Affect-feature and VP-internal adjuncts in Japanese*

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0　Introduction

The nature and distribution of adjuncts have attracted much attention in the literature of Generative Syntax (Jackendoff 1972, Bellert 1977, Nakau 1980, Larson 1988, Koizumi 1993, Rizzi 1997, Cinque 1999, Ernst 2002, Endo 2007, Haegeman 2010, Fujii et. al. 2014). Koizumi (1993) provides a detailed study of Japanese clausal adjuncts, which claims that these adjuncts are all XP-external, thereby adjoining to VP, TP and MP. However, there are certain kinds of adjuncts that are likely to stay within a VP-internal position. This kind of adjuncts require an adjunction site within VP, thus, they are excluded from the scope of Koizumi's proposal. On the basis of a feature-based Merge proposed by Bruening (2013), this study, investigating two types of constructions that have the so-called 'affected' themes, attempts to formalize a licensing theory for VP-internal adjuncts. Specifically, I argue that these adjuncts are licensed by the semantic feature Affect and adjoin the smallest VP that consists of the DO and V.

　The structure of this paper is as follows: Section 1 reviews Koizumi's (1993) study of Japanese clausal adjuncts and shows its limits of extension to the purpose of the present study. In Section 2, we will see some facts on VP-internal adjuncts in a construction so-called the affected theme. Section 3 introduces Bruening's (2013) model for adjunction. Section 4 provides an analysis and model for these VP-internal adjuncts under a feature-merge theory developed from Bruening (2013). Section 5 concludes.

1. Koizumi (1993)

1.1 Three types of clausal adjuncts

Koizumi (1993) classifies Japanese clausal adjuncts into three types.[1] Type 1 adjuncts such as *nagara* 'while' adjoin to VP; Type 2 adjuncts such as *kagiri* 'as long as' adjoin to TP; Type 3 adjuncts such as *kara* 'because' are affiliated into Modal Phrase. There is no CP-adjuncts. Thus, these three types of adjuncts are all 'affiliated' into XPs.[2]

(1) a. Type 1 = VP-adjunct (*-nagara* 'while', *-tutu* 'while', *-mae-ni* 'before'...)
   b. Type 2 = IP/TP-adjunct (*-kagiri* 'as long as', *-to* 'if', *-node* 'because'...)
   c. Type 3 = MP-adjunct (*-kara* 'because', *-ga* 'but', *-kedo* 'but')

His proposal is based on four pieces of evidence from Japanese; namely the scope interpretation of focus marker *sae* 'even', Negative scope, *Soo* 'so' substitution and Embedding. I introduce two of them below.

   A focus particle such as *sae* sets focus on the maximal projection to which it is attached or on a constituent dominated by the maximal projection. Thus, when it attaches to VP, *sae* takes scope over every constituent within the c-command domain of the VP, and as well as the VP itself.

(2) Kiyomi-ga [XP [VP ringo-o   tabe]-sae] si-ta
        -Nom   apple-Acc eat-even   do-Past
   'Kiyomi even ate apples.'   (Koizumi 1993: 411, (36))

(2) has three possible readings. For example, when the object is focused as in (3), it receives an interpretation such that Kiyomi ate even apples.

(3) Focus: [NP ringo] 'apple'
   Presupposition: (i) There are things other than an apple that Kiyomi ate.
                   (ii) Of all the things, an apple is the least expected for Kiyomi to eat.

(4) Focus: [v tabe] 'to eat'

    Presupposition:

        (i) There are things other than eating that Kiyomi did with the apples.

        (ii) Of all the things Kiyomi did with the apples, eating was the least expected for Kiyomi to do.

(5) Focus: [vp ringo-o tabe] 'to eat an apple'

    Presupposition:

        (i) There are things other than eating apples that Kiyomi did.

        (ii) Of all the things Kiyomi did, eating apples was the least expected. (411-412, (4)-(6))

The subject of (2), *Kiyomi*, cannot be focused with *sae* attaching on the VP; that is, there is no focus reading such that *Even Kiyomi ate an apple*. This means that the subject is not within the c-command domain of *sae* attaching to VP

    According to Koizumi, the *–nagara* 'while' phrase as in (6) is a token of Type 1 adjuncts since it can be interpreted within the scopal domain of *sae* which attaches to VP. As (6i) and (6ii) show, an adjunct *TV-o mi-nagara* 'while watching TV' falls under the focus interpretation of even. Thus, an interpretation such that *I studied even while I was watching TV* is possible.

(6) [T1 TV-o   mi-nagara] benkyoosi-sae si-ta

          -Acc   watch-while study-even   do-Past (Koizumi 1993: 412, (7))

    Focus: [T1 TV-o mi-nagara] benkyoosi

    Presupposition:

        (i) There are things other than studying while watching TV that I did.

        (ii) Of all the things that I did, studying while watching TV was the least expected.

Neither Type 2 adjuncts (e.g., *kagiri* 'as long as') nor Type 3 adjuncts (e.g., *kara* 'because') can be interpreted as a focus of *sae* that attaches to VP. An adjunct phrase *koohii mame-ga nakunaranai-kagiri* 'as long as coffee beans run

out' cannot be focused by *sae* attaching to VP as in (7). The adjunct phrase *Kiyomi-ga atama-kara ti-ga deteiru-kara* 'as Kiyomi's head is bleeding' in the sentence of (8), cannot be focused by *sae*. We see that both of these adjuncts must be merged outside of VP, as well as the subject of (2).

(7) Kiyomi-wa [T2 koohii mame-ga nakunar-ana-i kagiri]

　　　　　-Top　　coffee.bean-Nom run.out-not-Pres as.long.as

　　　　　kaimono-ni iki- sae　si-nai

　　　　　shopping-to go- even do-Neg

　　'Kiyomi does not even go shopping unless coffee beans run out.'

<div align="right">(Koizumi 1993: 413, (10))</div>

(8) [T3 Kiyomi-no　atama-kara ti-ga　　　deteiru-kara]　　dooyara

　　　　　-Gen　head-from　blood-Nom run.out-because probably

　　　Masami-wa (Kiyomi-no) atama-o　naguri-sae si-ta　　yooda naa

　　　　　-Top　　　　　head-Acc hit-even　do-Past seem　SP

　　'Since Kiyomi's head be bleeding, it seems that Masami even hit her/his head.'

<div align="right">(Koizumi 1993: 413, (11))</div>

　The three types of adjuncts show the difference with respect to the scope interpretation against Negation. As shown in (9a), it is only the Type 1 adjunct that can be negated. But the other two types of adjuncts cannot, as given in (9b) and (9c), respectively.
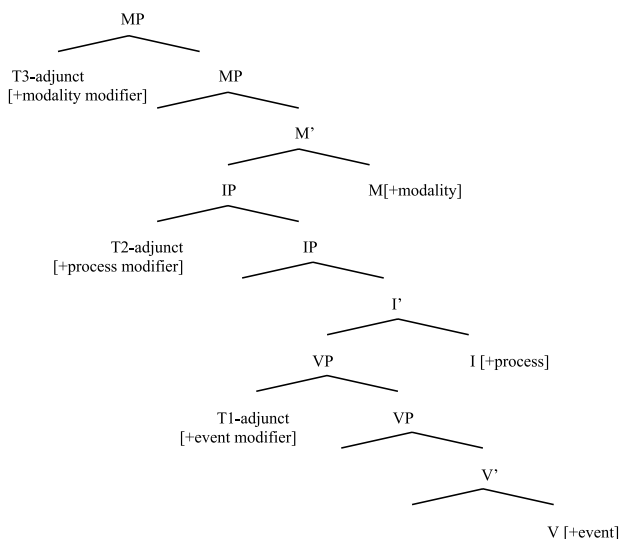
(9) a. Kiyomi-wa [T1 TV-o　　mi-nagara]　benkyoosi-na-katta

　　　　　　-Top　　　-Acc　watch-while study-not-Past

　　　'Kiyomi didn't study watching TV.'

　　b. Kiyomi-wa [T2 huttobooru-ga owar-anai-kagiri]　　benkyoosi-nakat-ta

　　　　　　-Top　　football-Nom　finish-not-as.long.as study-not-Past

　　　'Kiyomi didn't study until the football game was over.'

c. [T3 Kenkyuusitu-no denki-ga   kieteiru-kara] Kiyomi-wa
    office-Gen   light-Nom off-because   -Top
    i-nai-i   daroo
    be-neg-NonPast probable
    'Since the light of his office is off, as for Kiyomi, I think, he is not (here)'

(Koizumi 1993: 413, (12))

NegP is lower than TP in the Japanese phrase structure. Given this, Type 1 adjuncts are within the c-command domain of Neg. But the other two types of adjuncts are not within the scope of Neg. We see that the Type 1 adjunct is lower than NegP; and both the Type 2 adjunct and the Type 3 adjunct are higher than NegP.

The three types of adjuncts in (1) are hierarchically ordered from the highest Type 3 to the lowest Type 1 under a c-command relation, as illustrated in (10). Type 1 adjuncts have [+process modifier] feature and V has [+process] feature, and under the matching relation (i.e., c-command relation), these features are checked off and the adjunct is adjoined to VP. Likewise, Type 2 adjuncts have [+event modifier] feature and T has [+event] feature. When they go into feature-matching, both features are deleted. Type 3 adjuncts, carrying [+modality modifier] will adjoin M(odal)P when the feature and [+modality] feature on M enters into a matching-relation and both of them are successfully checked off.

(10)

```
                        MP
                 _____/_____
        T3-adjunct            MP
   [+modality modifier]  ____/\____
                           M'
                      ___/\___
                    IP          M[+modality]
                ___/\___
        T2-adjunct      IP
    [+process modifier]  __/\__
                          I'
                      ___/\___
                    VP          I [+process]
                ___/\___
        T1-adjunct      VP
    [+event modifier]   __/\__
                          V'
                      ___/\___
                             V [+event]
```

1.2 Some facts on *de*-phrases in Japanese

In Japanese, adjuncts can be marked by the particle *de*. This particle is multi-functional. For instance, it can be associated with the instrumental as in (11a), so are the reason as given in (11b) and the causer phrases in (11c), and so forth. Certain kinds of locatives and the path are also marked by *de*, as in (11d) and (11e), respectively. *De* may attach to the content element of *spray/load* verbs as in (11f).

(11) a. Taro-ga   batto-de   sono garasu-o   wat-ta   [Instrumental]
         -Nom bat-DE   the glass-Acc   break-Past
      'Taro broke the glass with the bat.'
    b. Taro-ga   infuruenza-de   kaisya-o   yasun-da [Reason]
         -Nom flu-DE   company-Acc   off.work-Past
      'Taro was off work because he had a flu.'
    c. Taifuu-de   kigi-ga   taore-ta   [Cause]
       tyhoon-DE   trees-Nom fall.down
      'The tyhoon caused trees to fall down.'
    d. Kodomotati-ga   sono kouen-de   sakkaa-o   si-ta [Location]
       children-Nom   the park-DE   football-Acc do-Past
      'Children played the football in the park.'
    e. Daitouryou-ga   sono   kouen-de   arui-ta   [Path]
       President-Nom   the   park-DE   walk-Past
      'The President walked in the park.'
    f. Taro-ga   sono   kabe-o   akaipenki-de   nut-ta   [Content]
         -Nom the   wall-Acc   red.paint-DE   spray-Past
      'Taro sprayed the wall with red paint.'

These *de*-phrases differ with respect to the possibility of case-marker alternation. As given in (12), the path *de* in (12e) and the content *de* in (12f) can alternate with the accusative marker *o*.[3]

(12) a. Daitouryou-ga   sono kouen-o arui-ta[4]   [Path]
       President-Nom   the   park-Acc walk-Past
      'The President walked on the park.'

    b. Taro-ga   sono kabe-ni   akapenki-o   nut-ta   [Content]

          -Nom   the   wall-Dat red.paint-Acc spray-Past

     'Taro sprayed red paint onto the wall.'

Differing from the location and content elements shown above, the other *de* phrases show no possibility of the given case-alternation as in (13).

(13) a. *Taro-ga   batto-o   sono garasu-o   wat-ta   [Instrumental]

            -Nom bat-Acc   the   glass-Acc break-Past

     'Taro broke the glass with the bat.'

    b. *Taro-ga   infuruenza-o   kaisya-o   yasun-da   [Reason]

            -Nom flu-Acc   company-Acc   off.work-Past

     'Taro was off work because he had the flu.'

    c. *Kodomotati-ga   sono kouen-o   sakkaa-o   si-ta   [Location]

         children-Nom   the park-Acc   football-Acc do-Past

     'Children played football in the park.'

As is well-known, Japanese does not allow a multiple accusative construction, often dubbed as the Double-*o* effect in the literature (Harada 1973; 1975, Hiraiwa 2010, a.o.). One might think that the ungrammaticality of (13a) to (13c) may show this effect. But the examples in (14) where some adjuncts are inserted between two accusative-marked NP show that this is not the case.

(14) a. *Taro-ga   batto-o hagesiku sono garasu-o wat-ta   [Instrumental]

           -Nom bat-Acc furiously the   glass-Acc break-Past

     'Taro broke the glass with the bat furiously.'

    b. *Taro-ga   infuruenza-o issyuukan kaisya-o   yasun-da [Reason]

           -Nom flu-Acc   a.week   company-Acc off.work-Past

     'Taro was off work whole a week because he had a flu.'

    c. * Kodomotati-ga   sono kouen-o   tanosigeni   sakkaa-o   si-ta [Location]

       children-Nom   the park-Acc delightfully football-Acc do-Past

     'Children played the football delightfully in the park.'

Furthermore, although these elements are not a thematic object of the respective verbs, they behave like quasi objects.[5] For instance, they can be passive subjects.[6]

(15) a. Sono kouen-ga   daitouryou-niyotte   aruk-are-ta[7]   [Path]
     the   park-Nom   President-by   walk-Pass-Past
     '(lit.) The park was walked by the President.'

    b. Akapenki-ga   daitouryou-niyotte   sono   kabe-ni   nur-are-ta [Content]
     red.paint-Nom   President-by   the   wall-Dat   spray-Pass-Past
     'Red paint was sprayed onto the wall by the President.'

To wrap up the discussion so far, two types of *de*-phrases in Japanese are recognized. One is generated within VP and the other is outside of it. Koizumi's adjunction system fails to capture this subtle difference, since VP-adjuncts (i.e., Type I adjuncts) are VP-external and there is no adjunction site within VP. In section 4, I develop a theory for such adjuncts that located inside of VP by Bruening's (2013) feature-based adjunction model. Before setting up the task, we will see a semantic core of VP-internal adjuncts.

2. VP-internal adjuncts

2.1 *Spray/load* verbs

As is widely assumed, the object of transitive verbs can antecede Secondary Depictive (thereafter, SD)(Koizumi 1994, a.o.). However, not all objects can antecede it; only 'affected' objects can antecede the secondary predicate (Miyagawa 1989, Koizumi 1994).

(16) a. Taroo-ga   *aizin-o*   **hadakade**   korosita.
       -Nom   lover-Acc   naked   killed
    'Taro killed *his lover* **naked**.'   (Koizumi 1994, 49: (68a))

    b. *Taroo-ga *Ziroo-o*   **hadakade**   hometa.
       -Nom   -Acc   naked   praised
    'Taro praised Ziroo **naked**.'   (Koizumi 1994, 50: (69a))

The construction like (16a), where the secondary predication is possible, is called 'affected-theme transitive', whereas the one in (16b) is called 'non-affected-theme transitive' (Martin 1975, Miyagawa 1989, Koizumi 1994). One diagnostic for this distinction is that only affected-theme transitives can appear in intransitivizing resultative constructions, the so-called *te–aru* construction, such as (17) (Martin 1975, Miyagawa 1989).

(17) a. Usi-ga   korosi-te   aru.
       cow-Nom   have killed   be
       'A cow is killed.'   (Koizumi 1994, 50: (70a))

     b. *Ziroo-ga   home-te   aru.
          -Nom   have praised   be
       'Ziroo is praised.'   (Koizumi 1994, 50: (71a))

In general either the locative or the content NP of the *spray/load* verbs can be a solo object of the verbs as in (18).

(18) a. Taro-ga   sono kabe-o   nut-ta
          -Nom   the wall-Acc   paint-Past
       'Taro painted the wall.'

     b. Taro-ga   penki-o   nut-ta
          -Nom   paint-Acc   spread-Past
       'Taro spread paint (over something).'

I argue that the *spray/load* construction can be a type of affected-theme constructions. Either object can be an affected-theme object, since they can make up of the *te–aru* construction. Examine the data in (19).

(19) a. Penki-ga   nut-te   aru
        paint-Nom   have.spread   be
       'Paint are spread (over something).'

     b. Kabe-ga   nut-te   aru
       wall-Nom   have.spread   be

'The wall is covered (with something).'

We expect that the *de*-marked content PP of *spray/load* verbs should modify an affected theme object like *kabe* in (19b) because they are VP-internal. But a VP-external adjunct such as instrumental *des* should not. As shown in (20), this expectation is borne out.

(20) a. Kabe-ga   penki-de   nut-te   aru
       wall-Nom paint-DE   have.spread be
     'The wall is covered with paint.'
   b. *Mado garasu-ga   batto-de kowasi-te   aru
       window-Nom   bat-DE have.broken be
     'The window is broken by a bat.'

Thus, I claim that a VP-internal adjunct such as the *de*-marked content PP of *spray/load* verbs is an adjunct that modifies the affected theme object.

2.2 Secondary depictives

The SD in general is an additional predicate that takes an NP as an antecedent within a clause and describes a state of the NP during the event of the main predicate (Williams 1980, Miyagawa 1989, Koizumi 1994, Baker 1997, Pylkkänen 2002; 2008, Hale and Keyser 2002, a.o.). In Japanese, these SDs are often marked by *de* (Koizumi 1994).[8]

  There are two types of SDs; one is the Subject Secondary Depictives (thereafter, SSDs) as given in (21a); and the other is Object Secondary Depictives (thereafter, OSDs) as in (21b). The antecedent is boldfaced and the SD in predication with it is in italics in the examples of this section.

(21) a. **Taro-ga**   *sirafu–de* sono mado-o   kowasi-ta
       -Nom sober-SD   the window-Acc break-Past
    '**Taro** broke the window *sober*.'
   b. Taro-ga   **sono pan-o**   *atsuatsu–de* tabe-ta
       -Nom the bread-Acc hot-SD   eat-Past

'Taro ate **the bread** *hot*.'

The SSD details the status of the subject during the event. In (21a), the SD *sirafu-de* specifies the physical condition of the subject NP *Taro*. An OSD specifies the state of the direct object during the action of the main predicate. In (21b), the SD *atsuatsu-de* 'hot' describes the state of the thematic object *pan* 'bread' in the event of *taberu* 'eat.'

 Both types of SDs identifiy themselves as adjunct in nature. First, both can iterate in the same sentence. For instance, more than one SSD can be licensed in the same sentence as in (22a). Similarly, more than one OSD can co-occur in the identical sentence as in (22b).

(22) a. Taro-ga   sono   butsurigakusyo-o   *hadaka-de sirafu-de* yon-da (SSD)
        -Nom   the   physics.book-Acc   naked-SD   sober-SD   read-Past
   'Taro read **the physics book** *naked, sober*.'
   b. Taro-ga   sakana-o   *nama-de*   *toretate-de*   tabe-ta (OSD)
        -Nom   fish-Acc   raw-SD   alive-SD   eat-Past
   'Taro ate **the fish** *raw, alive*.'

When an SSD and an OSD co-occur, the SSD must follow the OSD. The sentence in (23a), where the OSD *namade* 'raw' precedes the SSD *hadakade* 'naked' is acceptable, whereas the sentence with a reverse order is unacceptable as in (23b).

(23) a. John-ga   sakana-o   *nama-de*   *hadaka-de*   tabe-ta
        -Nom   fish-Acc   raw-SD   naked-SD   eat-Past
   'John ate **the fish** *raw, naked*.'
   b. *John-ga   sakana-o   *hadaka-de*   *nama-de*   tabe-ta
        -Nom   fish-Acc   naked-SD   raw-SD   eat-Past
   'John ate **the fish** *naked, raw*.'

 Since the SSD describes the status of the thematic subject, it is expected that it should be outside of VP. I show two pieces of evidence for that it is

licensed within VoiceP, assuming that the thematic subject is introduced by Voice (Kratzer 1996, a.o.).

Kishimoto (2013) argues that a type of *either* constructions in Japanese (e.g., [Sub V-*ka*][Sub V-*ka da*]) can conjoin TPs. Two clauses that are coordinated in (24a) include a tense-marker *hasit-ta* and *koron-da*, respectively. On the other hand, two clauses that are intended to coordinate in (24b) include a modality marker *daroo* 'may'. Hence the sentence is unacceptable.

(24) a. [John-ga   hasit-ta]   ka [Mary-ga   koron-da   ka]   da
         -Nom run-Past   or   -Nom fell.over-Past Q   Cop
     '(the matter is) Either John ran or Mary fall over.'
   b. *[John-ga   hasi-ru   daroo] ka [Mary-ga   korob-u
          -Nom run-Pres   may   or   -Nom fell.over-Pres
     daroo   ka]   da
     may   Q   Cop
     '(the matter is) Either John may run or Mary may fell over.'

Given this, if the SSD is within TP, it must appear in a clause of the given construction. The data (25) verifies that this assumption is accurate.

(25) [Taro-ga   *sirafu-de* garasu-o   wari] ka [Hanako-ga
        -Nom sober-SD glass-Acc break OR   -Nom
   deisuijyoutai-de   garasu-o   wari   ka]   sita
   drunk-SD   glass-Acc break Q   did
   '(the fact is) Either Taro broke the glass sober or Hanako broke it drunk.'

Secondly, an SSD like *sirafu-de* 'being sober' of (26) can be negated, thus, it is within NegP.

(26) Taro-ga   *sirafu-de*   garasu-o   wara-nakat-ta
        -Nom sober-SD   glass-Acc   break-Neg-Past
   'Taro did not break the window sober.'

In Japanese phrase structure NegP comes lower than TP and VoiceP comes lower than NegP. Thus, I argue that the licensing position for the SSD is within VoiceP but not within VP.

The OSD is licensed within VP. Koizumi (1994), in his detailed description of secondary predication in Japanese, proposes that OSDs must be in a mutual c-command relation with their antecedents. By the ternary branching hypothesis, both the direct object and the OSD are under the smallest VP as in (27).

(27)

```
              VP
              |
              V'
          ┌───┼───┐
        OSD    DO    V
      atuatu-de pan  tabe
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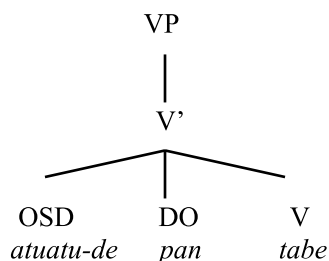
The position of the OSD is the left-most position of V', being sister to the DO and V. This configuration provides an account for the behavior of OSDs in most of the syntactic tests that apply to VP. For instance, it predicts the behavior of OSDs in VP-preposing in (28) and *Do–so* substitution in (29).

(28) a. [**katsuo**-o   *nama–de*   tabe-sae]$_i$ Taro-ga   t$_i$ sita

      bonito-Acc   raw-SD   eat-even   -Nom   did

      'Taro ate bonitoes even raw.'

  b. *[*nama–de*   tabe-sae]$_i$ Taro-ga   t$_i$ **katsuo**-o   sita

      raw-SD   eat-even   -Nom   bonito-Acc   did

  c. *[**katsuo**-o   tabe-sae]$_i$ Taro-ga   t$_i$ *nama–de* sita

      bonito-Acc   eat-even   -Nom   raw-SD   did

  d. *[tabe-sae]$_i$ Taro-ga   **katsuo**-o   *nama–de* t$_i$ sita

      eat-even   -Nom   bonito-Acc   raw-SD   did

The OSD, the DO and V in (27) can be preposed together as given in (28a). Neither the OSD nor the DO alone with V can be preposed as in (28b) and (28c). V alone cannot be preposed, thereby stranding the OSD and the DO in VP as in (28d).

The *soo–su* substitution as in (29) shows the same pattern.

(29) a. Taro-ga   [**katsuo**-o   *nama-de*   tabe]-ta

        -Nom bonito-Acc   raw-SD   eat-Past

   'Taro ate bonitoes raw.

  b. Hanako-mo   soo sita

         -also so did

   'Hanako did so, too.'

  c. *Hanako-mo madai-o   soo sita

         -also sea.bream-Acc so   did

   'Hanako did so with sea breams, too.'

  d. *Hanako-mo *hannama-de*   soo sita

         -also half.raw-SD   so did

   'Hanako did so half raw, too.'

  e. *Hanako-mo madai-o   *hannama-de*   soo sita

         -also sea.bream-Acc half.raw-SD   so did

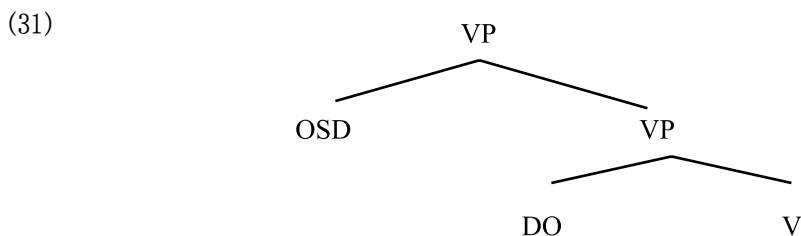   'Hanako did so with sea breams half raw, too.'

As in (29b), the pro-form *soo* replaces the entire VP [*katsuo-o namade tabe*]. This VP should be the maximal constituent that *soo* can substitute for. This is evident in the other examples given in (29c) to (29e). The sentence where the DO is outside of the constituent that *soo* can replace is ungrammatical as in (29c), V and the OSD alone do not make a constitute. Similarly, the sentence in which the OSD is outside of the scope where *soo* replaces is ungrammatical as in (29d), V and the DO cannot make a constituent. As in (29e), V alone cannot consist of VP since the sentence where the DO and the OSD is outside of the scope.

   The arguments so far seem to demonstrate that the smallest constituent for the structure is like the one in (27). The data from quasi-clefts, however, counters with this assumption. The given construction is composed of the presuppositional and focus parts. The presupposition is hallmarked by the topical element *no–wa* and the focus part is marked by the assertive element *da*. According to Kishimoto (2016), the constituent that can appear in the focus of this construction is up to *v*P/VoiceP. Given this, it is expected that VP in (27)

should make a focus of this construction. As given in (30a), this assumption is partially true. The DO and V can somehow make up a focus as in (30c), whereas the OSD and V cannot do so as in (30b).

(30) a. [Taro-ga   sita] -no-wa [**katsuo**-o   *nama–de* taberu] koto   da
          -Nom   did -Gen-Top bonito-Acc raw-SD   eat   thing Cop
      'What Taro did was to eat bonitoes raw.'
    b. *[Taro-ga   **katsuo**-o   sita] -no-wa [*nama–de* taberu] koto   da
          -Nom   bonito-Dat did -Gen-Top raw-SD   eat   thing Cop
    c. ?[Taro-ga   *nama–de* sita] -no-wa [**katsuo**-o   taberu] koto   da
          -Nom raw-SD   did -Gen-Top bonito-Acc eat   thing Cop

From the facts in (30), I say that the DO and V alone constitute an independent VP to the exclusion of the OSD. Hence I argue that the structure for a VP with secondary predicates is not ternary, but binary as illustrated in (31). The DO consists of the smallest VP with V and the OSD adjoins to the VP.

(31)
```
                    VP
            _____|_____
           /                 \
         OSD                  VP
                         _____|_____
                        /           \
                       DO            V
```

In the beginning of this section, we have observed that the OSD modifies only the affected object, as repeated in (32). As evidence, the OSD can appear in the *te–aru* construction with a reading such that the subject NP *aizin* 'lover' is affected, as in (33a).

(32) a. Taroo-ga   **aizin-o**   *hadaka–de*   korosita.
          -Nom   lover-Acc   naked-SD   killed
      'Taro killed his lover naked.'   (Koizumi 1994, 49: (68a))

  b. *Taroo-ga   **Ziroo-o**   *hadakade*   hometa.
       -Nom   -Acc naked   praised
  'Taro praised Ziroo naked.'   (Koizumi 1994, 50: (69a))

(33) a. **Aizin-ga**   *hadaka-de* korosite aru.
      lover-Nom   naked-SD   killed   be
   'A lover is being killed naked.'
  b. ***Ziroo-ga**   *hadaka-de* homete   aru.
         -Nom naked-SD   praise   be
      'Ziroo is being praised naked.'

Thus, I interpret the OSD is a kind of VP-internal adjuncts like the *de*-marked content PP of *spray/load* verbs. They are common in modifying the NP that is affected during the event. In section 4, I will develop a feature-based theory for these adjuncts with the notion of Affect. First, I introduce Bruening's (2013) adjunction theory in the next section.

3 Bruening's (2013) adjunction

Bruening (2013) proposes a feature-based model for merge. In the theory, each head and term has its own feature; and when it merges to another term or a larger syntactic object, it deletes the feature. In this manner, the feature-checking is implemented by merge. The partial derivation of a transitive sentence *the lobbyist bribe the senator* under this theory is in (34).
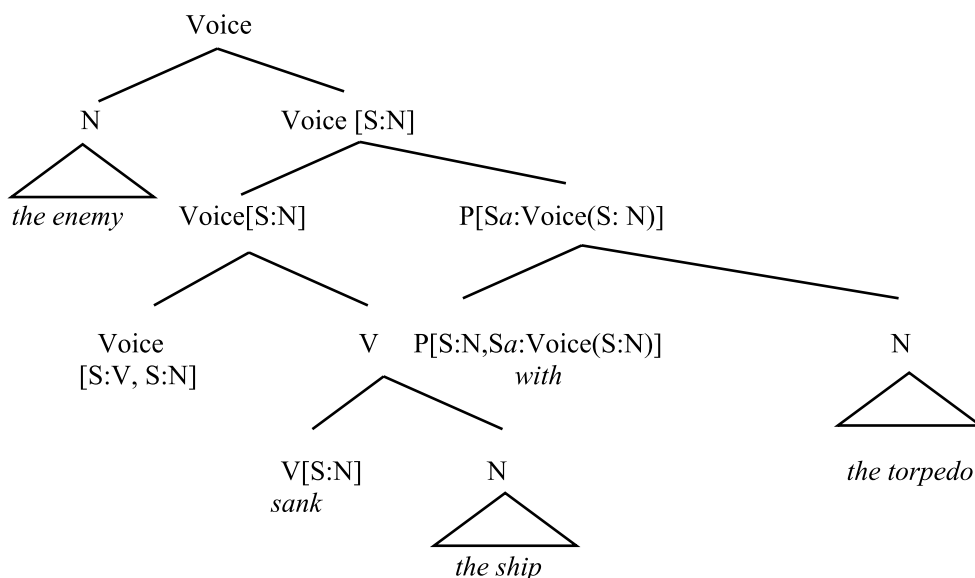
(34) Transitive structure under Bruening (2013:22, (83))

Voice
- N — *the lobbyist*
- Voice [S:N]
  - Voice [S:V, S:N]
  - V
    - V [S:N] *bribe*
    - N — *the senator*
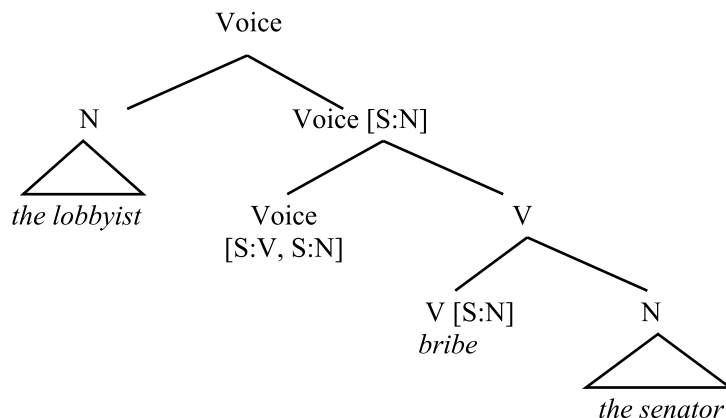
In (34), V head *bribe* has N-feature and the feature can be deleted by a merge with N *the senator*. Now a larger syntactic object {V{V[S:N̶],N}} is created. Voice is a transitive structure and has V-feature and N-feature. These features are checked off one by one from the left. When Voice meets {V{V[S:N̶],N}}, its V-feature will be checked off. This merge creates a larger syntactic unit such as {Voice[S:N]{Voice[S:V̶, S:N]{V{V[S:N̶]N}}}}. But Voice still has N-feature to check off and it will expand further. When it merges with the NP *the lobbyist*, the given feature will be deleted and as a result, a newly-created syntactic object such as {Voice{N{Voice[S:N̶]{Voice[S:V̶, S:N]{V{V[S:N̶]N}}}}}} is derived.

How is an adjunct (e.g., *with* phrases) licensed in the theory? The vocabulary item *with* itself is transitive and it has N-feature and Voice-feature with a specification P[S:N,Sa:Voice(S:N)]. Here, P expresses the category; and S stands for selectional features. [S:N] means that the given item has a selectional feature N. Let me explain how this assumption works under Bruening's structure.

(35) Bruening's analysis (2013:27) to English Instrumental *with*

```
                        Voice
                       /      \
                      N        Voice [S:N]
                     /\       /         \
              the enemy  Voice[S:N]      P[Sa:Voice(S: N)]
                        /        \      /              \
                    Voice         V   P[S:N,Sa:Voice(S:N)]        N
                  [S:V, S:N]      /\      with                   /\
                            V[S:N]   N                    the torpedo
                            sank    /\
                                the ship
```

The selectional feature initially checks off its N-feature when it merges an element with N (i.e., *the torpedo*). The NP *the torpedo* can also check off its N-feature under this merge. Now, only Voice-feature is left with P. This feature will be checked off against an element with Voice-feature. But Voice cannot check off its own N-feature under this merge. This is prohibited by the subscription *a* as illustrated in (36).

(36) A selectional feature [S:Z] on node X projects to the next dominating node if its sister is Y[*Sa*:X(S:X)].   (Bruening 2013: 24, (89))

By the assumption (36), the instrumental phrase cannot extend further since its Voice feature has been checked off. At the same time, it cannot check off Voice's N-feature since Voice[S:N] in (35) takes a category that has the subscription *a* as its sister.

4. A theory for VP-internal adjuncts

4.1 Affected adjuncts

As is demonstrated in section 2, *spray/load* verbs are affected theme transitives, thereby assigning the affected role to its complement. When the location is a DO of the verb, it receives the given role from the verb. By the feature-based checking model, I claim that V and the DO have Affect-features, respectively. When they merge, both features are checked off. The question is whether this feature is inherent to V or independent from it?

The former hypothesis is not empirically supported. The evidence comes from the distribution of SDs in a ditransitive verb construction. The DO of a ditransitive verb *okuru* 'see off' cannot license the SD, as in (37). Here, the DO *Hanako* cannot be the subject of the SD *sirafu-de* 'sober,' but only the subject *Taro* can.

(37) *Taro-ga   *Hanako-o*   **sirafu-de**   okut-ta
       -Nom   -Acc   sober   see.off-Past
    '*Taro saw off *Hanako* **sober**.'

For the readers who suspect this judgment, the verb cannot form a *te-aru* construction as in (38). Thus, here the DO is not an affected theme.

(38) **Hanako-ga*   **sirafu-de**   okut-te   aru
       -Nom   sober   have.seen.off   be
    '**Hanako* is being sent home **sober**.'

However, when the same verb is combined with a verb *todoku*, implying the completion of an action, the object turns to antecede the same SD as in (39).

(39) Taro-ga   *Hanako-o*   **sirafu-de**   okuri-todoke-ta
       -Nom   -Acc   sober   see.off-complete-Past
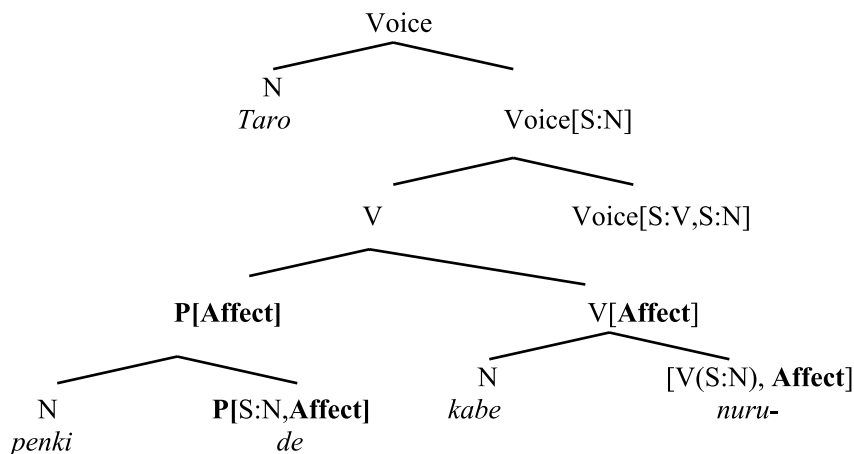   'Taro sent *Hanako* home **sober**.'

As we expect, the complex predicate can appear in the *te–aru* construction as (40) shows.

(40) *Hanako–ga*   **sirafu-de**   okuri-todoke-te   aru
       -Nom   sober   have.seen.complete.off   be
     '*Hanako* got home **sober**.'

It is clear from the above fact that the additional verbal morpheme has changed the aspect of the lexical verb *okuru*. By this composition, the given verb is likely to have become an achievement type verb.

Given these, I propose that Affect-feature exists in the affected-theme construction, independently of the root verb. Simultaneously, the VP-adjunct within an affected event also includes Affect-feature in its feature specification. I propose a feature specification such as (41) for VP-internal adjuncts. The proposed structure for Affect Adjuncts (VP-internal adjuncts) is given in (41b).

(41) a. VP-internal PPs: P [S:N, Affect] *penki–de* 'paint-P'
     b. Taro-ga sono kabe-o akapenki-de nutta

```
                         Voice
                    ┌──────┴──────┐
                    N          Voice[S:N]
                  Taro       ┌──────┴──────┐
                             V         Voice[S:V,S:N]
                       ┌─────┴─────┐
                   P[Affect]      V[Affect]
                  ┌────┴────┐    ┌────┴────┐
                  N    P[S:N,Affect]  N    [V(S:N), Affect]
                penki      de       kabe      nuru-
```

As in (41b), I treat Affect-feature as a kind of clitic, not an argument-taking head, since it rather adds an extra semantic meaning to a given derivation. The DO initially merges with V with Affect-feature and composes an affect projection. P also has Affect-feature, which will be finally checked off when it meets with V.

At this timing, an Affect Adjunct *penki-de* is licensed in a derivation.

I provide the same analysis to the OSD. The feature specification for the OSD is in (42a). The structure for a sentence with the OSD is displayed in (42b). The OSD has Affect-feature in its feature specification; and the given feature will be deleted under the matching relation with the same feature on the verb.

(42) a. OSDs: OSD [S:N, Affect] *nama-de* 'raw-SD'

b. Taro-ga katsuo-o nama-de tabe-ta
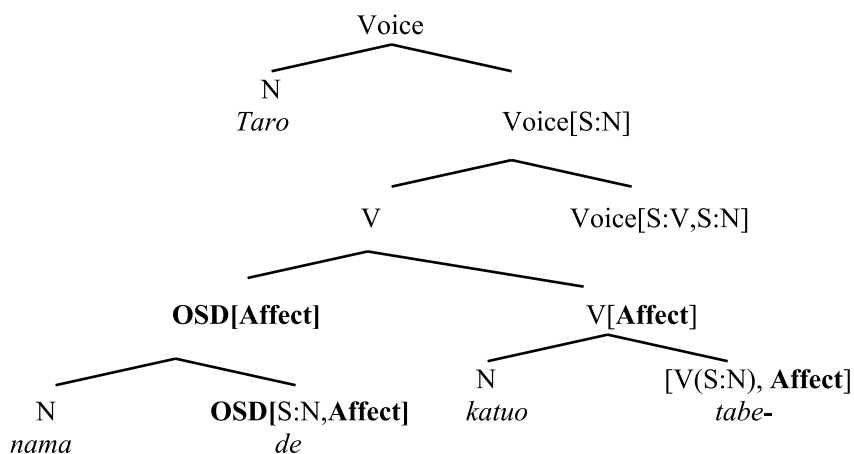
4.2 Non-affected adjuncts

The ditransitive construction (i.e., verbs of giving) has a DO and an IO. As we have seen, the DO of a ditransitive construction can antecede an SD. On the contrary, the IO of the given verb cannot antecede an SD. This phenomenon is cross-linguistically recognized (Baker 1997); and Japanese is not an exceptional. As given in (43), the IO *Hanako* of the sentence cannot antecede an SD *sirafu-de* 'sober.'

(43) *Taro-ga   *Hanako-ni*   **sirafu-de**   hon-o   watasi-ta

-Nom   -Dat sober   book-Acc   pass.on-Past

'*Taro passed *Hanako* a book **sober**.'

The dative object of reflexive verbs such as *au* 'meet' also fails to antecede an SD. observe (44).

(44) *Taro-ga   *Hanako–ni*   **sirafu-de**   at-ta

        -Nom   -Dat   sober   meet-Past

    '*Taro met *Hanako* **sober**.'

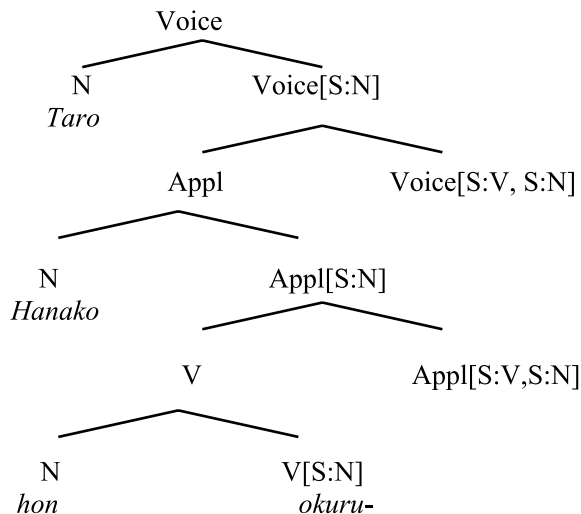The NP inside PP cannot antecede an SD, either.

(45) *Kodomotati-ga   *kouen–de*   **kireinajyoutai-de**   ason-da

     children-Nom   park-Loc   clean-SD   play-Past

     '*Children played in *the park* **clean**.'

The causee of causative constructions, however, shows an opposite effect. It can indeed antecede an SD.

(46) Taro-ga   *Hanako–ni*   **sirafu-de**   hon-o   yom-ase-ta

        -Nom   -Dat   sober   book-Acc   read-Cause-Past

    'Taro let *Hanako* to read the book **sober**.'

The previous literature is diverse on the solution of these problems. Koizumi claims that the IO is not lexically governed by V, failing to fulfill the c-government condition.[9] I provide a feature-based account with the assumption of Applicative head (Pylkkänen 2002; 2008). The applicative theory hypothesizes that the IO is selected by Appl as in (47). Thus, the IO is external to VP, that is, it is outside of the scope of Affect. Therefore, it cannot be a subject of SDs.

(47)
```
                          Voice
                   ┌────────┴────────┐
                   N              Voice[S:N]
                  Taro        ┌───────┴───────┐
                            Appl          Voice[S:V, S:N]
                       ┌──────┴──────┐
                       N          Appl[S:N]
                    Hanako     ┌──────┴──────┐
                               V          Appl[S:V,S:N]
                          ┌────┴────┐
                          N       V[S:N]
                         hon      okuru-
```

The verb *au* 'meet' cannot occur in the *te–aru* construction as in (48). This means that the verb has no Affect-feature. This is because the dative object cannot be a subject of an SD.

(48) *Hanako-ga   (Taro-to)   at-te   aru
           -Nom   -together   meet.have   be
     '*Hanako is being met.'

The same holds true for the NP inside of PP. The NP does not compose a *te–aru* construction as in (49).

(49) *Kouen-ga   ason-de   aru
       park-Nom   have.played   be
     '*The park is being played.'

In Koizumi's theory, PP is a barrier and no predication holds between the NP inside PP and V. I argue that neither the verb *asobu* nor the PP has Affect-feature. Hence no (object) secondary predication is possible.

As in (46), the causative dative object can be predicated by an SD, which expects it to be in the *te–aru* construction. But it cannot form such a construction, contrary to the expectation.

(50) *Hanako-ga   hon-o   yom-ase-te-aru
        -Nom book-Acc   read-Cause-State-be
    '*Hanako is being let to read books.'

I speculate that the causative verb has no Affect-feature and that is why it does not appear in the construction. As we have already known, SSDs modify the thematic subject. It is well-known that the causee of syntactic causative constructions patterns with the thematic subject. Hence I argue that the case in (46) is an instance of SSDs and a different licensing mechanism is at work for this example.

5 Concluding Remarks/Implications

I have tried to develop a theory for VP-internal adjuncts in Japanese. I have demonstrated that some *de*-marked adverbs and secondary predicates are Affect Adjuncts. They are licensed by the semantic feature Affect and adjoined to VP. Because Koizumi (1993) assumes the VP-internal Subject Hypothesis (Fukui and Speas 1986, a.o.), he argues for a single attachment site for VP-adjuncts. However, by the Split-VP Hypothesis (Larson 1988, Chomsky 1995, a.o.), at least two attachment sites are ensured: vP/VoiceP and VP. The present study has argued in favor of the latter assumption and demonstrated that it is indeed accurate to split VP into$_P$ vP/VoiceP and VP. VP-internal adjuncts attach to VP. Although I have not clearly argued so, this study implies that VP-external adjuncts (e.g., Type 1 adjuncts in Koizumi (1993)) may attach to VoiceP.

（注釈）

1   As far as the author knows, Minami (1974) is the first that proposes that among Japanese adjuncts a certain kind of hierarchy can be identified. His proposal is quite insightful; however, it is not based on the structural tests. Similarly, Endo's (2009)

proposal about the cartography of Japanese adjuncts is also based on the word order evidence. Hence, I take their proposals inherently differ from Koizumi's study.

2   The definition of 'affiliation' is as follows: α is affiliated to XP iff α is immediately dominated by a (segment of a) projection of X.

3   This case-alternation may be associated with the semantic difference here. For instance, when the location element is marked with the accusative case, the sentence carries an affected reading such that the President completely walked out the park, whereas the *de*-marked locative phrase does not associate with such an implication. My intention here is to simply demonstrate the possibility of the case-alternation; and I put aside the semantic issue here.

4   This kind of motion verbs are intransitive in nature, since the location element can be omitted as in below.

(i)   Daitouryou-ga   arui-ta
      President-Nom   walk-Past
      'The President walked.'

According to Hale and Keyser (2002), the unergative verb has the transitive structure where its complement is empty. And this empty slot can be filled out. I assume that the *aruku* type motion verbs is the unergative verb and in the given sentence the location element occupies the complement position which behaves as a quasi object of the verb.

5   The same fact has been identified in many languages. According to Levin and Rappaport Hovav (1995), non-thematic objects such as *John* as given below, can be passivized.

(i)   a. She drank John under the table.
      b. John was drunk under the table.

6   In general, two types of passive constructions are identified in Japanese: the direct and the indirect passive (Kuroda 1979, Kuno 1973, Marantz 1984, Miyagawa 1989, Shibatani 1990, Kubo 1992, Kuroda and Kitagawa 1992, Hoshi 1999, Pylkkänen 2002; 2008, among many others). As is well-known, the indirect passive requires its subject to be animate entities, while there is no such requirement for the direct passive. But for some native speakers of Japanese, the given sentence seems to sound awkward. To my ears, it sounds fine with the affected reading on the subject such that the park is semantically affected by the fact that the President visited there.

7   Some of the native speakers of Japanese may find these passive sentences awkward. However, when these verbs are combined with affixes such as *-takuru* 'plaster, coat, daub⋯with' or *–tukeru* 'slosh, daub⋯with,' the acceptability will be improved, as

given in (i).

(i) a. Sono kouen-ga   Taro-niyotte aruki-tukus-are-ta
        the   park-Nom   -by   walk-all.over-Pass-Past
        '(lit.) The park was walked over by Taro.'
     b. Akapenki-ga   Taro-niyotte sono kabe-ni   nuri-takur-are-ta
        red.paint-Nom   -by   the   wall-Dat   coat.with-Pass-Past
        'Red paint was daubed onto the wall by Taro.'

8   Apart from the postposition, a few varieties are reported (see Shibagaki 2011 for more details).
9   The definition of c-government is as follows: X c-governs Y iff (a) X c-commands Y, and (b) there is no G, G a barrier for Y, such that G excludes X (Koizumi 1994: 43, (50)).

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