

Title	A lexical-syntactic approach to argument realization in Mandarin resultative V-V compounds
Author(s)	Jennifer Yao
Issue Date	2016
Issue Number	5
Paper Number	4
Citation	Yao, J. (2016). <i>A lexical-syntactic approach to argument realization in Mandarin resultative V-V compounds</i> (Working Paper Series No. 4, Issue 5, 2016). Hong Kong: The Hong Kong Polytechnic University, College of Professional and Continuing Education, School of Professional Education and Executive Development. Retrieved Feb 6, 2017 from <a href="http://weblib.cpce-polyu.edu.hk/apps/wps/assets/pdf/w20160504.pdf">http://weblib.cpce-polyu.edu.hk/apps/wps/assets/pdf/w20160504.pdf</a>
Rights	Copyright for this paper is owned by the author(s).

## **A Lexical-syntactic Approach to Argument Realization in Mandarin Resultative V-V compounds**

**Jennifer YAO**

School of Professional Education & Executive Development  
The Hong Kong Polytechnic University  
Kowloon, Hong Kong  
spyao@speed-polyu.edu.hk

### **ABSTRACT**

Basically there are two different views on the argument realization of resultative V-V compounds in Mandarin Chinese. One derives the compounds in the lexicon, and the other in syntax. However, some crucial problems remained unclear either in a pure lexical analysis or in a pure syntactic approach. Following Hale and Keyser (1993), this paper adopts a lexical-syntactic approach to Mandarin resultative v-v compounds and assumes that all subject NPs are external to VP/AP but introduced and licensed by the little v, which is a new unsaturated predicate resulting from incorporating a light verb with a root verb. Therefore, the external subject NP gets its semantic role through the predication relationship that holds between the subject NP and the little v phrase as a whole, which means that the subject NP should be semantically consistent with the little v, as well as the root verb. Such assumption hence not only account for the problems remained either in the lexical approach or the pure syntactic analysis, but also captures Chinese native speakers' intuition that V2 plays an important role in the interpretation of V-V compounds.

**KEYWORDS:** Mandarin, V-V compound, Argument realization, Lexical-syntactic approach

# 1 INTRODUCTION

Basically, there are two different views on resultative V-V compounds in Mandarin Chinese. One derives the compounds in the lexicon, such as Li (1990, 1995, 1997, 1999), Pan (1998); and the other in syntax, such as Huang (1989, 1992), Gu (1994), Sybsema (1999), Lin (2001), Sybsema&Shen (2007) and among others. However, there are crucial problems remained either in pure lexical analysis or in pure syntactic approach, as indicated in the following data:

1. Baoyu wen wenti wen-fan-le Daiyu <1, 3, 2-1'>  
 Baoyu ask question ask-bored-ASP Daiyu  
 Baoyu asked Daiyu questions to the extent that Daiyu became bored  
 (Li, 1990)
2. Ta yinwei tiantian tiqiu, ti-po-le ta-de qiuxie < ? >  
 he because everyday play soccer kick-break his sneaker  
 he kick-break his sneaker because he plays soccer everyday  
 (Cheng, 1997)
3. a. \*Wu-xiu-zhi de pailian chang-fan le youyou  
 Constant rehearse sing-bored Asp youyou  
 The constant rehearse caused Youyou to sing herself bored  
 b. Zheshouge chang-fan le Youyou  
 this-cl song sing-bored Asp Youyou  
 Youyou got bored from singing this song  
 c. Wu-xiu-zhi de pailian Shi Youyou chang-fan le  
 constant rehearse Shi Youyou sing-bored Asp  
 The constant rehearse caused Youyou to sing herself bored
4. a. \*Jiaolian pao-lei le Youyou  
 coach run-tired asp Youyou  
 The coach made Youyou get tired from running  
 b. ?Jiaolian shi Youyou pao-lei le  
 coach make Youyou run-tired asp  
 The coach made Youyou get tired from running  
 (Li, 1995)

Briefly, sentences like 1-2 strongly challenge Li's lexical approach to the theta role assignment in resultative V-V compounds in Mandarin Chinese, since the thematic frame in sentence 1 apparently violates the thematic hierarchy, as well as the causative hierarchy (actually there is no causative involved); rather, there is no theta role identification realized at all in sentence 2 (Cheng (1997)). While the contrasts in sentences like 3-4 greatly weaken the explanatory power of a pure syntactic approach to argument realization in Mandarin v-v compounds. According to Lin (2001), both subject and object arguments in Chinese are introduced and licensed by a light verb, such as CAUSE in sentences above, which have no relationship with the root verb at all. If that is true, all sentences in 3-4 above should be predicated to be available. Such predication nevertheless is bored out, as the contrasts indicated in sentences 3-4 above. Similarly, Sybsema's small clause analysis also inherits such problem, where the

subject NP in causative v-v compound is proposed to be external to the VP and be introduced by an abstract verb.

In this paper, I apply Hale and Keyser (1993)'s lexical-syntactic approach to the argument structure of Mandarin resultative V-V compounds, and try to answer three following questions which remained unanswered or unclear either in a lexical approach or a pure syntactic approach: 1) where does the causative sense come from in a Mandarin resultative V-V compound and where and how does it locate in syntax? 2) how to account for the contrast on acceptability between sentences with SHI and sentences with V-V compound, as demonstrated by the sentences 3-4 above? 3) where does the ambiguity come from in resultative V-V compounds in Mandarin Chinese, such as famous data “zhui-lei” which is argued to have 5 different readings?

## 2 THE DATA ON MANDARIN RESULTATIVE V-V COMPOUNDS

Mandarin Chinese abounds in resultative V-V compounds and it is different from English resultatives in several aspects. The crucial one is that in English resultatives, the first predicate is restricted to an action verb, and the second a stative verb. While in Mandarin resultative V-V compounds, some do follow this rule, but others not. Take the following data for instance:

5. Zhangsan da-duan le Lisi de tui  
Zhangsan beat-break asp Lisi's leg  
Zhangsan beat (Lisi) and as a result Lisi's leg broke
6. Zhangsan ku-zou le Lisi  
Zhangsan cry-leave asp Lisi  
Zhangsan cried so much that Lisi left
7. Zhangsan da-ku le Lisi  
Zhangsan beat-cry asp Lisi  
Zhangsan beat Lisi and as a result Lisi cried
8. Lisi ting-dong le na-juhua  
Lisi listen-understand asp that-cl word  
Lisi listened to the sentence and then he understood it
9. Lisi ku-shi le hao ji-kuai shoujuan  
Lisi cry-wet asp quite several-cl handkerchief  
Lisi cries so much that quite a few handkerchiefs got wet.
10. Jianku-de gongzuo lei-bing le Lisi  
Hard work tired-ill asp Lisi  
Lisi got tired and ill from working hard

(data 5-9, cited from Gu (1994))

11. Lisi zui-dao le  
 Lisi drunk-fall asp  
 Lisi got drunk and fell into the ground

The above data illustrated that the V2 in Mandarin resultative V-V compound can be a unaccusative verb, such as in sentences 5; a unergative verb, which however, is restrict to ‘ku’ cry and ‘xiao’ laugh, as in sentence 6; an intransitive verb, as in sentence 7; or a stative verb, as in sentences 8-9. While the V1 in Mandarin resultative V-V compound can be an action verb, such as in sentences 5-9, or a stative verb, such as in sentences 10-11.

Semantically, the resultative V-V compound in Mandarin Chinese naturally falls into two subtypes: causative V-V compounds and non-causative V-V compounds, where the former has the corresponding counterparts with the “V-de NP XP” construction, which normally is viewed as a causative construction (Lin 2004, Huang 2006, among others); while the latter has no such corresponding counterparts, as the following sentences 12-19 shown:

**Causative V-V compounds:**

12. a. Zhangsan chang-fan le Lisi  
 Zhangsan sing-bored asp Lisi  
 Zhangsan sang (songs) and as a result Lisi got bored from it
- b. Zhangsan chang-de Lisi fan-le  
 zhangsan sing-de Lisi bored-asp  
 Zhangsan sang (songs) and as a result Lisi got bored from it
13. a. Zhe-jian shi ji-ku le mama  
 This-cl matter worried-cry asp Mom  
 Mom worried about this matter so much that she cried
- b. Zhe-jian shi ji-de mama ku-le  
 This-cl matter worried-de Mom cry-asp  
 Mom worried about this matter so much that she cried
14. a. Mengjiangnv ku-dao le wanlichangcheng  
 Mengjiangnv cry-fall asp great-wall  
 Mengjiangnv cried so much that the great wall falled
- b. Mengjiangnv ku-de wanlichangcheng dao-le  
 Mengjiangnv cry-de great-wall fall-asp  
 Mengjiangnv cried so much that the great wall falled

**Non-causative V-V compounds:**

15. a. Wo you Shuo-cuo le yi-ju hua  
 I again speak-wrong asp one-cl word  
 I spoke one word wrong again
- b. \*Wo you Shuo-de yi-ju hua cuo-le  
 I again speak-de one-cl word wrong-asp  
 I spoke one word wrong again
16. a. Ta changchang chi-duo dongxi  
 he often eat-much food  
 he often eats too much
- b. \*Ta changchang chi-de dongxi duo-le  
 he often eat-de food much-asp  
 he often eats too much
17. a. Ta ting-guan le wo de shengyin  
 He listen-costomed asp my voice  
 He got costumed to my voice
- b. \*Ta ting-de wo de shengyin guan-le  
 He listen-de my voice costumed-asp  
 He got costumed to my voice
18. a. Ta xue-hui le liang-chu xinxi  
 He learn-master asp two-cl new play  
 He mastered two plays
- b.\* Ta xue-de liang-chu xinxi hui-le  
 He learn-de two-cl new play master-asp  
 He mastered two plays
19. a. Wo bei-shu le zhe-pian wenzhang  
 I recite-familiar asp this-cl passage  
 I learned off this passage
- b. \*Wo bei-de zhe-pian wenzhang shu-le  
 I recite-de this-cl passage familiar-asp  
 I learned off this passage

Such distinction between causative V-V compounds and non-causative V-V compounds demonstrated above tells us that the causative v-v compounds should be distinguished from the non-causative V-V compounds in Mandarin Chinese. Li (1997) claimed that the Causer and Causee interpretations are the consequences of putting two verbal predicates into a “bigger” resultative construction. When used separately, neither the first verb nor the second one necessarily assigns such readings to its argument(s). However, questions like why there is causative reading involved in some resultative V-V compounds but others not still remained unanswered. In other word, where does the causative meaning come from in the resultative V-V compounds in Mandarin Chinese? If it does not come from the lexicon, then where and how it locates in syntax?

Pan (1998) assumed that the interpretation of a resultative V-V compound in Mandarin depends on the property of V2, and proposed that the causative meaning comes from the V2, which undergoes the causativization when it enters into the V-V compound. For example:

20. a. Zhangsan lei le.  
Zhangsan tired Prt  
Zhangsan is tired.
- b. Ni lei-le ta bantian le, rang ta xiuxi yixia ba.  
you tire-ASP he half-day Prt let he rest once Prt  
You have made him tired for quite a while. Please let him to have a break.
21. a. Ni fan bu fan?  
you annoy not annoy  
Are you annoyed?
- b. Bie fan wo.  
Don't annoy I  
Don't bother me.

According to Pan (1998), there are two different versions of “lei” and “fan” in Mandarin, one is inchoative, as in 20a-21a; the other is causative, as in 20b-21b; and the latter is derived from the former by a lexical rule called causativization. This rule adds a CAUSE to the argument structure of the verb in question, as shown in 22-23:

22. a. lei <EXP>  
b. lei <CAUSE, EXP> (after causativization)
23. a. fan <EXP>  
b. fan <CAUSE, EXP> (after causativization)

Pan's analysis is quite attractive and it captured Chinese native speakers' intuitions. However, this assumption which resorts the causativization in v-v compounds to a lexical rule faces challenges from the empirical ground. Many sentences with a V-V resultative compound are causative, in which, however, the V2s do not have a causative version, as the ungrammaticality in sentences 24b-27b below indicated, where the V2s 'xing' (wake), 'pao' (run), 'cheng' (too full), 'dai' (get frozen) can not be used causatively.

24. a. Xiaobaobao ku-xing le mama  
 little baby cry-awake asp Mom  
 The little baby's crying awaken his Mom.
- b.\*xiaobaobao xing-le mama  
 little baby awake-asp Mom  
 the little baby awaken his Mom
25. a. Xiaohuanggou xia-pao le xiaotou  
 little yellow dog frighten-run asp thief  
 The little yellow dog frightened the thief and made him run away
- b. \*xiaohuanggou pao-le xiaotou  
 little yellow dog run-asp thief  
 the little yellow dog ran the thief
26. a. Yi-wan shuijiao chi-cheng le Laowang  
 one-cl dumpling eat-too much  
 One bowl of dumplings caused Laowang to feel uncomfortable
- b.\*yi-wan shuijiao cheng-le Laowang  
 one-bowl dumpling too much asp Laowang  
 bowl of dumplings caused Laowang to feel uncomfortable
27. a. Jingcai de biaoyan kan-dai le guanzhong  
 wonderful performace watch- froze asp audiences  
 The wonderful performace caused the audiences to get frozen
- b.\*jingcai de biaoyan dai-le guanzhong  
 wonderful performance asp audiences  
 the wonderful performace caused the audiences to get frozen

In the following section, I will partially adopt the insight in Pan (1998) that V2 plays an important role in the interpretation of a V-V compound, and provide a lexical-syntactic approach to argument realization in Mandarin resultative V-V compound.

### 3 MY PROPOSAL

#### 3.1 lexical-syntactic approach to argument realization

Hale and Keyser (1993) assumed that the proper representation of predicate argument structure is itself a syntax based on their investigation of denominal verbs of the type represented by calve, lamb, shelve, bottle, saddle, hobble, and the like, whose formation takes place by means of incorporation and is expected to be subject to syntactic principles, such as The Head Movement Constraint. That is to say, as a matter of strictly lexical representation, each lexical head projects its category to a phrasal level and determines within that projection an unambiguous system of structural relations holding

*Working Paper Series No. 4, Issue 5, 2016*



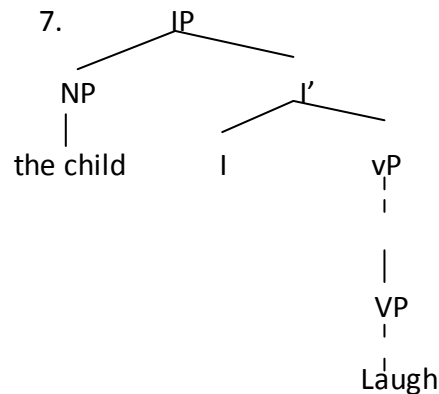
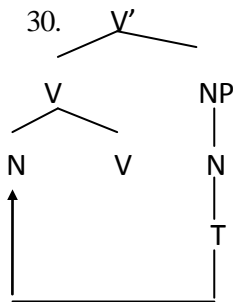
between the head, its categorical projections, and its argument. H&K (1993) thus named such kind of projection as lexical relational structure or lexical argument structure (LRS). Therefore, the structures that express the relations among the arguments of a verb are derived syntactically in nature, which are characterized by the operation of two fundamental principles 28 a and b:

## 28. Lexical Relational Structure

- a. Unambiguous Projection
- b. Full Interpretation

According to H&K (1993), the lexical structure representation of an unergative verb, like 'laugh' in sentence 5, should be expressed in tree like 6, which involves incorporation of an abstract V( it equals to the little v or a light verb in present studies) and the nominal head N of its NP complement. The tree structure of sentence 5 below, then, should be like 7, indicating that the subject NP is external to the VP:

29. The child laughed



Here, I assume that all subject NPs are external to VP/AP but introduced and licensed by little v which is a new unsaturated predicate resulting from incorporating a light verb with a root verb. Therefore, the external subject NP gets its semantic role through the predication relationship that holds between it and the little v phrase as a whole, which means that the subject NP should be semantically consistent with the little v, as well as the root verb (questions such as how the external argument NP satisfies the requirements of the little v and the root verb at the same time, and whether it raises from the Spec position of VP to the Spec position of little vP or otherwise, will be studied in my future works). Such assumption gets support from the data at least in Chinese and English, as illustrated by the contrasts in sentences 3-4 above, which are repeated in 31-32 below for convenience.

31. a. \*Wu-xiu-zhi de pailian chang-fan le youyou  
Constant rehearse sing-bored Asp youyou  
The constant rehearse caused Youyou to sing herself bored
- b. zheshouge chang-fan le Youyou  
this-cl song sing-bored Asp Youyou  
Youyou got bored from singing this song

- c. Wu-xiu-zhi de pailian Ba/Shi Youyou chang-fan le  
 constant rehearse Ba/Shi Youyou sing-bored Asp  
 The constant rehearse caused Youyou to sing herself bored

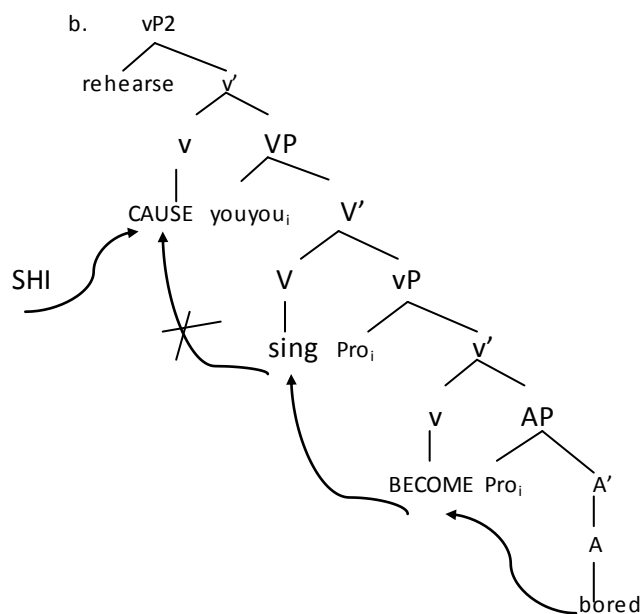
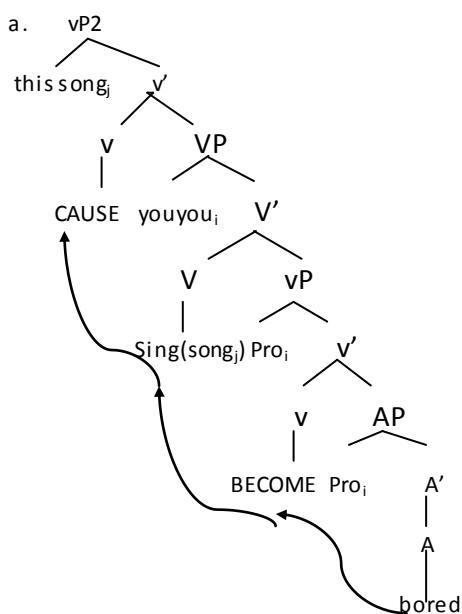
32. a \*jiaolian pao-lei le Youyou  
 coach run-tired asp Youyou  
 the coach made Youyou get tired from running

- b?jiaolian shi Youyou pao-lei le  
 coach make Youyou run-tired asp  
 the coach made Youyou get tired from running

(cited from Li(1995))

The contrast on acceptability between 31a-b indicates that the subject NP should bear certain thematic relationship with the root verb. As shown in tree 33a: the NP 'this song' is licensed both by the abstract v CAUSE and root verb 'sing', and is assigned with double theta roles from CAUSE and 'sing', respectively, which is expected from the full interpretation principle. Such assumption that the NP 'this song' with double theta role causer and theme also is guaranteed by the Relative  $\theta$ -Criterion, which says that an XP can bear more than one  $\theta$ -role as long as each  $\theta$ -role is assigned by a different head (Carrier & Randall, 1992). The grammaticality of 31c then shows us that when a light verb SHI is inserted into and no corporation of a light verb with a root verb is involved, the external subject NP is only required to satisfy the semantic requirement of the light verb, as shown in tree 33b below.

33.



Working Paper Series No. 4, Issue 5, 2016

### 3.2 Causative V-V compounds vs. non-causative V-V compounds

In the section 2, I have pointed out with strong evidence that resultative V-V compounds in Mandarin Chinese semantically full into two subtypes: causative V-V compounds and non-causative compounds, depending on whether there is causative meaning involved. Repeat the data in 34-41 below:

#### Causative V-V compounds:

34. Zhangsan chang-fan le Lisi  
Zhangsan sing-bored asp Lisi  
Zhangsan sang (songs) and as a result Lisi got bored from it
35. Zhe-jian shi ji-ku le mama  
This-cl matter worried-cry asp Mom  
Mom worried about this matter so much that she cried
36. Mengjiangnv ku-dao le wanlichangcheng  
Mengjiangnv cry-fall asp great-wall  
Mengjiangnv cried so much that the great wall falled

#### Non-causative V-V compounds:

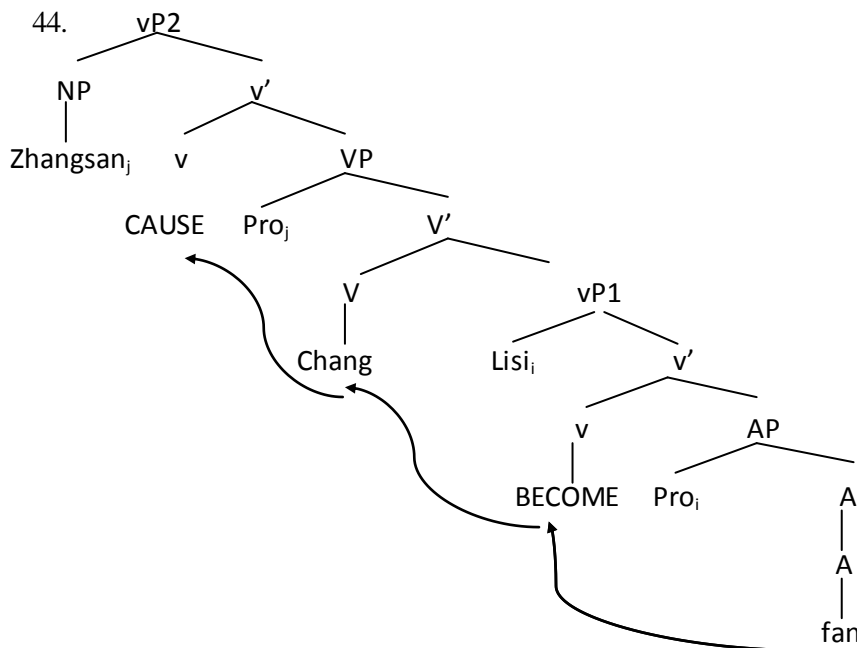
37. Wo you Shuo-cuo le yi-ju hua  
I again speak-wrong asp one-cl word  
I spoke one word wrong again
38. Ta changchang chi-duo dongxi  
he often eat-much food  
he often eats too much
39. Ta ting-guan le wo de shengyin  
He listen-costomed asp my voice  
He got costumed to my voice
40. Ta xue-hui le liang-chu xinxi  
He learn-master asp two-cl new play  
He mastered two plays
41. Wo bei-shu le zhe-pian wenzhang  
I recite-familiar asp this-cl passage  
I learned off this passage

Following H&K (1993), I assume that the so-called causativization in causative V-V is syntactic by nature, rather lexical as in Pan (1998), as it is subject to the syntactic rules, such as the unambiguous projection and full interpretation principles. Moreover, two different types of little *v* are argued to be incorporated with the V2 in Mandarin resultative V-V compounds, which results in two distinct kinds of V-V compounds: causative V-V compounds and non-causative V-V compounds. According to Lin (2004), there are two different types of little *v* (in sense of Vendler's aspectual class) introducing a state, *Become* and *Be*<sup>1</sup>:

42. *v*δ [+dynamic, +inchoative] = *Become* (introduces change of states)

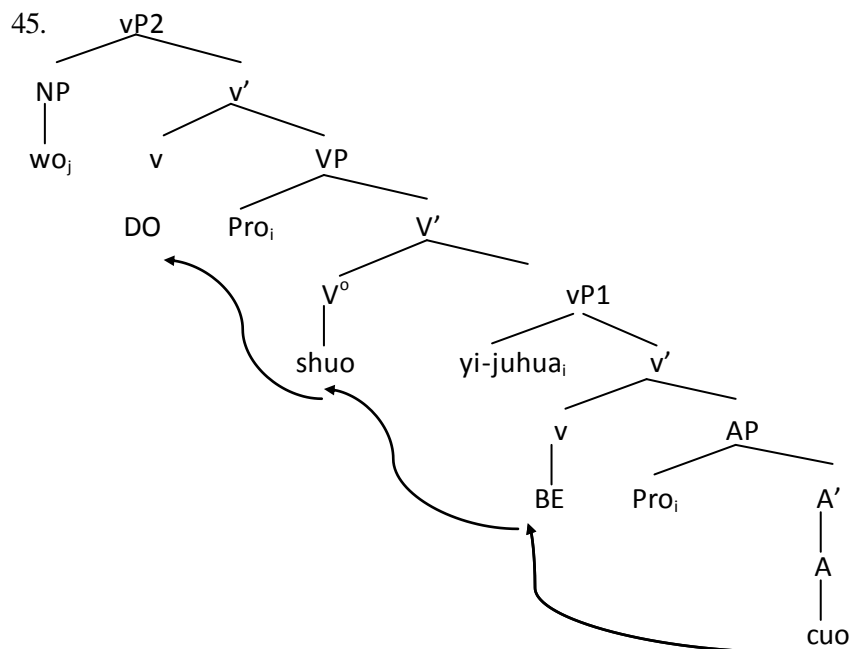
43. *v*Be [-dynamic] = *Be* (introduces states)

Bearing this in mind, I would like to assume further that as to the causative V-V compound, the V2 in the compound is headed by a little *v* 'Become' in syntax, which potentially can be projected into a CAUSE projection further when a causing event is overtly expressed through a V-V compound formation in syntax, or just projected into a DO projection when there is no need to introduce a causer; while in the non-causative compound, the V2 is headed by a little *v* 'Be', it has no more higher projection of CAUSE required, but only a DO projection. Take the above sentences 34 and 37 for instance, where their paraphrases and tree structures can be derived as in 44 and 45 below, respectively.



Paraphrase: the event of zhangsan DO singing something CAUSE the state that lisi BECOME bored

<sup>1</sup> In Jimmy Lin's (2004), a predicate headed by *Become* naturally entails the head *Be*, but not the vice. In other words, the completely decomposition of a predicate with *Become* is like [*Become*----- [*Be*---]]. In this paper, I just distinguish *Become* and *Be* in the tree for simplicity.



Paraphrase: the event of I Do speaking and as a RESULT the action or word BE is wrong

If it is on the right track, another question then naturally arises that how to account for the data like sentences 38-41 above, where no causative meaning is involved at all. Briefly, the V2s in sentences 39-41 should be headed by the little v 'Become' and there is also an overt causing event denoted by the action verb, but sentences in question are non-causative, as illustrated by the unacceptability in sentences 46-49.

46. \*Ta changchang chi-de dongxi duo le  
 he often eat-DE food much PART  
 He often makes the food too much by eating
47. \*Ta ting-de wo de shengyin guan le  
 He listen-DE my voice accustomed  
 He made my voice be accustomed
48. \*Ta xue-de liang-chu xinxi hui le  
 He learn-DE two-CL new play master ASP  
 He made two plays mastered
49. \*Wo bei-de zhe-pian wenzhang shu le  
 I recite-DE this-cl passage familiar ASP  
 I made this passage learned off

In other words, what's the factor that forces the V-V compounds like *ting-guan* not to be projected into the CAUSER projection but a DO projection? Let's look at the data below again closely in which there is causative sense involved in the former while not in the latter, but pure resultative meaning:

50. Zhangsan chang-fan le Lisi  
 Zhangsan sing-bored asp Lisi  
 Zhangsan sang (songs) and as a result Lisi got bored from it
51. Ta ting-guan le wo de shengyin  
 He listen-costumed asp my voice  
 He got costumed to my voice

Comparing these two sentences, it is not difficult to find out that the difference between them where the paraphrases of these two sentences do not bear the same value, as indicated in 52 and 53, respectively:

52. Zhangsan sang songs and Lisi got bored
53. He listened to my voice and he got costumed to my voice

In 52, the causer and causee do not identify with each other both in syntactic and semantic levels since the NP 'Zhangsan' bears the causer role while 'Lisi' bears the causee role. However, in 53, the causer and causee are clearly identified with each other, which violates the CAUSER-CAUSEE Restriction that says causers and causes can not be identified with each other syntactically in causatives.

To summarize, the derivation of V-V compounds in Mandarin Chinese is syntax in nature and the V2 headed by the little *v* *Become* is potentially projected into the CAUSE higher projection and yields out a causative reading or forced to be projected into the DO projection respecting the CAUSER-CAUSEE Restriction; while the V2 headed by little *v* *Be* is unambiguous and is projected into the DO projection and yields out a pure resultative reading.

### 3.3 Ambiguities in “zhui-lei” (chase-tired)

Assumed that syntactically a causer can not be identified with a causee although it is available in semantic level (in sense of Argument-per-subevent condition, Rappaport Hovav& Levin 2001) which I call it CAUSER-CAUSEE Restriction<sup>2</sup>, then it is safe for us to say that the ambiguity in

<sup>2</sup> Rappaport Hovav& Levin (2001) proposed an Argument-per-subevent condition to account for the obligatory existence of fake objects in intransitive resultatives in English, saying that “There must be at least one argument XP at the syntax per subevent in the event structure”, which regulates the mapping from event structure to syntactic structure. This assumption, however, is strongly challenged at least in English and Mandarin and one of big exceptions is the passive construction. The passive construction both in English and Mandarin, semantically expressing a complex event structure, however, is commonly allowed the agent to be omitted, which is clearly violated the Argument-per-subevent condition. For example:

1) The metal is hammered flat.

(English )

Working Paper Series No. 4, Issue 5, 2016

resultative V-V compounds in Mandarin Chinese also is predicated by the corporation process and fully interpretation requirement. Take the canonical data for example, where five different readings can be interpreted:

54. Zhangsan zhui-lei le Lisi

Zhangsan chase-tired Asp Lisi

- a. Zhangsan chased Lisi and as a result Zhangsan got tired. (BECOME)
- b. Zhangsan chased Lisi and as a result Lisi got tired (BECOME)
- c. Zhangsan chased Lisi and as a result Lisi got tired (CAUSE+BECOME)
- d. \*Lisi chased Zhangsan and as a result Zhangsan got tired (CAUSE+CAUSE+BECOME)
- e. Lisi chased Zhangsan and as a result Lisi got tired (CAUSE+CAUSE+BECOME)

In the section 3.2, we've pointed out that there are two types of little *v* (in sense of Vendler's aspectual class) introducing a state, *Become* and *Be*; and the V2 in a V-V compound headed by *Become* is potentially projected into the CAUSER projection under certain syntactic-semantic conditions or *DO* projection due to some pragmatic factors, then the above ambiguities in "zhui-lei" are predicated by my analysis. In detail, there is no causative sense involved and the little *v* *Become* is projected into *DO* projection respecting different conditions in reading a and b, in which the former conforms with the so-called CAUSER-CAUSEE Restriction, while the latter is restricted to certain pragmatic factors. In reading c and e, the little *v* *Become* is forced to be projected into CAUSE projection following all rules and restrictions mentioned above, while reading d is ruled out because of CAUSER-CAUSEE Restriction. Their tree structures are demonstrated in 55a-d below, respectively:

- 
- 2) Zhangsan bei da-si le. (Mandarin)  
Zhangsan was beaten to death

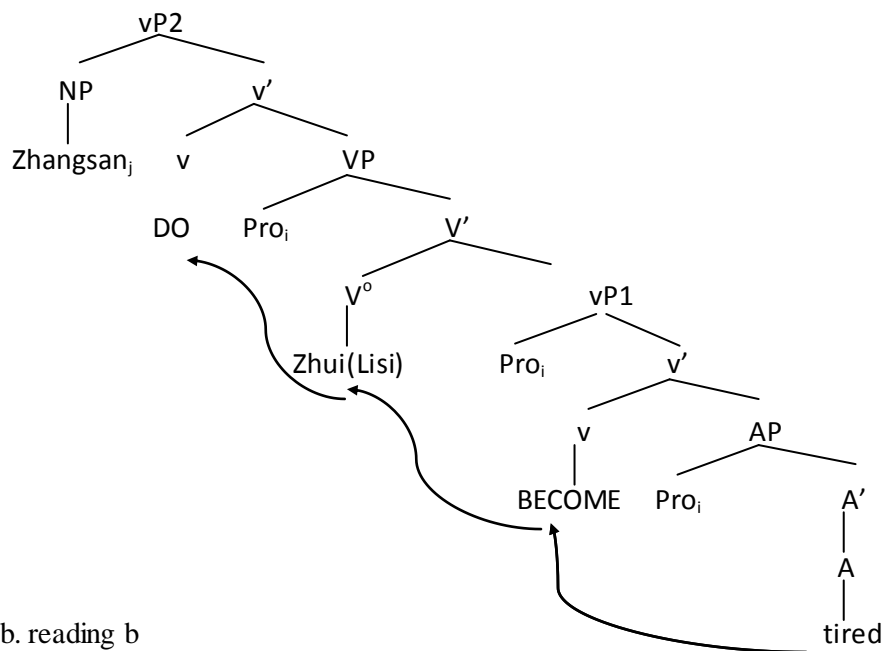
Furthermore, Mandarin abounds in the so-called subject-control resultatives, which also are predicated to be unavailable under the Argument-per-subevent condition.

- 3) Lisi qi-lei le (subject-predication)  
Lisi got tired from the horse-riding
- 4) Lisi qi-lei le ma (sub/ob-predication both ok)
  - a. Lisi rided a horse as a result Lisi got tired.
  - b. Lisi rided the horse as a result the horse got tired

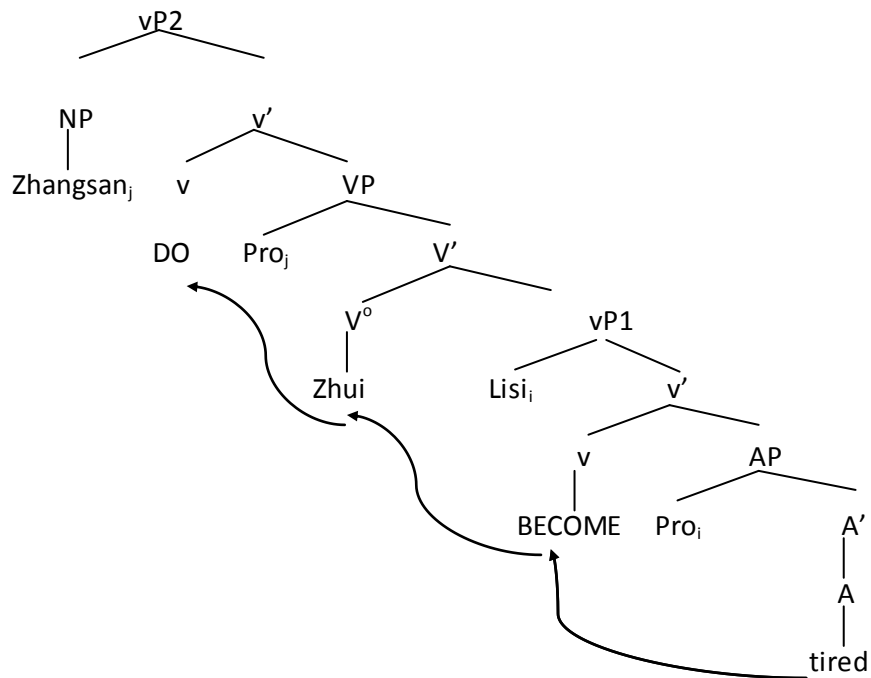
Therefore, in this paper I do not adopt Rappaport Hovav & Levin's (2001) Argument-per-subevent condition, but use CAUSER-CAUSEE Restriction to capture the distinction on argument realization between the inchoative constructions and causative constructions.

*Working Paper Series No. 4, Issue 5, 2016*

55. a. reading a

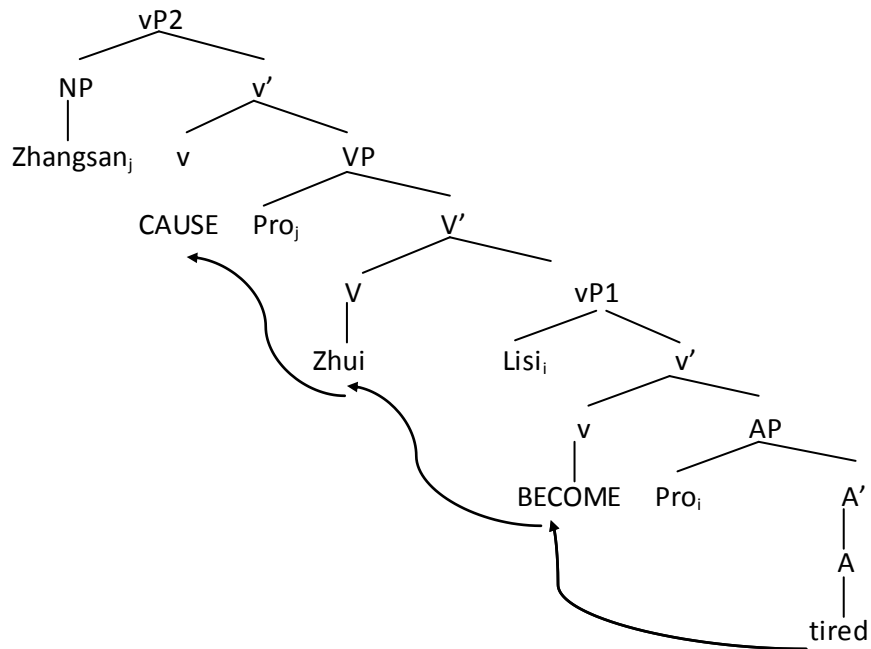


b. reading b

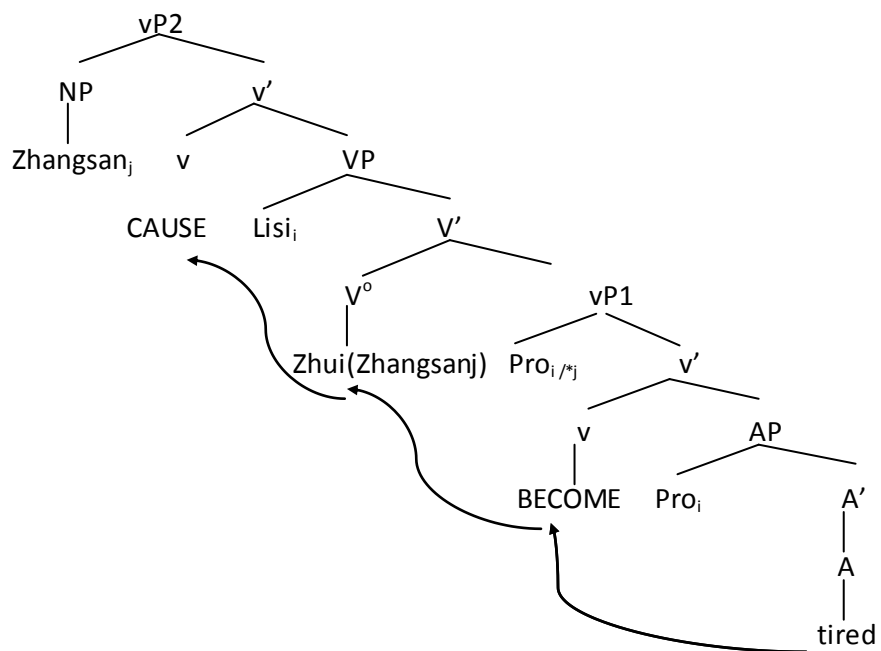




c. reading c



d. reading d &amp; e



## **4 CONCLUSION**

In this paper, I apply a lexical-syntactic approach to argument realization in V-V compounds in Mandarin Chinese and propose that the causative meaning in V-V compounds in Mandarin Chinese comes from the compounds as a whole, where the derivation is syntactic in nature, and the lexical property of V2 plays a crucial role in this derivation.

## REFERENCE

1. Boas. HC. (2003) *A constructional approach to Resultatives*. Stanford, Calif: CSLI Publications.
2. Borer, H. (1994) "The Projection of Arguments", *University of Massachusetts Occasional Papers 17: Functional Projections*, pp 19-47.
3. Carrier, Jill and Janet Randall. (1992) "The Argument Structure and Syntactic Structure of Resultatives", *Linguistic Inquiry*, Vol.23 pp. 173-234.
4. Cheng, Lisa L.-S and C.-T. James Huang. (1996) "On the argument structure of resultative compounds". In *In honor of William Wang: interdisciplinary studies on language and language change*, ed. by Matthew Chen and Ovid Tzeng, pp.187-221. Taipei: Pyramid Press.
5. Gu,Yan. (1992) *The syntax of resultative and causative compounds in Chinese*. PhD dissertation. Cornell University.
6. Hale, Kenneth and Samuel Jay Keyser. (1993) "On argument structure and the lexical expression of syntactic relations", In Kenneth Hale and Samuel Jay Keyser. Ed. *The view from building 20*. pp.53-110. Cambridge, Mass: MIT Press.
7. Hale, Kenneth and Samuel Jay Keyser. (2002) *Prolegomenon for a Theory of Argument Structure*, Cambridge. Mass: MIT Press.
8. Hoekstra, Teun. (1988) "Small Clause Results", *Lingua*, 74, pp.101-139.
9. Huang, C.-T. James. (1988) "Wo pao de kuai and Chinese phrase structure", *Language*, Vol. 64, pp.274-311.
10. Huang, C.-T. James. (1992) "Complex predicates in control", In James Higginbotham ed. *Control and grammar*. pp.109-147. Dordrecht: Kluwer.
11. Huang, C.-T. James. (1994) "Verb Movement and Some Syntax-Semantics Mismatches in Chinese". *Chinese Languages and Linguistics*, Vol. 2, pp.587-613.
12. Huang, C.-T. James. (1997) "On lexical structure and syntactic projection", *Chinese Languages & Linguistics* Vol. 3, pp. 45-89.
13. Huang, C.-T. James. (2005) *Syntactic analyticity and the other end of the parameter*. Lecture handouts distributed at 2005 LSA Linguistic Institute for course by the same title, MIT and Harvard University.
14. Huang, C.-T. James. (2006) *Resultatives and unaccusatives: a parametric view*. Ms., to appear in the Bulletin of the Chinese Linguistic Society of Japan.
15. Huang, C.-T. James. (2008) Topics in parametric syntax. Serial talks given in Chinese University of Hong Kong.
16. J Bowers. (1997) A binary analysis of resultatives. In *Proceedings of the 1997 Linguistics Society Conference, Texas Linguistic Forum*, 38. pp. 43-58.
17. Jean-Pierre Koenig, Karin Michelson. (2015): Invariance in argument realization: The case of Iroquoian. *Language*, Vol 91, No1, pp. 1-47.
18. Levin, Beth and Malka Rappaport Hovav. (1995) *Unaccusativity: At the Syntax-Lexical Semantics Interface*, MIT Press, Cambridge.
19. Levin, Beth. (2000) Aspect, Lexical Semantic Representation, and Argument Expression. *Proceedings of the 26th Annual Meeting of the Berkeley Linguistics Society*, pp.413-429.
20. Levin, Beth and Rappaport Hovav, Malka. (2002) The Semantic Determinants of Argument Expression: A View from the English Resultative Construction. Appear in J. Guéron and J. Lecarme, eds., *The Syntax of Time*, MIT Press, Cambridge, MA.
21. Levin, B. and M. Rappaport Hovav. (2005) *Verb Semantics and Argument Realization*, Cambridge University Press.

Working Paper Series No. 4, Issue 5, 2016

22. Li, Yafei. (1990) "On V-V Compounds in Chinese", *Natural language & linguistic theory* Vol. 8, pp. 177-207.
23. Li, Yafei. (1993) "Structural head and aspectuality", *Language*, Vol. 69 pp. 480-504.
24. Li, Yafei. (1995) "The thematic hierarchy and causativity", *Natural Language & Linguistic Theory* Vol. 13 pp. 255-282.
25. Li, Yafei. (1998) "Chinese resultative constructions and the uniformity of theta assignment hypothesis", In *new approaches to Chinese word formation*. Ed. By Jerome L.Packard. Mouton de Gruyter. pp285-310.
26. Li, Yafei. (1999) "Cross-componential causativity", *Natural Language and Linguistic Theory*. Vol.17 pp.445-497.
27. Lin, Jimmy. (2004) *Event Structure and the Encoding of Arguments: the Syntax of the Mandarin and English Verb Phrase*. PhD dissertation, MIT.
28. Lin Jonah T.-H. (2001) *Light Verb Syntax and the Theory of Phrase Structure*. PhD Dissertation. University of California Irvine.
29. Lin, Huei-Ling. (1996) "A lexical-syntactic analysis of resultative compounds in Mandarin Chinese", *Studies in the Linguistic Sciences*. Vol 26. University of Illinois Urbana.
30. Lu, John H-T. (1977) "Resultative verb compounds vs. directional verb compounds in Mandarin", *Journal of Chinese Linguistics*, Vol 5 pp. 276-313.
31. McDonald, Edward. (1994) "Completive verb compounds in Modern Chinese: A new look at an old problem", *Journal of Chinese Linguistics*, Vol.22 No.2, pp.317-345.
32. Pan, Haihua. (1998) 'Thematic Hierarchy, Causative Hierarchy, and Chinese Resultative Verb Compounds'. Paper presented at the Annual Research Forum of the Linguistic Society of Hong Kong.
33. Rappaport Hovav, Malka and Beth Levin. (2001) "An event structure account of English resultatives", *Language*, Vol. 77 pp. 766-797.
34. Ross, Claudia. (1990) "Resultative verb compounds", *Journal of the Chinese Language Teachers Association*, 25(3), pp.61-83.
35. Thompson, Sandra Annear. (1973) "Resultative Verb Compounds in Mandarin Chinese: A Case for Lexical Rules", *Language*, 49(2), pp361-379.
36. Van Hout, A. (2000) Event semantics in the lexicon-syntax interface: verb frame alternations in Dutch and their acquisition. In Carol Tenny and James Pustejovsky eds. *Events as Grammatical Objects*, pp.239-282. CSLI Publications, Stanford, CA.
37. Washio, Ryuichi. (1997) "Resultatives, compositionality and language variation". *Journal of East Asian Linguistics* Vol.6. pp. 1-49.
38. Wechsler, Stephen. (1996) *Explaining resultatives without unaccusativity*. Ms. University of Texas at Austin, 1996.
39. Wechsler, Stephen. (2005) "Resultatives under the 'Event-Argument Homomorphism' Model of Telicity". Appeared in *The Syntax of Aspect*, ed. Nomi Erteschik-Shir and Tova Rapoport, Oxford University Press.