

A Crosslinguistic Observation of Resultative Constructions*

Chigusa Morita
University of Tokyo

chigusa-morita@ksf.biglobe.ne.jp

There are two types of resultative constructions, i.e., weak and strong resultative constructions. It has been observed that some languages lack strong resultative constructions, while others have both types. In this paper, I demonstrate that the crosslinguistic difference in the existence of strong resultative constructions can be captured in terms of the syntactic category of the result phrase: the result phrase must be realized as a PP in a language if and only if the language lacks strong resultative constructions. Based on this observation, I propose that weak and strong resultative constructions have different syntactic structures: both APs and PPs are licensed as the result phrases in weak resultative constructions, while only APs are licensed in strong resultative constructions. I also argue that Germanic languages allow PPs to be the result phrases even in strong resultative constructions, due to the special status of Germanic prepositions.

Keywords: resultative constructions, secondary predicates, adjectives, prepositions

1. Introduction

Resultative constructions can be classified into two types in terms of the meaning of the main predicate (Kageyama 1996, Washio 1997).¹ One type is called weak resultative constructions, while the other strong resultative constructions. In weak resultative constructions, the main predicate entails the end state of the event, which is described by the secondary predicate (i.e., the result phrase). In (1a), for example, the meaning of the verb *paint* entails that the color of the object *the wall* is changed; the adjectival result phrase *white* describes the color of the object. In strong resultative constructions, on the other hand, the resulting state is expressed only by the result phrase. In (2a), for example, the meaning of the verb *pound* does not necessarily entail the final state of the object, i.e., that the metal is flat.

- (1) *English weak resultative constructions*
 - a. John painted the wall white.
 - b. Mary broke the vase into pieces.
- (2) *English strong resultative constructions*
 - a. Mary pounded the metal flat.
 - b. John ran his Nikes to tatters.

There are some languages which have only weak resultatives. Italian, for example, lacks strong resultative constructions as in (3a), although it has weak resultatives as in (3b).

* This article is a revised version of the paper presented at the ELSJ Spring Forum 2009 held at Nara Women's University. I thank Akira Watanabe and Noriko Imanishi for their valuable comments. I am also grateful to the audience at the ELSJ Spring Forum 2009. All remaining errors are mine.

¹ Some researchers suggest that resultative constructions can be classified in terms of (in)transitivity of the main predicate (Simpson 1983, Carrier and Randall 1992, Levin and Rappaport Hovav 1995, Rappaport Hovav and Levin 2001, Goldberg and Jackendoff 2004). However, there are many languages that restrict the semantic type of the main predicate in resultative constructions. Since this fact cannot be captured by the distinction of transitivity, I adopt the distinction of semantic type of the main predicates in this paper.

(3) *Italian*

a. *Strong resultative constructions*

*Gianni ha martellato il metallo piatto.
Gianni has hammer-PPT the metal flat
'Gianni hammered the metal flat.'

b. *Weak resultative constructions*

Ho tagliato la carne in piccoli pezzi.
have.1stSg cut.PPT the meat in small pieces
'I cut the meat into small pieces.'

(Napoli 1992: 65)

The same observation holds in Japanese. As in (4), Japanese allows weak resultative constructions. But the ungrammaticality of (5) shows that it lacks strong resultative constructions.

(4) *Japanese weak resultative constructions*

a. John-wa kabe-o siroku nut-ta.

John-TOP wall-ACC white paint-PAST
'John painted the wall white.'

b. Mary-wa kabin-o konagona-ni wat-ta.

Mary-TOP vase-ACC into.pieces-to break-PAST
'Mary broke the vase into pieces.'

(5) *Japanese strong resultative constructions*

a. *John-wa pankizi-o usuku tatai-ta.

John-TOP dough-ACC thin pound-PAST
'John pounded the dough thin.'

b. *Mary-wa kinzoku-o taira-ni tatai-ta.

Mary-TOP metal-ACC flat-to hammer-PAST
'Mary hammered the metal flat.'

A question arises as to why some languages have both weak and strong resultatives, while others have only weak resultatives. In this paper, I propose that the languages without strong resultative constructions have a restriction on the categorial realization of the result phrase. I also propose that the crosslinguistic difference in resultative constructions can be captured by assuming that the two types of resultative constructions have different syntactic structures.

The organization of this paper is as follows. In section 2, I present a descriptive generalization that the result phrase must be realized as a PP in a language if and only if it lacks strong resultative constructions. Section 3 examines Japanese resultative constructions, which are apparently counterexamples to the generalization given in section 2. I demonstrate that the result phrase in Japanese is always realized as a PP, although it seems that an AP also appears as the result phrase. In section 4, I propose that weak and strong resultative constructions have syntactically different structures: the result phrase in weak resultative constructions is base-generated in the complement position of the main predicate, while there are functional categories intervening between the main predicate and the result phrase in strong resultative constructions. In section 5, I demonstrate how my account gives an explanation for strong resultative constructions in Germanic languages. The last section is a brief summary.

2. Resultative Constructions in Germanic and Romance Languages

There is a crosslinguistic difference in the existence of strong resultative constructions: some languages have both weak and strong resultative constructions, while others lack strong resultative constructions. It has been observed

that there is another crosslinguistic difference in terms of the syntactic category of the result phrase: the result phrase is realized as either an AP or a PP in some languages, while only PPs are allowed in others. In this section, I demonstrate that there exists a correlation between the existence of strong resultative constructions and the categorial realization of the result phrase.

Let us first consider the languages that have both weak and strong resultative constructions. In English, as in (6) and (7), both APs and PPs can be the result phrases. According to Tsuzuki (2007), the same observation holds in Dutch.

- (6) *English weak resultative constructions*
 a. John painted the wall [AP white].
 b. Mary broke the vase [PP into pieces].
- (7) *English strong resultative constructions*
 a. Mary pounded the metal [AP flat].
 b. John ran his Nikes [PP to tatters].

Tsuzuki observes that German also has two types of resultative constructions. As in (8), both APs and PPs can appear as the result phrases in strong resultative constructions.

- (8) *German strong resultative constructions*
 a. Sie schmirgeln den Stein [AP glatt].
 they rub.PAST the stone smooth
 ‘They rubbed the stone smooth.’
 b. Johann weinte sich [PP in den Schlaf].
 John cry.PAST self in the sleep
 ‘John cried himself to sleep.’
- (Tsuzuki 2007: 147: (10))

In weak resultative constructions, on the other hand, only PPs are allowed to be the result phrases in German, as in (9).²

- (9) *German weak resultative constructions*
 a. Franz frohr das Wasser [PP zu einem Block]/*[AP hart].
 Franz freeze.PAST the water to a block / solid
 ‘Franz froze the water to a block/solid.’
 b. Fritz schmolz den Eisblock [PP zu einer Pfütze]/*[AP flüssing].
 Fritz melt.PAST the ice.block to a pool / soft
- (Kaufmann and Wunderlich 1998)

Now consider the languages without strong resultative constructions. Romance languages lack strong resultative constructions. For example, Italian allows weak resultatives as in (10a), but it disallows strong resultatives as in (10b).

² Unlike other Germanic languages such as English and Dutch, German does not allow APs to be the result phrases in weak resultative constructions. The question arises as to why APs cannot be the result phrases in German weak resultative constructions. I do not discuss this matter here, since it seems to be due to some restriction specific to German.

(10) *Italian*

a. *Weak resultative constructions*

Ho tagliato la carne [PP in piccolo pezzi].
have.1stSg cut.PPT the meat in small pieces
'I cut the meat into small pieces.'

b. *Strong resultative constructions*

*Gianni ha martellato il metallo [AP piatto].
Gianni has hammer-PPT the metal flat
'Gianni hammered the metal flat.'

(Napoli 1992: 65)

It should be noted that these languages allow only PPs to be the result phrases. As in (11b) and (12), an AP cannot appear as the result phrase in French and Italian, respectively.

(11) *French weak resultative constructions*

a. Jean a cassé le vase [PP en morceaux].
John has break.PPT the vase in pieces
'John broke the vase into pieces.'

b. *J'ai peint le mur [AP rouge].
I-have paint.PPT the wall red
'I painted the wall red.'

(Washio 1997: 27)

(12) *Italian weak resultative constructions*

?*Il fiume è ghiacciato [AP solido].
the river has freeze.PPT solid
'The river froze solid.'

(Napoli 1992: 64)

Tsuzuki (2007) summarizes these observations as in (13).

(13)

	English	Dutch	German	French	Italian
Weak resultatives	AP, PP	AP, PP	PP	PP	PP
Strong resultatives	AP, PP	AP, PP	AP, PP	Nonexistent	Nonexistent

(Tsuzuki 2007: 147: (9))

From the above observations, Tsuzuki concludes that the categorial distribution of the result phrase in weak resultative constructions is more restricted than in strong resultative constructions: some languages disallow APs to appear as the result phrases in weak resultative constructions, while many languages allow both APs and PPs in strong resultative constructions.

Although Tsuzuki's generalization is correct, it is not the most important point. More noteworthy in (13) is that there exists a correlation between the existence of strong resultative constructions and the categorial realization of the result phrase. As given in (14), I propose that the result phrase is always a PP in the languages without strong resultative constructions.

(14) *Generalization*

The result phrase must be realized as a PP in a language if and only if it lacks strong resultative constructions.

Italian and French, which lack strong resultative constructions, do not allow result APs. Germanic languages, on the other hand, have both weak and strong resultative constructions. In these languages, both APs and PPs are

allowed to be the result phrases.

However, there is an apparent counterexample to the generalization in (14), i.e., Japanese resultative constructions. Although Japanese lacks strong resultative constructions, it seems that both APs and PPs can appear as the result phrases. In the next section, I examine Japanese resultative constructions. I demonstrate that the generalization in (14) is correct, by showing that the result phrase in Japanese is always realized as a PP.

3. Japanese Resultative Constructions

The weak resultative constructions in Japanese are given in (15).

(15) *Japanese weak resultative constructions*

- a. Mary-wa kabin-o [PP konagona-ni] wat-ta.
Mary-TOP vase-ACC into.pieces-to break-PAST
'Mary broke the vase into pieces.'
- b. John-wa kabe-o [AP? siroku] nut-ta.
John-TOP wall-ACC white paint-PAST
'John painted the wall white.'

Let us consider the syntactic categories of the result phrases in Japanese. The result phrase *konagona-ni* 'into pieces' in (15a) is a PP, since it can be decomposed into the NP *konagona* 'pieces' and the morpheme *-ni*, which is assumed to be a postposition (Mihara 2008).³ A problem arises in (15b). It is generally assumed that *siroku* 'white' is the inflected form of the adjective *siro(k)* 'white'. On this assumption, the result phrase in (15b) seems to be an AP. Notice that Japanese does not have strong resultative constructions. From the generalization in (14), it would follow that an AP can never be the result phrase in Japanese. Thus, the example in (15b) seems to suggest that the generalization in (14) is not correct.

However, I propose that the generalization in (14) is tenable: the result phrase is always realized as a PP, not an AP. In order to show that the result phrase *siroku* in (15b) constitutes a PP, let us examine the "u-ending form" of an adjective. It should be noted that the u-ending form of an adjective functions as an adverb, as in (16).

- (16) a. Hanako-wa uta-o **utukusik-u** uta-u.
Hanako-TOP song-ACC beautiful-ly sing-NONPAST
'Hanako sings a song beautifully.'
- b. Taro-wa **hayak-u** gakkō-ni tui-ta.
Taro-TOP early-ly school-at arrive-PAST
'Taro arrived at school early.'

The above examples show that the u-ending form of an adjective is a deadjectival adverb. I propose that the u-ending form of an adjective consists of the adjectival stem ending with the consonant /k/ and the adverbial suffix -u: the deadjectival adverb *utukusiku* in (16a), for example, consists of the adjectival stem *utukusik* 'beautiful' and the adverbial suffix -u.⁴

Next, let us consider how a deadjectival adverb constitutes a PP. I propose that the u-ending form of an adjective constitutes an NP, and then it becomes a PP by attachment of the null P head. Following Déchaine and

³ The status of the morpheme *-ni* is controversial. Nishiyama (1999) assumes that it is the predicative copula on the assumption that adjectival nouns are adjectives. I adopt Mihara's (2008) analysis here.

⁴ It has been generally assumed that the adverbial suffix is /ku/, not /u/. However, I propose that the consonant /k/ is a part of the adjectival stem. More precisely, the consonant /k/ is the category-defining functional head *a* to form a canonical adjective, in the sense of Marantz (2001). This assumption is based on the observation that Japanese canonical adjectives always end with the consonant /k/. See Morita (2007) for more details.

Tremblay (1996), Baker (2003) suggests that the adverbial suffix *-ly* in English is a noun. Suppose that the morpheme *-u* is also a noun, since it corresponds to English *-ly*. Although it is unclear whether Japanese *-u* itself is a noun, there is a piece of evidence to show that the *u*-ending form of an adjective is a noun. The examples in (17a) and (18a) suggest the *u*-ending form of an adjective can be attached by the postpositions such as *-ni* ‘at’ and *-kara* ‘from.’⁵

- (17) a. Kare-wa Tokyo-ni sundeiru.
 He-Top Tokyo-at is.living
 ‘He lives in Tokyo.’
 b. Kare-wa gakko-no chikak-u-ni sundeiru.
 He-Top school-GEN near-U-at is.living
 ‘He lives near the school.’
- (18) a. Kanojo-wa yuushoku-o asa-kara junbi-sita.
 she-Top dinner-Acc morning-from preparation-did
 ‘She prepared for dinner from morning.’
 b. Kanojo-wa yuushoku-o hayak-u-kara junbi-sita.
 she-Top dinner-Acc early-U-from preparation-did
 ‘She prepared for dinner from early.’

Since these postpositions can attach only to nouns in Japanese, this observation supports the claim that the *u*-ending form of an adjective constitutes an NP.

Baker claims that a deadjectival noun in *-ly* combines with the null P head in order to function as an adverb. This assumption is based on the fact that adverbs in *-ly* are semantically equivalent to PPs: the adverb *carefully*, for example, is synonymous with the PP *in a careful manner*. Following Baker, I assume that the *u*-ending form of an adjective is also attached to the null P head when it functions as an adverb.

Suppose that the *u*-ending form of an adjective in resultative constructions combines with the null P head. Thus, the result phrase *siroku* in (15b) has the following internal structure.

- (19) [PP [NP [AP sirok] -u] -Ø]
 white -N -Adv

A problem arises as to whether the *u*-ending form of an adjective in resultative constructions functions as an adverb. Although it does not semantically function as an adverb, I propose that it combines with the null P head and constitutes a PP. Notice that no morpheme attaches to the *u*-ending form of an adjective in resultative constructions. I suppose that NPs in Japanese must be supported by some functional head, since nominals are usually either case-marked or attached to a postposition in Japanese.⁶ Since the *u*-ending form of adjectives in resultative constructions is neither case-marked nor has an overt proposition attached, I propose that it is supported by the null functional head, i.e., the P head. Thus, the *u*-ending form of an adjective in resultative constructions constitutes a PP, as illustrated in (19).

To sum up, I demonstrated that the result phrase in Japanese resultative constructions is always realized as a PP. This fact confirms the generalization in (14): the result phrase must be realized as a PP in the languages that lack strong resultative constructions.

⁵ Larson and Yamakido (2002) suggest that the *u*-ending form of an adjective itself does not constitute a noun; it is an attributive modifier of its following covert noun. I leave this possibility aside here.

⁶ This claim is based on the assumption that a case particle is a functional head (probably the functional head D).

4. The Syntactic Structures of Resultative Constructions

So far, I have demonstrated that the result phrase must be realized as a PP in languages without strong resultative constructions. In other languages, on the other hand, the result phrase is realized as either an AP or a PP. Let us suppose that it is a parametric variation that yields this crosslinguistic variation. In this section, I propose that this crosslinguistic difference can be captured by assuming that there is a difference between weak and strong resultative constructions in terms of their syntactic structures: a PP cannot be licensed as the result phrase in strong resultative constructions, while both an AP and a PP can in weak resultative constructions.⁷

Here let us reconsider the semantic difference between weak and strong resultative constructions. Recall that the main predicate entails the end state of the event in weak resultative constructions, while the resulting state is expressed only by the result phrase in strong resultative constructions. Kaufmann and Wunderlich (1998) explain the semantic difference between weak and strong resultative constructions by assuming that the two types of resultative constructions are formed by different rules, as given in (20).⁸

- (20) a. *Formation of weak resultative constructions*
 $\lambda y \dots \lambda s \text{ VERB}(\dots, y)(s) \rightarrow \lambda Q \lambda y \dots \lambda s \{\text{VERB}(\dots, y) \ \& \ Q(y)\}(s)$
- b. *Formation of strong resultative constructions*
 $\dots \lambda s \text{ VERB}(\dots)(s) \rightarrow \lambda Q \lambda z \dots \lambda s \{\text{VERB}(\dots) \ \& \ \text{BECOME } Q(z)\}(s)$

In the above representations, *y* is the object of the main predicate, *Q* the secondary predicate, and *z* an arbitrary argument. As in (20a), the secondary predicate *Q*, which functions as a predicate of the object *y*, describes the resulting state of the main predicate in the formation of weak resultative constructions. On the other hand, as in (20b), the function *BECOME* is introduced in the formation of strong resultative constructions, so that the secondary predicate *Q* expresses the resulting state of the object. The difference between (20a) and (20b) suggests that some additional functional element is necessary in order to form strong resultative constructions, but not weak resultative constructions.

Given that the difference between (20a) and (20b) is due to the difference of their syntactic structures, I propose the following syntactic structures for weak and strong resultative constructions, as illustrated in (21).

- (21) a. *Weak resultative construction*
-
- ```

graph TD
 vP --> Subj
 vP --> v
 v --> VP
 VP --> Obj
 VP --> V
 Obj --> V
 Obj --> AP_PP[AP/PP]

```
- b. *Strong resultative construction*
- 
- ```

graph TD
    vP --> Subj
    vP --> v
    v --> VP
    VP --> Obj
    VP --> PredP
    Obj --> V
    PredP --> ti
    PredP --> FP
    ti --> Pred
    ti --> FP
    Pred --> BE
    FP --> F
    FP --> AP_PP[AP/*PP]
    F --> AT
  
```

⁷ As seen in the previous sections, a PP can be the result phrase in Germanic strong resultative constructions. I will come back to this matter later in section 5.

⁸ See Kaufmann and Wunderlich (1998) and Kaga (2007) for more details.

As in (21a), the result phrase occupies the complement position of the main predicate in weak resultative constructions. In strong resultative constructions, on the other hand, there are two functional categories intervening between the main predicate and the result phrase, as in (21b). As seen in (20b), the formation of strong resultative constructions requires an additional functional element, i.e., BECOME. Let us suppose that BECOME can be decomposed into BE and AT, which head the functional categories Pred(icate)P and FP, respectively.

The structure in (21b) explains the fact that a PP cannot appear as the result phrase in strong resultative constructions. Given that the preposition ‘at’ cannot take another PP as its complement, the F head does not allow PPs to be its complement.

There are several pieces of evidence for the syntactic structures in (21). First, Ono (2007) observes that there is a semantic restriction on the result AP in strong resultatives: the result AP in strong resultatives must be closed-scale, while the result phrase in weak resultatives can be any type of adjective. It is well-known that there are two types of adjectives, that is, gradable and nongradable (i.e., zero-scale) adjectives. Kennedy and McNally (2005) suggest that gradable adjectives can be further classified into two types: open-scale and closed-scale adjectives. They demonstrate that the three types of adjectives obey different constraints in co-occurrence with degree adverbs. As in (22a), open-scale adjectives can appear with the degree adverb *very*, but cannot appear with *half* and *completely*. Closed-scale adjectives can occur with *half*, as in (22b). Zero-scale adjectives do not usually co-occur with the degree adverbs, as in (22c).

- (22) a. *Open-scale adjectives:*
 {very/*half/*completely} sick, silly, sore, thin
- b. *Closed-scale adjectives:*
- (i) {very/?half/?completely} dry, full, flat, clean, smooth, open
 - (ii) {*very/half/*completely} asleep, awake, closed
- c. *Zero-scale adjectives:*
- (i) {??very/?half/?completely} dead
 - (ii) {??very/*half/*completely} hoarse
 - (iii) {??very/*half/?completely} broken

Based on Kennedy and McNally’s classification of adjectives, Ono observes that all three types of adjectives can appear in weak resultative constructions, as in (23).

- (23) *Weak resultative constructions*
- a. *Open-scale adjectives:*
 John painted the house very bright.
 Mary cut the bread too short.
 - b. *Closed-scale adjectives:*
 They froze the water solid.
 Water filled the tub half full.
 - c. *Zero-scale adjectives:*
 Nancy dyed the dress blue.
 The bear frightened the hikers speechless.

He suggests that open-scale adjectives, on the other hand, cannot appear in strong resultative constructions. The examples in (24) seem to show that strong resultatives can also have all types of adjectives as the result phrase. Ono, however, claims that open-scale adjectives in (24a) are changed into closed-scale adjectives in strong resultative constructions, since they cannot co-occur with the degree adverb *very*.

(24) *Strong resultative constructions*

a. *Open-scale adjectives:*

Charley laughed himself {completely/almost/half/*very} silly.

The joggers ran the pavement {completely/almost/half/*very} thin.

b. *Closed-scale adjectives:*

The gardener watered the tulips flat.

Fred drank the teapot dry.

c. *Zero-scale adjectives:*

Harry shot Sam dead.

The tenors sang themselves hoarse.

The contrast between weak and strong resultative constructions in (23) and (24) can be explained by assuming that the functional head F has a selectional restriction on its complement; the functional head F restricts the type of a result phrase (or changes the result AP into the closed-scale type) in strong resultative constructions. Any type of result AP can appear in weak resultative constructions, since the functional head F does not exist.

Second, Kageyama (2007) observes that the result phrase in weak resultative constructions can be extracted, while the result phrase in strong resultative constructions cannot. He demonstrates that the result phrase in weak resultative constructions can appear in the focus position in the cleft construction as in (25), while the result phrase in strong resultatives cannot as in (26).

(25) *Weak resultative constructions*

a. They painted their house dark green. → It was dark green that they painted their house.

b. He polished his shoes to a high gloss. → It was to a high gloss that he polished his shoes.

(Kageyama 2007: 55: (36))

(26) *Strong resultative constructions*

a. They watered the tulips flat. → *It was flat that they watered the tulips.

b. He ran his Nikes to tatters. → *It was to tatters that he ran his Nikes.

(Kageyama 2007: 55-56: (39))

Given that the cleft constructions are derived by movement of the result phrase to the focus position, these facts observed in (26) and (27) suggest that the result phrase in strong resultative constructions is farther from the main predicate than in weak resultative constructions. I suppose that the result phrase in strong resultative constructions cannot move to the focus position since the functional categories PredP and FP disallow the result phrase to move out of them.⁹ The result phrase in weak resultative constructions, on the other hand, can move to the focus position, because there is no category intervening between the verb and the result phrase.

5. Strong Resultative Constructions in Germanic Languages

Last, let us consider Germanic resultative constructions. In the previous section, I propose that a PP cannot be licensed as the result phrase in strong resultative constructions. As the examples in (27) show, however, Germanic languages allow PPs to be the result phrases in strong resultative constructions.

(27) a. *English strong resultative constructions*

John ran his Nikes to tatters.

⁹ A question arises as to how the functional categories block movement of the secondary predicate out of them. I leave this problem open in this paper.

- b. *German strong resultative constructions*
 Johann weinte sich [pp in den Schlaf].
 John cry.PAST self in the sleep
 ‘John cried himself to sleep.’

In order to explain the fact that PPs can be result phrases in Germanic strong resultative constructions, I make the following claims, as given in (28).

- (28) a. Some prepositions in Germanic languages are not just the P head, but the complex of the P head and the functional heads F and Pred.
 b. The F head can also take a PP as its complement only if the F head is overtly realized.

First, I propose that Germanic prepositions are not just the P head, but the complex of the heads P, F and Pred. This claim is based on the fact that Germanic prepositions such as *to*, *into*, *on*, and *under*, can imply both the changing process of the event and the existence of the theme at the goal. Consider the examples in (29).

- (29) a. *English*
 The mouse crawled on the table.
 b. *French*
 La souris a rampé sur la table.
 the mouse has crawled on the table
 ‘The mouse crawled on the table.’ (Kaga 2007: 188: (22))

The English example in (29a) is ambiguous: it has the *existence-at-the-goal* interpretation such that “it was on the table that the event of the mouse’s crawling took place,” and the *change-of-state* interpretation such that “the mouse climbed up onto the table by crawling.” The French counterpart in (29b), on the other hand, has only the *existence-at-the-goal* interpretation.

A similar observation can be found in German and Japanese, as in (30) and (31).

- (30) *German*
 Marie tanzte ins Zimmer.
 Mary danced into.the.ACC room
 ‘Mary danced into the room.’ (Kaga 2007: 191: (26b))
 (31) *Japanese*
 Mari-wa heya-no naka-de odot-ta.
 Mari-TOP room-GEN inside-at dance-PAST
 ‘Mari danced in the room.’

The German example in (30) has the *change-of-state* interpretation.¹⁰ The Japanese example in (31), on the other hand, has only the *existence-at-the-goal* interpretation: it cannot have the *change-of-state* interpretation since the postposition *de* ‘at’ cannot imply the changing process of the event.

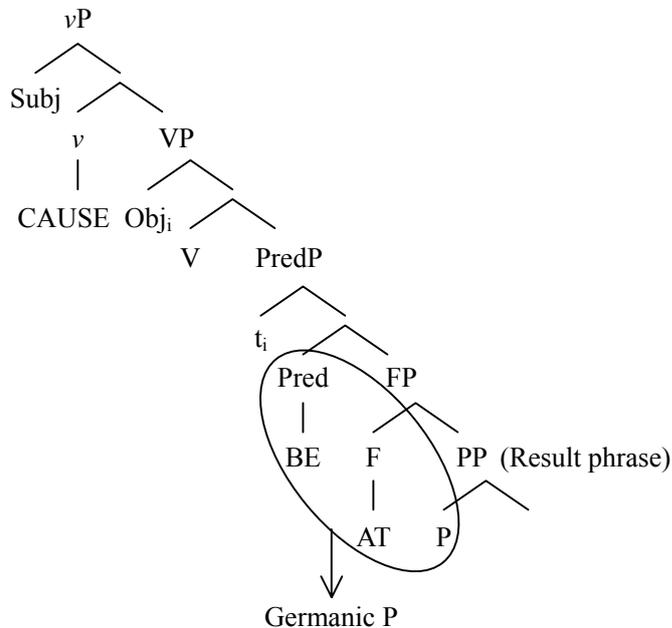
The contrasts observed in (29) and (30–31) show that English and German prepositions can imply the changing state of the event, while French and Japanese adpositions imply only the existence of the theme at the goal.

Let us come back to the result “PPs” in Germanic strong resultative constructions. Notice that the

¹⁰ The example would have the *existence-at-the-goal* interpretation if the object of the preposition has the dative case. In German, a preposition implies the changing process when its object is accusative, while it implies the existence of the theme at the goal when its object is dative.

prepositions in strong resultative constructions imply the changing state of the event, since the main predicate does not entail the resulting state. Given that the P head can only imply the location of the theme at the endpoint, Germanic prepositions cannot be just the P head when they have the *change-of-state* interpretation.¹¹ Let us suppose that Germanic prepositions are the overtly realized forms of the complex heads P, F, and Pred, as illustrated in (32).

(32) *Strong resultative construction (Germanic languages)*



Next, let us consider why a PP can appear in the complement position of FP in Germanic languages. As mentioned in section 4, I proposed that the F head does not allow a PP complement. Now suppose that the F head can take a PP complement if and only if F is overtly realized. Given that the vocabulary insertion takes place after the syntactic operation, it seems odd to assume that it is determined after the syntax whether a PP is possible as a complement of the F head: the availability of the result PP in strong resultative constructions should be determined before the F head gains a morphological form. I assume that the result PP is in principle allowed in the syntax: the derivation would crash if a PP appears as the complement of the F head that is not overtly realized.

In Germanic strong resultative constructions, the preposition of the result phrase is the overt realization of the complex of the heads P, F and Pred. Although the F head is not overtly realized by itself, it gains phonetic content by combining other functional heads. Consider an English strong resultative sentence “John ran his Nikes to tatters,” for example. The P head undergoes a syntactic operation (i.e., head movement to the functional head Pred), constituting a complex functional head [P-F-Pred]. Then the complex functional head [P-F-Pred] is overtly realized as *to* after the syntax. Since the functional head F gains an overt morphological form, the derivation of this sentence does not crash.

In other languages such as French and Japanese, on the other hand, the adposition of the result PP is the overt realization of the P head, not the complex functional head [P-F-Pred]. The functional head F does not undergo head movement to the P head and remains in its base position, in order for the P head to gain an appropriate overt morphological form. Since the functional head F does not obtain an overt morphological form, a PP cannot appear in the complement position of the head F and thus the derivation of strong resultative constructions would crash in these languages.

The claims in (28) give a correct explanation for the difference between Germanic and other languages in

¹¹ I do not have any supporting evidence for the assumption that the P head can only imply the location of the event. Further investigation is necessary.

terms of the availability of the PP result phrase in strong resultative constructions. However, there is room for further crosslinguistic investigation on this point.

6. Summary

In this paper, I considered the crosslinguistic difference in resultative constructions: some languages have both weak and strong resultative constructions, while others have only weak resultative constructions. First, I presented a generalization that the result phrase must be a PP in a language if and only if it lacks strong resultative constructions. Second, I demonstrated that the result phrase in Japanese is always realized as a PP, although Japanese seems to allow both an AP and a PP to be the result phrase. Then, I suggested that weak and strong resultative constructions have different syntactic structures: a PP cannot be licensed as the result phrase in strong resultative constructions, while both an AP and a PP can in weak resultative constructions. Last, I provided an account for the fact that Germanic languages allow the result PP in strong resultative constructions. I demonstrated that Germanic prepositions are the overt realization of the complex functional head [P-F-Pred], while the P head is realized as an adposition in other languages. Then I claimed that a PP can be the complement of the functional head F if and only if the F head is overtly realized. Germanic languages allow the result “PPs” since the F head obtains an overt morphological form by combining with other functional heads in these languages. Although the analyses presented here capture several crosslinguistic differences in resultative constructions, further investigation is needed to verify them.

References

- Baker, Mark (2003) *Lexical Categories: Verbs, Nouns, and Adjectives*, Cambridge University Press, Cambridge.
- Carrier, Jill and Janet H. Randall (1992) “The Argument Structure and Syntactic Structure of Resultatives,” *Linguistic Inquiry* 23, 173–234.
- Déchaine, Rose-Marie and Mireille Tremblay (1996) “Adverbial PPs and Prepositional Adverbs in French and English,” *Canadian Linguistics Association Proceedings*, University of Calgary Working Papers in Linguistics, Calgary.
- Goldberg, Adele E. and Ray Jackendoff (2004) “The English Resultative as a Family of Constructions,” *Language* 80, 532–568.
- Kaga, Nobuhiro (2007) “Kekakoubun to Ruikeiron-parameter,” *Kekakoubunkenkyu-no Shinshiten*, ed. by Naoyuki Ono, 33–65, Hituzi Syobo, Tokyo.
- Kageyama, Taro (2007) “Eigokekajutsugo-no Imibunrui to Tougokouzou,” *Kekakoubunkenkyu-no Shinshiten*, ed. by Naoyuki Ono, 177–215, Hituzi Syobo, Tokyo.
- Kaufmann, Ingrid and Dieter Wunderlich (1998) “Cross-linguistic Patterns of Resultatives,” Ms., University of Düsseldorf.
- Kennedy, Christopher and Louise McNally (2005) “Scale Structure, Degree Modification, and the Semantics of Gradable Predicates,” *Language* 81, 345–380.
- Larson, Richard K. and Hiroko Yamakido (2002) “A New Form of Nominal Ellipsis in Japanese,” *Japanese/Korean Linguistics II*, ed. by Patricia Clancy, 485–498, CSLI, Stanford.
- Levin, Beth and Malka Rappaport Hovav (1995) *Unaccusativity: At the Syntax-Lexical Semantics Interface*, MIT Press, Cambridge, MA.
- Marantz, Alec (2001) “Words,” *WCCFL XX Handout*, USC, February 2001.
- Mihara, Ken-ichi (2008) “Iwayuru Na-keiyousi-no Kekajutsugo-o Megutte,” *The State of the Art in Linguistic Research*, ed. by Yoshiaki Kaneko et al., 99–114, Kaitakusha, Tokyo.
- Morita, Chigusa (2007) “Some Notes on Japanese Adjectives,” Ms., University of Tokyo.
- Napoli, Donna Jo (1992) “Secondary Resultative Predicate in Italian,” *Journal of Linguistics* 28, 53–90.
- Nishiyama, Kunio (1999) “Adjectives and the Copulas in Japanese,” *Journal of East Asian Languages* 8, 183–222.

- Ono, Naoyuki (2007) “Kekakoubun-no Scale-kouzou to Jisyo-type,” *Kekakoubun-kenkyu-no Shinshiten*, ed. by Naoyuki Ono, 67–101, Hituzi Syobo, Tokyo.
- Rappaport Hovav, Malka and Beth Levin (2001) “An Event Structure Account of English Resultative,” *Language* 77, 766–797.
- Simpson, Jane (1983) “Resultatives,” *Papers in Lexical-Functional Grammar*, ed. by Lori Levin, Malka Rappaport, and Annie Zaenen, 143–157, Indiana University Linguistic Club, Bloomington, Indiana.
- Tsuzuki, Masako (2007) “Gerumansyogo-ni-mirareru Haseitekikekkakoubun-ni-kansuru Ichikousatsu,” *Kekakoubunkenkyu-no Shinshiten*, ed. by Naoyuki Ono, 143–176, Hituzi Syobo, Tokyo.
- Washio, Ryuichi (1997) “Resultatives, Compositionality and Language Variation,” *Journal of East Asian Linguistics* 6, 1–49.