

# A scalar-based analysis of English resultative constructions – a comparison with Mandarin Chinese

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## 1. Introduction

This paper aims to examine English and Mandarin Chinese, a language with a similar SOV structure as English, and investigate how results are expressed in the two languages. Through comparing English resultatives and the corresponding Chinese compound verb constructions, this paper tries to show how the two languages differ and at the same time are similar in this respect.

First, let us examine the following sentences:

- (1) He shot the bird dead.
- (2) She cooked the roast dry.
- (3) She cried her handkerchief wet.
- (4) \*She sang the song famous.

All the sentences above have the same SVOC structure, yet (1) – (3) are acceptable, but not (4). Why is this the case? Is it because of the verb, or the adjective? This paper will try to address this problem. In contrast, let us look at the corresponding Chinese expressions using compound verbs:

- (5) 他把<sup>1)</sup> 小鸟射死了<sup>2)</sup>。

Taba xiaoniao shesi le

He Ba small bird shoot dead

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1) 把ba : A focus marker highlighting the result of the action performed on an object.

2) 了le : Aspectual feature expressing telicity.

He shot the bird dead.

- (6) 她把肉烤干了。

Taba ruo kaogan le

She Ba meat grill dry Le

She cooked the roast dry.

- (7) 她哭湿了手帕。

Ta kushi le shoupa

She cried wet Le handkerchief.

\*She cried her handkerchief wet.

- (8) 她唱红了那首歌。

Ta changhong le nashou ge

She sang famous Le that song

\*She sang the song famous.

- (9) 师傅把面条拉长了。

Shifu ba miantiao lachang le

Master chef BA noodles pull long Le

\*The master chef pulled the noodles long.

- (10) 我这辆车买贵了。

Wo zheliang che maigui le

I this car buy expensive Le

\*I bought the car expensive.

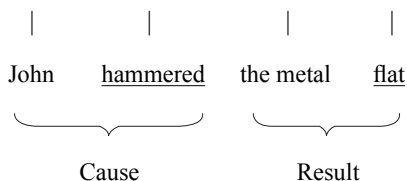
In Chinese, the expressions (5) – (8) correspond to the English expressions (1) – (4). Unlike English, all of them are acceptable in Chinese. In addition, it is also noted that expressions that are not acceptable in English can be used without any problem in Chinese. In addition to the questions posed in the paragraph above, perhaps it is also salient to question whether it is more than just the question of which part of speech contributes to acceptability, and look further at whether which verb can be used in combination with which adjective. In other words, if (4) cannot be accepted, it must be because the combination between ‘sing’ and ‘famous’ is incongruous from what is generally accepted as normal adjective-verb combination. Conversely, if (8) is accepted, then it must be that the combination of adjective and verb in Chinese is more varied than in English.

In the research of English resultatives, the role the resultative predicate (RP) plays, in particular, the types of adjectives that can be the RP, has been a focus of interest for the past decade or so. In recent years, especially, in the field of adjectival RPs, scalar structure has been used primarily and effectively to advance the research into what combinations of verbs and adjectives are acceptable (Boas 2003, Kennedy and McNally 2005, Ono 2007, Wechsler 2005, etc.). Scalar structure has also been shown to be able to explain the functions of Chinese adjectives. Therefore, this paper will be using the principles of scalar structure as a theoretical framework to examine English and Chinese expressions of result.

## 2. Syntactic Structure of Resultatives

The following shows what a typical English resultative expression will look like:

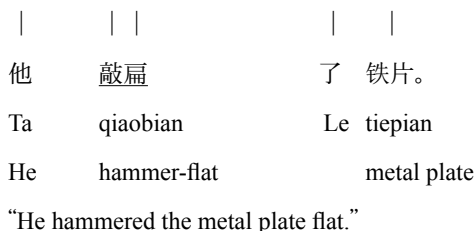
(I) S (主語) + V (動詞) + O (目的語) + RP (Resultative Predicate; 結果述語)



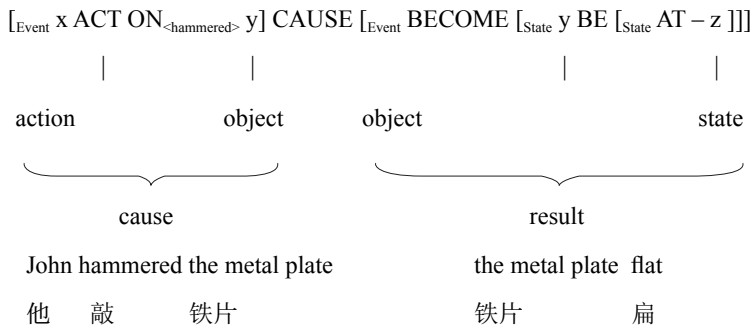
In resultatives, the action carried out by the actor (subject), causes a change in the object. Syntactically, this is expressed in a construction with a primary predicate (verb) and a secondary predicate (adjective). This secondary predicate is also known as a resultative predicate because it expresses the result the change has ensued. Semantically, a resultative construction is an event structure expressing a causer event and a result event.

In Chinese, the corresponding expression showing cause and result can be expressed as a compound verb construction as follows:

(II) S (主語) + V<sub>1</sub>V<sub>2</sub> (result verb compounds) + 了(le) + O (目的語)



The semantic feature of an English resultative construction can be said to be similar to a compound verb construction in English whereby the main verb in an English construction and the V<sub>1</sub> in Chinese are combined with the RP in English and V<sub>2</sub> respectively to express a cause-result event. When the semantic principle of the two languages is expressed using a Lexical Conceptual Structure (LCS), they make an accomplishment event as seen below:



### 3. Definition of scalar structure

Let us take a look at the prominent features of scalar structure. Hovav (2008:17) defines scale as follows:

A scale is an ordered set of values for a particular attribute. A scale change is one which involves an ordered set of changes in a particular direction of the values of a single attribute and so can be characterized as movement in a particular direction along the scale. For example, in the case of the verb *warm*, the scale is composed of ordered values of the attribute *warm*, and a warming event necessarily involves an increase in the value of [warm].

There are two types of events in the scalar structure – scalar events and non-scalar events. These two events are respectively, expressed by two types of verbs – scalar verbs and non-scalar verbs. The scale in scalar verbs can be specified lexically, but the verbs in non-scalar verbs cannot be specified lexically.

(11) Scalar verbs:

warm, ripen, cool, fall, rise

熱 (re)、熟 (shou)、涼 (liang)、落 (luo)、伸 (sheng)

(12) Non-scalar verbs:

Move, float, bounce, crawl, exercise, laugh, rain

动 (dong)、浮 (fu)、蹦 (beng)、爬 (pa)、笑 (xiao)

Non-scalar verbs can be used with various RPs to form acceptable sentences. RPs entailing the meaning of boundedness can be used to express the boundary which non-scalar verbs do not have, thus forming grammatically acceptable English resultatives. The function of RPs in a resultative is to either introduce a new scale, or to further specify the scale which is semantically specified.

(13) a. We steamed the clothes dry. (closed scale)

b. We steamed the clothes clean. (closed scale)

c. We steamed the clothes stiff. (closed scale)

(14) a. Cinderella scrubbed her knees sore. (closed scale)

b. Cinderella scrubbed the dirt off the table.

c. Cinderella scrubbed the table clean. (closed scale)

On the other hand, scalar verbs (verbs which have a semantically specified scale) can only be used with a restricted group of RPs. RPs in these constructions either specify the boundary of the scale, or further specify the scale which is already semantically specified. Scales which apparently cannot be related to the semantically specified scale are not allowed.

(15) a. We froze the ice-cream solid.

b. The walnut broke apart.

c. The chocolate melted into a messy goo.

d. Then the biologists dimmed the room to the level of starlight.

e. \*We dimmed the room empty.

f. \*We froze the people out of the room.

g. \*We broke the vases worthless.

This restriction stems from the hypothesis that one scale can only be allowed in one event (Tenny, 1994, Goldberg 1995, L&RH 1995).

#### 4. Types of RPs in English

“Resultative predicates denote a bounded scale” (Vanden Wyngaerd 2001: 64). A feature of an RP is that it expresses the telicity of a resultative which has an end-point. According to Kennedy and McNally (1999, 2005) and Wechsler (2005), whose arguments are summarized in the next few paragraphs, RPs express scale.

Adjectives can be expressed into two main types – gradable and ungradable. Gradable adjectives can be used with adverbs of degree and have the comparative form, but ungradable adjectives cannot be used with adverbs of degree and do not have comparative form.

- |  |            |
|--|------------|
| (16) a. very/ quite/ extremely {long/flat/expensive}                       | Gradable   |
| b. ?? very/quiet/extremely {dead/triangular/invited}                       | Ungradable |
| (17) a. longer, taller, duller, wetter, more expensive, fuller, straighter | Gradable   |
| b. *deader/*more dead, *brokener/*more broken, *crookeder / *more crooked  | Ungradable |

Kennedy and McNally (2005) further divides gradable adjectives into open-scale adjectives (e.g. tall, long, short) and closed-scale adjectives (e.g. full, empty, straight, wet, dry). The former type of adjectives do not possess inherent standard and have to depend on the context to decide the standard (relative adjectives), but the latter type of adjectives possess an absolute standard which is embedded in the meaning of the adjectives (absolute relatives). For example in (18a), the height of Michael Jordan is determined in context, i.e., he is tall relative to other basketball players or the average man. However, in (18b), the sentence is context-independent because the adjective possesses an inherent standard, i.e., the glass is full or it is empty. ‘Full’, in other words, possesses an absolute standard, which is the maximum on the scale, while ‘empty’, in contrast, expresses the absolute standard of being the minimum on the scale.

- |                                 |                      |
|---------------------------------|----------------------|
| (18) a. Michael Jordan is tall. | (Wechsler 2005: 269) |
| b. The glass is full/empty.     | (Ono 2007: 72)       |

Wechsler (2005)’s categorization of adjectives can be expressed as follows:



## Closed scale adjectives

(21) The glass is \*very/completely full.

'Scale of 'full'



The RP in an English resultative has to be either a closed scale adjective or an ungradable adjective. Open scale adjectives are not allowed. This is because the telicity of a resultative construction is determined by the RP and as closed scale adjectives and ungradable adjectives (which essentially only has two points – starting and ending) have either minimum or maximum endpoints, they can accomplish an event performed by the verb. On the other hand, this is not possible with an open scale adjective because the adjective does not have an endpoint. The following sentences (22) to (25) (cf. (5) to (8)) using open and closed adjectives show this to be the case.

(22) He shot the bird dead.

(23) She cooked the roast dry.

(24) She cried her handkerchief wet.

(25) \*She sang the song famous.

In summary, the relationship between the verb and adjective in an English resultative construction can be expressed as shown below:

(26) a. Durative verb (non-telic) + gradable scalar

e.g. He hammered the metal flat. He loaded the truck full.

b. Telic verb + non-gradable scalar

e.g. He shot the bird dead.



## 5. Resultative predicates in Chinese

### 5.1 Types of resultatives

According to Ma & Lu (1997), the number of adjectives that can be used as a resultative predicate in  $V_2$  is 216, with 153 monosyllabic adjectives and 63 dual-syllabic adjectives.

Although the categorization of English applies to Chinese, it is not a perfect fit. Zhu (1982) states that Chinese adjectives can be used with the degree adverb ‘很 (heng)’ but cannot take an object. As such, Zhu’s (1982) category of adjectives corresponds to Wechsler’s (2005) category of gradable adjectives. In addition, Chinese adjectives can be divided into open scale adjectives, maximum closed scale adjectives and minimum closed scale adjectives. However, as non-gradable adjectives in English are derived from verbs (e.g., dead, broken), verbs are used in Chinese in correspondence because verb-derived adjectives do not exist in Chinese. Even though the parts of speech may be different, adjectival RPs in English and Chinese can be categorized into a few categories (Table 2).

**Table 2. Categorization of resultative predicates in English and Chinese**

		English	Chinese	
Gradable	Open scale	long, tall, dull, wide, short, cool, deep, shallow, expensive, famous	长 (chang)、高 (gao)、短 (duan)、深 (shen)	
	Closed scale	Max. endpoint	full, straight, dry	空 (kong)、满 (man)、干 (gan)
		Min. endpoint	wet, empty, dirty, open	湿 (shi)、脏 (zang)
Non-gradable		dead, broken, crooked	死 (si)、破 (po)、歪 (wai)	

### 5.2 Selective restriction on RPs

While English puts restrictions on the selection of adjectives as RPs, Chinese seems more liberal in allowing various types of adjectives to be used as RPs.

(27) 她唱红了那首歌。

\*She sang the song famous.

(28) 师傅把面条拉长了。

\*He pulled the noodles long.

(29) 我这辆车买贵了。

\*I bought the car expensive.

As can be seen from the English constructions (27) to (29) (cf. (8) to (10)) above, what are allowed in Chinese are not permitted in English. Table 3. shows the difference between the permissibility of types of adjectives when used as RPs in English and Chinese. As shown, open scale adjectives in English are not allowed as RPs in a resultative, unlike Chinese.

**Table 3. Difference between English and Chinese adjectival resultative predicates (=V<sub>2</sub>)**

RP(=V <sub>2</sub> )			English	Chinese
Gradable	Open scale		<i>*pull...long/buy...expensive</i>	拉长 (lachang)/ 买贵 (maigui)
	Closed scale	Max. endpoint	fill...full	装满 (zhuangman)
		Min. endpoint	kick...open	哭湿 (kushi)
Non-gradable			shoot...dead	射死 (shesi)

While it may seem that Chinese allows all kinds of adjectives to be RPs, this is not the case. Some open scale adjectives are also not allowed in Chinese constructions. These are constructions with derivative RPs.

Inherent RPs are only allowed with verbs of change such as 'break' and 'freeze.' In other words, inherent RPs are RPs that make specific the changes inherent in the meaning of the verb. On the other hand, derivative RPs are RPs which are only allowed with verbs of touch (e.g., hammer) or intentional or physiological verbs such as 'sneeze,' 'shout,' or 'bark.' These verbs do not entail change, but when a derivative RP is included, a change is caused on the non-subcategorized noun (i.e., a noun which is not normally associated with the verb in use), making the construction a resultative one.

In Chinese, open scale verbs can act as RPs to form verb-verb compounds or verb-adjective compounds. These types of compound verbs are called 动结式 (dongjie shi, verb-result type). Ma & Lu (1997) state that most of these compound verbs are formed with open scale adjectives:

- (30) a. 抗挖深了。                      b. 墙垒矮了。                      c. 头发剪短了。  
       a'. 毛衣织大了。                    b'. 眉毛画浓了。                    c'. 桌子垫高了。  
       a". 裤子买贵了。                    b". 白菜丝切细了。                    c". 衣服洗小了。

Upon closer inspection, it can be noted that these are inherent resultatives with the adjectives expressing the change in the object of the action. This means that open scale adjectives acting as dongjieshi RPs can only be used to express changes in the object. Unlike closed scale adjectives, open scale adjectives when used in a verb-result type compound verb cannot be used as a derivative RP. Even if the meaning can be construed from the event, syntactically such a construction is not allowed. The following constructions show  $V_2$  with closed scale adjectives in a) and open scale adjectives in b).

- |  |   |
|--|---|
| (31) a. 跑步跑坏了鞋子。                         | b. *跑步跑大了鞋子。                                    |
| Paobu paoduan le xiezi                   | *Paobu paoda le xiezi                           |
| The shoes broke as a result of running.  | The shoes became big as a result of running.    |
| (32) a. 写文章写光了一瓶墨水。                      | b. *写文章写少了一瓶墨水。                                 |
| Xie wenzhang xieguang le yiping muoshui  | *Xie wenzhang xieshao le yiping muoshui         |
| A bottle of ink was used up for writing. | A bottle of ink was used less for writing.      |
| (33) a. 写文章写断了一支铅笔。                      | b. *写文章写短了一支铅笔。                                 |
| Xie wenzhang xieduan le yizhi qianbi     | *Xie wenzhang xieduan le yizhi qianbi           |
| A pencil broke as a result of writing.   | A pencil became shorter as a result of writing. |

In the above examples, even though the verbs and objects are the same, the predicates are different. (a) are examples of derivative resultatives where closed scale adjectives are used to specify non-subcategorized nouns. (b) show open scale adjectives but as can be seen, they are not allowed even if the meaning can be inferred. For example, the pencil in (33b) is the object of the verb ‘write,’ and can be logically surmised to shorten over time, but the compound verb is not allowed. On the other hand, the construction in (33a) using a closed scale adjective is allowed. In other words, open scale adjectives cannot be used as derivative RPs in a resultative construction.

Another evidence to support the hypothesis that open scale adjectives cannot be used as derivative RPs is that semantic split does not occur. Closed scale adjectives when used as RPs can offer two interpretations of the same construction.

- |        |        |    |             |
|--------|--------|----|-------------|
| (34) 踢 | 破      | 了  | 球鞋          |
| Ti     | po     | le | qiuxie      |
| Kick   | broken | Le | sport shoes |

Meaning 1 : After kicking the ball with the sneakers, the sneakers tore. (the object of the verb = ball is not the object the predicate is describing = sneakers)

Meaning 2 : After kicking the sneakers, they tore. (the object of the verb = the object of the predicate)

Such a split in meaning, however, does not occur when the open scale adjective is used as a RP. This is because the predicate can only describe the object of the verb. For example, the respective objects of “挖”、“垒”、“剪” in “坑挖深了”、“垒矮了”、“头发剪短了” can only be “坑”、“墙”、“头发” and nothing else. It cannot be used to mean that another object became deeper, lower or shorter as a result of the action denoted by the verb.

## 6. Differences between English and Chinese selection restrictions

Earlier, we saw how only closed scale adjectives and ungradable adjectives can be used as RPs in English resultatives, not open scale adjectives. We also explained that this is because the telicity of the RP is determined by the RP, and since while the closed scale adjective possesses an endpoint, the open scale adjective does not, it cannot be used in a resultative. This, however, does not apply to Chinese, which as we have seen, allows even open scale adjectives in a resultative construction.

Here, we will examine the differences between English and Chinese RPs.

When gradable adjectives are used as RPs in Chinese, they come entailed with an inherently relative standard (Zhu, 1956). According to him, adjectives describing property (gradable open scale adjectives) possess a meaning of comparison or contrast when used as RPs.

(35) 哪本好?                      - 这本好。

Naben hao                      Zheben hao

Which one good              This one good

Which is good?              This is good.

(36) 里头冷还是外头冷?        - 外头冷。

Litou leng haishi waitou leng      Waitou leng

Inside or outside cold              Outside cold

Is it cold inside or outside?        It's cold outside.



Lastly, let us return to the question of why Chinese does not allow open scale adjectives to be used in derivative resultatives.

In Chinese, all types of adjectives can be combined with the verb in an original resultative construction, but only open scale adjectives can be used in a derivative resultative construction. In an original resultative, the RP describes the object of the verb, so the process of an actor acting on something is also the process in which the object undergoes a change. For example, in “洗干净衣服” (the clothes are washed clean), the clothes are the object of the verb ‘wash(洗)’ and through the process of washing, it changes from a dirty state to a clean state. The RP ‘clean(干净)’ defines the maximum endpoint of the process of washing clothes.

On the other hand, a derived RP describes a non-subcategorized noun, in other words, a noun not conventionally taken by the verb. Since the relationship between the noun and the verb is ad hoc, the process in which the actor is acting on something needs not be the same as the process in which the object undergoes a change. For example, in “唱哑了嗓子” (I sang my throat hoarse), the ‘throat(嗓子 sangzi)’ is a non-subcategorized noun of the verb ‘sing(唱 chang)’, that is to say, they don’t usually go together. Therefore, the two processes of singing and the throat going ‘hoarse(哑了 yale)’ do not have to be simultaneous. It is possible that the throat only goes hoarse a couple of days after singing, and not on the day itself, as shown by sentence (39).

(39) Sam sang enthusiastically during the class play. He woke up hoarse the next day and said, ‘Well, I guess I’ve sung myself hoarse.’ (Rappaport & Levin, 2001)

For open scale adjectives to be acceptable as RPs, the process of change for the object must simultaneously take place together with the process of the actor acting on something. Open scale adjectives do not have a fixed standard but possess a graduated scale. As a predicate, they take on a standard of comparison from the context, and this standard can be positioned anywhere along the scale. For open scale adjectives to act as RPs, the process of change of state expressed by the predicate must be in tandem with the process of the verb unfolding the action it entails. Therefore, in the sentences below, the actions of the verbs must necessarily entail the state of change described by the adjectives. This is because the wall (‘墙’) and the pit (‘坑’) must definitely undergo some change in the process of piling up (‘垒’) and digging (‘挖’). The aspect marker, ‘了’ marks the endpoint of the process and highlights the resultative state expressed by the RP.

(40) 墙垒高了。

Qiang leigao le

Wall pile up high Le

The wall is piled up high.

(41) 坑挖深了。

Keng washen le

Pit dig deep LE

The pit is dug deep.

On the other hand, closed scale adjectives have a fix endpoint and thus the process of the verb unfolding the action it entails and the change of state of the object need not be developed simultaneously. In the following examples, closed scale adjectives are used – ‘坏’ in (42) and ‘断’ in (43) because they are either broken or unbroken.

(42) 铁锹挖坏了。

Tieqiao wahuai le

Shovel dig broken Le

The shovel is broken (as a result of digging)

(43) 织毛衣的针织断了。

Zhi maoyi de zhen zhidian le

Knit sweater Poss needle knit broken Le

The knitting needle broke.

However, since the resultative state of being broken can be much later than the process of the verb unfolding the action it entails, the two processes need not be simultaneously. Hence, closed scale adjectives such as ‘坏’ in (44) and ‘断’ in (45) are felicitous as RPs in original resultative constructions.

## 7. Conclusion

We have looked at the differences and similarities between English resultatives and Chinese result compound verbs from the scalar perspective. In summary, they are presented as follows:

- (44) In English, only closed scale adjectives are non-scalar adjectives can act as RPs, e.g., full, dry, wet, dead, broken. This is because the maximum endpoint entailed in a closed scale or non-scalar adjective (which is the RP) ensures the telicity of a resultative construction.
- (45) In English, open scale adjectives such as long, tall, dull, cannot be used as RPs. This is because open scale adjectives do not possess any endpoint, and hence cannot ensure the telicity of a resultative construction.
- (46) In Chinese, the range of adjectives which can be used as RPs is wider compared to English (cf (5) – (10)). There are, however, still restrictions. Open scale adjectives are restricted in derivative resultative constructions. For example, 写文章写断了一支铅笔 / \*写文章写短了一支铅笔 (A pencil broke as a result of writing/A pencil became shorter as a result of writing.)
- (47) English gradable adjectives are divided into two groups – adjectives with inherent standard point (closed scale adjectives) and adjectives without (open scale adjectives). On the other hand, Chinese gradable adjectives have inherent standard of comparison. As such, even open scale adjectives can act as RPs in a resultative construction (except for derivative resultative construction).

## References

- Beavers, John. (Under review). "Aspectual Classes and Scales of Change". Unpublished ms., The University of Texas at Austin.
- Beavers, John. 2008. Scalar complexity and the structure of events. In Johannes Dolling, Tatjana Heyde-Zybatow, and Martin Schaffer, eds., *Event Structures in Linguistic Form and Interpretation*, 245–265. Berlin: Mouton de Gruyter.
- Boas, Hans C. 2000. *Resultative Constructions in English and German*. Ph.D. dissertation. University of North Carolina at Chapel Hill.
- Boas, Hans C. 2003 *A Constructional Approach to Resultatives*. CSLI Publications, Stanford, CA.
- Chao, Yuen Ren. (1968) *A Grammar of Spoken Chinese*. Berkeley, CA: University of California Press.
- Cheng, Lisa Lai-Shen, and C.-T. James Huang. (1994) "On the argument structure of resultative compounds." In Matthew Y. Chen and Ovid J. L. Tzeng(eds.) *In Honor of William S-Y. Wang: Interdisciplinary Studies on Language and Language Change* 187–221. Taipei: Pyramid Press.
- Goldberg, Adele E. and Ray Jackendoff: 2004, 'The English Resultative as a Family of Constructions', *Language* 80, 532–569.
- Hovav, Malka Rappaport 2008. "Lexicalized meaning and the internal temporal structure of events." in Susan Rothstein (ed.) *Theoretical and Crosslinguistic Approaches to the Semantics of Aspect*. p. 13 – 42. John Benjamins Publishing Company.



- Huang, C.-T. James. 1992. Complex predicates in control. In *Control and grammar*, ed. by James Higginbotham et al, 109-147. Dordrecht: Kluwer.
- Huang, C.-T. James. 2006. Resultatives and Unaccusatives: a Parametric View. *Bulletin of the Chinese Linguistic Society of Japan* 253: 1-43.
- Kennedy, Chris and Beth Levin: 2008, 'Measure of Change: The Adjectival Core of Degree Achievements', in L. McNalley and C. Kennedy (eds.), *Adjectives and Adverbs: Syntax, Semantics, and Discourse*, 156–182. Oxford University Press, Oxford, UK.
- Kennedy, Christopher and Louse McNally 2005. "Scale Structure, Degree Modification, and the Semantics of Gradable Predicates." *Language Vol. 81*, 345-380.
- Li, Yafei. (1990) "On V-V compounds in Chinese." *Natural Language and Linguistic Theory* 8:
- Rappaport Hovav, Malka and Levin, Beth 2001. An Event Structure Account of English Resultatives. *Language*, 77. p. 766-797.
- Rosenbaum, Peter 1967. The grammar of English predicate complement constructions. Cambridge, Mass: MIT Press.
- Sybesma, Rint 1999. The Mandarin VP, Dordrecht : Kluwer Academic Publisher
- Vangen Wyngraerd 2001. "Measuring Events." *Language Vol. 77, No.1*, 61-90.
- Vendler, Zeno: 1957. 'Verbs and Times', *The Philosophical Review* 66, 143–160.
- Wechsler, S. 2005. "Resultatives Under the 'Event-Argument Homomorphism' Model of Telicity." In Erteschik-Shir and Rapoport (eds.), *The Syntax of Aspect: Deriving Thematic and Aspectual Interpretation*, p. 255-273. Oxford: Oxford University Press.