behave differently from native speakers in treating RVCs, but in most cases both groups of learners showed misunderstanding of the V_1-le combinations. However, no matter how both groups of learners interpreted these structures, they reacted to them differently than to RVCs thus indicating that they do not equate V_1-le with RVC-*le*. RVC Type (3) shows that advanced learners reacted in the same way as native speakers did. Namely, they treated the V_1-le combination the same as V_1V_2-le . This is the only case when this kind of reaction is expected. Intermediate learners, on the other hand, did not produce such a response because they treated these two structures differently in the no-change-of-state situation. With the RVC Type (4) both V_1-le combination and RVC-*le* have ambiguous meaning as the data indicate that each was understood as expressing a result and action. In short, in this experiment there was some inconsistency in learners' reaction to the target sentences, especially by intermediate learners. Their reaction was similar to that of native speakers in situations when V_1-le did not have the same meaning as V_1 of RVC, but they produced inconsistent results when V_1-le was equal to V_1V_2-le or had some other resultative meaning. However, no matter how they interpreted V_1-le combinations, in no-change-of-state situations, learners had a gap between V_1-le and RVC-*le*. This fact supports the conclusion that learners do not take *-le* as having resultative meaning.

In this study, I conducted an experiment containing Mandarin RVCs that do not correspond to English monomorphemic resultative verbs in which two subevents are conflated. And the outcomes clearly indicate that English speakers do not treat the V_1-le combination as consistently carrying resultative meaning. This is to be expected since the video clips depicted such situations where English speakers would not use monomorphemic resultatives. The next step is to see if they would take the V_1-le combination as resultative in those situations where in their L1 a monomorphemic resultative verb would be used. Given the evidence briefly presented here, English speakers should not decline the V_1-le combination in change-of-state events as opposed to only accepting RVC. This is only one of the first steps in proving experimentally that English speakers and Chinese speakers construe the change-of-state events differently.

3. References.

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