

Chapter 27

Licensing resultative phrases: the case of locatum subject alternation verbs in Japanese

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This paper addresses the problem of identifying the predication relation between resultative phrases and arguments they describe. Resultative phrases in Japanese are generally believed to conform to the Direct Object Restriction just like English: that is, they describe the direct object of the transitive verbs. This paper focuses on resultative phrases licensed by the locatum subject alternation verbs in Japanese, and shows that resultative phrases can be predicated of not only the direct object expressing the location argument of the verbs but also the locatum argument. Thus, it is claimed that the predication relation is not constrained on the syntactic ground as generally believed, but rather by the lexical semantics of the verbs.

1 Introduction

Some verbs allow alternative syntactic structures to express the same event. The locative alternation verb *load*, for example, gives rise to syntactic structures in which the locative argument appears either as the direct object or as a PP. If the admissibility of resultative construction is sensitive to the syntactic structures, a resultative phrase admitted in one of the alternative structures may be ungrammatical in the other even though they denote the same event. The prediction is borne out as shown in (1). (In the following examples, resultative phrases are underlined while the arguments described by resultative phrases are in bold.)

- (1) (Williams 1980: 204)
- a. John loaded **the wagon** full with hay.
 - b. * John loaded the hay into **the wagon** full.

While the same constraint is generally believed to hold in the Japanese resultative construction, the present paper focuses on the verbs of locatum subject alternation,

and demonstrates that the syntactic alternation does not affect the admissibility of resultative phrases. Consequently, it is claimed that the admissibility of resultative phrases is not syntactically constrained, but determined by the lexical semantics of the verb.

2 The resultative construction in Japanese

It is generally claimed (e.g. Tsujimura 1990; Kageyama 1996) that resultative phrases in Japanese are similar to those in English in that they obey the Direct Object Restriction (Simpson 1983; Levin & Rappaport Hovav 1995), i.e. they are predicated of the direct object of transitive verbs, or of the subject of unaccusative intransitive verbs as exemplified in (2) and (3).

- (2) object-oriented resultative with a transitive verb
Taro-ga **kabin**-o konagona-ni kowasi-ta.
Taro-NOM vase-ACC pieces-NI break-PST
'Taro broke a vase into pieces.'
- (3) subject-oriented resultative with an unaccusative intransitive verb
hune-ga huka-ku sizun-da.
ship-NOM deep-KU sink-PST
'(lit.) The ship sank (and ended up) deep.'

The resultative construction in Japanese, however, lacks the third type in Simpson's analysis of English resultative phrases, which is predicated of a post-verbal NP following unergative intransitive verbs, e.g. *I laughed myself sick*, or transitive verbs which do not subcategorize for it, e.g. *I ate him out of house and home* (Simpson 1983: 146-47). This paper is mostly concerned with resultative phrases licensed by transitive verbs subcategorizing for an object NP.

Since resultative phrases describe a state of an argument resulting from the event denoted by the verb, such verbs must generally express an event involving a change of state. Various authors (e.g. Koizumi 1994; Kageyama 1996; 2001) claim that the Japanese resultative construction requires the verbs that specify a change of state of an argument as part of their lexical semantics, rather than just express an event likely to be associated with such a change. For example, Kageyama (1996) and Washio (1997) argue that, unlike the English counterpart, the Japanese verb of applying force *tatak*- 'hit, pound', does not allow a resultative phrase because, although a state change of the theme argument is likely, such a change is not encoded in the lexical semantics of the verb.

The Japanese resultative construction is even more constrained than English in that it only describes a predictable result of the event, which Washio (1997) calls 'weak resultatives'. Thus, as an example of 'strong resultatives' in English, i.e. resultatives which express an unpredictable result, the sentence *The horses dragged the logs smooth* has no well-formed Japanese equivalent because, it is claimed, logs' being

smooth is not a result predictable from horses' dragging them. As discussed above, Japanese lacks resultative phrases predicated of non-subcategorized arguments, and according to Wechsler (1997), they coincide with the resultative phrases not required to express a 'canonical or generic' result in English. Thus, the resultative construction in Japanese requires the verbs with a lexical specification of a state change, and furthermore, of a predictable result of such a change.

At the same time, both in English and Japanese, the resultative construction is not totally productive: not all verbs of state change allow a resultative phrase to co-occur, and not all predictable results can be expressed as a resultative phrase. The collocations of particular verbs and resultative phrases are to some extent conventionalized, or idiomatic.

Morphologically, the head of resultative phrases in Japanese can be an adjective such as *huka-ku* 'deep' in (3), a noun such as *konagona-ni* 'pieces' in (2), or an 'adjectival noun' such as *ike-no-you-ni* 'like a pond' in (6b) below. The syntactic and semantic functions of adjectival nouns are the same as those of adjectives, but their declension is similar to that of nouns rather than adjectives: both nouns and adjectival nouns are suffixed by *-ni* while adjectives are suffixed by *-ku*.

These morphological forms are, however, not unique to the resultative construction, and they also mark, for example, derived adverbials. In fact, some authors uniformly call all resultative phrases 'adverbs of result' (e.g. Nitta 2002). While in English, there are true adverbs of result, e.g. *They decorated the room beautiful*(ly)* (Geuder 2000), Japanese lacks the morphological distinction between resultative phrases and derived adverbs. Semantically, however, resultative phrases are distinct from adverbs in that they are predicates of individuals, rather than predicates of events as adverbs are generally treated in Davidsonian event semantics (Davidson 1967). This paper does not concern itself with the categorial status of resultative expressions, but defines a resultative phrase as a predicate of individuals which denotes the resultant state of an individual involved in the event denoted by the main verb.

3 The locatum subject alternation verbs

The locatum subject alternation (Levin 1993: 81) is invoked by such verbs as *fill*, *decorate*, *cover* and *surround*, and those verbs involve two arguments: one refers to what undergoes motion and the other to the goal of motion. Throughout the present paper, what undergoes motion is called a locatum argument, and the goal is called a location argument, borrowing the terms from E. V. Clark & H. H. Clark (1979), a study of zero-derived denominal verbs. Those terms are used here simply to identify the participants in the event described by the verb, and no theoretical claim is intended that 'location' and 'locatum' are thematic role labels, or associated with specific grammatical functions.

The locatum subject alternation verbs allow two alternative syntactic structures in which the locatum argument appears as a PP headed by *with*, or the subject NP, while the location argument is expressed as the direct object, as shown in (4).

- (4) the locatum subject alternation
- a. He filled a bottle with water. (locatum-PP variant)
 - b. Water filled a bottle. (locatum-subject variant)

The alternation does not change the transitivity of verbs, but the agent, expressed as the subject in (4a), is not expressed in (4b), and consequently (4b) involves one less argument.

What makes the locatum subject alternation possible is two semantic structures associated with the alternation verbs, which are manifested in different syntactic structures. The meaning of the locatum-PP variant in (4a) can be schematized as ‘X causes Y to change state by causing Z to go into/onto Y’, where the variable X stands for the causer of a state change, Y for the location argument which undergoes a state change, and Z for the locatum argument which undergoes motion. The causer X, or the agent, is absent from the locatum-subject variant in (4b), which expresses an inchoative motion: ‘Z goes into/onto Y’.

Some Japanese verbs also invoke the locatum subject alternation similar to that in English. The Japanese verb *mitas-* ‘fill’, for example, appears in alternative syntactic structures in (5).

- (5) the locatum subject alternation in Japanese
- a. *kare-ga bin-o mizu-de mitas-ita.* (locatum-PP variant)
he-NOM bottle-ACC water-with fill-PST
‘He filled the bottle with water.’
 - b. *mizu-ga bin-o mitas-ita.* (locatum-subject variant)
water-NOM bottle-ACC fill-PST
‘Water filled the bottle.’

The locatum argument *mizu* ‘water’ appears with the suffix *-de* ‘with’ in (5a), and as the subject NP marked by the nominative suffix *-ga* in (5b). Although the expression of the locatum argument in (5a) constitutes an oblique NP marked by *-de*, rather than a PP as is the case with English, the term locatum-PP variant is retained to refer to Japanese as well as English. In both variants, the location argument *bin* ‘bottle’ appears as direct object marked by the accusative suffix *-o*.

4 Object-oriented resultative phrases

The DOR requires the resultative phrase to be predicated of the direct object. Consequently, if a resultative phrase appears with locatum subject alternation verbs, it is predicted to describe the location argument. The prediction is borne out as shown in (6), taken from the language corpus BCCWJ. Example (6a) is an instance of the locatum-PP variant, and (6b) is an instance of the locatum-subject variant. The resultative phrase *ippai-ni* ‘full’ describes the direct object *atasi* ‘me,’ and *ike-no-you-ni* ‘like a pond’ describes the resultant state of *kubon-da tokoro* ‘a hollow (in the ground)’ respectively.

- (6) locatum subject alternation verb *mitas-* ‘fill’
- a. (locatum-PP variant)
 kare-wa sutekina utau-youna koe-de [...] atasi-o ippai-ni
 he-TOP wonderful singing-like voice-with me-ACC full-NI
 mitasite-kure-ru.
 fill-give-NONPST
 ‘He fills me full with his wonderful singing-like voice.’ [Joyce 2003]
- b. (locatum-subject variant)
 ookina sizuku-ga [...] kubon-da tokoro-o ike-no-you-ni
 big drop-NOM subside-PST place-ACC pond-GEN-appearance-NI
 mitas-i, ...
 fill-and
 ‘(lit.) Big drops (of water) fill a hollow (in the ground) (so that it becomes) like a pond, and ...’ [Zola 2003]

The verb *oow-* ‘cover’ is another example of locatum subject alternation verbs. Example (7a) is a passivized instance of the locatum-PP variant; the passive subject *yane-no zenbu* ‘the entire roof’ is functionally the direct object of the verb *oow-* ‘cover’, and the resultative phrase *siro-ku* ‘white’ describes it. The agentive argument is suppressed as a result of passivization.

- (7) locatum subject alternation verb *oow-* ‘cover’
- a. (locatum-PP variant)
 huyu-no asa yane-no zenbu-ga
 winter-GEN morning roof-GEN all-NOM
siro-ku simo-de oow-are-tei-ru ...
 white-KU frost-with cover-PASS-STATIVE-NONPST
 ‘On a winter morning, the entire roof is covered white with frost...’ [Okada 1986]

The verb *oow-* ‘cover’ also appears in the locatum-subject variant in (7b), where the locatum argument *mikkabun-no busyohige* ‘three day’s worth of stubble’ is expressed as subject.

- (7) b. (locatum-subject variant)
 mikkabun-no busyohige-ga ganmen-o kitanarasi-ku
 three.days-GEN stubble-NOM face-ACC dirty-KU
 oot-tei-ru.
 cover-STATIVE-NONPST
 ‘(lit.) Three days’ growth of stubble covers his face dirty. (He has three days’ growth of stubble on his dirty face.)’ [Forsyth 1989]

The resultative phrase *kitanarasi-ku* ‘dirty’ describes the location argument *ganmen* ‘face’ expressed as direct object. Both examples (7a) and (7b) conform to the DOR

which states that resultative phrases are predicated of either the surface or the deep object (e.g. the passive subject).

Examples in (6) and (7) show that, regardless of which variant the verbs of locatum subject alternation appear in, they express an event in which the referent of direct object NP, i.e. the location argument, undergoes a change of state. The verb *mitas*-‘fill’ lexically specifies that the location argument comes to be filled as a result of the filling event. The verb *oow*-‘cover’ denotes an event in which the location argument comes to be covered. Resultative phrases, if co-occur, further elaborate the resultant state of the location argument which is lexically predetermined, conforming to the DOR.

5 Resultative phrases predicated of the locatum argument

As shown in Section 4, the locatum subject alternation verbs which allow a resultative phrase necessarily denote an event in which the location argument undergoes a change of state. Since the state change is a result of motion of the locatum argument, it is also possible to view the locatum argument as undergoing a change of state as well if motion is viewed as a change of location or spatial state. The locatum argument is, however, expressed either as *de*-marked oblique NP or the subject of the alternation verbs, and the DOR predicts that it cannot be modified by a resultative phrase.

Contrary to the DOR, the following examples in (8) show that the verb *oow*-‘cover’ also allows a resultative phrase which is predicated of the locatum argument in either variant. Example (8a) is a passivized example of the locatum-PP variant; the location argument *iwaiwa* ‘rocks’ appears as passive subject while the agentive argument is suppressed. The resultative phrase *atu-ku* ‘thick’ describes the locatum argument expressed as *de*-marked oblique NP, i.e. the (layer of) leaves of blue poppies, rather than the passive subject as predicted by the DOR.

- (8) locatum subject alternation verb *oow*-‘cover’
- a. (locatum-PP variant)
- iwaiwa-ga sono madara-no ha-de atu-ku*
rocks-NOM their mottle-GEN leaf-with thick-KU
- oow-are-tei-ru ...*
COVER-PASS-STATIVE-NONPST
- ‘(lit.) Rocks are covered with mottled leaves (of the blue poppies) thick ...’
[Kingdon-Ward 1999]

In (8b), a locatum-subject variant, the resultative phrase *usu-ku* ‘thin, sparse’ describes the (density of) clouds, expressed as the locatum subject, rather than the location argument *sora* ‘sky’ expressed as direct object.

- (8) b. (locatum-subject variant)
 takai **iwasi**gumo-ga usu-ku sora-o oot-tei-ru.
 high mackerel.cloud-NOM thin-KU sky-ACC cover-STATIVE-NONPST
 ‘(lit.) High mackerel-like clouds cover the sky sparse(ly).’ [Kawabata 2001]

Syntactically, there is no clue as to which argument of the verb is described by the resultative phrases in examples (7) and (8). As discussed in Section 2, however, Japanese allows only ‘weak’ resultatives, i.e. they only describe a predictable result of the argument that undergoes a change of state, and consequently their predication relation can be determined on the semantic ground. If a roof is covered with frost, it is the roof that becomes white in (7a), and if leaves cover rocks, it is the layer of leaves that becomes thick in (8a). No ambiguity arises in any of syntactic variants in (7) and (8).

The verb *tutum-* ‘surround, wrap’, another verb of locatum subject alternation, provides more examples of resultative phrases describing the locatum argument in (9). Example (9a), a locatum-PP variant, is cooking instruction, and the resultative phrase *nizyuu-ni* ‘in two layers’ describes the state of boiled cabbage, the locatum-PP, after wrapping meat in it.

- (9) locatum subject alternation verb *tutum-* ‘surround, wrap’
 a. (locatum-PP variant)
 aibikiniku, [...] kosyo-o yoku maze-te, [...]
 minced.pork.and.beef pepper-ACC well mix-and
yude-ta kyabetu-de nizyuu-ni tutun-de ...
 boil-PST cabbage-with two.layers-NI wrap-and
 ‘(lit.) (You) mix minced pork and beef, [...] and pepper well, and wrap the mixture in two layers of boiled cabbage...’ [Yahoo 2008]

In (9b), an instance of the locatum-subject variant appears in a relative clause headed by the verb *tutum-* ‘surround, wrap.’ The head noun of the relative clause *hantoumei pinku* ‘semitransparent pink (substance)’ expresses the locatum argument which is functionally the subject of the verb. The resultative phrase *atu-ku* ‘thick’ describes the locatum argument surrounding the jelly monster.

- (9) b. (locatum-subject variant)
 kaibutu zerii-no karada-o **atu-ku** tutum-u
 monster jelly-GEN body-ACC thick-KU surround-NONPST
hantoumei pinku-wa ...
 semitransparent pink-TOP
 ‘(lit.) The semitransparent pink (substance) which surrounds the body of the jelly monster thick...’ [Miura 1995]

In all examples in (8) and (9), resultative phrases are predicated of the locatum argument and describe the result of its change of location and spatial configuration. Syntactically, those locatum arguments are not expressed as direct object, as required by

the DOR, and whether they are expressed as *de*-marked oblique NP or the subject is irrelevant to the predication relation of resultative phrases and what they modify.

6 Conclusion

The locatum subject alternation verbs denote an event which involves two entities, one that undergoes a change of state and the other that undergoes a change of location. To express the event, the verbs provide two semantic structures, 'X causes Y to change state by causing Z to go into/onto Y' and 'Z goes into/onto Y', where the variable X stands for the agent, Y for the location argument that undergoes a state change, and Z for the locatum argument that undergoes a location change. Those semantic structures represent alternative views to interpret the same event as a change of state or as a change of location. Those alternative views are evidenced by the occurrence of resultative phrases that describe the result of either change.

Those semantic structures give rise to distinct syntactic structures. The distribution of resultative phrases, however, remains the same regardless which variant of syntactic structures they appear in as shown in Sections 4 and 5. If the predication relation between resultative phrases and what they modify is determined on the syntactic ground such as the DOR, resultative phrases would be predicted to only modify the location argument expressed as the direct object. However, the occurrence of resultative phrases which are predicated of the locatum argument whether expressed as the subject or an oblique NP, indicates that the predication relation is determined on the semantic ground.

References

- Clark, Eve V. & Herbert H. Clark. 1979. When nouns surface as verbs. *Language* 55(4). 767–811.
- Davidson, Donald. 1967. The logical form of action sentences. In Nicholas Rescher (ed.), *The logic of decision and action*, 81–95. Pittsburgh, PA: University of Pittsburgh Press.
- Geuder, Wilhelm. 2000. Oriented adverbs: Issues in the lexical semantics of event adverbs. Tübingen: Universität Tübingen PhD thesis.
- Kageyama, Taro. 1996. *Doshi imiron: gengo-to ninchi-no setten* [Semantics of verbs: the interface between language and cognition]. Tokyo: Kuroshio.
- Kageyama, Taro. 2001. Kekka kobun [The resultative construction]. In Taro Kageyama (ed.), *Doshi-no imi-to kobun* [Semantics and constructions of verbs], 154–181. Tokyo: Taishukan.
- Koizumi, Masatoshi. 1994. Secondary predicates. *Journal of East Asian Linguistics* 3(1). 25–79.
- Levin, Beth. 1993. *English verb classes and alternation*. Chicago: University of Chicago Press.

- Levin, Beth & Malka Rappaport Hovav. 1995. *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge, MA: MIT Press.
- Nitta, Yoshio. 2002. *Fukushi-teki hyogen-no shoso* [Aspects of adverbial expressions]. Tokyo: Kuroshio.
- Simpson, Jane. 1983. Resultatives. In L. Levin, M. Rappaport & A. Zaenen (eds.), *Papers in Lexical-Functional Grammar*, 143–157. Bloomington: Indiana University Linguistics Club.
- Tsujimura, Natsuko. 1990. Unaccusative nouns and resultatives in Japanese. In Hajime Hoji (ed.), *Japanese/Korean linguistics*, 335–349. Stanford, CA: Center for the Study of Language and Information.
- Washio, Ryuichi. 1997. Resultatives, compositionality and language variation. *Journal of East Asian Linguistics* 6(1). 1–49.
- Wechsler, Stephen. 1997. Resultative predicates and control. In Ralph C. Blight & Michelle J. Moosally (eds.), *Texas Linguistic Forum 38: Proceedings of the 1997 Texas Linguistics Society Conference*, 307–321. Austin: University of Texas Department of Linguistics.
- Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11(1). 203–238.

Source of examples

- Forsyth, Frederick. 1989. *The negotiator*. Trans. by Makoto Shinohara. Tokyo: Kadokawa.
- Joyce, James. 2003. *Ulysses*. Trans. by Saiichi Maruya. Tokyo: Shueisha.
- Kawabata, Hiroto. 2001. *Nicotiana*. Tokyo: Kadokawa.
- Kingdon-Ward, Frank. 1999. *Pilgrimage for plants*. Trans. by Hirokazu Tsukaya. Tokyo: Iwanami.
- Miura, Toshihiko. 1995. *Mitsurin resu* [Jungle race]. Tokyo: Kawade Shobo Shinsha.
- Okada, Masakazu. 1986. *Hyomen-no kagaku* [Science of surface]. Tokyo: Otsuki.
- Yahoo! Blog. 2008.
- Zola, Émile. 2003. *Le Ventre de Paris* [The belly of Paris]. Trans. by Koji Asahina. Tokyo: Fujiwara.