

# Licensing Conditions and Event Structure of Resultatives\*

## - A Comparative Study between Korean and German

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### 1 Phenomena and Issues

As is well known, a typical resultative construction is taken to consist of a clause denoting a causing action and an XP denoting the result state of the action. Let's take examples:

- (1) a. Mary painted the door [black].
  - b. Mary-nun kumsok-ul [napcakha-key] twutulki-ess-ta.  
Mary-TOP metal-ACC flat-COMP hammer-PAST-DEC  
'Mary hammered the metal flat.' (Korean)
  - c. Sie streicht die Tür [schwarz].  
'She paints the door black.' (German)

In sentence (1a), the clause *Mary painted the door* denotes the causing action and the predicate *flat*, termed a resultative predicate, denotes the result state of the affected object *door*. In other words, the sentence (1a) semantically entails that the door became black as a result of the painting.

In Korean and German, various syntactic formations are employed to express the cause-result relation. Consider the following examples (J.B. Kim (1999), Wechsler/Noh (2001)):

- (2) a. Ku-nun [elun-ulo] sengcanghay-ess-ta.  
he-TOP adult-COMP grow -PAST-DEC  
'He grew into an adult.'
- b. Mary-nun khong-ul [kalwu-lo] ppah-ass-ta.  
Mary-TOP bean-ACC powder-to grind-PAST-DEC  
'Mary ground the bean into powder.'
- c. ku-nun [sinpal-i talh-key] talli-ess-ta.  
he-TOP shoes-NOM threadbare-COMP run-PAST-DEC

‘He ran (his) shoes threadbare.’

- (3) a. Er schneidet die Wurst in Scheiben.  
‘He cuts the sausage into slices.’
- b. Es regenete die Wäsche nass.  
‘It rained the laundry wet.’
- c. Die Jogger liefen den Rasen platt.  
‘The joggers ran the lawn flat.’

In section 2, we will examine what kind of syntactic structures are available in two languages. This is the first issue raised in the current work.

In the linguistics literature, there has been active discussion about the licensing conditions on the resultatives. One of them is the ‘Direct Object Restriction’ observed by Simpson (1983). According to the condition, the result predicates are only predicated of underlying direct object. In case of (1a) discussed above, the predicate *flat* is predicated of the object *door*. There are other conditions addressing the aspectual property of the result predicate and of the main clause etc. Section 3 handles the issue about the licensing conditions in detail.

Recent attempts to illuminate the semantic properties of the resultative constructions have mostly drawn upon event structure. According to Wunderlich (2000), there are two types of resultative constructions from the semantic point of view, i.e. weak resultatives and strong resultatives. In section 4, we challenge his template-based approach and propose an analysis extending the neo-Davidsonian framework for the purpose of capturing the semantic entailment holding for the resultatives.

## 2 Syntactic Classification

In this section we consider the syntactic distribution of resultative constructions in Korean and German. To this end, we will adopt the classification of Wechsler/Noh (2001) and try to capture the differences between Korean and German. We first assume that three types of resultative constructions can be distinguished cross-linguistically following the authors. They are termed “resultative clauses,” “resultative secondary predicates,” and “ECM resultatives.” Some examples are illustrated as follows:

### (4) Resultative clauses

John hammered the metal; consequently, resulting in the metal becoming flat.

### (5) Resultative secondary predicates

John hammered the metal flat.

(6) ECM resultatives

We yelled ourselves hoarse.

In case of the first type, the causing event and resulting event can each be conveyed in terms of its own clause. The second type is regarded as a construction in which a semantic argument of the matrix verb serves as the subject for the resultative predicate.” The characteristic of the third type lies in the fact that the subject of the resultative predicates does not fill a semantic argument of the matrix predicate.

Based on the classification discussed above, we now look at the Korean data.

- (7) a. Ku-nun Mary-lul [chim-i malu-key] chingchanhay-ess-ta.  
he-TOP Mary-ACC saliva-NOM dry.out-COMP praise-PAST-DEC  
‘(lit.) He praised Mary (his) saliva dried out.’  
‘He spoke in the highest terms of Mary.’ (J.B. Kim, 1999)
- b. ku-nun [sinpal-i talh-key] talli-ess-ta.  
he-TOP shoes-NOM threadbare-COMP run-PAST-DEC  
‘He ran (his) shoes threadbare.’ (Wechsler/Noh, 2001)
- c. Sandy-ka koki-lul [ppye-ka humwuleci-key] salm-ass-ta.  
Sandy-NOM meat-ACC bone-NOM gelatinous-COMP  
boil-PAST-DEC  
‘Sandy boiled the meat (until) the bone became gelatinous.’  
(Kim/Maling, 1997)
- (8) a. Ku-nun soy-lul [pyongpyongha-key] chy-ess-ta.  
He-TOP metal-ACC pound-PAST-DEC  
‘He pounded the metal.’
- b. Mary-nun thakca-lul [kkaykkusha-key] takk-ass-ta.  
Mary-TOP table-ACC clean-COMP wipe-PAST-DEC  
‘Mary wiped the table clean.’
- c. Mary-nun khong-ul [kalwu-lo] ppah-ass-ta.  
Mary-TOP bean-ACC powder-to grind-PAST-DEC  
‘Mary ground the bean into powder.’

The examples in (7a)-(7c) show the “resultative clauses” type and the examples in (8a)-(8c) represent the “resultative secondary predicates” type. However, the ECM type is not identified in Korean, as J.-B. Kim (1999) points out and Wechsler and Noh (2001) agree.<sup>1</sup> Wechsler and Noh attribute the lack of ECM type to the fact that the Korean language lacks the ECM construction in general. In sum, Korean resultatives have two types of syntactic realization, i.e. by

means of an independent result event or a predicative phrase denoting a result state.

Let us turn now to German resultatives. Examples are given as follows:

- (9) a. Er streichelte die Katze; folglich, die Katze schlief.  
'He stroked the cat sleepy.'  
b. Er streichelte die Katze, bis die Katze schlief.  
'He stroked the cat, until it slept.'
- (10) a. Er streichelte die Katze schläfrig  
'He stroked the cat sleepy.'  
b. Er schneidet die Wurst in Scheiben.  
'He cuts the sausage into slices.'
- (11) a. Die Jogger liefen den Rasen platt.  
'The joggers ran the lawn flat.'  
b. Die Gäste tranken den Weinkeller leer.  
'The guests drank until the wine cellar is empty.'  
c. Es regnete die Wäsche nass.  
'It rained the laundry wet.'

As is evident from the examples above, German allows all types of resultative constructions. The examples in (9) belong to the “resultative clauses” type and those in (10) to the “resultative secondary predicates” type. Finally, the examples in (11) illustrate the “ECM” type. Concerning the ECM type, it is important to note that the subject of the secondary predication has its case assigned by the matrix verb in German as in English. For instance, it is assumed that the subject ‘den Rasen’ of the secondary predication ‘platt’ in (11a) receives its accusative case from the matrix verb ‘liefen’. However, a problem arises, if we look at the resultatives of impersonal verbs like ‘regnen’ in (11c). Actually, the zero-place verb can not assign any accusative case. As far as we know, there is no explanation for the process of the case assignment.

In this section, we discussed the syntactic typology of resultatives in Korean and German. Looking at the surface structure of the resultatives alone is not sufficient to predict which sentences are available to be interpreted as a resultative construction. In order to solve this problem, we have to understand more specific licensing conditions on the resultatives, what is the issue of the next section.

### 3 Licensing Conditions

This section is concerned with the syntactic and semantic licensing conditions on the resultative constructions. The focus of the discussion will be put on the similarities and differences between Korean and German. We examine

various constraints proposed previously in the literature. In discussing the licensing conditions relevant to the resultatives, the “Direct Object Restriction (DOR)” proposed by Simpson (1983) and Levin/Rappaport-Hovav (1995) is worth examining at first. The DOR states that resultative predicates must be predicated of underlying NPs. The DOR is motivated by resultative constructions headed by transitive verbs as well as resultatives based on intransitive verbs that do not allow result XPs to be predicated directly of their subjects in English (Levin/Rappaport-Hovav, 2001). The relevant question is now ‘Is the DOR also operative in Korean and German?’ To find an answer to this question, let us first look at some examples from Korean:

- (12) a. Ku-nun [nwun-i aphu-key] wul-ess-ta.  
 he-TOP eyes-NOM painful cry-PAST-DEC  
 ‘(lit.) He cried his eyes sick.’ (J.B. Kim, 1999)
- b. [Meli-ka ccwuppyese-key] koymul-i na-eykey takaw-ass-ta.  
 hair-NOM on.end-COMP monster-NOM I-DAT  
 approach-PAST-DEC  
 ‘A monster approached me (so that) my hair (became) on end.’  
 (Wechsler/Noh, 2001)
- c. Sandy-ka koki-lul [ppye-ka humwuleci-key] salm-ass-ta.  
 Sandy-NOM meat-ACC bone-NOM gelatinous-COMP  
 boil-PAST-DEC  
 ‘Sandy boiled the meat (until) the bone became gelatinous.’  
 (Kim/Maling, 1997)

The examples in (12) demonstratively show that the NP which the resultative phrase is predicted of can be either a subject, an oblique, or an object, as pointed out by Kim/Maling (1997), Kim (1999), and Wechsler/Noh (2001). This observation leads to the following statement: DOR does not hold for Korean resultatives, at least for the “resultative clauses” type. Furthermore the DOR does not seem to be applicable to some case of the “resultative predicates” type, either, as exemplified in (2a), here repeated as (13):

- (13) a. Ku-nun [elun-ulo] sengcanghay-ess-ta.  
 he-TOP adult-COMP grow -PAST-DEC  
 ‘He grew into an adult.’

A question is posed here: How about German resultatives? With reference to this question, Kaufmann (1995) provides the answer. Following her analysis, German resultative formation introduces a result phrase which predicates over an accusative object that is not necessarily subcategorized by the matrix verb (Kaufmann 1995: 415). Examples for those are illustrated as follows.

- (14) a. Karl isst seinen Teller leer.  
‘Karl eats his plate empty.’  
b. \*Karl isst seinen Teller.  
‘Karl eats his plate.’

- (15) a. Marianne schreibt ihren Füller leer.  
‘Marianne writes her pen empty.’  
b. \*Marianne schreibt ihren Füller.  
‘Marianne writes her pen.’

In (14b) and (15b) respectively, it is shown that the accusative object is not an argument of the matrix verb. The same is true of the following example with a reflexive pronoun (Müller 2002).

- (16) Er läuft sich müde.  
‘He runs himself tired.’

The reflexive pronoun ‘sich’ in (16) is the NP over which the resultative predicate ‘läuft’ predicates, even though it is not an argument of the matrix verb. The sentence given in (17) displays more explicitly that the resultative phrase can predicate over a subject:

- (17) Die Butter schmilzt [zu einer Pfütze].  
‘The butter melts to a puddle runny.’

Examples discussed above certainly provide evidence that the DOR does not hold for German resultatives either. To sum up, neither Korean nor German meets the DOR, as is evident from the description so far.

The second licensing condition which we are going to consider is the ‘Affected Theme Restriction’ (ATR) proposed by Goldberg (1995) and Wechsler (1997). According to the ATR, the resultative must be predicated of the ‘affected theme’ argument of the matrix verb. In general, an ‘affected theme’ is defined as an argument of the verb which undergoes a change of state or location in consequence of the event described by the matrix verb. This constraint ensures that the resultative phrase is predicated of the subject of the typical transitive verbs and verbs of manner of motion (Levin/Rappaport-Hovav, 2001). This restriction is very useful to explain exceptions to the DOR.

- (18) a. John ran/walked/danced [into the room].  
b. She danced/swam [free of her captors]. (Levin/Rappaport-Hovav, 1995)

- (19) a. The wise men followed the star [out of Bethlehem].

- b. The sailors managed to catch a breeze and ride it [clear of the rocks].  
(Wechsler, 1997)

The resultative constructions containing motion verbs in (18)-(19) are regarded as exceptions to the DOR, because in those cases the resultative phrases are predicated of the subjects.<sup>2</sup> However, they are taken to be an affected theme according to the definition above and therefore such resultatives can meet the ATR, as pointed out in Wechsler (1997). Now let us explore Korean and German. In Korean, the ATR does not seem to work quite well, as J.B. Kim (1999) argues based on the following examples.

- (20) a. Ku-nun [os-eyse kim-i na-key] ttwi-ess-ta.  
           he-TOP clothes-LOC steam-NOM come.out-COMP  
           run-PAST-DECL  
           ‘He ran (his) shirts steaming.’  
       b. Ku-nun [pal-ey mulcip-i sayngki-key] kel-ess-ta.  
           he-TOP foot-LOC blister-NOM come.out-COMP walk-PAST-DECL  
           ‘He walked his foot blistered.’

The sentences support the argument against the ATR, by showing the cases in which the resultative phrases are predicated of the locative arguments, as Kim claims. However, if we were generous enough to apply the ATR a little loosely to the extent that we don’t adhere to the “themehood” but to the “affectedness” only, then we could admit that the ATR would be valid in some sense. This observation suggests that we should re-implement the ATR as the “Affected Argument Restriction (AAR).” At least in Korean, it seems that there is no exception to the AAR. In contrast to Korean, German constitutes some counterexamples not only to the ATR but also to the AAR:

- (21) a. Es schneite [weisse Häubchen auf die Zaunpfähle].  
           ‘It snowed white caps onto the fence pales.’  
       b. Es regnete [den Zeltplatz matschig].  
           ‘It rained the camping site muddy.’

The examples above show that in German there are cases where the resultative phrase is predicated of no argument at all. The discussion regarding the ATR so far leads to the conclusion that it is not qualified for serving as a restriction on the formation of the resultatives in Korean and German.

As the third condition, the “Stage Level Predicate Restriction” (SLPR) shall be taken into consideration. The SLPR states that resultative predicates are always stage level predicates (Gumiel Molina et al., 1999, Boas 2000). Some examples of Korean and German described above, repeated here as (22) and (23) respectively, support the condition:

- (22) a. Ku-nun soy-lul [pyongpyongha-key] chy-ess-ta.  
 he-TOP metal-ACC pound-PAST-DEC  
 ‘He pounded the metal flat.’ (= (8a))  
 b. Ku-nun [nwun-i aphu-key] wul-ess-ta.  
 he-TOP eyes-NOM painful cry-PAST-DEC  
 ‘(lit.) He cried his eyes sick.’ (= (12a))

- (23) a. Marianne schreibt ihren Füller leer.  
 ‘Marianne writes her pen empty.’ (= (15a))  
 b. Er läuft sich müde.  
 ‘He runs himself tired.’ (= (16))

The German adjectives ‘leer’ (empty) and ‘müde’ (tired) as well as Korean adjectives ‘pyongpyongha’ (flat) and ‘aphu’ (sick) are obviously stage level predicates. It is, however, far from clear whether the prepositional phrases that serve as resultative predicates can also be classified as stage level predicates, as we see in the following:

- (24) a. Mary-nun khong-ul [kalwu-lo] ppah-ass-ta.  
 Mary-TOP bean-ACC powder-to grind-PAST-DEC  
 ‘Mary ground the bean into powder.’ (= (2b))  
 b. Er schneidet die Wurst [in Scheiben].  
 ‘He cuts the sausage into slices.’ (= (3a))

Rather, it might be a reasonable way to appeal to the SLPR to assume that the stage level reading should be selected in case of the resultative predicates, if some kind of ambiguity were found.

In the literature, the restriction on the aspectual type of the causing event has been discussed since Pustejovsky (1991). According to the restriction, the causing subevent of a resultative construction has to incorporate a process type. Encompassing this licensing condition, we will present a new model to appropriately represent the event structure of the resultative constructions in the next section.

#### 4 Event Structure of Resultatives

Recently several researchers have paid attention to the event structure of the resultative construction (e.g., Pustejovsky 1991, Rapp 1997, Winkler 1997, Wunderlich 2000, Rappaport Hovav/Levin 1998, 2001, among others). We share with them the basic assumption that resultatives are associated with an accomplishment event structure that is characterized as a complex event structure consisting of activity and change of state subevents. The question we address here

is what is the optimal way to model the event structural representation of the resultatives. We will try to answer this question, by first critically examining a template-based model. Wunderlich (2000) presents a method how to event-semantically represent the resultatives within the LDG (lexical decomposition) framework. To this end, he assumes two types of resultatives, namely weak and strong, following Washio (1997). The strong resultative construction corresponds to the “resultative secondary predicates” type in that the semantics of the verb includes the kind of state the patient will come to be in as the result of the verb's action, as noted in Wechsler (1997). In contrast, the meaning of the verb and the resultative predicate are completely independent of each other in the weak resultative construction and thus this type corresponds to the “Resultative clauses” type for Korean and “ECM resultatives” type for German and English.

Considering the classification, Wunderlich proposes two templates for semantic representation as follows:

(25) Weak resultatives

$$\lambda y \dots \lambda s \text{ VERB}(\dots, y)(s) \Rightarrow \lambda Q \lambda y \dots \lambda s \{ \text{VERB}(\dots, y) \ \& \ Q(y) \}(s)$$

(26) Strong resultatives:

$$\dots \lambda s \text{ VERB}(\dots)(s) \Rightarrow \lambda Q \lambda z \dots \lambda s \{ \text{VERB}(\dots) \ \& \ \text{BECOME } Q(z) \}(s)$$

On the one hand, the template for “weak resultatives” reflects the semantic property of the resultatives belonging to the type, allowing for a predicate Q predicating of the lowest argument of the verb to be added. On the other hand, the template for “strong resultatives” reflects the semantic property of the resultatives belonging to that type, allowing for BECOME Q(z) predicating of a new argument to be added. Two representations based on the templates are illustrated below:

(27) a. The children ran the lawn flat.

$$b. \lambda Q \lambda z \lambda x \lambda s \{ \text{RUN}(x) \ \& \ \text{BECOME } Q(z) \}(s), \quad Q(z) = \text{FLAT}(z)$$

(28) a. Peter cut the meat into slices.

$$b. \lambda Q \lambda y \lambda x \lambda s \{ \text{CUT}(x, y) \ \& \ Q(y) \}(s), \quad Q(y) = \text{CHANGE}(\text{IN-SLICES}(y))$$

Wunderlich’s treatment of resultatives in terms of event structure templates suffers from some shortcomings in that his account does not capture general properties of resultative constructions. First, the so-called SFs (semantic forms) presented above do not explicate the temporal precedence entailment following from the cause-result relation where the first event causes some object or person to be in a different state or location in the second event as the result of the action denoted by the first event. Second, the SFs fail to predict the RESULT entailment

over the second subevent. This entailment that will be proposed and advocated in what follows is taken to be crucial to distinguishing the resultative construction from other kinds of constructions like the causative construction and purposive construction. Let us consider some examples of Korean:

- (29) a. emeni-ka [atul-i kongpwuha-key] ha-ess-ta  
 mother-NOM son-NOM study-CLM do-PST-DEC  
 ‘The mother caused the son to study.’  
 b. Mimi-nun [cenyeksiksa-ey mek-key] ppang-ul kwu-ess-ta.  
 Mimi-TOP dinner-LOC eat-PURP cake-ACC bake-PAST-DEC.  
 ‘Mimi baked a cake to eat with dinner.’  
 c. Mary-nun thakca-lul [kkaykkusha-key] takk-ass-ta.  
 Mary-TOP table-ACC clean-COMP wipe-PAST-DEC  
 ‘Mary wiped the table clean.’ (= (8b))

A causative construction is shown in (29a), and a purposive construction in (29b) and a resultative construction in (29c). All these sentences are characterized by the same morphological suffix *-key* which is attached to the verb stem. The key difference between a causative construction and a typical resultative construction has its root in a difference in the event structure of the second subevent. While the second subevent of the causative construction denotes an activity, the one of the resultative construction is associated with a state. The same explanation can apply to the difference between the purposive construction and the resultative construction. However, the difference between the causative construction and the purposive construction lies in the different semantic properties of their matrix verbs. In case of the causatives, causative verbs are used, whereas activity verbs occur in the purposive construction. The observation so far suggests that we must have a way to incorporate the event structure of the subevents explicitly, in order to be able to identify the presence of the “result” state, contrary to the position of Wunderlich. Furthermore, it is also needed to differentiate a resultative construction from a degree adjunctive construction, because the secondary predicate of the latter also has the suffix *-key*, as illustrated below:

- (30) a. ney-ka [nunmwulna-key] kulip-ta  
 You-NOM drop.tear-DEP miss-DEC  
 ‘I miss you so much that it makes me cry.’  
 b. Kunye-nun [nwukwu-na chesnwun-ey panha-key] yeyp-ess-ta  
 she-TOP everyone-EMPfirst.sight-TLOC fall.in.love-DEG  
 gorgeous-PAST-DEC  
 ‘She was so beautiful that everyone fell in love with her at first sight.’

The examples show that their first subevents denote a state and their second ones are associated with an activity. To sum up, the existence of the result state has to be identified, in order that a complex event can be interpreted as a resultative construction. This requirement can be formulated as follows:

(31) Requirement on Result Identification

At least one RESULT role must be identified in the event structure of every resultative construction.

Now, we propose that we have to apply a neo-Davidsonian framework to naturally capture the differences among the various constructions from an event-structural point of view. As is well known, the neo-Davidsonian analysis of event structure is motivated by its predictability regarding the entailment of a sentence with certain adverbials to the corresponding sentence without them. For example, sentence (32a) entails (32b)-(32d):

- (32) a. John cut the bread slowly in the kitchen.
- b. John cut the bread slowly.
- c. John cut the bread in the kitchen.
- d. John cut the bread.

Working within the neo-Davidsonian framework (Higginbotham 1989, Parsons 1990, among others), (32a) would have the representation in (33), which treats arguments as two-place relations between theta role and events.

- (33)  $\exists e(\text{Cutting}(e) \ \& \ \text{Actor}(\text{John}, e) \ \& \ \text{Patient}(\text{the bread}, e) \ \& \ \text{Slow}(e) \ \& \ \text{In}(\text{the kitchen}, e))$

Consistent with the neo-Davidsonian approach, the representation of the resultative construction (34a) would look like (34b):

- (34) a. Mary wiped the table clean.
- b.  $\exists e(\text{Wiping}(e) \ \& \ \text{Actor}(\text{Mary}, e) \ \& \ \text{Theme}(\text{the table}, e)) \ \& \ \exists e_2(\text{Clean}(e_2) \ \& \ \text{Theme}(\text{the table}, e_2))$

The event structure (34b) is, however, not sufficient to capture the causal relation involved in the sentence (34a). As an alternative, we propose a representation in which the thematic relations that subevents bear to the whole event may be spelled out in terms of binary predicates. Thus, the sentence (34a) may be understood as in (35):

(35)  $\exists e(\text{Wipe-cleaning}(e) \ \& \ \exists e_1 [\text{Cause}(e_1,e) \ \& \ \text{Wiping}(e_1) \ \& \ \text{Actor}(\text{Mary}, e_1) \ \& \ \text{Theme}(\text{the table}, e_1)] \ \& \ \exists e_2 [\text{Result}(e_2,e) \ \& \ \text{Clean}(e_2) \ \& \ \text{Theme}(\text{the table}, e_2)])$

In the representation above, the event denoted by the complex predicate “wipe-clean” is regarded as the whole event “e”. This line of work is compatible with the complex predicate approach of the resultatives, as recently proposed by a number of researchers (e.g. Müller 2002; Lüdling 2001; among others), in particular with reference to German. The complex predicate approach receives support from the observation that particle verbs are similar in semantic behavior to the resultative constructions in German. Let us look at examples.

- (36) a. dass Karl das Klavier kaputtschlägt  
           ‘that Karl smashes the piano broken’  
       b. dass Max die Tür fertigstreicht  
           ‘that Max paints the door perfectly’

The sentences have resultative interpretations, as shown in their glosses. Now, we need to extend the model described here to allow the temporal relation between the subevents to be included in the representation. In the spirit of the discourse semantics such as the Controlled Information Packaging Theory (see Lee/Lee 2000), we might add a clause expressing the relation of the temporal precedence like ‘ $e_1 > e_2$ ’. Thus, we have a final representation as follows:

(37)  $\exists e(\text{Wipe-clean}(e) \ \& \ \exists e_1 [\text{Cause}(e_1,e) \ \& \ \text{Wiping}(e_1) \ \& \ \text{Actor}(\text{Mary}, e_1) \ \& \ \text{Theme}(\text{the table}, e_1)] \ \& \ \exists e_2 [\text{Result}(e_2,e) \ \& \ \text{Clean}(e_2) \ \& \ \text{Theme}(\text{the table}, e_2)] \ \& \ e_1 > e_2)$

In our framework, we pursue a unified approach to represent an event structure and therefore do not distinguish between a weak type and a strong type in the sense of Washio (1997) and Wunderlich (2000). For example, the German sentences belonging to different types are taken to have the representations in the following:

- (38) a. Die Jogger liefen den Rasen platt.  
           ‘The joggers ran the lawn flat.’ (= (3c))  
       b.  $\exists e(\text{run-flat}(e) \ \& \ \exists e_1 [\text{Cause}(e_1,e) \ \& \ \text{Running}(e_1) \ \& \ \text{Actor}(\text{Jogger}, e_1) \ \& \ \text{Locative}(\text{the lawn}, e_1)] \ \& \ \exists e_2 [\text{Result}(e_2,e) \ \& \ \text{Theme}(\text{the lawn}, e_2)] \ \& \ \text{Flat}(e_2) \ \& \ e_1 > e_2)$

- (39) a. Er schneidet die Wurst in Scheiben.  
           ‘He cuts the sausage into slices.’ (= (3a))

b.  $\exists e(\text{cut-into.slices}(e) \ \& \ \exists e_1 [\text{Cause}(e_1,e) \ \& \ \text{Cutting}(e_1) \ \& \ \text{Actor}(he, e_1) \ \& \ \text{Theme}(\text{the sausage}, e_1)] \ \& \ \exists e_2 [\text{Result}(e_2,e) \ \& \ \text{Into.Slices}(e_2) \ \& \ \text{Theme}(\text{the sausage}, e_2)] \ \& \ e_1 > e_2)$

In this section, we have discussed a templates-based semantic framework and shown its flaws. As an alternative way, we have argued for the neo-Davidsonian framework and provided a method how to implement the temporal relation as well as the causal relation between subevents of the resultatives.

Finally, it is worth noting that we leave the issue of compositionality for future research.

## 5 Concluding Remarks

A typical resultative construction is taken to consist of a clause denoting a causing action and an XP denoting the result of the action. The main concern of the paper was to illuminate some syntactic and semantic properties of the resultative constructions from a contrastive viewpoint. Here we focused on the similarities and differences between two languages. In this regard, we addressed three major questions. The first question was: How different are Korean resultatives from German resultatives syntactically? The second question was: What kind of licensing conditions are relevant to the two languages respectively regarding the formation of the resultative constructions? Lastly: What kind of event-semantic representation is appropriate for the resultatives?

In order to answer the first question, we tried to describe the distributions of resultatives in two languages based on the syntactic classification proposed by Wechsler/Noh (2001). As for the second question, we examined three licensing conditions such as “Direct Object Restriction,” “Affected Theme Restriction,” (Goldberg 1995, Wechsler 1997) and “Stage Level Predicate Restriction.” (Gumiel Molina et al., 1999, Boas 2000) Concerning the third question, we challenged Wunderlich’s (2000) proposal that two kinds of semantic templates might be sufficient to capture the semantic properties of the resultatives cross-linguistically. Instead, we argued in favor of a neo-Davidsonian event structure. However, we left aside the issue of compositionality.

## Notes

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1. Regarding the example (7b), Joan Maling (p.c.) takes the view that it belongs to the ECM type resultative. Her argument is that the subject of the

resultative predicate does not fill a semantic argument of the matrix predicate. However, we don't consider the example to be an ECM construction, because the subject of the resultative predicate is marked NOM rather than ACC, as she commented. cf. Jun, Jongsup et. al.. (2002).

2. With respect to the examples in (18) and (19), Joan Maling expressed her doubt about the question if they have to be classified as resultatives. However, we adopt a semantic view. As she pointed out, there remains a problem that we can not explain the difference between Germanic and Romance languages, taking the semantic view. cf. Napoli, D.J. (1992).

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