琉球大学学術リポジトリ

日本語と沖縄語の時制屈折と範疇選択およびラベリングについて

メタデータ	言語: en
	出版者: 国際地域創造学部国際言語文化プログラム
	公開日: 2022-04-13
	キーワード (Ja):
	キーワード (En):
	作成者: 吉本, 靖
	メールアドレス:
	所属:
URL	https://doi.org/10.24564/0002017904

Tense Inflection, C-selection, and Labeling in Japanese and Okinawan*

Yasushi Yoshimoto

1. Introduction

This study investigates the tense inflection patterns in Japanese and its genetically related language Okinawan, within the framework of Distributed Morphology (DM) initiated by Halle and Marantz (1993). It also investigates the distribution of the Japanese politeness marker *desu*, in reference to its c-selectional requirement. Japanese and Okinawan are similar in that the present tense exponent is the same for adjectival predicates and negative predicates, in contrast to the exponent that appears with affirmative verbal predicates. It will be shown, however, that the way this pattern of tense inflection emerges is different in these languages. In our investigation into the distribution of the sentence-final politeness marker *desu* in Japanese, we adopt Saito's (2018, 2020) labeling mechanism, but propose that T in Japanese is a weak head. This accounts for the peculiar behavior of *desu* that seems to c-select not for its sister TP, but for the complement of T. We will also consider whether our analysis of Japanese adjectival predicates and of the distribution of *desu* can be maintained if we adopt Nishiyama's (1999) analysis of Japanese adjectival predicates. It will be shown that our analysis can be sustained, with some modifications to Nishiyama's analysis and additional assumptions.

The organization of this paper is as follows. Section 2 briefly examines tense inflection patterns in Japanese, comparing adjectival predicates, verbal predicates, and negative predicates. In section 3, we investigate the distribution of the politeness marker *desu* in Japanese and propose that T is weak in this language. Section 4

examines tense inflection patterns in Okinawan, showing their similarity to Japanese, while also showing that this similarity arises from different reasons. Section 5 gives an interim summary concerning the similarities and differences between Japanese and Okinawan with respect to tense inflection. In section 6, we re-examine Japanese adjectival predicates, taking into account Nishiyama's analysis of them. Section 7 concludes this paper.

2. Tense inflection and the categorial status of Neg in Japanese

As is well-known, the negative head Neg in Japanese behaves like adjectives in that the tense morphemes that appear after Neg are identical to those that appear after adjectives, as illustrated in (1) and (2).[1] (1) contains the adjective *omosiro-* 'interesting', and (2) contains the negative head *-na*.

(1) Kono hon-ga **omosiro-**{**i/katta**}.
　　this book-Nom interesting-{Pres/Past}
　　'This book {is/was} interesting.'
(2) Hanako-ga　niku-o　tabe-**na**-{**i/katta**}.
　　Hanako-Nom meat-Acc eat-Neg-{Pres/Past}
　　'Hanako {doesn't/didn't} eat meat.'

Compare (1)-(2) with (3), where the predicate is an affirmative verb, and the tense morphemes have exponents that are different from those in (1)-(2).

(3) Hanako-ga　niku-o　**tabe**-{**ru/ta**}.
　　Hanako-Nom meat-Acc eat-{Pres/Past}
　　'Hanako {eats/ate} meat.'

Since Neg and adjectives behave alike in terms of tense inflection, let us assume that

they both have [+adjective] feature, abbreviated as [+adj] hereafter.

In the framework of DM, the above facts can be captured by postulating the following Vocabulary Items (VIs) for T[pres] and T[past].[2]

(4) <u>VIs for the present tense</u>
    a. T[pres] ↔ i / [+adj] ⌢ __
    b. T[pres] ↔ ru

(5) <u>VIs for the past tense</u>
    a. T[past] ↔ katta / [+adj] ⌢ __
    b. T[past] ↔ ta

Basically, (4a) says that the exponent /i/ is inserted into the terminal node T[pres] when this head is immediately preceded by a node with a [+adj] feature. Since (4a) is more specific than (4b) in terms of its contextual specification, (4a) is checked before (4b). When T[pres] is not preceded by a [+adj] node, then (4b) applies and /ru/ is inserted as the exponent of T[pres]. (5) is the list of Vocabulary Items for T[past], and it applies in the same manner as (4).

3. C-selectional property and the distribution of *desu* in Japanese

Let us consider next Japanese sentences that contain the politeness marker *desu*, whose function is to make the utterance polite and formal. This morpheme appears sentence-finally after adjectival predicates, but cannot appear after affirmative verbal predicates, as noted by Sells (1995: 288).[3] Thus, example (6) with an adjectival predicate is fine, whereas example (7) with a verbal predicate is ungrammatical.

(6) [Kono hon-ga [omosiro]$_{aP}$ -{i/katta}]$_{TP}$ **desu**.   (cf. (1))

   this book-Nom interesting-{Pres/Past} Polite

   'This book {is/was} interesting. (polite)'

(7) *[Hanako-ga [niku-o tabe]$_{vP}$-{ru/ta}]$_{TP}$ **desu**.   (cf. (3))

   Hanako-Nom meat-Acc eat-{Pres/Past} Polite

   'Hanako {eats/ate} meat. (polite)'

When the negative morpheme is added to these sentences, *desu* can appear, regardless of whether the predicate is adjectival as in (8a) or verbal as in (8b).

(8) a. [Kono hon-ga [omosiro-ku-na]$_{NegP}$-{i/katta}]$_{TP}$ **desu**.[4]

     this book-Nom interesting-ku-Neg{Pres/Past} Polite

     'This book {is/was} not interesting. (polite)'

   b. [Hanako-ga [niku-o tabe-na]$_{NegP}$-{i/katta}]$_{TP}$ **desu**.[5]

     Hanako-Nom meat-Acc eat-Neg-{Pres/Past} Polite

     'Hanako {doesn't/didn't} eat meat. (polite)'

   The grammaticality judgments observed in (6)-(8) show that *desu* can appear after T if the morpheme immediately before T is a [+adj] category, but cannot do so if the morpheme immediately before T is a verb. Let us consider in detail how we can account for this fact.[6]

     Assume that the politeness marker *desu* is a head in the "right periphery," that is, in the C region.[7] This head might be labeled "Politeness," but for the present purposes, let us simply assume that it is C. Then, it follows that *desu* c-selects (=categorially selects) TP in (6)-(8). Crucially, it is impossible to say that *desu* c-selects the complement of T—i.e., adjective phrase (*a*P) in (6), verb phrase (*v*P) in (7), or negative phrase (NegP) in (8)—, given the standard assumption that a head can c-select only its sister.

     At this point, there seem to be two ways to account for the facts in (6)-(8) without

abandoning the idea that c-selection can apply only to a sister constituent. One way is to assume that the categorial feature of the pre-T morpheme ([+adj] in (6) and (8), and [+v] in (7)) percolates up to T. Then, we can say that *desu* only selects T with a [+adj] feature. Although this might work, in this study, I would like to explore another possibility that has become available in the recent development of the Minimalist Program.

This development is concerned with how labels are determined when two syntactic objects merge, a topic vigorously pursued in current research since Chomsky (2013) initiated it. For our present purposes, a series of Saito's (2016, 2018, 2020) work is directly relevant. Saito (2018) proposes the following search mechanism to determine a label.

(9) Search { α , β } for a label. If α is a weak head or search into α yields a weak head, then search on the α side is suspended and it continues only on the β side.

To see how this works, consider (10).

(10)

```
              ??
           /      \
         DP         TP
        /  \       /  \
      DP    K    vP    T
```
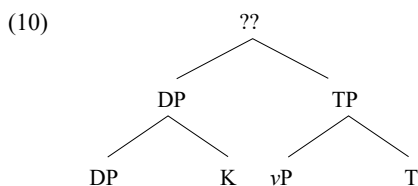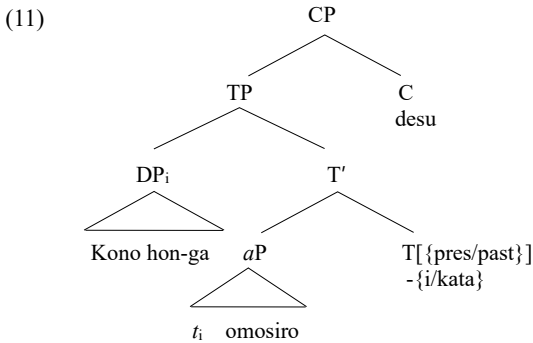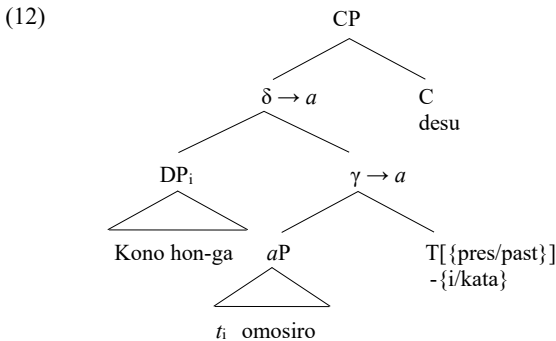
In (10), K is a head that hosts Case, and Saito assumes K to be a weak head. When DP and TP merge in (10), the label of {DP, TP} is determined according to (9). Since DP contains a weak head K, the search for a label on the DP side is suspended. Then search continues on the TP side and finds a strong head T, so the label is determined to be T. Although Saito (2018, 2020) assumes that T is a strong head in Japanese, Saito (2020: note 2) mentions that the label δ = {DP, TP} could be <NOM, NOM> as a result of feature sharing of the Nominative Case feature. He goes on to say that if that is the

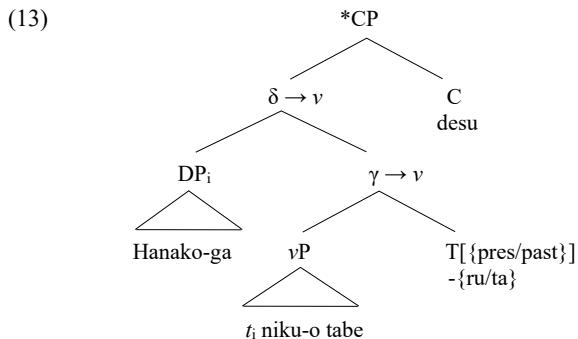case, T in Japanese does not have to be a strong head.

Let us return to the problem of c-selection by the politeness morpheme *desu*. The dilemma we were facing was that *desu* structurally c-selects TP, but it appears that *desu* is selecting a [+adj] category in the complement position of T. This dilemma disappears, if T in Japanese is a weak head. To see this, consider (11).

(11)

```
                        CP
                   ┌─────┴─────┐
                  TP            C
              ┌────┴────┐       desu
            DP_i        T′
          ┌──┴──┐    ┌───┴────┐
    Kono hon-ga  aP      T[{pres/past}]
                ┌─┴─┐     -{i/kata}
               t_i  omosiro
```

(11) is the structure of example (6) on the assumption that T is a strong head in Japanese. We assume that the subject DP originates in *a*P, in accordance with the predicate-internal subject hypothesis. In contrast, if T is a weak head, the structure of (6) would be (12).

(12)

```
                        CP
                   ┌─────┴─────┐
                 δ → a          C
              ┌────┴────┐       desu
            DP_i       γ → a
          ┌──┴──┐    ┌───┴────┐
    Kono hon-ga  aP      T[{pres/past}]
                ┌─┴─┐     -{i/kata}
               t_i  omosiro
```
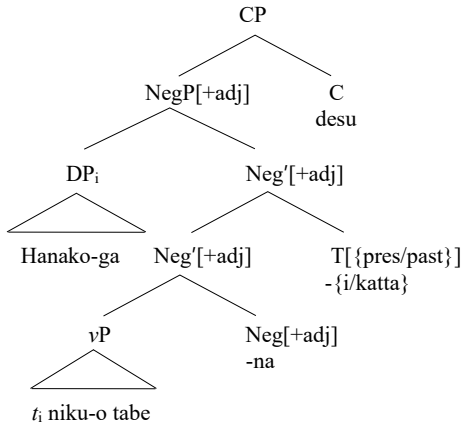
In (12), the label of $\gamma = \{aP, T\}$ is determined to be a, since by hypothesis, T is a weak head. (The notation "$\gamma \to a$" in the tree indicates that γ is labeled as a.) The label of δ = {DP, γ} in (12) is also determined to be a, since DP contains a head K which is weak. In this way, although T is present in structure, it does not "project." As a consequence, *desu* and $\delta = a$P become sisters, enabling *desu* to c-select aP. Thus we can maintain that *desu* has the c-selectional property of selecting only [+adj] category. This c-selectional restriction bans sentences like (7) above where the complement of T is vP. The structure of (7) would be (13), on the assumption that T is weak.

(13)

```
                              *CP
                     ╱                ╲
              δ → v                      C
          ╱          ╲                  desu
      DPᵢ              γ → v
    ╱    ╲           ╱        ╲
Hanako-ga   vP            T[{pres/past}]
          ╱    ╲             -{ru/ta}
     tᵢ niku-o tabe
```

Structure (13) violates the c-selectional restriction of *desu*, accounting for its ungrammaticality.

What about example (8) where the verb is negated? In this case, the C's sister would be NegP, as shown in (14).

(14)

```
                        CP
                  ╱          ╲
            NegP[+adj]         C
            ╱      ╲          desu
         DPᵢ       Neg′[+adj]
        ╱  ╲       ╱      ╲
   Hanako-ga  Neg′[+adj]   T[{pres/past}]
              ╱      ╲      -{i/katta}
            vP        Neg[+adj]
           ╱ ╲        -na
      tᵢ niku-o tabe
```

Since Neg contains a [+adj] feature, the c-selectional restriction of *desu* is satisfied in (14), accounting for the fact that (8) is grammatical. Note that, for this analysis to work, the head Neg must be a strong head, for if it weren't, {*v*P, Neg} would be labeled *v*, and the c-selectional restriction of C would not be satisfied.

Recall that Saito (2018, 2020) assumes that T in Japanese is strong, contrary to our assumption. However, he notes that T does not necessarily have to be a strong head, if {DP, TP} is in fact labelled as <NOM, NOM>, as implied by Saito (2016). In this connection, it seems important that Saito (2020) suggests that inflectional elements such as *-da* 'copula (conclusive),' *-na* 'copula (prenominal), and *-ni* 'copula (preverbal) that appear in words like (15) are also weak heads.

(15) a. sizuka-da   b. sizuka-na   c. sizuka-ni
        quiet-Cop   quiet-Cop   quiet-Cop

Note that tense morphemes are typical inflectional elements. If the suffixes in (15) are weak heads since they are inflectional, it would not be surprising that tense suffixes are also weak heads.

So far, we have seen that combining Saito's labeling mechanism (9) with the assumption that T is a weak head enables us to account for the distribution of *desu*. There is one potential problem for this account. Consider the ungrammatical sentences (16a,b).

(16) a. *[Kono hon-ga omosiro-]$_{aP}$ **desu**.   (cf. (6))

   this book-Nom interesting Polite

  b. *[Hanako-ga   niku-o   tabe-na-]$_{NegP}$ **desu**.   (cf. (8b))

   Hanako-Nom meat-Acc eat-Neg   Polite

(16a) is identical to (6) except that the former lacks T that is present in the latter. Similarly, (16b) lacks T that is present in (8b). This data may seem to be problematic for our account, since *desu* is selecting a [+adj] category in both sentences, leading us to expect them to be grammatical. Note, however, that these sentences are ruled out for independent reasons. Both the adjectival root *omosiro-* in (16a) and the Neg head *-na-* in (16b) are bound morphemes that require a suffix. The politeness marker *desu* is an independent word and cannot support these bound morphemes. This accounts for the ungrammaticality of these sentences.[8]

To recapitulate, this section has demonstrated that once we assume that T in Japanese is a weak head, the distribution of *desu* illustrated in (6)-(8) can be accounted for, without appealing to feature percolation mechanisms.

4. Tense inflection patterns in Okinawan

Similarly to Japanese, in Okinawan, the presence of Neg in a sentence affects the exponent of T. Compare (17) and (18), where the (a) sentences are affirmative and the (b) sentences are negative.

(17) a. Are-e tigami uku-{**i**/ta}-n.   (affirmative)

    s/he-Top letter send-{Pres/Past}-Ind

    'S/he {sends/sent} a letter.'

  b. Are-e tigami uku-**ran**-{**Ø**/ta}-n.[9]   (negative)

    s/he-Top letter send-Neg-{Pres/Past}-Ind

    'S/he {doesn't/didn't} send a letter.'

(18) a. Are-e tigami kach-{**u**/a}-n.   (affirmative)

    s/he-Top letter write-{Pres/Past}-Ind

    'S/he {writes/wrote} a letter.'

  b. Are-e tigami kak-**an**-{**Ø**/ta}-n.   (negative)

    s/he-Top letter write-Neg-{Pres/Past}-Ind

    'S/he {doesn't/didn't} write a letter.'

The exponent of the present tense morpheme is either -*i* or -*u* when it follows a verb, as shown in (17a) and (18a).[10] There are a few exceptions to this generalization: as we will see later, the present tense exponent for the existential verb *a*-, for example, is -*Ø*. As shown in (17b) and (18b), the exponent of the present tense morpheme is -*Ø* when it follows a negative morpheme -*(r)an*.

    Consider next (19), which contains an adjectival predicate.

(19) Kunu sumuche-e **umusa**-{**Ø**/ta}-n.

    this book-Top interesting-{Pres/Past}-Ind

    'This book {is/was} interesting.'

The exponents of T that appear in (19) are identical to those that appear after Neg in (17b) and (18b), namely -*Ø* and -*ta*. Thus, at first glance, it may appear that Neg in Okinawan is categorially an adjective, just like in Japanese. However, a closer look at the structure reveals that it is not.

As Miyara (2000, a.o.) points out, adjectival predicates in Okinawan contain an existential verb *a-*. Thus, a more accurate morphological segmentation of sentence (19) would be (20).[11]

(20) Kunu sumuche-e umu-s-a-{Ø/ta}-n.

　　 this book-Top interesting-*a*-exist-{Pres/Past}-Ind

　　 'This book {is/was} interesting.'
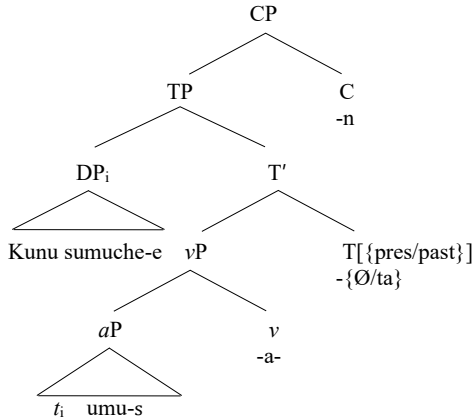
In (20), the morpheme *a-* that appears between the adjective *umu-s* and the tense morpheme *-{Ø/ta}* is an existential verb. This verb is not a copula, since an independent morpheme *ya-* that serves the function of copula exists in this language. This existential verb *a-* can be used as an independent verb, as shown in (21).

(21) Kuma-nkai a-{Ø/ta}-n.

　　 here-in exist-{Pres/Past}-Ind

　　 '(It) {is/was} here.'

We assume that this verb is also used to support adjectives in Okinawan, in the same way that *be* is used to support adjectives in English.

　　 Given that adjectival predicates contain the existential verb in Okinawan, the structure of sentence (20) would be as in (22).[12] I assume here, following Yoshimoto (2016), that the existential verb is a functional head *v*.

(22)

```
                              CP
                         ____/  \____
                        /            \
                      TP              C
                  ___/  \___          -n
                 /          \
               DPᵢ           T′
             /‾‾\‾‾\      ___/  \___
            /       \    /          \
    Kunu sumuche-e   vP           T[{pres/past}]
                  __/  \__         -{Ø/ta}
                 /        \
               aP          v
             /‾‾\‾‾\       -a-
            /      \
           tᵢ    umu-s
```

Thus, the appearance of the -Ø exponent for T[pres] is due to the presence of the existential verb *a-*, which is peculiar in that it requires the exponent of T[pres] to be -Ø, unlike the majority of verbs that require the exponent of T[pres] to be either -*i* or -*u*, as shown in (17a) and (18a).[13]

As we saw above, when Neg is present, the T[pres] adjacent to it also has -Ø as its exponent. When Neg is not present as in (17a) and (18a), the verbs require the exponent of T[pres] to be -*i* or -*u*. It must be the case, then, that Neg is conditioning the exponent of T[pres] in (17b) and (18b).

The distribution of tense exponents in (17)-(21) can be captured by positing the Vocabulary Items for T[pres] in (23). In (23b), instead of the actual exponents -*i* or -*u*, their underlying representation -*yu* is used, adopting the analysis of Miyara and Arakawa (1994: 21), who assume this form to be the underlying phonological representation of the present tense morpheme of regular verbs.[14]

(23) a. T[pres] ↔ -Ø / {Neg, v_{exist}, v_{copula}, ...} ⌢ __

b. T[pres] ↔ -yu / v ⌢ __

The exponent of the past tense morpheme is invariably /-ta/, regardless of the predicate type or polarity, as shown in (17)-(21).[15] Therefore, the following Vocabulary Item would suffice for this morpheme.

(24) a. T[past] ↔ -ta

    To sum up this section, I have shown that, prima facie, Okinawan seems to be identical to Japanese in that the tense inflections employed for adjectival predicates and negative predicates are the same and that these inflections are distinct from those for affirmative verbal predicates. A closer inspection for adjectival predicates in Okinawan revealed, however, that adjectival predicates in this language contain an existential verb to support the adjective, and it is this verb that is responsible for determining the tense inflection pattern of adjectival predicates. Interestingly, the tense inflection pattern of negative predicates is identical to the pattern of the existential verb. This is the reason why the tense inflection patterns of adjectival predicates and negative predicates are identical in Okinawan.

5. Interim summary: comparison between Japanese and Okinawan

Recall from section 1 that Neg in Japanese has the feature [+adj], guaranteeing that the tense inflections after Neg are identical to those after adjectival predicates. There is no need to assume that Neg in Okinawan contains the [+adj] feature, since the exponents of T are determined without recourse to the category "adjective" as shown in (23)-(24).

    Since the tense inflection pattern after Neg and after v_{exist} are identical in Okinawan, one might suggest that Neg in Okinawan is a weak head, leading to the labeling of {vP_{exist}, Neg} to be v_{exist}. This would work for sentences that contain adjectival predicates. However, this move would face a difficulty in explaining the contrast between (17a) and (17b), and between (18a) and (18b). These sentences

contain verbal predicates that take the exponent *-i* or *-u* when they are adjacent to T[pres]. For these sentences, whether or not Neg is present makes a difference in the exponent of T[pres]. Therefore, we should assume that Neg in Okinawan is a strong head, just like in Japanese.

Our investigation so far revealed that Okinawan Neg and Japanese Neg are similar in that they are both strong heads, but they are different in that the former does not contain the [+adj] feature, but the latter does.

As for the status of T in Japanese, we have seen in section 3 that once we assume that T is a weak head, the distribution of the politeness marker *desu* naturally follows. We haven't examined Okinawan data in this respect, simply because Okinawan does not have a politeness marker that appears in C position, although it has a politeness marker /-yabi/ that appears in between a verb stem and T.[16] Thus, it remains to be seen whether there are facts in Okinawan that indicate that T in this language is either a weak head or a strong head.

6. Structure of adjectival predicates in Japanese Reconsidered

The purpose of this section is to re-examine (i) our analysis of Japanese adjectival predicates in section 2, and (ii) our analysis of *desu* in section 3, from the point of view of the analysis presented in Nishiyama (1999). Nishiyama analyzes Japanese adjectives and adjectival nouns (in his terminology, "canonical adjectives" and "nominal adjectives," respectively) in the framework of DM. The examples in (25) contain the former, and those in (26) contain the latter.

(25) a. Yama-ga   taka-i.   b. Yama-ga   taka-katta.

      mountain-Nom high-Pres   mountain-Nom high-Past

      'The mountain is high.'   'The mountain was high.'
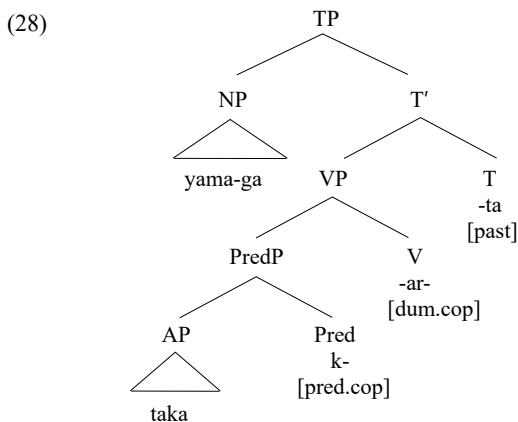
(26) a. Yoru-ga   sizuka-da.   b. Yoru-ga   sizuka-datta.

     night-Nom quiet-Cop.Pres   night-Nom quiet-Cop.Past

    'The night is quiet.'   'The night was quiet.'

In this study, we are focusing on what Nishiyama calls "canonical adjectives" like those found in (25). Therefore, we will not analyze sentences of the type (26) that contain "nominal adjectives."

    Nishiyama argues that adjectival predicates in Japanese contain a predicate phrase (PredP), in the spirit of Bowers (1993). Let us first consider the past tense sentence (25b), whose predicate is morphologically analyzed as in (27) by Nishiyama.

(27) taka-k-at-ta

According to Nishiyama, (27) consists of the following morphemes: the adjective *taka* 'high', the predicate copula *k*, the dummy copula *at* (which is underlyingly /ar/), and the past tense *ta*. (28) is the structure Nishiyama offers for sentence (25b).

(28)

```
                        TP
                      /    \
                   NP        T'
                  /\        /  \
             yama-ga      VP      T
                        /   \     -ta
                    PredP     V   [past]
                    /  \     -ar-
                  AP    Pred [dum.cop]
                 /\      k-
              taka    [pred.cop]
```


Notice that what Nishiyama calls "dummy copula," *-ar-* in (28), is identical to the

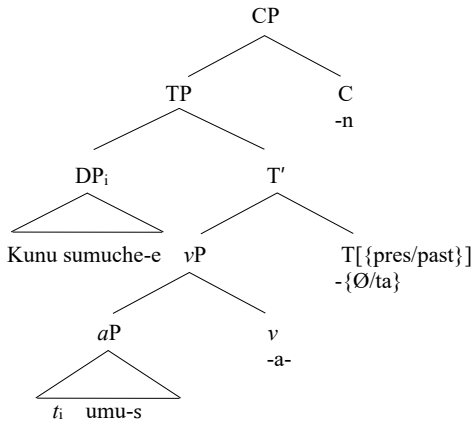Japanese existential verb *ar-*, which appears in sentences like (29).

(29) Koko-ni hon-ga   ar-u.

    here-at book-Nom exist-Pres

    'There's a book here.'

This state of affairs is exactly like Okinawan, where the existential verb *-a-* obligatorily appears after an adjective. For comparison, the Okinawan structure (22) is repeated here as (30).

(30) (=(22))

```
                          CP
                        /    \
                      TP      C
                     /  \     -n
                   DPᵢ    T′
                  /  \   /    \
        Kunu sumuche-e vP   T[{pres/past}]
                      /  \   -{Ø/ta}
                    aP    v
                   / \    -a-
                 tᵢ  umu-s
```

There are some interesting differences that can be observed between the Japanese structure (28) and the Okinawan structure (30), but we will put them aside in this study, and concentrate on finding out what Nishiyama's analysis implies for the analysis we presented in section 2.

    Although in Japanese, we see the presence of the dummy copula *-ar-* (identical to the existential verb) in past tense sentences containing an adjectival predicate, this dummy copula seems to be absent in present tense sentences. Thus, consider example (25a), repeated here as (31), which contains a present tense morpheme.
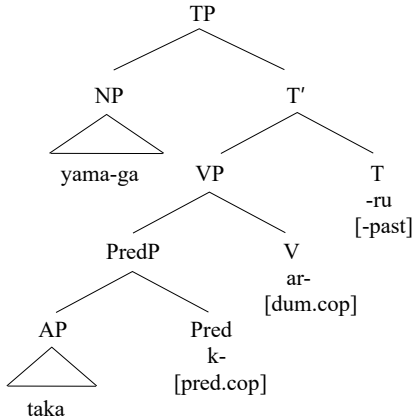
(31) Yama-ga   taka-i.

    mountain-Nom high-Pres

    'The mountain is high.'

Nishiyama offers (32) as the structure of (31).[17]

(32)
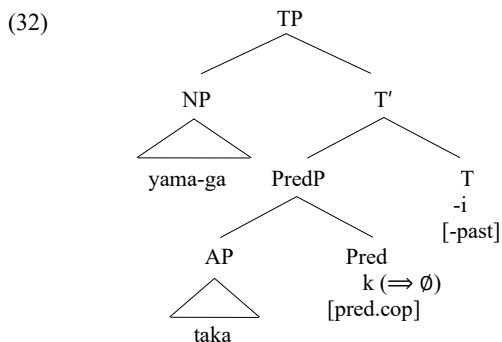
Notice that this structure differs from (28) in that the dummy copula is absent. However, Nishiyama (1999: sect. 4.4) suggests a possibility that present tense adjectival predicates like (31) may also contain a dummy copula, and the optional operation of Fusion yields forms like (31). According to this analysis, (31) is associated with the structure in (33), which is identical to the past tense structure (28) except for the material in T.

(33)

```
                            TP
                 ┌──────────┴──────────┐
                NP                     T′
              ╱    ╲             ┌──────┴──────┐
         yama-ga                VP             T
                          ┌──────┴──────┐     -ru
                       PredP            V    [-past]
                    ┌────┴────┐        ar-
                   AP        Pred   [dum.cop]
                  ╱  ╲        k-
                 taka     [pred.cop]
```

He notes that, in fact, the dummy copula can sometimes appear even with present tense adjectives, as evidenced in (33).[18]

(34) Yama-wa   taka-ku   ar-u   bekida.
     mountain-Top high-pred.cop dum.cop-Pres should
     'The mountain should be high.'

Although the appearance of the dummy copula in affirmative adjectives is limited to particular sentences like (34), their existence lends some support to the analysis given in (33) for sentence (31). Here is how (31) is derived from (33), according to Nishiyama. The optional rule of Fusion lumps the features of the heads Pred, V, and T together, creating a feature bundle in (35a) under a single node.[19]

(35) a. [pred.cop, dum.cop, -past]
     b. [pred.cop, -past] ↔ /i/ / CA __

Given the "phonological insertion rule" in (35b) that Nishiyama proposes, structure (33) outputs /i/ for the node that contains the feature bundle in (35a). As already

mentioned, the acceptability of the exponent [-ku ar-u] is restricted to sentences like (34), and the majority of adjectives show [-i] as the exponent of the present tense morpheme. How to account for this fact is left unexplained in Nishiyama (1999), but it might be that forms like (34) involve some kind of fixed expressions.[20]

In light of Nishiyama's analysis of Japanese adjectival predicates, let us reconsider our analysis of them presented in section 2. There, we posited the Vocabulary Items (4) and (5), repeated here as (36) and (37), respectively.

(36) <u>VIs for the present tense</u>
   a. T[pres] ↔ i / [+adj] ⌢ __
   b. T[pres] ↔ ru

(37) <u>VIs for the past tense</u>
   a. T[past] ↔ katta / [+adj] ⌢ __
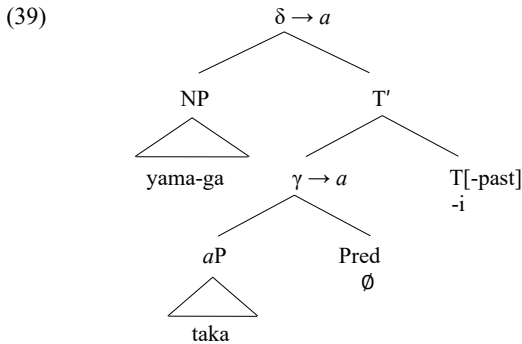   b. T[past] ↔ ta

The VI in (36a) captures the fact that the exponent *i* appears in the node T[pres] when a [+adj] category, including Neg, immediately precedes T[pres]. Otherwise, the exponent *ru* is inserted in T[pres], as in (36b). Note that the structure we assumed in section 3 (e.g. (11)) is similar to Nishiyama's (32), except that PredP is not assumed in our analysis. Suppose that it turns out that the head Pred is always present in Japanese adjectival predicates, as Nishiyama claims. Do we have to revise our VI (36a)? Not really, since there is a way to keep (36a) and account for the facts. Nishiyama assumes that in structure (32), the exponent of Pred, namely *k*, is deleted since it is immediately followed by *i*. However, this is not the only way to obtain the desired result. Instead of assuming the deletion rule, we can assume the following VIs for Pred with the [pred. cop] feature.[21]

(38) a. [pred.cop] ↔ Ø / __ ⌢ T[-past]
   b. [pred.cop] ↔ k

Given (38a), Pred in (32) will have the null exponent. This makes the pruning rule of the type explicated by Embick (2010: 59) applicable, leading to the adjacency of AP and T[-past] in the PF component. Once pruning applies, (36a) can be applied, and the correct exponent for T[-past] is obtained.

Consider next the facts about the c-selectional properties of the politeness marker *desu*. We observed in section 3 that this morpheme c-selects a [+adj] category. The fact that T acts as if it is transparent with regard to the c-selection requirement of *desu* led us to hypothesize that T in Japanese is a weak head in terms of labeling. In order to preserve this analysis, we have to assume that Pred with the [pred.cop] feature is also a weak head.[22] Once this is assumed, we will have structure (39) instead of structure (32).[23]

(39)

```
                    δ → a
              ┌───────┴───────┐
             NP               T′
             /\         ┌──────┴──────┐
          yama-ga     γ → a        T[-past]
                    ┌───┴───┐        -i
                   aP      Pred
                   /\       Ø
                 taka
```
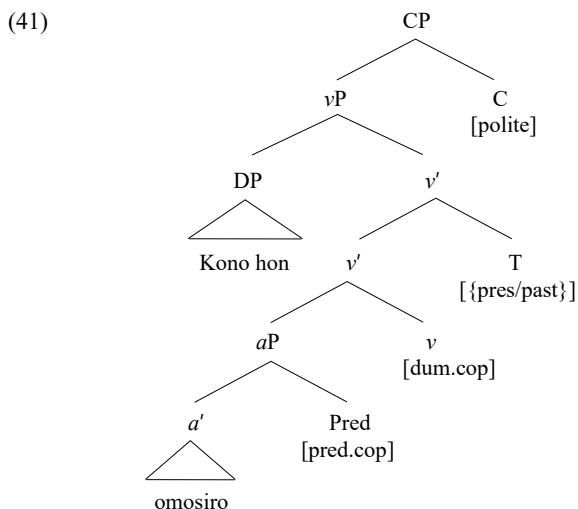
In this way, our analysis presented in section 3 can be maintained for structures of the type (32).

What about the cases where the underlying structure of adjectival predicates is more complex, as in (33)? In this case, the operation Fusion optionally applies to the features in Pred, V, and T, yielding the fused feature bundle in (35a). To this feature bundle, VI in (35b) applies, yielding *i* as the exponent of T[-past].[24] This analysis encounters a difficulty accounting for the distribution of the politeness marker *desu*. We argued in section 3 that *desu* c-selects a [+adj] category. C-selection is standardly

considered to be a syntactic operation that has to be checked when two syntactic objects merge. Suppose that the structure of sentence (6), repeated here as (40), is (41).
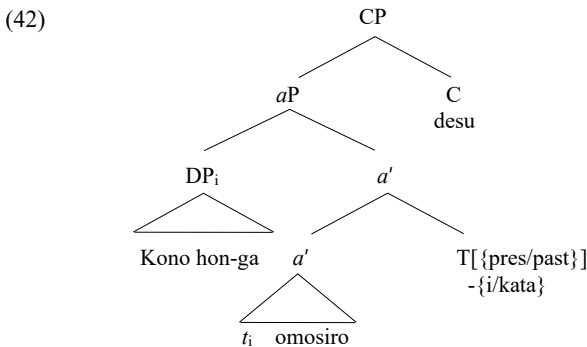
(40) [Kono hon-ga [omosiro]$_{aP}$ -{i/katta}]$_{TP}$ **desu**.

    this book-Nom interesting-{Pres/Past} Polite

    'This book {is/was} interesting. (polite)'

(41)

```
                              CP
                          ／      ＼
                        vP          C
                     ／    ＼      [polite]
                  DP          v′
                 ／＼      ／    ＼
             Kono hon   v′        T
                       ／  ＼   [{pres/past}]
                    aP        v
                  ／  ＼   [dum.cop]
                a′      Pred
               ／＼    [pred.cop]
            omosiro
```

(41) is meant to be a pre-Spell-Out syntactic structure. As such, functional categories do not have their phonological exponents yet. Since we are assuming that T is a weak head in Japanese, {v′, T} is labeled as v. Notice that (41) does not meet the c-selectional requirements of C[polite], which should select a [+adj] category. Thus, if (41) were the structure associated with (40), (40) would be predicted to be ungrammatical, contrary to fact. In the case of the present tense version of (40), there is another structure that can underlie it, namely, (32). We have already seen that (32) can be reanalyzed as (39), assuming that Pred is a weak head. Given (39), the c-selectional facts about *desu* can be accounted for.

In the case of the past tense version of (40), however, there is only one structure that underlies it, namely (41), which is a modified version of the structure that Nishiyama assumes. This structure is reasonable, since the past tense predicate *omosiro-k-at-ta* 'was interesting' actually contains the exponents for Pred, *v*, and T: *k*, *at*, and *ta*, respectively. But then, the fact that example (40) with the past tense is grammatical becomes problematic, because in (41), C[polite] seems to be selecting *v*P.

One way to solve this problem is to assume that there are two structures that can be associated with past tense adjectival predicates, just as there are two structures available for present tense adjectival predicates in Nishiyama's analysis. One of the structures for present tense adjectival predicates would be what we already assumed in section 3. Consider (42), which is a modified tree of (11) in section 3.

(42)

Note that (42) is a structure for both present tense and past tense. As discussed in section 3, (42) is well-formed, since the c-selectional requirement of *desu* is satisfied. Another structure that can be associated with the past tense adjectival predicates is the type exemplified in (41), which is basically what Nishiyama proposed.

A supporting piece of evidence for assuming two possible structures for the past tense adjectival predicates comes from the grammaticality contrast shown in (43).

(43) a. Kono hon-ga   omosiro-katta   (desu).

      this book-Nom interesting-Past Polite

      ʻThis book was interesting.ʼ

   b. Kono hon-ga   omosiro-ku-mo   at-ta   (*desu).

      this book-Nom interesting-Pred-even be-Past Polite

      ʻThis book was even interesting.ʼ

(43a) is grammatical with or without the sentence-final *desu*. In contrast, (43b) is ungrammatical when *desu* is present, but grammatical when *desu* is absent. We can assume that (43a) has the structure given in (42), accounting for its grammaticality with *desu*. (43b), on the other hand, must have a more complex structure like (41), because the exponents of Pred, v, and T are all present. Then, the c-selectional requirement of *desu* cannot be satisfied, since Cʼs sister would be vP, as shown in (41). This accounts for the impossibility for *desu* to appear in (43b). In this way, by assuming that the past tense adjectival predicates can be associated with two kinds of structures exemplified in (41) and (42), we can account for the distribution of the politeness marker *desu*. Other solutions to the problem can be imagined, but I will leave their exploration to future research.

      To summarize this section, I have shown how our analysis of Japanese adjectival predicates and of the distribution of *desu* presented in sections 2 and 3 can be maintained or extended when we take into account some of Nishiyamaʼs (1999) proposals and observations. The basic ingredients of our analysis remain intact, but additional assumptions such as the weakness of Pred, and possibility of two structures that can be associated with past tense adjectival predicates, are shown to be necessary.

7. Conclusion

We have examined tense inflection patterns in Japanese and Okinawan in regard to the category that comes before T. The fact that adjectival predicates and negative predicates

in Japanese share the same tense inflections is captured by VIs that are sensitive to the presence of [+adj], which is shared by adjectives and Neg. We have also examined the c-selectional properties of the politeness marker *desu* in Japanese that seem to be peculiar in that it seems to select the complement of T, although it merges with TP. We have shown that once we assume that T is a weak head in Japanese, this peculiar behavior of *desu* falls into place.

We then examined tense inflection patterns in Okinawan. Prima facie, they resemble the patterns found in Japanese in that adjectival predicates and negative predicates show the same inflection pattern in contrast to affirmative verbal predicates. It turned out, however, this pattern is the result of the fact that adjectival predicates in Okinawan contain the existential verb, and the tense inflection pattern of this verb is identical to that of Neg, in contrast to the pattern found in ordinary verbs. We also showed that Neg in both Japanese and Okinawan must be a strong head.

Finally, we have reconsidered our analysis of Japanese adjectival predicates, taking into account Nishiyama's (1999) analysis of them. We concluded that our analysis can remain intact, if we make some further assumptions.

Notes

1　The term "adjective" is used here to exclude the category of "adjectival noun," following the practice of many researchers.

2　I adopt Embick's (2010) notation, in which " ⌒ " is used as a concatenation operator.

3　The form *desu* also appears in predicate nominal constructions such as (i).

(i) Kare-wa sensei des-u.

　　he-Top teacher be-Pres

　　'He is a teacher.'

However, I believe that *desu* in (i) should be analyzed separately from *desu* in (6)-(8) in the text. The main reason for this distinction is that *desu* in (i) inflects: The past tense version of (i) is (ii):

(ii) Kare-wa sensei des-ita.

   he-Top teacher be-Past

  'He was a teacher.'

On the other hand, *desu* in (6)-(8) does not contain any tense information; tense is expressed by the T that precedes *desu*. Thus, we have evidence that *desu* in (6)-(8) is a pure politeness marker, while *desu* in (1) contains a copula morpheme and a tense morpheme.

[4] In (8a), the morpheme *-ku* that appears between the adjective and Neg is glossed 'ku' because its identity is controversial. Nishiyama (1999) considers it to be a predicate copula, as we will see in section 6.

[5] Some speakers might find this sentence less than perfect. But the sequence [Neg-T-*desu*] is generally accepted, as can be confirmed by Nihongo Kijutsu Bunpoo Kenkyuukai (2009: 263).

[6] Sells (1995) offers an account of this and other related facts in Japanese and Korean by adopting the "lexical view," according to which the inflectional suffixes are all attached in the lexicon. Since we are assuming the framework of DM, in which the "lexicon" does not exist, we will pursue a different approach in this work.

[7] With regard to the other politeness marker *mas-* in Japanese, Miyagawa (2012, 2017) assumes that it originates at C as well.

[8] In addition to this morphological account, one may attribute the ungrammaticality of (16a,b) to the general ban on tenseless matrix declarative clauses.

[9] The exponent of the indicative morpheme *-n* is deleted when T is *-Ø* in (17b) as well as in (18b). This is due to a morphophonological rule that prohibits doubling of /n/. Thus, /uku-ran-Ø-n/ in (17b) is realized as [ukuran], and /kak-an-Ø-n/ in (18b) is realized as [kakan].

[10] Some dialects of Okinawan use *-yu* instead of *-i* in (17a). I restrict my data in this

paper to those of the dialects that use -*i* in sentences like (17a).

[11] In (20), the morpheme -*s* that attaches to *umu*- is taken to be the adjective categorizer, following Yoshimoto (2021). The adjective categorizer is represented by *a* in the glosses.

[12] For ease of exposition, the subject DP in (22) is situated in [Spec, TP]. Strictly speaking, since this DP is a topic, it should probably be situated above TP.

[13] Verbs that require the exponent of T[pres] to be Ø include the copula *ya*- and another existential verb *wu*-. The durative morpheme -*too* also requires the immediately following T[pres] to be Ø. See Miyara (2019: 126).

[14] Whether -*yu* is realized as -*(y)i* or -*(y)u* depends on the final sound of the verb stem: if the stem ends in a vowel, the former is chosen; if it ends in a consonant, the latter. Miyara (2015: 384, 2019: 114) later suggests -*yi* to be the underlying form, rather than -*yu*. What is important for our present purposes is that a single underlying phonological representation can be posited as the exponent of (23b).

[15] The past tense exponent -*a* in (18a) is a phonologically conditioned allomorph of /-ta/.

[16] In this respect, /-yabi/ in Okinawan is similar to another Japanese politeness morpheme /-mas/. See Miyara (2015: 400) for more information on /-yabi/, including its allomorphs.

[17] Nishiyama (1999) uses the feature [-past] for the present tense morpheme (which should be more accurately called the "non-past" morpheme). This feature is equivalent to the [pres] feature used in other places in this paper.

[18] Nishiyama assumes, along with Urushibara (1993), that the vowel *u* in the "predicate copula" -*ku* is an epenthetic vowel.

[19] Nishiyama does not mention what node contains the feature bundle in (35a). If we adopt a familiar view that affixation is produced by the operation of head movement (cf. Embick (2015: 60f)), this node should be T in (33).

[20] It should be mentioned however, that the following kind of adjectival predicates are productively used, as pointed out by Nishiyama (1999: 185).

(i) Yama-ga   taka-ku-mo ar-u.

   mountain-Nom high-ku-even be-Pres

  ʻThe mountain is even high.ʼ

In (i), a focus marker -*mo* ʻevenʼ is attached to -*ku*.

²¹　Although Nishiyama does not discuss this, his /k/-deletion rule (*[ki]) has to be conditioned by some synsem feature in the environment, because the phonetic sequence [ki] is allowed in Japanese. Thus, the appeal to the synsem feature [-past] in the VI in (38) does not mean that the grammar becomes more complicated compared with the grammar that has the /k/-deletion rule.

²²　In accordane with our assumption here, Saito (2020) suggests that *ku* that appears in such words as *yasasi-ku* ʻgentlyʼ is a weak head. This *ku* can also be analyzed as a manifestation of Pred.

²³　In (39), I have changed the label of AP in (32) to *a*P, to be consistent with the analysis presented in section 2.2.

²⁴　As argued for in Halle and Marantz (1993), Fusion must take place prior to Vocabulary Insertion.

References

Bowers, John. 1993. The syntax of predication. *Linguistic Inquiry* 24. 591-656.

Chomsky, Noam. 2013. Problems of projection. *Lingua* 130. 33-49.

Embick, David. 2010. *Localism versus globalism in morphology and phonology*. Cambridge, MA: MIT Press.

Embick, David. 2015. *The morpheme.* Boston/Berlin: De Gruyter Mouton.

Halle, Morris, and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In Kenneth Hale and Samuel Jay Keyser, eds., *The view from building 20: Essays in linguistics in honor of Sylvain Bromberger*, 111-176. Cambridge, Mass.: MIT Press.

Miyagawa, Shigeru. 2012. Agreements that occur mainly in main clauses. In Lobke

Aelbrecht, Liliane Haegeman, and Rachel Nye, eds., *Main clause phenomena:New horizons*, 79-112. Amsterdam: John Benjamins.

Miyagawa, Shigeru. 2017. *Agreement beyond phi.* Linguistic Inquiry Monograph 75. Cambridge, Mass.: MIT Press.

Miyara, Shinsho. 2000. *Uchināguchi kōza—Shuri kotoba no shikumi* [Lectures on Okinawan: a grammar of the Shuri dialect]. Naha, Okinawa: Okinawa Times.

Miyara, Shinsho. 2015. Shuri Okinawan Grammar. In Patrick Heinrich, Shinsho Miyara and Michinori Shimoji, eds., *Handbook of the Ryukyuan Languages*, 379-404. Boston: de Gruyter.

Miyara, Shinsho. 2019. *Uchināguchi—Shikumi to kaisetsu.* [Okinawan: structure and explanation]. Naha, Okinawa: Okinawa Jiji Shuppan.

Miyara, Shinsho and Tomokiyo Arakawa. 1994. Okinawa hontō Yonabaru hōgen ni okeru chūzetsukōboin onso /ɨ/ ni tsuite [On the phoneme /ɨ/ (central high vowel) of the Yonabaru dialect of Okinawa]. *Gengo kenkyū* 104: 1-31.

Nihongo Kijutsu Bunpō Kenkyūkai. (2009) *Gendai nihongo bunpō* [Modern Japanese grammar] 7. Tokyo: Kuroshio-shuppan.

Nishiyama, Kunio. 1999. Adjectives and the copulas in Japanese. *Journal of East Asian Linguistics* 8, 183-222.

Saito, Mamoru. 2016. (A) Case for labeling in languages without ϕ-feature agreement. *The Linguistic Review* 33(1): 129-175.

Saito, Mamoru. 2018. Kase as a weak head. *McGill Working Papers in Linguistics* 25.1 (Special Issue in Honour of Lisa Travis): 382-391.

Saito, Mamoru. 2020. Jakushuyōbu-to gengoruikeiron: nihongo-no bunpōteki tokushitsu-o megutte [Weak heads and linguistic typology: grammatical properties of Japanese]. In: Mamoru Saito et al. (ed.) *Nihongo kenkyū kara seiseibunpōriron-e* [From the study of Japanese to the generative grammatical theory]. Tokyo: Kaitakusha.

Sells, Peter. 1995. Korean and Japanese morphology from a lexical perspective. *Linguistic Inquiry* 26: 277-325.

Urushibara, Saeko. 1993. *Syntactic categories and extended projections in Japanese.* Waltham, MA: Brandeis University dissertation.

Yoshimoto, Yasushi. 2016. Stem allomorphy in Okinawan: Sometimes conditioned by adjacency, sometimes not. In: Ayaka Sugawara, Shintaro Hayashi, and Satoshi Ito (eds.) *Formal approaches to Japanese linguistics* 8 (MIT Working Papers in Linguistics 79), 233-244. Cambridge, Mass.: MIT.

Yoshimoto, Yasushi. 2021. Okinawago-no keiyōshi-no keitaitōgokōzō: bunsankeitairon-no kantenkara. [Morphosyntactic structure of adjectives in Okinawan: A distributed mophology analysis]. *Ryūdai Ōbeibunka Ronsō* [*Ryudai Review of Euro-American Studies*] 65, 25-41.

日本語と沖縄語の時制屈折と範疇選択およびラベリングについて

吉本　靖

　日本語の時制辞は形容詞述語と否定述語が同じパターンを示し、異なるパターンをとる肯定動詞述語と対照的である。沖縄語も日本語と同様の対照性を示す。本稿では、分散形態論の枠組みを用いて両言語におけるこのような時制屈折パターンを分析した。その結果、日本語と沖縄語に見られる述語屈折パターンの表面上の同一性は異なる要因によりもたらされるものであることが明らかになった。

　本稿ではまた、日本語の文末に現れる丁寧辞「です」の分布に関する事実を「です」の持つ範疇選択特性をもとに考察した。丁寧辞「です」は TP を範疇選択するように見えるが、実際は T の補部にある範疇（aP, vP, NegP など）を選択していると考えられる。このことを説明するために斎藤（2018, 2020）の提唱するラベリングのメカニズムを採用し、さらに日本語の時制辞が弱い主要部であることを提案した。これにより、「です」の分布が正しく説明されることを示した。

　最後に、Nishiyama（1999）が提唱する日本語の形容詞述語の分析を考慮に入れ、本稿で提案する形容詞述語や丁寧辞に関する分析を吟味した。Nishiyama は日本語の形容詞述語は主要部 Pred を含むとしているが、その分析を採用した場合でも、いくつかの仮説を採用することにより本稿で提案した分析は維持できることを示した。