ADJECTIVAL PASSIVES AND THE JAPANESE
“INTRANSITIVIZING RESULTATIVE” V-TE ARU
CONSTRUCTION

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1. Introduction

Adjectival passives in English as in (1) have received much attention in the
literature (see, for example, Wasow (1977), Bresnan (1982), Levin and Rappaport
(1986), Grimshaw (1990) and the references cited there).

(1) a. The car is parked in the driveway.
   b. The window is opened.

Their closest counterpart in Japanese, in terms of semantic interpretation, is the
so-called “intransitivizing resultative” (IR) V-te aru construction exemplified in (2)
(see, for example, Martin (1975), Miyagawa (1989), Jacobsen (1991), Matsumoto
(1990a,b), Sells (1990) and Hasegawa (1992) among many others).

(2) a. kuruma-ga tome-te ar-u.
    car-Nom stop-TE be-Pres
    ‘The car is parked.’
   b. mado-ga ake-te ar-u.
    window-Nom open-TE be-Pres
    ‘The window is opened.’

(2a) means that the car is in the state of having been parked, and (2b) means that
the window is in the state of having been opened. The verb in this construction
takes a gerundive form (stem + te). Unlike English adjectival passives, the verb
form in this construction is distinct from the verbal passive form (stem + rare, e.g.,
ake-rare ‘opened’).

German is like Japanese in that adjectival and verbal passives are formally
distinct. Adjectival passives in German are expressed with the copula sein ‘be’,
while verbal passives are expressed with werden ‘become, get’, as shown in (3)
and (4).

(3) a. Das Auto war in der Einfahrt geparkt. (adjectival)
    the car was in the driveway parked
    ‘The car was parked in the driveway.’
   b. Das Auto wurde in der Einfahrt geparkt. (verbal)
    the car got in the driveway parked
    ‘The car was parked in the driveway.’

(4) a. Die Tür war verriegelt. (adjectival)
    the door was locked
    ‘The door was locked.’
   b. Die Tür wurde verriegelt. (verbal)
    the door got locked
    ‘The door was locked.’
It has been observed in the literature on the IR construction that this construction only allows a certain class of verbs. Here are some examples from Miyagawa (1989:59-60). (5) shows that accomplishment verbs form perfect IR constructions.

(5) a. ankeeto-ga atsume-te ar-u.
    questionnaire-Nom collect-TE be-Pres
    ‘The questionnaire is collected.’

b. onigiri-ga tsukut-te ar-u.
    rice_balls-Nom make-TE be-Pres
    ‘Rice balls are made.’

c. tegami-ga kai-te ar-u.
    letter-Nom write-TE be-Pres
    ‘The letter is written.’

d. omocha-ga kowashi-te ar-u.
    toys-Nom break-TE be-Pres
    ‘The toys are broken.’

In contrast to the examples in (5), those in (6) sound rather odd. The verbs in (6) are activity verbs.

(6) a. ?? kodomo-ga home-te ar-u.
    child-Nom praise-TE be-Pres
    ‘The child(ren) is/are praised.’

b. ?? kodomo-ga donat-te ar-u.
    child-Nom shout_at-TE be-Pres
    ‘The child(ren) is/are shouted at.’

c. ?? sono koto-ga okot-te ar-u.
    that matter-Nom get_angry_at-TE be-Pres
    ‘That matter is gotten angry at.’

d. ?? ano hito-ga nagut-te ar-u.
    that person-Nom hit-TE be-Pres
    ‘That person is hit.’

A similar constraint is at work in German adjectival passives. As Kratzer’s (1994) examples in (7) illustrate, activity verbs form marginal adjectival passives.

(7) a. ? Die Schauspieler sind angegafft.
    the actors are stared_at
    ‘The actors are stared at.’

b. ? Die Zuschauer sind angepöbelt.
    the spectators are (verbally) abused
    ‘The spectators are verbally abused.’

c. ? Der Lehrer ist ausgelacht.
    the teacher is laughed_about
    ‘The teacher is laughed about.’

d. ? Die Freunde sind bedauert.
    the friends are pitied
    ‘The friends are pitied.’
As we have just seen, the IR construction is like adjectival passives in terms of its interpretation, as well as in terms of its constraint on possible verb classes. The IR construction, however, is like verbal passives in some other respect. It has been argued that an implicit external argument is syntactically present in verbal passives in English and German (see discussions in Williams (1985), Roeper (1987), Baker, Johnson and Roberts (1989) and Bhatt and Pancheva (to appear)). Adjectival passives, on the other hand, are shown to lack an external argument completely (Kratzer (1994)). As we will see shortly, the IR construction is like verbal passives with respect to the syntactic presence of an external argument (Matsumoto 1990b).

The mixed nature of the properties of the IR construction requires a general theory of verbal and adjectival passives that allows such variation cross-linguistically. The purpose of this paper is to show that Kratzer’s (1994, 1995, 1996) proposal allows such cross-linguistic variation in a straightforward fashion. Section 2 presents data that indicate the presence of a syntactically active implicit external argument in the IR construction. Section 3 shows how Kratzer’s theory can accommodate the mixed nature of the IR construction. Section 4 discusses some consequences of the proposed analysis of the IR construction with respect to certain restrictions on the occurrence of adverbial modifiers. Section 5 is a summary.


2.1 Control

The first piece of evidence that an implicit external argument is syntactically present in the Japanese IR construction comes from control facts. The sentence in (8) is presented in Matsumoto (1990b:285) as a piece of evidence that an implicit agent argument can participate in a control relation.2

(8) mado-ga [PRO shinsenna kuuki-o ireru tameni] ake-te at-ta.
    window-Nom fresh air.Acc let_in Pur open-TE be-Past
    ‘The window was opened in order to let in fresh air.’
In this example, the PRO subject in the purpose (Pur) clause is controlled by the implicit agent argument in the main clause.

Example (8) may be analyzed as an instance of “S(event)-control,” a control relation between PRO and the matrix event, rather than the one between PRO and a matrix agent argument (see Williams (1985) and Lasnik (1988)). The examples in (9) present clearer cases.
(9) a. mado-ga [PRO niwa-no hana-o nagameru tameni] window-Nom garden-Gen flower-Acc watch Pur ake-te ar-u. open-TE be-Pres
‘The window is opened to watch the flowers in the garden.’

b. oyu-ga [PRO ocha-o nomu tameni] wakashi-te at-ta. hot_water-Nom tea-Acc drink Pur boil-TE be-Past
‘The water was boiled to drink tea.’

In these examples, the controller of PRO in the purpose clause cannot be the matrix event, suggesting the syntactic presence of an implicit agent argument in the main clause. The examples in (8) and (9) remain grammatical when their main verbs are turned into verbal passive.

The German examples in (10) show that the verbal passive co-occurs with a purpose clause, but the adjectival passive does not.

(10) a. Das Fenster wurde/*war geöffnet, um die Blumen the window got/was opened in_order the flowers zu betrachten. to watch
‘The window was opened to watch the flowers.’

b. Das Licht wurde/*war gelöscht, um das Feuerwerk the light got/was turned_off in_order the fireworks zu betrachten. to watch
‘The light was turned off to watch the fireworks.’

Thus, the IR construction behaves like the verbal passive with respect to the syntactically active external argument.3

2.2 Subject-Oriented Adverb Wazato

The second evidence for the syntactic presence of an implicit agent argument in the IR construction comes from the distribution of the so-called “attitudal” or “subject-oriented” adverb wazato ‘deliberately/intentionally’. Kitagawa and Kuroda (1992) observe that this adverb must be licensed by an agent theta-role assigned by a predicate.4 Wazato can occur in sentence (11a), while it is prohibited in (11b), where the verb is intransitive. The verbal passive example in (11c), on the other hand, allows the occurrence of this adverb.


b. * omocha-ga wazato koware-ta. toy-Nom deliberately break(Vi)-Past ‘(Lit.) The toy broke deliberately.’

c. omocha-ga wazato kowas-are-ta. toy-Nom deliberately break-Pass-Past ‘The toy was broken deliberately.’
The sentences in (12) show that the adverb *wazato* can occur in the IR construction.

(12) a. *omocha-ga wazato kowashi-te at-ta.*  
    
    `toy-Nom deliberately break-TE be-Past  
    `(Lit.) The toy was broken deliberately.'

b. *kagi-ga wazato ake-te at-ta.*  
    
    `lock-Nom deliberately open-TE be-Past  
    `(Lit.) The lock was opened (unlocked) deliberately.'

This suggests that an implicit agent argument occurs in the IR construction.

As expected, German adjectival passives do not accept the adverb *absichtlich* `deliberately`, while verbal passives do, as shown in (13).

(13) a. *Die Tür wurde/*war absichtlich geschlossen.*  
    
    `The door got/was deliberately locked  
    `The door was locked deliberately'

b. *Das Licht wurde/*war absichtlich gelöscht.*  
    
    `The light got/was deliberately turned_off  
    `The light was turned off deliberately.'

This shows again that the Japanese IR construction behaves like verbal passives, but not like adjectival passives.

3. The Mixed Properties of the IR Construction

We have seen that the IR construction is like adjectival passives in terms of its interpretation, while it is like verbal passives in terms of the syntactic presence of an implicit external argument. In this section, after providing a brief sketch of Kratzer’s (1994) analysis of adjectival passives, I will show that the existence of this type of mixed construction is in fact expected in her analysis.

3.1 Kratzer’s (1994) Analysis of the Adjectival Passive

According to Kratzer (1994, 1996), an external argument is not introduced by VP, but by a functional projection VoiceP that occurs higher than VP (see also Davidson (1967) and Parsons (1990)). One of her main claims is that adjectival participles in German can be lexical or phrasal, as shown in (14). The adjectival participle affix occurs under A.5

(14) a. Lexical adjectival participle  
    
    \[ [VA]_A^X \]

b. Phrasal adjectival participle  
    
    \[ [VP A]_A^X \]

The semantic contribution of the adjectival participle affix *PERFECT* is given in (15) (\( \alpha^* \) is the denotation of \( \alpha \)). The variables e and s range over events and states respectively, which are of type s.

(15)  \[ \text{PERFECT}^* = \lambda \alpha \lambda s_1 \lambda s_2 \exists e \{ P(e) & s = \text{f}_{\text{target}}(e) \} \]

This operator turns a property of events into a property of states. \( \text{f}_{\text{target}} \) is a partial function that takes any event in its domain and returns its target state (see Lakoff (1972), Dowty (1979), Parsons (1990), etc.).
As an example, let us combine this affix with the verb *build*, which has the denotation in (16a). *Build the porch*, for instance, denotes a property that is true of any event that is a building activity and whose target state has the property ‘the porch exists.’

(16)  
\[ \text{a. } \text{build}^* = \lambda x.\lambda e.[\text{building}(e) \& \text{exist}(x)(f_{\text{target}}(e))] \]
\[ \text{b. } (\text{build PERFECTION})^* = \lambda x.\lambda s.\exists e[\text{building}(e) \& \text{exist}(x)(s) \& s = f_{\text{target}}(e)] \]
\[ (\text{From (15), (16a) and by Function Composition in (16c)} \]
\[ \text{c. Function Composition} \]
\[ \text{For any types } \alpha \text{ and } \beta, \]
\[ f \quad g \rightarrow h \]
\[ <\alpha,\beta> \quad <\alpha,\beta> \]
\[ \lambda x.e[f(g(x))] \]
\[ \lambda s.e[\text{building}(e) \& \text{exist(the porch)}(s) \& s = f_{\text{target}}(e)] \]
As a result of combining *build* and *PERFECTION* via Function Composition in (16c), we obtain (16b). We now apply (16b) to *the porch*, and obtain (16d). This is a property that is true of any state that has the property ‘the porch exists,’ and is the target state of some building event.

3.2 The Structure and Compositional Interpretation of the IR Construction

Given Kratzer’s analysis above, a mixed construction like the Japanese IR construction, which has the adjectival passive interpretation and yet has external arguments, is an expected cross-linguistic variation. In particular, the following two elements in Kratzer’s analysis play a crucial role in predicting the variation. First, the resultative interpretation of adjectival passives is due to the interaction between the semantics of verbs and the semantics of the aspectual operator *PERFECTION*. Second, external arguments occur outside of VP, and only VP is perfectivized in German phrasal adjectival passives. The mixed nature of the Japanese IR construction is explained if the aspectual operator takes and perfectivizes VoiceP, as in (17) (I leave open the categorial identity of the aspectual operator in the IR construction). The aspectual operator is responsible for the adjectival-passive-like interpretation, and what it perfectivizes contains an external argument.

(17) [VoiceP X]V

In what follows I tentatively assume that *-te* is the realization of the aspectual operator, though I do not have strong evidence against assuming a phonologically empty aspectual operator as in German (see Kusumoto (2002)).

(18) shows the structure in (17) in more detail. The Voice head takes VP and forms VoiceP. The morpheme *-te*, which functions as an aspectual operator, takes VoiceP. The VoiceP-*te* constituent then combines with the copula *ar*.

(18) [[VP VoiceP *-te]X]P *ar*V

More precisely, Voice and the copula *ar* should look like (19), according to Kratzer’s (1994, 1995) analysis.
In (19a), an implicit external argument, represented here as a clitic (CL), adjoins to the Voice head. This saturates the argument position of ‘Agent’ that it adjoins to. In (19b), an empty locative Adverb, also represented as a clitic, adjoins to the copula ar-. This clitic refers to a contextually salient spatio-temporal location.

As an illustration, let us see how the sentence in (20), repeated from above, is assigned interpretation. The proposed structure is as in (21) (ignoring tense), and the lexical information is in (22).

(20) mado-ga ake-te ar-u.
    window-Nom open-TE be-Pres
    ‘The window is opened.’

(21)
```
VP
   V'2
     XP V2
       X' CL V2
         ar- ‘be’
           VoiceP X
             -te
               Voice'
                 VP1 Voice
                   DP
                     mado V1 CL Voice
                       ‘window’ V1 Agent
```

(22)
\begin{align*}
a. \text{mado}^* &= \text{the window} \\
b. \text{ake}^* &= \lambda x.\lambda e. [\text{opening}(e) \& \text{open}(\text{the window})](f_{\text{target}}(e)) \\
c. \text{Agent}^* &= \lambda x.\lambda e. [\text{Agent}(x)(e)] \\
d. \text{-te}^* &= \lambda P.\lambda s.\lambda e. [P(e) \& s = f_{\text{target}}(e)] \\
e. \text{ar}^* &= \lambda x.\lambda s. [\text{Location}(x)(s)]
\end{align*}

A compositional derivation of the denotation of the tree in (21) is given in (23).

(23)
\begin{align*}
a. \text{VP}_1^* &= (\text{mado ake-})^* = \lambda e. [\text{opening}(e) \& \text{open}(\text{the window})](f_{\text{target}}(e))] \\
b. (\text{CL Agent})^* &= \lambda e. [\text{Agent}(\text{they})(e)] \\
c. \text{VoiceP}^* &= (\text{VP}_1 (\text{CL Agent}))^* = \lambda e. [\text{opening}(e) \& \text{open}(\text{the window})](f_{\text{target}}(e)) \& \text{Agent(they)(e)}] \\
&\quad \text{by Simple Event Identification in (24)} \\
d. \text{XP}^* &= (\text{VoiceP -te})^* = \lambda s.\lambda e. [\text{opening}(e) \& \text{open}(\text{the window})(s) \& \text{Agent(they)(e)} \& s = f_{\text{target}}(e)] \\
e. (\text{CL ar-})^* &= \lambda s. [\text{Location(there)}(s)]
\end{align*}
f. \( VP_2^* = (XP (CL ar-))^* = \lambda s \exists e(\text{opening}(e) \& \\
\text{open(there)}(s) \& \text{Agent}(\text{they})(e) \& \text{s} = \text{f}_{\text{target}}(e) \& \\
\text{Location}(\text{there})(s)) \) by Simple Event Identification in (24)

(24) Simple Event Identification (Kratzer 1994)

\[
\lambda e, f(s) \& g(s) / \lambda s, [f(e) \& g(e)]
\]

The last line of the derivation, (23f), says that \( VP_2 \) denotes a property that is true of any state if it consists in the window’s being open, it is the target state of some activity of opening, the agent of the activity is they, and it is located at some contextually salient spatio-temporal location \textit{there}.

Thus, the difference between adjectival passives and the IR construction is whether the aspectual operator takes \( VP \) or \( \text{VoiceP} \) as its complement. This analysis of the IR construction guarantees the adjectival-passive-like resultative interpretation with the help of the aspectual operator, as well as the verbal-passive-like property of a syntactically active external argument.

4. Some Consequences of VP-Embedding

4.1 Constraints on Adverbial Modification

In the structure of the IR construction presented in the last section, the whole verbal projection and Voice projection are embedded under the aspectual operator. It is predicted then that VP-modifying adverbs can occur in the construction. That this is indeed the case is shown in (25).

(25) a. heya-ga teineini souzisi-te at-ta. room-Nom carefully clean-TE be-Past ‘The room was carefully cleaned.’

b. sara-ga zatsuni tsunikasane-te at-ta. plate-Nom sloppily stack-TE be-Past ‘The plates were stacked up sloppily.’

c. memo-ga ooisogide kai-te at-ta. note-Nom in_great_haste write-TE be-Past ‘A note was written in great haste.’

In fact, the possibility of adverbial modification in German adjectival passives, as shown in (26), was presented in Kratzer (1994) as evidence for a phrasal verbal projection in certain adjectival passives. The adverbs in (26), \textit{schlampig} ‘sloppily,’ \textit{sorgfältig} ‘carefully,’ etc., cannot modify statives.

(26) a. Das Haar war ziemlich schlampig gekämmt. the hair was rather sloppily combed ‘The hair was combed rather sloppily.’

b. Das Haar war ausserordentlich sorgfältig gefärbt. the hair was extremely carefully dyed ‘The hair was dyed extremely carefully.’

c. Das Haar war furchtbar nachlässig geschnitten. the hair was terribly negligently cut ‘The hair was cut in a terribly negligent way.’
d. Das Haar war in Stufen geschnitten.
    the hair was into layers cut
    ‘The hair was cut into layers.’

Not all adverbs, however, occur in the IR construction or in adjectival passives with equal ease. Here is an example from Matsumoto (1990b:285).

(27) mado-ga hanbun made/*isoide ake-te at-ta.
    window-Nom half up_to/quickly open-TE be-Past
    ‘The window was in the state of having been opened halfway/quickly.’

The following pair of examples of an active sentence and its IR counterpart provides more examples of restrictions on the occurrence of certain adverbs.

(28) a. dareka-ga kabe-o teineini/yukkuri nut-ta.
    someone-Nom wall-Acc carefully/slowly paint-Past
    ‘Someone painted the wall carefully/slowly.’

b. kabe-ga teineini/?yukkuri nut-te ar-u.
    wall-Nom carefully/slowly paint-TE be-Pres
    ‘The wall is painted carefully/slowly.’

German adjectival passives seem to behave similarly in this respect. Compare the examples in (29) with the grammatical examples in (26).

(29) a. ?? Das Haar war ziemlich schnell gekämmt.
    the hair was rather quickly combed
    ‘The hair was rather quickly combed.’

b. * Das Haar war ausserordentlich langsam gefärbt.
    the hair was extremely slowly dyed
    ‘The hair was extremely slowly dyed.’

c. * Das Haar war furchtbar langsam geschnitten.
    the hair was terribly slowly cut
    ‘The hair was terribly slowly cut.’

If these constructions in the two languages contain a VP and/or VoiceP projection in the structure, one wonders why certain adverbial modification results in unacceptability.

4.2 Syntactic Decomposition

One possible account of the facts we just observed is to assume that the contrast in acceptability has to do with different adverb classes. More specifically, one might say that adverbs such as teineini ‘carefully’, zatsumi ‘sloppily’ and ooisogide ‘in great haste’ in the acceptable examples above form one class, while adverbs such as isoide ‘quickly’ and yukkuri ‘slowly’ in the unacceptable examples form another class. Likewise in German, one might say that schlampig ‘sloppily’, sorgfältig ‘carefully’, nachlässig ‘negligently’, in Stufen ‘into layers’, etc. belong to one class, but schnell ‘quickly’ and langsam ‘slowly’ belong to a different class.

How does this help? Suppose that some or all verbs are syntactically decomposed into a lower VP and an upper VP, as assumed in the works in the Generative Semantics and in Dowty (1979), Hoekstra (1992), Hale and Keyser (1993), Pesetsky (1995), etc. The upper VP may roughly correspond to an action denoted by the verb, and the lower VP to a result state. Further, suppose that the
first class of adverbs (e.g., teineini/sorgfältig ‘carefully’ and zatsuni/schlampig ‘sloppily’) occur in the lower VP, and the second class of adverbs (e.g., isoide/schnell ‘quickly’ and yukkuri/langsam ‘slowly’) occur in the upper VP. We might say that the IR construction and adjectival passives lack the upper VP, the action part, and hence, adverbs that modify the upper VP are not found in these constructions.

Without spelling out this type of analysis that is based on classification of adverbs in detail, I will present data below that make the adverbial class analysis look less appealing. I will then suggest that at least a partial account can be found in Kratzer’s (1994) analysis of adjectival passives.

4.3 Constraints on *Von* ‘by’/*De* ‘with’-Phrases

As brought to my attention by Bernhard Schwarz (p.c.), the contrast in the good adjectival passives in (26) and the bad ones in (29) is reminiscent of the contrast found in (30), taken from Schwarz (1995).7

(30)  
 a. Der Speck war von Maden/*von meinen zwei Mäusen  
     the bacon was by maggots/by my two mice  
     zerressen.  
     eaten_to_pieces  
     ‘The bacon was eaten by maggots/by my two mice.’
 b. Der Hirsch war von Speeren/*von Jägern durchbohrt.  
     the deer was by spears/by hunters pierced  
     ‘The deer was pierced by spears/by hunters.’

Some von ‘by’-phrases are allowed, and others are not allowed in (30). Yet, intuitively, this does not seem to be a matter of different classes of von-phrases and their different structural positions, as the adverbial class analysis sketched above might claim.8 What seems to be going on, rather, is a difference in ease with which one pictures a result of maggots’ eating the bacon on the one hand, and a result of my two mice’ eating the bacon on the other. In the first case, the trace of maggots’ eating is easily detectable on the bacon. In the second case, the damaged bacon does not tell us whether it was my two mice that ate the bacon, unless they are known to have a peculiar eating habit that leaves obvious traces.

Similar examples can be found in Japanese. In (31), the different degrees in acceptability have to do with how easily we can come up with an answer to the questions: what is the result of painting with blue paint, with a brand new brush, or with Yoko’s brush?

(31)  
 kabe-ga {aoi penki-de/?maatarashii hake-de/??Yoko-no
     wall-Nom blue paint-with/brand_new brush-with/Yoko-Gen
     hake-de} nut-te at-ta.
     brush-with paint-TE be-Past
     ‘The wall was painted with blue paint/with a brand new brush/with Yoko’s brush.’

To interpret the sentence, the hearer tries to imagine a scenario in which maatarashii hake ‘a brand new brush’ or Yoko-no hake ‘Yoko’s brush’ brings about clearly distinguished results on the wall.
It is reasonable to assume that the restrictions on the occurrence of adverbs observed from (25) to (29) are part of the same phenomenon as what we have just observed in (30) and (31). The contrast in (28b), for instance, is due to the fact that the result of *yukkuri nur*—‘to paint slowly’—may not be as obvious on the wall as the result of *teineini nur*—‘to paint carefully’. Similarly in German, we need more help from the context to picture the result of *schnell kämmen* ‘to comb quickly’ or *langsam färben* ‘to dye slowly’, than to picture the result of *schlampig kämmen* ‘to comb sloppily’ or *sorgfältig färben* ‘to dye carefully’.

This characterization of the restrictions on the occurrence of adverbs and *von/de*-phrases is not new. It is observed in Matsumoto (1990a,b) that the IR construction is subject to the following condition (assumed to be a pragmatic condition and called the Describability Condition): “It must be evident that the state being described in the -te aru construction has resulted from a previous action of an agent” (1990a:275). In other words, “in this construction, there is a condition that only those aspects of the action denoted by the gerundive verb that are reflected in the resulting state can be expressed” (1990b:285). In the next sub-section, I will point out that Matsumoto’s generalization is derived from the semantics of the verbs and the aspectual operator in Kratzer’s (1994) theory, in interaction with our world knowledge.

### 4.4 Deriving Matsumoto’s (1990a,b) Generalization

As we saw in section 1, activity or process verbs do not form perfect adjectival passives. Kratzer’s (1994) examples are repeated in (32).

(32)

- a. ? Die Schauspieler sind angegrafft.
  The actors are stared at
  ‘The actors are stared at.’
- b. ? Die Zuschauer sind angepöbelt.
  the spectators are (verbally) abused
  ‘The spectators are verbally abused.’
- c. ? Der Lehrer ist ausgelacht.
  the teacher is laughed about
  ‘The teacher is laughed about.’
- d. ? Die Freunde sind bedauert.
  the friends are pitied
  ‘The friends are pitied.’
- e. ? Die Katzen sind gestreichelt.
  the cats are caressed
  ‘The cats are caressed.’
- f. ? Die Bälle sind jongliert.
  the balls are juggled
  ‘The balls are juggled.’

The marginality of these examples, however, can be improved. Here is a quote from Kratzer (1994:38): “Suppose you work in a veterinary hospital, and your task is to caress all the cats once a day, so that they don’t feel emotionally deprived during their stay. In such a situation you may utter [(32e)] when you have finished
your task. The other sentences may all be improved in the very same way. Just
imagine a scenario where it is your task to stare at actors, verbally abuse spectators,
laugh about teachers, pity friends, or juggle balls. All examples become fine. But
these improvements don’t come very easily, they require some effort.”

According to Kratzer, this phenomenon is a result of the semantics of the verb
and the adjectival participle affix PERFECT. Perfective or resultative verbs
characterize a target state as part of their meaning (see (16a)), whereas activity or
process verbs do not. Thus a verb like streichel- ‘caress’ has the denotation in (33a).
When it combines with the affix PERFECT in (33b), it yields (33c). (33d) is the
result of applying (33c) to the plural individual ‘the cats’. It denotes a property that
is true of any state that is the target state of some event of caressing the cats.

(33) a. streichel¬ = 𝜆x,𝜆e,[](caressing(x)(e))
b. PERFECT¬ = 𝜆P, 𝜆s, 𝜆es[P(e) & s = f_target(e)]
c. (streichel¬-PERFECT¬)¬ = 𝜆x, 𝜆s, 𝜆e[caressing(x)(e) & s = f_target(e)]
   by Function Composition
d. 𝜆s, 𝜆e[caressing(the cats)(e) & s = f_target(e)]

Thus, upon hearing sentence (32e), one needs to make an effort to come up with
some situation where caressing the cats could bring about a definable target state.

I suggest that whether certain adverbs or von ‘by’/de ‘with’- phrases can occur
in adjectival passives/the IR construction comfortably has to do with the same
factor. Some examples from the previous discussion are repeated in (34) and (35).

(34) a. kabe-ga teineini/??yukkuri nut-te ar-u.
   wall-Nom carefully/slowly paint-TE be-Pres
   ‘The wall is painted carefully/slowly.’
b. kabe-ga {aoi penki-de/?maatarashii hake-de/?Yoko-no
   wall-Nom blue paint-with/brand_new brush-with/Yoko-Gen
   hake-de} nut-te at-ta.
   brush-with paint-TE be-Past
   ‘The wall was painted with blue paint/with a brand new brush/with
   Yoko’s brush.’

(35) a. Das Haar war ziemlich schlamzig/??schnell gekämmt.
   the hair was rather sloppily/quickly combed
   ‘The hair was rather sloppily/quickly combed.’
b. Der Speck war von Maden/*von meinen zwei Mäusen
   the bacon was by maggots/by my two mice
   zerfressen.
   eaten_to_pieces
   ‘The bacon was eaten by maggots/by my two mice.’

The contrast observed in these examples is due to how easily the target state of
each event can be formed in the hearer’s mind. For example, the properties of
states expressed in (35a) are as follows.⁹

(36) a. 𝜆s, 𝜆e[combing(e) & sloppy(e) & combed(the hair)(s) & s = f_target(e)]
   b. 𝜆s, 𝜆e[combing(e) & quick(e) & combed(the hair)(s) & s = f_target(e)]

In the case of (36b), one needs to make some effort to come up with the target state
of an event of combing quickly. Likewise, in the other examples, the target states
of events of painting slowly, painting with Yoko’s brush, or my two mice’ eating the bacon are not readily available without special contexts.

5. Summary

I have shown that the mixed nature of the Japanese IR construction is an expected cross-linguistic variation in Kratzer’s (1994, 1995) theory. Restrictions on certain adverbial modification, an apparent challenge to the proposed VP-embedding structure, are a result of the semantics of the verbs, the semantics of the aspectual operator, and our world knowledge interacting with each other.

NOTES

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2 Matsumoto’s (1990b) claim is that an implicit agent argument is present in argument structure, and it does not seem that he is committed to the ‘syntactic’ presence of the argument. For related discussions, see Bhatt and Pancheva (to appear).

3 The fact that an external argument cannot occur overtly in the IR construction does not have a good explanation at this point (see Matsumoto 1990a for some discussion).

4 See discussions in Dowty (1979), Lakoff (1965), Lee (1971), Ross (1972) for the use of adverbs such as deliberately as a test for the presence of an agent. See also Baker, Johnson and Roberts (1989).

5 This is a simplification. The readers are referred to Kratzer (1994) for discussion.

6 (22e) is the same as the denotation of the raising ‘be’ in Kratzer (1994). The denotation of ake-‘open (Vt)’ in (22b) is tentative and should be examined further.

7 Grimshaw (1990:124-9) argues that by-phrases in (English) adjectival passives are not external but internal arguments. See also Bolinger (1972).

8 Rapp (2001) in fact assumes such a structural analysis: the possibility of adverbs and von-phrases has to do with where they occurstructurally.

9 What needs to be added to these denotations, I believe, is a requirement that the target state indicate that it is caused by some sloppy or quick action (see Kratzer (2000) for discussions).
REFERENCES


