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## Revisit the Resultative Construction in Mandarin Chinese

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### ABSTRACT

This study revisits the syntactic derivation of two resultative patterns in Mandarin Chinese: the compounding resultative and the DE-resultative. A splitting light verb structure is examined in these two patterns, both of which contain multiple adjacent light verbs along with feature inheritance. The v-splitting approach is better than a base-generated structure with two separate v heads. One advantage is that it allows us to formulate the analysis in which the root raises to the light verb v\* without violating the head movement constraint. It also works well to explain the specificity of the postverbal argument in the resultative construction.

**Keywords:** Resultative construction; Light verb; Splitting; Chinese; Grammar

### 1. Introduction

The resultative construction expresses a resultant state caused by an action, which is denoted by an activity verb (Zhang, 2001). The resultative construction is usually composed of two predicates: a means predicate and a result state predicate (Williams, 2008). Containing a result state, resultatives usually describe events with a definite endpoint (Wechsler, 2005).

Two resultative patterns are widely acknowledged in Mandarin Chinese: the compounding resultative (1a) and the DE-phrasal resultative (1b). Abundant literature has analysed these resultative patterns from a lexically-based approach (Thompson, 1973; Li, 1990), a complex event-based analysis (Levin and Rappaport Hovav, 1995; Shi, 2006; Lee and Ackerman, 2011; Lee, 2022) and a syntactic derivational representation (Hoekstra, 1988; Huang, 1988; Zhang, 2001; Wang and Wu, 2008; Boas, 2011; Si, 2018; Tsai, 2016; Xiong

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and Yang, 2019).

- (1) a. Wusong da si le laohu. (Compounding Resultatives)  
 Wusong beat die ASP tiger  
 ‘Wusong beat the tiger so that it died.’  
 b. Wusong da de laohu si le. (DE-phrasal Resultatives)  
 Wusong beat DE tiger die PRT  
 ‘Wusong beat the tiger so that it died.’ (adapted from Zhang, 2001)

It is problematic to hold the lexically based approach, arguing that Chinese resultative compoundings are morphologically complex verbs (Thompson, 1973). Thompson (1973) claims that this rule is obligatory for all resultative compounds. There is evidence to argue against the lexical approach and show that compounding resultatives are formed in syntax instead (Thompson, 1973; Li, 1990). The first is Thompson’s (1973) own examples: the insertion of ‘-de-’ (be able) or ‘-bu-’ (be unable) between the two components of resultative compounds.

- (2) a. Ta la-kai le men.  
 He pull-open ASP door  
 ‘He pulled the door open.’  
 b. Ta la-de-kai men.  
 He pull-can-open door  
 ‘He can pull the door open.’  
 c. Ta la-bu-kai men.  
 He pull-can’t-open door  
 ‘He can’t pull the door open.’ (Thompson, 1973)

The insertion shows that the activity verb and the resultative predicate are not a lexical whole and they are discontinuous. The lexical approach cannot well explain the discontinuousness within the compounding words.

There are two more general problems with this lexical-based approach. First, it only specifies the compounding pattern, but does not include other resultative patterns, such as DE-resultative. Thus, no unified explanation has been provided. Second, since Marantz (1973), a lot of subsequent literature has argued against the lexicalist approach in that it is not efficient in explaining the general problems about compounding words. Given the above problems, this paper will not follow the lexical-based approach, but adopts the syntactic perspective to analyse compounding resultative and DE-resultative in Mandarin Chinese, from a syntactic perspective, especially based on the VP-shell approach (Huang,

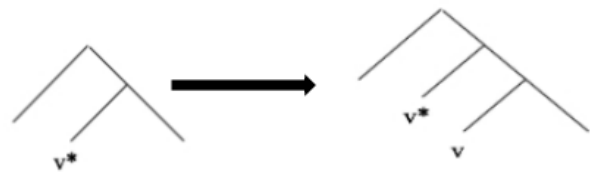
1988; Zhang, 2001), which can be effectively modeled by a double light verb structure.

The paper consists of five sections as follows. Section 2 introduces the methodology of this research, including the data sources used in this study, the splitting hypothesis of light verb structure, and the specific research steps and analysis process. Section 3 focuses on the results of the research, including the derivational analysis of the compounding resultative pattern and DE-resultative pattern. Section 4 is the main discussion, in which the comparison with existing research, theoretical significance, and practical application in language teaching and language processing are examined. The last section concludes the study, including research limitations and future research directions.

## 2. Methodology

The examples and data in this paper are about resultative patterns, and are cited or adapted from existing literature. The splitting hypothesis of light verb will be first introduced and see how this theory can be used to explain compounding and DE-resultative patterns in Mandarin Chinese.

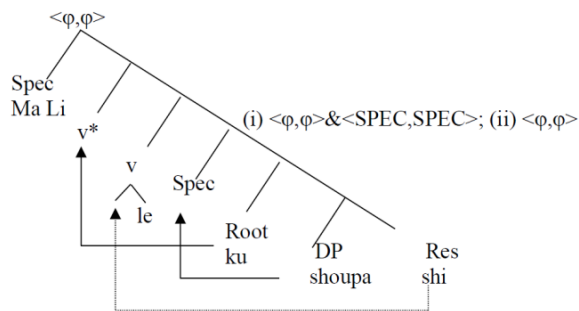
The v-splitting is a syntactic operation, in which the phrasal head  $v^*$  splits into a higher  $v^*$  and a lower  $v$ , to form a double-v structure in a countercyclic way. The extra split light verb is introduced “late”, after the original phrasal head  $v^*$  enters the derivation, and the splitting operation illustrates the “capability of expanding the tree at a non-root position”. A series of features are initially attached to the original phrasal head  $v^*$ . As a result of feature inheritance, the features, such as [CATEGORIAL], [SPEC], and [ASP] features, are remained on the higher  $v^*$ , and the probing features are transferred to the split lower  $v$ . The splitting-v hypothesis is presented in **Figure 1**.



**Figure 1.** The split-v hypothesis.

The splitting hypothesis of functional categories first originated from the sentence inflectional phrase (split-IP) proposed by Pollock (1989), stating that the IP can be split

into the tense phrase TP, which expresses tense, and its complement AgrP, which expresses an agreement phrase. The functional categories T and Agr form their own maximal projective phrases respectively. The splitting structure of the inflectional phrase in a sentence is shown as in **Figure 2**.



**Figure 2.** The split-v hypothesis.

Source: Pollock, 1989

Regarding the split hypothesis of light verbs, Tsai (2016) categorized Chinese light verbs into outer and inner light verbs, based on whether they are related to the eventual domain or action domain. Among them, the outer light verbs are related to the eventual information and the inner light verbs are related to the action. Si (2018) further proposed that the light verb *v* is not just a functional phrase but a “structural zone” that can be further split, from a cartographic theory of light verbs. A functional light verb can be split into different light verb layers which carry different syntactic and semantic information. Si (2018) first distinguishes between light verbs in a narrow sense and in a broad sense, pointing out that broad-sense light verbs are not based on a single syntactic position, but generated in different positions, and all together constitute a “light verb field”. A “light verb field” contains different “light verb zones”, such as “upper light verb zones” and “lower light verb zones”.

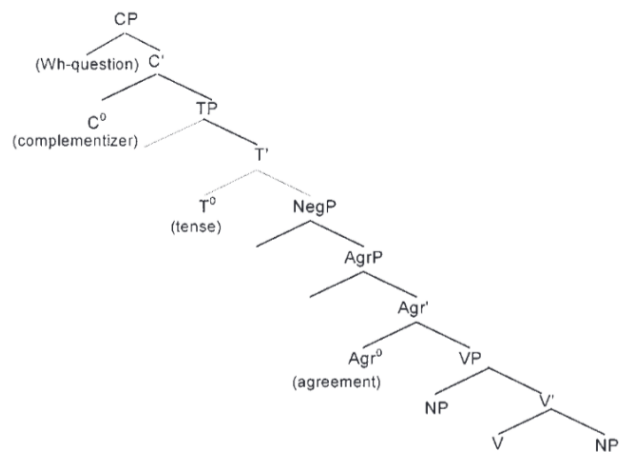
This paper will adopt the core of splitting ideas and proposes that a functional light verb can be further split into different sub-heads. The hypothesis is also structurally comparable to Robert’s (2012) work, in which the C (complementizer) is associated with a series of adjacent multiple heads. From the phase theory, Chomsky (1998) observes that the phase head C should be regarded as an idealization, which collapses Rizzi’s categories. Roberts (2012) further argues that C is associated with a series of adjacent heads. The features attached to the original C can be carried by the adjacent higher or lower heads. For instance, the edge fea-

tures (EF) are only carried by the highest head, whereas the probing features are borne by the structurally lowest heads. Roberts provides the following illustration of this approach.

As in Serbian/Croatian in (4), the probing feature is distributed to the structurally lowest head Fin and the edge feature (EF) to the highest head Force. Roberts (2012) analyses the clitic cluster in Serbian/Croatian in a similar splitting-C approach. The clitic cluster in the embedded finite clause immediately follows the complementizer, and no other constituents can intervene between the clitic cluster and the complementizer *da*.

- (3) a. ...da mu ga Ivan daje  
...that him it Ivan gives
- b. \*...da rado mu ga Ivan daje  
...that gladly him it Ivan gave
- c. \*...da Ivan mu ga daje  
...that Ivan him it gave
- ...that Ivan gave it to him (gladly)

In **Figure 3**, the C is analysed as the Force head, and X as the Fin. The head C should be a phrasal head, attracting clitics to raise up. The probing feature is associated with the structurally lower head Fin and the EF to the highest head Force. In the split-C analysis (Roberts, 2012), feature inheritance must still take place. The phrasal head C still should transfer features to T. The feature inheritance from C to T before C-splitting takes place.



**Figure 3.** The split-C approach.

Source: Roberts, 2012.

Extending the split-C analysis, the parallel head splitting is adopted in the light verb system. In this syntactic operation, the light verb can be split into multiple adjacent sub-layers: a higher *v\** and a lower *v*, to form the double-v

structure. The v-splitting is a syntactic operation, in which the phrasal head  $v^*$  splits into a higher  $v^*$  and a lower  $v$ , to form a double- $v$  structure in a countercyclic way. The extra splitted light verb is introduced “late” after the original phrasal head  $v^*$  enters the derivation, and the splitting operation illustrates the “capability of expanding the tree at a non-root position” (Gartner and Michaelis, 2008). A series of features are initially attached to the original phrasal head  $v^*$ . As a result of feature inheritance, the features, such as [CATEGORIAL], [SPEC], and [ASP] features, remain on the higher  $v^*$ , and the probing features are transferred to the splitted lower  $v$ .

### 3. Results

In this section, the analyses of DE-resultatives and compounding resultatives are demonstrated, to show the syntactic splitting process and derivation results in two resultative patterns in Mandarin Chinese. In addition, the specific properties of the argument are discussed to see how the splitting structure works for the specificity in these two patterns.

#### 3.1 Splitting in DE-resultative

In the DE-resultative pattern, the post-DE argument can optionally have a selectional relationship with the activity verb. In (4a), *zhe liang tiao shoujuan* ‘these two handkerchieves’ does not have the selected relationship with the verb *ku* ‘cry’, while the argument *zhe ke shu* ‘this tree’ in (4b) has the selected relationship with the verb *kan* ‘chop’.

- (4) a. *Akiu ku de zhe liang tiao shoujuan dou shi le.*  
 Akiu cry DE this two CL handkerchief even wet

PRF

‘Akiu cried so much that these two handkerchieves were wet.’

- b. *Akiu kan de zhe ke shu dou dao le.*

Akiu chop DE this CL tree even fall PRF

‘Akiu chopped this tree so much and as a result, these three became fallen down.’ (based on Zhang, 2001)

The (selected/non-selected) DE-resultatives are derived from a similar underlying base: a v-splitting configuration. In the v-splitting structure, the phrasal head  $v^*$  splits into two sublayers of  $v$ : the higher  $v^*$  and the lower  $v$ . The resultative DE is analyzed as an overt element in the lower functional  $v$  at PF in DE-resultative. In (4a), the unselected

post-DE argument *zhe liang tiao shoujuan* ‘these two pieces of handkerchief’ is generated as the sister to the resultative head *shi* ‘become wet’. The uncategorized root enters the derivation and merges with the configuration DP, Res. The Root [uCAT] is uncategorized when it enters the derivation, and it is supposed to be open to merge with either a head (H) or a phrasal constituent (XP) in principle. In the resultative pattern, it merges with the configuration DP, Res, in which the DP and the Res do not have the agreement feature, so one of them must move out of the configuration for labeling purposes, ending up with the DP raising higher to the specific position of Root later.

The Root-to- $v^*$  head movement takes place in the DE-resultative pattern. As I have explained, before the v-splitting occurs, the root acts as the head of the complement of the phrasal head  $v^*$ . This relationship has been established before v-splitting. The syntactic relation between the Root and the  $v^*$  will not be altered after the v-splitting operation. The Root-to- $v^*$  head movement then creates a verbal category for the Root in the derivation. The derivation is represented in Figure 4.

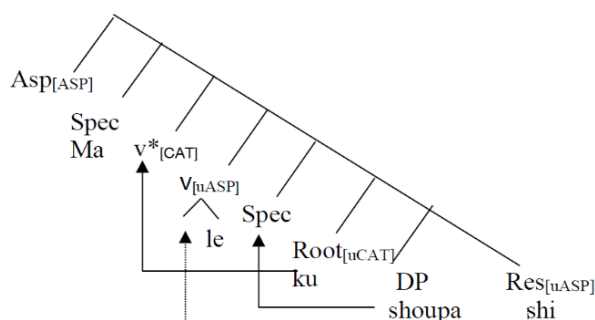


Figure 4. The derivation of unselected pattern.

The selected pattern shares a similar underlying base with unselected pattern, but only differs in the sister relation between the post-DE argument and the resultative predicate. The selected argument *zhe ke shu* ‘this tree’ is not the sister of the resultative predicate, but merges instead with the activity root. The raised DP *zhe ke shu* ‘this tree’ in the specifier of Root becomes the subject of the resultative head Res after it shifts to Spec-Root, so the object orientation is reached, as in Figure 5.

Turn to the unselected pattern, which shares a unified model with the selected pattern, only different in the sisterhood between the verb root and the postverbal argument. The c-commanding relation between the resultative head and

the postverbal argument is different, but both can predict the resulting head as the predicate of the postverbal argument in both patterns. In the unselected pattern, the resultative head Res shi ‘wet’ is the sister to the postverbal argument zhe liang tiao shoujuan ‘these two handkerchieves’, which is not surprising to produce Res-as-predicate of the postverbal argument (similar to the small clause approach). In the selected pattern, the resultative head Res dao ‘fall’ is not c-commanded by the postverbal argument zhe ke shu ‘this tree’, but it is c-commanded by the copy of the shifted postverbal argument in the Spec of the root. The c-commanding relation still produces the Res as the predicate of the postverbal argument after the DP shift to the Spec of Root. Thus, both unselected and selected patterns guarantee the Res as the predicate of the postverbal argument.

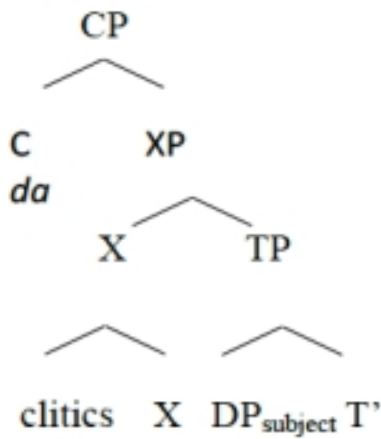


Figure 5. The derivation of selected pattern.

### 3.2 Splitting in compounding resultative

Compounding resultatives in Mandarin Chinese consist of two predicates: the activity verb and the resultative predicate. In (5a), the postverbal argument shoujuan ‘handkerchief’ is the unselected object of the activity verb ku ‘cry’. In (5b), the object shu ‘tree’ is the selected argument of the activity verb kan ‘chop’.

(5) a. Ma Li ku shi le shoujuan.

Ma Li cry wet ASP handkerchief

‘Ma Li cried and as a result, the handkerchief

became wet.’

b. Ma Li kan dao le shu.

Ma Li chop fall ASP tree

‘Ma Li chopped the tree and as a result the tree

became fallen down.’

Again, both patterns are derived from a v-splitting configuration, in which two adjacent light verbs are involved. In (5a), the root ku ‘cry’ enters into the derivation without a category, and its merger to the functional head v\* creates the verbal category for the root. The DP shoujuan ‘handkerchief’ within the configuration DP, Res moves out to the specifier position of Root, creating the shared feature between the shifted DP and the Root as the label, i.e., the <φ,φ> feature pair. The Res-to-v head movement is triggered by resultative aspectual features in this pattern. Let us look at why Res-to-v is possible in splitting analysis. The [uASP] feature originates from v\*, and then transfers to the extra lower v in the splitting hypothesis. There is no selection relationship between the lower v and Res, so there is less of a locality restriction (no head movement constraint), but the lower v still wants to attract the closest available head, due to its [uASP] feature. Movement of Root to v\* makes it ineligible; Res is the only option that can be raised to the lower v, and then the [uASP] feature in the lower v and the Res are checked and valued by the interpretable [ASP] feature in the higher Asp.

In compounding resultatives, we can find the perfective aspectual marker LE, immediately following the resultative predicate. This LE is an overtly morphological realization of the lower v, the same as the DE in DE-resultatives. However, unlike the resultative DE, the perfective LE itself is not sufficient to express the resultative aspectual feature. The unfulfilled [uASP] feature triggers the head Res-to-v movement operation, ending up with a complex cluster ‘Res+LE’. This can also explain why the affixed LE can co-occur with compounding resultatives but not with DE-resultatives. The derivational structure of an example (5a) is represented in Figure 6.

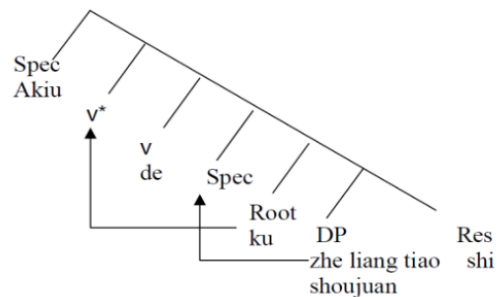


Figure 6. v-splitting in unselected compounding resultatives.

In (5b), the postverbal argument is the selected object

of the activity verb. The selected compounding resultative pattern shares the same underlying representation with the unselected one; only differs in sister relation between the Causee DP and the activity verb root. The activity verb root kan ‘chop’ merges with the selected object shu ‘tree’. The resultative predicate dao ‘fall down’ enters into the derivation by merging with the node (Root + DP). Similarly, the head raising operation Root-to-v\* is triggered by the labeling requirement, creating a verbal category for the root after raising the head. Another head Res-to-v movement is triggered by the aspectual features in the lower v. The affixed LE itself in the compounding pattern is not sufficient to fulfill the resultative aspectual feature, so it needs an extra Res head to raise to this node. As we have explained in the unselected pattern, Res is the only option that can be raised to the lower v. The v and the Res do not have a selection relation, so they are not in a locality restriction. The Root has been moved out to the higher v\* and its trace does not block the head Res-to-v movement. Thus, the Res is the only candidate that can move to the lower v. The derivation of (5b) is thus represented in **Figure 7**.

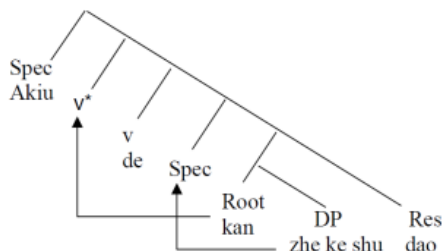


Figure 7. v-splitting in selected compounding resultatives.

So far, a v-splitting configuration is modeled in two subtypes of compounding resultatives, which is similar to the representation for DE-resultatives in Mandarin Chinese.

### 3.3 Specificity of resultative patterns

A contrast between DE-resultatives and compounding resultatives is observed: the subject of the resultative predicate in the former has to be specific; whereas the subject of the resultative predicate in the latter can be nonspecific. Since specificity is here associated with a certain syntactic context, it is reasonable to suppose that it may be reflected in a specific ([SPEC]) feature employed in a labeling configuration.

(6) a. Ma Li zha de zhe pan huasheng hu le.

Ma Li fry DE this plate peanut overcooked Asp  
 ‘Ma Li fried this plate of peanuts and as a result the peanuts became overcooked.’

b. \*Ma Li zha de huasheng hu le.

Ma Li fry DE peanut overcooked Asp

(7) a. Ma Li chi ni le niurou. (nonspecific)

Ma Li eat tired Asp beef

‘Ma Li ate beef and as a result she became fed up with it.’

b. Ma Li chi ni le zhe zhong menggu niurou. (specific)

Ma Li eat tired Asp this type Mongolian beef

‘Ma Li ate this type of Mongolian beef and as a result she became fed up with it.’

In compounding resultatives, the optional specificity (specific/non-specific) is determined by the optional inheritance of SPEC-features after v-splitting. The details are illustrated as follows. In addition to [CATEGORIAL] and [VERBAL] features attached to the original v\*,  $\phi$ -features and SPEC-features are also originally contained in the phrasal head v\*, and the lower light verb v can optionally inherit the SPEC-features after splitting. If both  $\phi$ -features and SPEC-features are inherited from v\* to v then to Root, the  $\langle\phi,\phi\rangle$  features and  $\langle$ SPEC,SPEC $\rangle$  features are shared between Root and the shifted postverbal argument. LA take these feature pairs as the label. A specific reading in the postverbal argument is reached. However, if only  $\phi$ -features are inherited from the phrasal head v\* to v then to Root, Root and the shifted postverbal argument only share  $\phi$ -features, but not SPEC-features. Thus LA takes  $\langle\phi,\phi\rangle$  feature pair as the label, ending up with an optional specific reading. The asymmetric specificity effect not only applies to the selected pattern, but also to the unselected pattern. Take the unselected pattern for example (**Figure 8**).

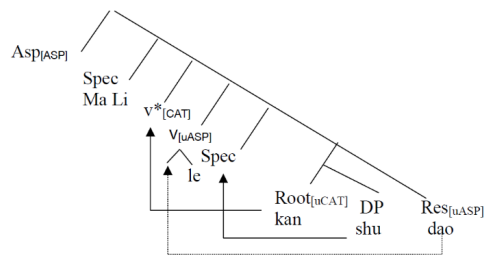
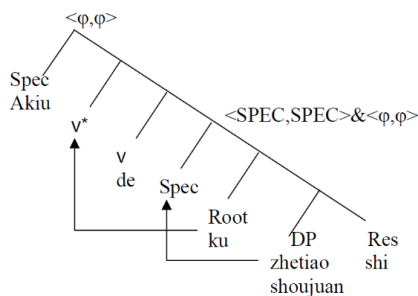


Figure 8. Asymmetric specificity in compounding resultatives.

In DE-resultatives, the subject of the resultative predi-

cate has to be specific, due to the [SPEC] features inherited to the lower v. In the splitting operation, the lower v has  $\phi$ -features and SPEC-features inherited from  $v^*$  to v, then transfers to Root. The  $\langle\phi,\phi\rangle$  features and  $\langle$ SPEC,SPEC $\rangle$  features are shared between Root and the shifted postverbal argument. LA takes these feature pairs as the label. A specific reading in the postverbal argument is reached. The specificity effect not only applies to the selected pattern, but also to the unselected pattern. Take an unselected pattern for example, and the derivation is presented in **Figure 9**.



**Figure 9.** Specificity in DE-resultatives.

Based on feature inheritance in root interrogatives, I have proposed that the light verb can optionally contain SPEC-features, which are originally from the phrasal head  $v^*$ , and then cyclically transfer to the Root in the v-splitting structure. Both the compounding and DE-patterns involve ‘Causee-to-Spec of Root’ movement, but differ in two ways. First, Res undergoes head raising in compounding resultatives, but remains in situ in DE-resultatives. Second, the lower light verb v inherits both  $\langle\phi,\phi\rangle$  features and SPEC-features from  $v^*$ , then transfers to the Root in DE resultatives, producing specific readings. In contrast, the lower light verb v optionally inherits SPEC-features from  $v^*$  to v, then transferred to Root in compounding resultatives, producing either specific or non-specific readings. Different feature checking determines different labels. Different labels correspond to differential specificity asymmetry.

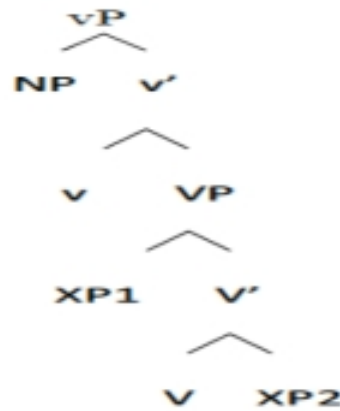
## 4. Discussion

This section compares the analysis of this paper with existing research and discusses their similarities and differences. In addition, it discusses the theoretical significance of the splitting analysis and its practical application in Chinese teaching and language processing.

### 4.1 A comparison with existing research

This section compares how the splitting-v proposal differs from the light verb structure in existing literature, and demonstrates that the v-splitting approach well models the selection relation between the resultative predicate and the postverbal argument, as compared to Huang’s affixed and vP shell analyses in Mandarin Chinese.

Dating back to Jespersen (1954), the term ‘light verb’ was first created, originally describing verbs such as *have* and *give* in the complex predicate construction, like *have a path* and *give a push*. In these light verbs, the semantic content is expressed by the nominal action, rather than the verb itself. The nominal actions *path* and *push* are known as deverbalized substantives, and the verbs *have* and *give* do not make much contribution to the semantic expression (Jespersen, 1954). In the generative perspective, the concept of “light verb” is widely accepted as a component, separate from VP, introducing the agent theta-role (Larson, 1988; Hale and Keyser, 1993; Chomsky, 1995). Chomsky (1995) argues that the light verb v is a soundless verbal head and less lexical than V, introducing the agent argument to the sentence. According to Chomsky (1995), the complete functional complex is represented in **Figure 10**, which minimally introduces both the external and internal participants.

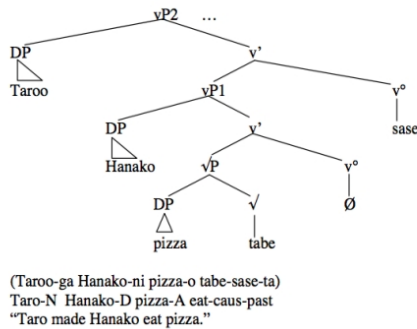


**Figure 10.** vP structure.

Source: Chomsky, 1995.

Harley (2008) argues that the functional verb v can take a vP complement in Japanese causatives. In causatives, the base verb form is derived from a Root, and the lower v introduces the external argument, forming an argument-complete complement of a higher v. The higher v introduces

the agent argument of the causative construction. Thus, the vP complement which is introduced by another higher v is found in **Figure 11**.



**Figure 11.** vP complement introduced by a higher v.

Source: Harley, 2008.

Si (2018) analyses Mandarin Chinese Causatives along similar lines, arguing that the light verb v actually forms a light verb field or light verb zone. The field or the zone is made up of multiple layers of maximal light verb projections. Taking resultative patterns for example, Si (2018) claims that the resultative construction consists of a light verb field/zone. The light verb is distributed into higher and lower light verbs. The light verb field consists of two sub-layers: a CAUSE light verb field and a BECOME light verb field. Each field is further distributed into its external and internal light verbs.

(8) *Ta xi ganjing le yifu.*

he wash clean ASP clothes

'He washed clothes, and as a result the clothes became clean.'

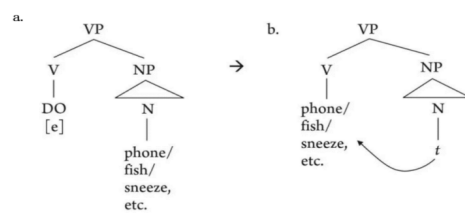
Based on Harley (2008) and Si (2018), which analyse that v can take a vP complement or v actually forms a light verb field or light verb zone, I claim that multiple light verbs can express a single initial v, which is more parallel to Robert's (2012) split-C analysis. Unlike in causative structures, the lower v generated by this splitting operation does not introduce new argument structures or theta-roles.

## 4.2 Theoretical and practical significance

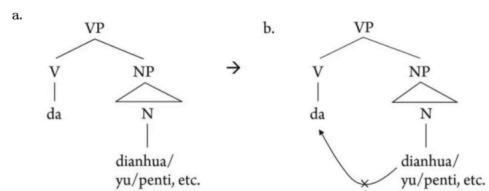
The splitting analysis sheds light on the typological variation across languages. Light verb structures have different distributions and presentations in English and Chinese languages, and the splitting permissibility of light verb is related to the typological features of the language. From the

typological point of view, according to whether the lexical meaning can be expressed by the morphological changes of the words themselves, the language can be divided into isolated, inflected and adherent languages, etc., and can be also divided into analytic, synthetic, and polysynthetic language types. Compared with other Indo-European languages, English is a relatively synthetic language, which expresses changes of tense, voice and number with the help of lexical inflection. On the other hand, as a language with underdeveloped morphological markers, Chinese expresses changes of meaning not by morphological changes in the words, but by grammatical relations. All these reflect that English is a relatively synthetic language, while Chinese is an analytic language (Huang, 2015).

Among the functional light verb structures, Chinese verb phrases have highly productive light verbs, such as da "make" is analyzed as a light verb in the verbal phrases da dianhua "phone"/ da yu "fish"/ da penti "sneeze"/ da hu "snore"/ da haqian "yawn" (Huang, 2015). The Chinese word dianhua "phone" cannot be denominalized and directly used as a verb, but the English nouns phone/fish/sneeze/snore/yawn can be used directly as verbs (Huang, 2015). This is due to the fact that light verbs in English (e.g., DO) have [STRONG] features and are thus not realized as any overtly light verbs. The strong feature can trigger a movement operation. However, Chinese light verbs do not have [STRONG] features but have overtly realized light verbs. The weak feature cannot trigger a movement operation but only a selectively restricted agreement relation in **Figure 12** and **Figure 13** (Huang, 2015).



**Figure 12.** The light verb in English.



**Figure 13.** The light verb in Mandarin Chinese.

Source: Based on Huang, 2015.



Based on the feature variation of light verbs across languages, this paper tends to provide a perspective to explain the possible relation between the light verb structure and the strong and weak features of the light verb. English and Mandarin Chinese differ in the strong/weak features of the light verbs, and then differ in appearance/non-appearance of the splitting operation. Unlike English, in Mandarin Chinese, the splitting operation occurs when the light verb lacks of [STRONG] features and produces multiple adjoining light verbs as a way to obtain and enhance the [STRONG] features of the light verb. The multi-layered light verbs generated after the splitting operation carry different syntactic features, with higher light verb retaining the boundary EDGE feature, and the low-level light verb retaining the probing feature to be verified in the agreement relation. Taking the Chinese resultative verb pattern as an example, when the initial light verb has no [STRONG] feature, a splitting operation occurs so as to obtain and enhance the [STRONG] feature of the light verb. To this step, there may be two sub-cases: if the split lower light verb has no overt markers, the movement operation is triggered to form a compound resultative pattern; if the split lower light verb has overt markers (e.g., the “DE” marker), it triggers the agreement relation, and finally form the Chinese DE-resultative patterns.

In addition, the splitting analysis sheds light on Chinese teaching and language processing, as it helps to specify the grammar structure effectively and hierarchically. By understanding and applying the rules of syntax, language learners may better understand and use the structure appropriately. In language processing, syntax structure helps computers and other devices to analyze and interpret human language. By following the rules of syntax, machines can accurately parse and understand the meaning of sentences, allowing for more effective communication between human beings and technologies. Thus, the study and application of syntactic structure are essential for language teaching and processing, as they provide a framework for organizing and interpreting language in a clear and structured way.

## 5. Conclusions

This study re-examines the general light verb structure and its application to two resultative patterns: compounding resultatives and DE-resultatives. The split-v structure

is supposed, in which feature inheritance occurs from the original phrasal head  $v^*$  to the split lower light verb. In compounding resultatives, two head movement operations are hypothesized: Root-to- $v^*$  and Res-to- $v$ . The Root-to- $v^*$  movement is triggered by the labeling for the Root; whereas the Res-to- $v$  is motivated by the [VERBAL] feature inherited from the higher  $v^*$  to the lower  $v$ . In DE-resultatives, a similar split- $v$  structure is discussed, but the resultant predicate projects into its phrasal projection, making the resultant predicate remain in situ.

However, the current study mainly discusses the splitting hypothesis in two resultative patterns in Chinese, and more grammar phenomena and language data are needed to test the theory. More future investigation extending to more various ‘complex’ resultative patterns will be conducted, to provide further empirical evidence to this study. Hopefully, it will help us get a better understanding of the resultative construction and other associated structures in a broader sense.

## Author Contributions

This paper was conceptualized, researched, and written entirely by Ingrid Yanxiao Ma. All aspects of the study, including the formulation of the research question, the development of the methodology, the data collection and analysis, and the manuscript preparation, were undertaken by the author alone.

## Conflict of Interest

The author declares that there is no conflict of interest.

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