

PROBLEMS WITH RESULTATIVE CONSTRUCTIONS BASED ON “UNSPECIFIED OBJECT VERBS”*

Ken’ichiro Nogawa

1. Introduction: Three Types of ‘Transitive’ Resultative Constructions

English has three types of resultative constructions which contain postverbal NPs (‘transitive’ resultative constructions), differing in the verb classes and the nature of the nominals in these constructions (cf. Levin and Rappaport Hovav (1995: Ch. 2)).¹ They are (1) resultative constructions based on transitive verbs, (2) constructions based on unergative verbs, and (3) constructions based on “unspecified object verbs,” i.e., verbs which may be intransitive (with an implicit unspecified object). We will refer to these three as the true Transitive Resultative Construction (TRC), the Unergative Resultative Construction (URC), and the Detransitivized Resultative Construction (DRC), respectively.

In the TRC, the nominal object, which is semantically selected by the verb, and a resultative predicate together form a conceptual structure representing a result state.

- (1) a. The earthquake shook the old houses to pieces.
- b. The boxer knocked the man breathless.
- c. She shook her husband awake.
- d. He kicked/pushed the door open.

The URC involves an unergative verb followed by a lexically non-selected object and a resultative predicate, and can be divided into three subclasses (cf. Levin and Rappaport Hovav (1995: 2.1.2)): (A) URCs with a fake reflexive object (like those in (2)), (B) URCs with a fake but non-reflexive object (in (3)), and (C) URCs with a nonsubcategorized inalienable possessed object (in (4)).²

- (2) a. Dora shouted herself hoarse.
- b. Well, the conclusion was that my mistress grumbled herself calm.

[E. Bronte, *Wuthering Heights*, 78]

- (3) a. I ... ruthlessly roused Mr. Contreras by knocking on his door until the dog barked him awake.

[S. Paretsky, *Blood Shot*, 183]

- b. You may sleep it [= the unborn baby] quiet again ...
 [E. Bagnold, *The Squire*, 285]

- (4) a. Sylvester cried his eyes out.
 b. Sleep your wrinkles away. [ad]

The last type of resultative constructions, the DRC, is similar to the TRC in that it has a transitive verb in it, but unlike the TRC in its object selection: the postverbal NP is not semantically selected but a fake object, as is the case in the URC. Consider the following examples:

- (5) a. Sudsy cooked them all into a premature death with her wild food.
 [P. Chute, *Castine*, 78]
 b. ‘I’m glad you didn’t stay at the Club drinking yourself dottier.’
 [W. Muir, *Imagined Corners*, 62]
 c. Having ... drunk the teapot dry ... [E. Dark, *Lantana Lane*, 94]
 d. Drive your engine clean. [Mobil ad]

Note that the objects in these examples are not selected by the verbs, though the verbs in (5) all have transitive use, and thus, are fake objects. The following examples illustrate this point:

- (6) a. *Sudsy cooked them. (on the interpretation intended in (5a))
 b. *You drank yourself.
 c. *They drank the teapot.
 d. *Drive your engine.

(Levin and Rappaport Hovav (1995: 37f.))

In the DRC, a fake object and a resultative phrase together form a structure representing a result state. The type of resultative constructions to be discussed in this paper is this particular type of resultative constructions.

Levin and Rappaport Hovav (1995) characterize the verbs which fit in DRCs as “unspecified object verbs.” Unspecified object verbs are, as mentioned above, transitive verbs whose objects (internal arguments) are phonetically null but receive an interpretation of a semantically unspecified referent. We will see in this paper that their characterization of DRC verbs has some problems, and it will be clarified that it captures only one semantic aspect of DRCs.

The paper is organized as follows. Section 2 discusses Levin and Rappaport Hovav’s (1995) generalization of the verbs in DRCs. Section 3 points out that their observation contains some empirical and conceptual problem. Section 4 makes concluding remarks.

2. DRC Verbs as “Unspecified Object Verbs”

Levin and Rappaport Hovav (L&RH) (1995), following Carrier and Randall (C&R) (1992), claim that the verbs in detransitivized (or intransitivized) resultative constructions (DRCs) must be transitive verbs which may independently take a (phonetically null) “unspecified object.” Unspecified objects are those whose referents are interpreted as unspecified (and thus, indefinite in the context). Then, DRC verbs must be able to be intransitive with an unspecified object interpretation.³

- (7) Resultative phrases predicated of either fake reflexives or nonsubcategorized NPs (whether possessive or not) are also found with a certain class of transitive verbs. The class includes those verbs that, like *eat*, allow intransitive uses with an unspecified object interpretation (*Sylvia ate*), as well as transitive uses (*Sylvia ate the grapes*). (L&RH (1995: 37))

If a verb has an intransitive use and may take an implicit complement which has an unspecified interpretation, the verb may occur in DRCs. Thus, the DRCs in (5) are all grammatical because, following Levin and Rappaport Hovav, the verbs *cook*, *drink*, and *drive* are allowed to take unspecified objects.⁴ For example, the verb *cook* in *Sudsy cooked them all into a premature death with her wild food* ((5a)) represents the act of doing some cooking, where neither the ingredients nor the meals Sudsy cooked by the act of cooking is identifiable (i.e., unspecified or indefinite).

On the other hand, if a verb cannot take an unspecified object, DRCs with the verb are unacceptable. Levin and Rappaport Hovav state as follows:

- (8) “[A]s pointed out by Carrier and Randall (1992, in press), transitive verbs that do not independently allow the omission of an unspecified object cannot be found in resultative constructions with postverbal NPs that are not selected by the verb.” (L&RH (1995: 38))

The following examples, cited from Carrier and Randall (1992), are provided in L&RH (1995) to illustrate their claim in (8). The verbs may not take unspecified objects ((9)), and they cannot occur in DRCs ((10)).

- (9) a. The bombing destroyed *(the city).
b. The bears frightened *(the hikers). (C&R’s (1992: 187) (35a))
c. The magician hypnotized *(the volunteers).
(C&R’s (1992: 187) (35c))

- (10) a. *The bombing destroyed [the residents homeless].
b. *The bears frightened the [campground empty].
(C&R’s (1992: 187) (37a))

c. *The magician hypnotized [the auditorium quiet].

(C&R's (1992: 187) (37c))

As in (9a), for example, the verb *destroy* does not allow implicit complements with unspecified interpretation. Thus, the verb does not fit in the DRC as shown in (10a). With these examples, Levin and Rappaport Hovav claim that the verbs in DRCs must be able to have intransitive uses with an unspecified object interpretation.

In summary, according to L&RH (1995), the unspecified object verb is the necessary condition for grammatical DRCs. Although their description appears to be valid, we will see in the next section that the categorization of “unspecified object verbs” in their analysis is unsatisfactory and, as it is, causes some problems.

3. Problems

We will see in this section that Levin and Rappaport Hovav's generalization of the verb class in DRCs is not accurate, and as a result, causes some empirical and conceptual problems. In 3.1., we will consider two empirical problems. One is the presence of DRCs which are *not* based on unspecified object verbs. The other is the presence of DRCs which *are* based on unspecified object verbs, as is required, but are ruled out. The conceptual problem to be pointed out in 3.2. is the violation of the selectional restriction of the verbs in DRCs.

3.1. *Problematic Examples: DRCs with AFFECT Verbs*

According to Levin and Rappaport Hovav, the verbs in DRCs must be unspecified object verbs, which have intransitive use with an unspecified object interpretation. Their argument concerns both verb classes and interpretations of their implicit complements. As will be clear in this paper, the problems with their analysis are also related to both of them. Thus, before pointing out empirical problems with L&RH (1995), I would like to address, as a premise, Nogawa's (1994) analysis of implicit complements.

3.1.1. Verb Classes and Interpretations of Their Implicit Complements

In the literature, English implicit complements (which are phonetically null) are classified into two classes depending on their interpretations (cf. Allerton (1975), Fillmore (1986), Nogawa (1994), among others). They are Implicit Indefinite Complements (IICs) and Implicit Definite Complements (IDCs). IICs are interpreted as disjoint in reference (non-coreferential) with any salient antecedents in the context (as in (11a)), whereas IDCs are interpreted as being linked in reference with something in the context (as in (11b)). Note that the implicit complements L&RH (1995) referred to as “unspecified objects” are

our IICs.

- (11) a. Mary bakes ϕ every Sunday.
b. Yesterday, Mary arrived at Riverside. But she would have to leave ϕ in a week or two.

In Nogawa (1994), it is proposed that interpretations of implicit complements (i.e., types of implicit complements) are determined by their semantic feature ‘(non-)pre-existence’ of its referent. That is, whether an implicit complement is an IIC or an IDC depends on the lexically conceptualized information of the semantic factor ‘(non-)pre-existence.’

When the referent of a complement does not pre-exist before the activity denoted by a predicate, or the referent comes into existence as a result of the denoted activity, we define that complement as non-pre-existent. On the other hand, if the referent of a complement has already existed before the denoted activity, the complement is considered to be pre-existent. In Nogawa (1994), it is proposed that the relationship between the pre-existence specification and the binary selection of implicit complement types can properly be generalized in the following fashion:

- (12) An implicit complement has a definite interpretation if the referent of the complement is supposed to be pre-existent; otherwise it has an indefinite interpretation. (Nogawa (1994: 97))

Thus, when pre-existence of the referent of a complement is not presupposed (non-pre-existent), the possible interpretation of its implicit variant is indefinite (or unspecified) (i.e., IIC). When the referent of a complement is pre-existent, its implicit variant receives a definite interpretation (IDC).

Since semantic information about complements is lexicalized within the conceptual structures of verbs, (non-)pre-existence specification of complements is also listed in the conceptual structures of verbs. Then, pre-existence of complements’ referents depends, in turn, on the verb types. As the verb classification I adopted in my analysis (and have adopted in this paper as well) is Nakau’s (1989, 1994), let us briefly introduce Nakau’s verb classification, as well.

Nakau divides the archetypes of verbs (or predicates) into three classes: BE, GO, and DO. DO predicates are further subcategorized into three classes: AFFECT, EFFECT, and ACT. (See Nakau (1989, 1994) for the syntactic diagnoses of these distinctions.) The following is the paradigm of these verb types, where the two arguments of each verb class are in parentheses:⁵

- | | |
|----------------------|---------------|
| (13) Predicate | Pre-existence |
| a. BE (THING, PLACE) | + |

b.	GO (THING, PLACE)	+
c.	DO (ACTOR, THING)	+/-
(14)	Predicate	Pre-existence
a.	AFFECT (ACTOR, PATIENT)	+
b.	EFFECT (ACTOR, RESULTANT)	-
c.	ACT (ACTOR, RANGE)	-

Now, with the notion (non-)pre-existence of complements, and given the verb classes above, we can identify what kind of entity can be included among the complements whose referents are supposed to pre-exist before the activities and what kind of entity can be included among the complements whose referents come into existence after the activities. According to Nakau (1989, 1994), the verb classes which take pre-existent complements are BE, GO, and AFFECT classes, whereas those taking non-pre-existent complements are EFFECT and ACT classes.

Among the pre-existent complement, we can naturally include entities which are affected by the subjects, namely PATIENTs (of AFFECT predicates). That is because a subject can carry out a certain activity only if the object exists beforehand. On the other hand, the non-pre-existent object, where the referents of complements are not presupposed to be pre-existent, includes resultant complements (RESULTANTs of EFFECT predicates). Products of some activities (resultant entities) come into existence after the activities are carried out, and as a result, it is a resultant entity. (Also, see note 5.)

Thus, with the generalization in (12), we can conclude that it is only EFFECT verbs that can take IICs (i.e., unspecified objects) and AFFECT verbs that take IDCs (i.e., specified objects).⁶

3.1.2. DRCs with AFFECT Verbs

Given Nakau's verb classification and the generalization in (12), we can identify the verb classes of each resultative construction.⁷ The verbs in TRCs are of either AFFECT or EFFECT type (i.e., DO type verbs excluding ACT). The verbs in URCs are ACT verbs of DO type.^{8,9}

Now, I would like to consider the verb class of DRCs. As we have seen in section 2, Levin and Rappaport Hovav claim that this type of resultative constructions must be based on "unspecified object verbs." That is, the verbs in DRCs must be able to take complements which are understood as unspecified objects when they are implicit. With the generalization in (12), the unspecified (i.e., indefinite) interpretation of an implicit complement can, in turn, tell us the verb classes: verbs which allow IICs (unspecified objects) are of EFFECT type. Then, we must conclude that it is only EFFECT verbs (but *not* AFFECT

verbs) that fit in DRCs. If DRCs are based on AFFECT verbs, they should be ruled out.^{10,11}

The fact is, however, a little more complicated. We find that there are some DRCs which are based even on AFFECT verbs (unable to take unspecified implicit objects), as well as EFFECT verbs. Consider the following examples:

- (15) a. Matilda poked a hole in the rice paper screen (with her cane).
- b. Stephanie burned a hole in her coat (with a cigarette).
- c. Frances kicked a hole in the fence (with the point of her shoe).

(Levin and Rapoport (1988))

Note that the verbs in their DRC use in (15) are not unergative, and thus the sentences should not be analyzed as URCs.¹² Moreover the objects (which are all RESULTANT objects) are not selected by the verbs, since those verbs are, as the following examples show, AFFECT verbs, taking PATIENT objects (but not RESULTANT objects) in their transitive use.

- (16) a. *Matilda poked *a hole*. [RESULTANT]
- b. *Stephanie burned *a hole*. [RESULTANT]
- c. *Frances kicked *a hole*. [RESULTANT]
- (17) a. Matilda poked *the rice paper screen*. [PATIENT]
- b. Stephanie burned *her coat*. [PATIENT]
- c. Frances kicked *the fence*. [PATIENT]

This implies that when the PATIENT complements of these verbs are phonetically null, their interpretations must be definite (i.e., of the IDC type), and in fact, as the examples in (15) show, the understood objects all receive a definite (specified) interpretation: *the rice paper screen*, *her coat*, and *the fence*, respectively. Since the ‘unspecified’ nature of implicit complements is the defining characteristic of DRC verbs in L&RH’s (1995) analysis, DRCs containing these verbs should be ruled out, contrary to the fact. Some additional examples of DRCs with AFFECT verbs are provided below, where the interpreted PATIENT objects (all of which receive a definite or specified interpretation) are parenthesized:¹³

- (18) a. But Meckler’s style, Jenny thought, would have been to cut a hole in the netting of the lacrosse stick – and to have left the useless stick in the sleeping Hathaway’s hands. (the netting of the lacrosse stick)
 [J. Irving, *The World According to Garp*, 43]
- b. She grabbed a pack of Marlboros from a table, snapped a lighter, and drew flame into the cigarette. (the cigarette)
 [W. Harrington, *Columbo: The Game Show Killer*, 123]

- c. Brinskey shook another cigarette from a pack of Marlboros, looked at it a moment, apparently thought better of it, and returned it to the pack. (a pack of Marlboros)

[W. Harrington, *Columbo: The Helter Skelter Murders*, 134]

- d. Acid ate holes in my suit. (my suit)
- e. Termites ate holes in the wood. (the wood)

Note that the DRC verb *eat* in (18d) and (18e) is analyzed, in the literature, as a typical example of verbs which may take an IIC (with an indefinite/unspecified interpretation).¹⁴ However, the implicit but understood objects in these examples are not its typical indefinite object *a meal* but ‘definite’ ones: *my suit* and *the wood*. These examples all imply that Levin and Rappaport Hovav are inaccurate (or at best, insufficient) in claiming that the relevant type of verbs “includes those verbs that allow intransitive uses with an unspecified object interpretation, as well as transitive uses.”

Moreover, we find that the examples Levin and Rappaport Hovav provide in (5), repeated below, involve verbs which are of AFFECT class.

- (5) a. Sudsy cooked them all into a premature death with her wild food.
- b. ‘I’m glad you didn’t stay at the Club drinking yourself dottier.’
- c. Having … drunk the teapot dry …
- d. Drive your engine clean.

For example, in (5b), the implied object is what Sudsy drank (a PATIENT) but not, say, what was made ‘as a result of the act of drinking’ (a RESULTANT). The same is true with (5c) and (5d).¹⁵ Actually, the interpretation of the missing complement in (5c) seems to me to be definite, namely the tea in the teapot.

It is true that the missing complements in (5b) and (5c) are understood as having a kind of indefinite/unspecified (not an expected definite/specified) interpretation, though the verbs are AFFECT verbs. These might seem to blur the significant difference between PATIENTs and RESULTANTs, leading to support Levin and Rappaport Hovav’s categorization of “unspecified object verbs.” However, a close look at these examples shows that, the interpretation of the missing complement, at least in (5c), is *not* typical ‘unspecified’ interpretations. It is true that the PATIENT referent (what Sudsy drank) is not specified (i.e., indefinite), but it is not completely unspecified, because it is interpreted as ‘alcohol (in general).’

To sum up the discussion so far, Levin and Rappaport Hovav’s examples in (5) are not sufficient to generalize the conclusion that DRC verbs must be “unspecified object verbs,” and thus, the DRCs in (15) and (18) escape the generalization.

3.1.3. Unacceptable DRCs with “Unspecified Object Verbs”

Along with the problem of DRCs based on AFFECT verbs, there are also crucial counterexamples to the generalization in L&RH (1995). That is, there are (AFFECT) verbs which cannot occur in DRCs, even though they may be considered to be “unspecified object verbs.” The examples are in (10), repeated below as (19):

- (19) a. *The bears frightened the campground empty. (= (10b))
b. *The magician hypnotized the auditorium quiet. (= (10c))

These verbs are of AFFECT type, and the implicit objects are the targets (PATIENTs) of the acts of frightening (in (19a)) and hypnotizing (in (19b)). As pointed out in Levin (1993), the missing objects receive unspecified interpretations, and thus, may be considered to be “unspecified (null) objects.”¹⁶

- (20) In this alternation [Unspecified Object Alternation], the unexpressed object in the intransitive variant receives what has been called an “arbitrary” or “PRO-*arb*” interpretation. That is, this variant could be paraphrased with the transitive form of the verb taking “one” or “us” or “people” as object.

(Levin (1993: 38))

Now, if Levin and Rappaport Hovav’s generalization in (7) were the correct description of the class of DRC verbs, the verbs in (19) should also be able to occur in DRCs, contrary to the fact.

With all these examples, we may conclude that Levin and Rappaport Hovav’s observation is not enough and their statement in (7) is just a partial description of DRCs (or of the verbs in DRCs). We must say that the problems pointed out in this subsection suggest their generalization in (7) is insufficient and, at least, that the verb class in question should not be characterized by the interpretations of implicit complements alone. A proper description of DRCs must be able to provide a possible explanation of the contrast between acceptable and unacceptable DRCs (i.e., the DRCs in (15) and (18) on the one hand and those in (19) on the other).

3.2. *Selectional Restriction*

The third problem with L&RH’s (1995) analysis is related to selectional restriction of verbs. It has been pointed out in the literature that implicit complements in English have no syntactic position at all, in contrast to the implicit complement *pro* in Italian (see Rizzi (1986) and Nogawa (1993)). It has also been pointed out that even with their complements syntactically nullified, we can understand or interpret the missing complements. This implies that the (semantic roles of) missing complements in English are required even by

the detransitivized (or intransitivized) verbs, as well as those in Italian. In other words, the semantic (or thematic) roles of the missing objects must still be listed on the lexical conceptual structures (LCSs) of the verbs, so that their selectional restrictions on the interpretations of their implicit objects must be guaranteed.

If so, L&RH's (1995) categorization of DRC verbs as "unspecified object verbs" encounters another problem, a conceptual one, concerning selectional restriction of verbs. If their observation is correct and DRC verbs must be able to take an (implicit) unspecified object, those verbs must also involve in their LCSs the thematic roles of the unrealized internal arguments. In other words, the internal arguments are preserved within their LCSs, irrespective of their syntactic realization.

Remember that the verbs in DRCs select a small clause construction (consisting of a fake object and a resultative predicate), which denotes a result state, instead of an NP complement denoting a PATIENT referent. This should not be considered to be a result of a lexical operation which simply adds another argument (representing a result state) to the LCSs of verbs. If this were the case with DRC verbs, the original internal argument (i.e., PATIENT object), as well as the additional small clause argument, may also be overtly realized in DRCs. However, DRCs with both a PATIENT argument and a small clause are all ungrammatical. Consider the following examples, where the internal arguments are italicized and the small clauses are bracketed:

- (21) a. *Matilda poked *the rice paper screen* [a hole in it] (with her cane).
b. *Stephanie burned *her coat* [a hole in it] (with a cigarette).
c. *Frances kicked *the fence* [a hole in it] (with the point of her shoe).

In (21a), for example, the original internal argument *the rice paper screen* and a small clause *a hole in it* are both realized, and the sentence is unacceptable. The verb *poke* must take either of the internal argument (as in *Matilda poked the rice paper*) or a small clause (as in *Matilda poked a hole in the rice paper*). This indicates that within the LCSs of verbs, their original internal arguments and the small clauses are in complementary distribution. Thus, we must say that in DRCs, verbs do not have their internal arguments any more but have a small clause, instead. Then it is nonsense to refer to specificity of 'implicit' complements at all, and to define DRC verbs in terms of their specificity.

Note that the subject NP in the small clause (namely, the postverbal NP) violates the 'original' selectional restriction of the verb, because its referent does not agree with the thematic role assigned by the verb. Thus, without a resultative predicate DRC verbs cannot take a fake object alone (see (16)). The following examples also demonstrate this point (cf. (18)):

- (22) a. But Meckler’s style, Jenny thought, would have been to cut a hole *(in the netting of the lacrosse stick) – and to have left the useless stick in the sleeping Hathaway’s hands.
- b. She grabbed a pack of Marlboros from a table, snapped a lighter, and drew flame *(into the cigarette).
- c. Brinsky shook another cigarette *(from a pack of Marlboros), looked at it a moment, apparently thought better of it, and returned it to the pack.
- d. Acid ate holes *(in my suit).
- e. Termites ate holes *(in the wood).

Then, it is not possible for a verb to absorb (the thematic role of) its original PATIENT object and take another brand-new RESULTANT object (i.e., a fake object). This means that the DRCs in (15) and (18) are not TRCs with RESULTANT objects but DRCs with a small clause.

As long as restrictions on DRCs (or DRC verbs) are discussed only in relation to whether the implicit object interpretations are specified or not, the problem of selectional restriction arises. Rather, it must be better to characterize DRC verbs as having *no* internal PATIENT argument at all.¹⁷ Though we have assumed that semantic classification of verbs does not change even when they are used in DRCs (see note 7), the problem discussed in this section implies that certain aspects of the semantics of the verbs do change.¹⁸ We have seen in this section that L&RH’s (1995) notion of “unspecified object” also causes a conceptual problem as well.

4. Concluding Remarks

We have seen in this paper that the generalization of DRC verbs in L&RH (1995) is not accurate. It says that DRC verbs are characterized as “unspecified object verbs.” Empirically, it cannot explain all grammatical and ungrammatical DRCs. In addition, this generalization also gives rise to the conceptual problem of selectional restriction violation.

* I would like to express my gratitude to Eleanor C. Kelly for suggesting stylistic improvements of an earlier version of this paper. Any remaining error is my own.

NOTES

- 1 Along with ‘transitive’ resultative constructions, English has resultative constructions based on intransitive verbs. Since they involve a verb phrase consisting of an unaccusative or passive verb, resultative constructions of this type are referred to in Levin and Rappaport Hovav (1995) as “resultative constructions with passive and unaccusative verbs,” but will be called in this

- paper, for simplicity, intransitive resultative constructions.
- (i) a. The river froze solid.
b. The prisoners froze to death.
c. The bottle broke open.
d. The gate swung shut.
- 2 Levin and Rappaport Hovav assign the name ‘fake object’ only to the objects in the first type of URCs (like those in (2)). Note, however, that not only the objects in the first subtype of URCs but also those in the other two ((3) and (4)) and those in DRC, to be discussed below ((5)), are not semantically selected by the verbs. In this sense, we may refer to all those objects as ‘fake objects.’
- 3 Levin and Rappaport Hovav also state as follows:
- (i) “We follow Carrier and Randall (1992, in press) in claiming that nonsubcategorized NPs are found only after verbs that can independently be intransitive (i.e., the verb is unergative or may take an unspecified object).” (L&RH (1995: 39))
- 4 Note that the transitive verbs in these examples may also occur in TRCs. Consider the following example, cited from L&RH (1995: 37), where the postverbal NP *all your flesh* is not a fake object but a lexically selected one:
- (i) “It is the heat,” complained another old auntie. “Cooking all your flesh dry and brittle.”
[A. Tan, *The Joy Luck Club*, 71]
- 5 Note that PATIENT is the complement of the AFFECT, and “is a participant which undergoes, or at least can undergo, any change in position or quality through direct contact (physical, perceptual, or psychological) with ACTOR or its medium (like INSTRUMENT).” RESULTANT is the complement of the EFFECT, and “is a participant which comes into existence as a consequence of ACTOR’s carrying out the action denoted by the verb.”
- 6 The former also includes ACT verbs and the latter BE and GO verbs as well. We can put these verb classes aside in this paper, though, because they cannot appear in DRCs.
- 7 We assume that the semantic types of verbs do not change even after they are used in resultative constructions. See, also, the discussion in 3.2.
- 8 In Nogawa (1994), unergative verbs are in general classified into ACT class.
- 9 As for verbs in intransitive resultative constructions (cf. note 1), they fall into GO type.
- 10 Note that, as we saw in 3.1.1, ACT class verbs may also take unspecified objects (IICs), but they are intransitive verbs in nature. Thus, when they appear in resultative constructions, the construction type is the second one referred to in section 1, namely resultative constructions based on unergative verbs (URCs).
- 11 Three types of transitive resultative constructions (TRCs, URCs and DRCs) allow any verbs to occur in them, except unaccusative verbs: transitive verbs (AFFECT and EFFECT verbs) and unergative verbs (ACT verbs). This indicates that verbs in transitive resultatives must have (potential) case assignability to their objects, whether or not the objects are semantically selected.
- 12 Note also that without the postverbal NPs, these sentences do not receive the intended interpretations in (15):
- (i) a. *Matilda poked in her rice paper screen (with her cane).
b. *Stephanie burned in her coat (with a cigarette).
c. *Frances kicks in the fence (with the point of her shoe).

13 It is interesting to point out that the nullified objects in the examples in (15) and (18) are all expressed within the resultative predicates. Moreover, the small clause subjects in these examples can be regarded as resultant entities. The following examples, though different from those in (15) and (18) in the second respect, also may be regarded as DRCs with AFFECT verbs (the implied PATIENT objects are, again, parenthesized):

- (i) a. Columbo walked toward the house, slapping ash off his raincoat, then pulling on the knot in his tie. (his raincoat)
[W. Harrington, *Columbo: The Game Show Killer*, 60]
- b. “Yeah,” I mumbled as I rubbed the sleep out of my eyes. (my eyes)
[R. K. Siegel, *Whispers: The Voices of Paranoia*, 32]
- c. A guy on his way through this sitting room, on his way to kill people with a knife, stops to clean mud off his shoe?” (his shoe)
[W. Harrington, *Columbo: The Helter Skelter Murders*, 50]
- d. Victoria Stopped and pressed fingers to her eyes, squeezing out tears. (her eyes)
[W. Harrington, *Columbo: The Game Show Killer*, 77]
- e. He pinched the fire out of his cigar and deposited it in his raincoat pocket. (his cigar)
[W. Harrington, *Columbo: The Game Show Killer*, 57]
- f. She shook out a cigarette and dropped the pack into the big pocket on her gray uniform dress. (a pack of cigarettes)
[W. Harrington, *Columbo: The Helter Skelter Murders*, 261]

14 With the following examples, Levin (1993: 33) claims that “Despite the lack of overt direct object in the intransitive variant, the verb in this variant [Unspecified Object Alternation] is understood to have as object something that qualifies as a typical object of the verb.”

- (i) a. Mike ate the cake.
- b. Mike ate. (→ Mike ate a meal or something one typically eats.)

15 Note that the verb *cook* in (5a) may be classified into either AFFECT or EFFECT class. Thus, the sentence might be a DRC with an EFFECT verb, taking a fake object and a resultative predicate.

16 Levin (1993: 38) also claims that the verbs relevant here are involved within those which take affected objects. This means that they correspond to our AFFECT class verbs.

- (i) This alternation is restricted to verbs with affected objects. It is found with a more limited set of verbs in English than in Italian: primarily the verbs listed here [*advise*-verbs and *amuse*-type psych-verbs]. It is possible that not all the psych-verbs listed above may participate in this alternation. (Levin (1993: 38))

17 There remains an issue on where the “unspecified” nature of the absorbed thematic role comes from.

18 L&RH (1995) assume that the syntactic aspects of verbs are retained even in resultative constructions. They state as follows:

- (i) [T]he syntax of the resultative construction based on verbs from these three classes [transitive, unergative, unaccusative verbs] is just the syntax of these types of verbs in isolation (assuming unaccusativity), except for the addition of the resultative phrase. (L&RH (1995: 33))

Their statement is based on syntactic observations that postverbal NPs in TRCs and those in

URCs show different behaviors in such syntactic operations as middle formation, adjectival passive formation, nominalization, and *wh*-island extraction (see L&RH (1995: 43ff.)). However, the change of DRC verbs in their selectional restriction may arguably have certain effects on syntactic operations, as well, including those mentioned above.

REFERENCES

- Allerton, D.J. (1975) "Deletion and Proform Reduction," *Journal of Linguistics* 2, 213-237.
- Carrier, Jill and Janet H. Randall (1992) "The Argument Structure and Syntactic Structure of Resultatives," *Linguistic Inquiry* 23, 173-234.
- Fillmore, C.J. (1986) "Pragmatically Controlled Zero Anaphora," *Proceedings of the 12th Annual Meeting of the Berkeley Linguistic Society*, 95-107.
- Hale, Kenneth and Samuel J. Keyser (1993) "On Argument Structure and the Lexical Expression of Syntactic Relation," *The View from Building 20*, ed. by Kenneth Hale and Samuel J. Keyser, 53-109, MIT Press, Cambridge, Massachusetts.
- Hale, Ken and Jay Keyser (1997) "On the Complex Nature of Simple Predicators," *Complex Predicates*, ed. by Alex Alsina, Joan Bresnan, and Peter Sells, 29-65, CSLI, Stanford, California.
- Kageyama, Taro (ed.) (2001) *Nichi-Ei-Taishoo Dooshi-no Imi-to Koobun (Contrastive Analysis of Semantics of Verbs and Constructions in Japanese and English)*, Taishukan, Tokyo.
- Levin, Beth (1993) *English Verb Classes and Alternations*, University of Chicago Press, Chicago.
- Levin, Beth and Malka Rappaport Hovav (1995) *Unaccusativity: At the Syntax-Lexical Semantics Interface*, MIT Press, Cambridge, Massachusetts.
- Levin, Beth and Tova R. Rapoport (1988) "Lexical Subordination," *CLS* 24, 275-289.
- Nakau, Minoru (1989) Handouts for class lectures. University of Tsukuba.
- Nakau, Minoru (1994) *Ninti-Imiron-no Genri (Principles of Cognitive Semantics)*. Taishukan, Tokyo.
- Nogawa, Ken'ichiro (1993) "Implicit Objects and Their Interpretations in English," M.A. Thesis, University of Tsukuba.
- Nogawa, Ken'ichiro (1994) "On Interpretations of Implicit Complements," *Tsukuba English Studies* 13, 95-116, University of Tsukuba.
- Nogawa, Ken'ichiro (in preparation) "Detransitivized Resultative Constructions and Lexical Subordination."
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik (1985) *A Comprehensive Grammar of the English Language*, Longman, London.
- Rizzi, Luigi (1986) "Null Objects in Italian and the Theory of *pro*," *Linguistic Inquiry* 17, 501-557.
- Rothstein, Susan D. (1992) "Case and NP Licensing," *Natural Language and Linguistic Theory* 10, 119-139.
- Tenny, Carrol (1987) *Grammaticalizing Aspect and Affectedness*, Doctoral dissertation, MIT.