

# Notes on Two Morphological Forms of Japanese Adjectives

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## 1. Introduction

Many languages exhibit rigid ordering of adnominal adjectives according to their semantic classes. In English, for example, a size adjective precedes a shape adjective, but not vice versa.

- (1) a. small square table
- b. \*square small table

(Sproat and Shih 1991: 565)

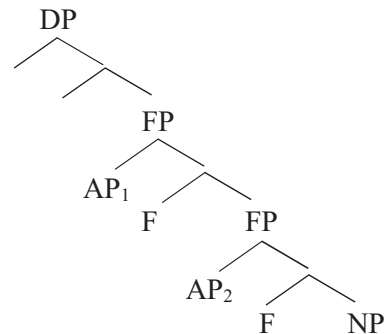
Scott (2002) claims that adnominal adjectives obey the universal hierarchy, as shown in (2).

- (2) *Hierarchy of Attributive Adjectives*  
 subjective comment > ?evidential > size >  
 length > height > speed > ?depth > width  
 > weight > temperature > ?wetness > age >  
 shape > color > nationality/origin > material

(Scott 2002: 114)

The hierarchy is encoded in the extended projection of NP, where functional heads host adnominal adjectives in their specifiers (Cinque 1994). A functional head corresponds to each semantic class of adjectives.

(3)



In Japanese, in contrast, attributive adjectives exhibit free ordering. The size adjective *tiisa-na* 'small' can either precede or follow the shape adjective *sikaku(-k)-i* 'square,' as in (4).<sup>1</sup>

- (4) a. *tiisa-na sikaku(-k)-i teeburu*  
 small-NA square(-K)-I table
- b. *sikaku(-k)-i tiisa-na teeburu*  
 square(-K)-I small-NA table  
 'small square table'

(Sproat and Shih 1991: 582)

Sproat and Shih (1991) claim that Japanese uses indirect modification for adnominal adjectives, given that indirect modifiers, such as (reduced) relative

<sup>1</sup> I suppose that the morpheme *-k-* of the adjective *sikaku-k-i* 'square' is the overt realization of the functional head *a* to form *a(n)* (gradable) adjective in the sense of Marantz (2001). I also suppose that the morpheme *-k-* is phonologically deleted by the phonological rule that prohibits the sequence of the consonant /k/ and the vowel /i/ in modern Japanese (cf. Itô 1989, Nishiyama 1999).

clauses, do not have to obey the adjectival hierarchy in (2). According to Cinque (1994, 2010), the merge position of indirect modifiers is higher than the position of direct modification adjectives.

In this paper, I demonstrate several cases where adnominal adjectives in Japanese do not function as indirect modifiers, based on the observations on the syntax and semantics of the *-i* and *-na* forms derived from the same adjectival stem. The organization of this paper is as follows. Section 2 briefly reviews Sasaki's (2002) observations on the syntactic and semantic differences between the *-i* and *-na* forms. Section 3 demonstrates three cases where adnominal adjectives in Japanese do not indirectly modify the noun: (i) the *-i* form of size adjectives functions as classifying modifiers, (ii) the *-na* form in idiomatic expressions does not modify the head noun in the same way as other attributive adjectives, and (iii) the *-na* form directly modifies the noun in some cases. The last section is a summary.

## 2. Semantic Differences between the *-I* and *-Na* Forms Derived from the Same Adjectival Stem

Japanese adjectives are classified into two morphological types. One is so-called canonical adjectives, whose stem the morpheme *-i* attaches to in the prenominal position. The other is "nominal" adjectives, whose stem the morpheme *-na* attaches to. For most adjectival stems, it is specified in the lexicon whether the morpheme *-i* or *-na* attaches to them.

- (5) a. taka(-k)-i      biru  
       high(-K)-I      building  
 b.\*taka-na      biru  
       high-NA      building  
       'high building'
- (6) a. sizuka-na heya  
       quiet-NA room  
 b.\*sizuka(-k)-i      heya  
       quiet(-K)-I      room

'quiet room'

There are several adjectival stems that allow both morphemes *-i* and *-na* to attach to them.

- (7) a. ooki(-k)-i/-na      te  
       big(-K)-I/-NA      hand  
       'big hand'
- b. tiisa(-k)-i/-na      ie  
       little(-K)-I/-NA      house  
       'little house'
- c. okasi(-k)-i/-na      hanasi  
       funny(-K)-I/-NA      story  
       'funny story'
- d. atataka(-k)-i/-na      heya  
       warm(-K)-I/-NA      room  
       'warm room'

Generally, either the *-i* or *-na* form can be used in the same context. Several syntactic and semantic differences, however, have been observed between the two morphological forms (Shibata et al. 1982, Tobita and Asada 1991, Saegusa 1996, Sasaki 2002 and among others). This section briefly reviews Sasaki's (2002) observations on the differences between the *-i* and *-na* forms derived from the same adjectival stem.

First, Sasaki mentions that the *-i* form of the size adjectives *ooki(-k)-* 'big, large' and *tiisa(-k)-* 'little, small' denotes not only being big or being small in size but also being older or being younger. The *-na* form of these adjectives, on the other hand, only has the former meaning.

- (8) a. watasi-no ooki(-k)-i      ani  
       I-Gen      big(-K)-I      elder.brother  
       'my elder brother who is physically big' or  
       'my older elder brother'
- b. watasi-no ooki-na      ani  
       I-Gen      big-NA      elder.brother  
       'my older brother who is physically big'

- (9) a. *watasi-no tiisa(-k)-i imotoo*  
 I-Gen small(-K)-I younger.sister  
 'my little sister who is physically small' or  
 'my younger little sister'
- b. *watasi-no tiisa-na imotoo*  
 I-Gen small-NA little.sister  
 'my little sister who is physically small' or  
 'my younger little sister'

Second, Sasaki shows that the *-na* form of the size adjective *ooki-na* 'big, large' can be used in idiomatic expressions, but the *-i* form cannot, as in (10).

- (10) a. *ooki-na/??ooki(-k)-i kao-o su-ru*  
 big-NA/??big(-K)-I face-Acc do-Nonpast  
 'swagger around'
- b. *ooki-na/??ooki(-k)-i kuti-o*  
 big-NA/??big(-K)-I mouth-Acc  
 kik-u  
 say-Nonpast  
 'boast'
- c. *ooki-na/??ooki(-k)-i osewa*  
 big-NA/??big(-K)-I care  
 'none of your business'

Third, Sasaki observes a slight difference in meaning between the *-i* and *-na* forms derived from the adjectival stem *okasi(-k)-* 'funny, ridiculous, strange.' The *-i* form *okasi(-k)-i* tends to have the positive meaning 'funny, amusing,' while the *-na* form *okasi-na* tends to have the negative meaning 'odd, strange, weird.'

- (11) a. *Kare-ni okasi(-k)-i kao-o*  
 he-by funny(-K)-I face-Acc  
 s-are-ta.  
 do-Pass-Past  
 'He made a funny face at me.'

- b. *Kare-ni okasi-na kao-o*  
 he-by odd-NA face-Acc  
 s-are-ta.  
 do-Pass-Past  
 'He seemed to be suspicious of me.'

To sum up, Sasaki's observations on the syntactic and semantic differences between the *-i* and *-na* forms derived from the same adjectival stem are given in (12).

- (12) a. The *-i* form of the size adjectives *ooki(-k)-i* 'big, large' and *tiisa(-k)-i* 'small, little' has the meanings 'being older' and 'being younger,' but the *-na* form does not.
- b. Only the *-na* form of the size adjective *ooki-na* 'big, large' can be used in idiomatic expressions, but the *-i* form *ooki(-k)-i* cannot.
- c. There is a slight difference in meaning between the *-na* and *-i* forms derived from the adjectival stem *okasi(-k)-* 'funny, ridiculous, strange': the *-i* form *okasi(-k)-i* tends to have the positive meaning 'funny, amusing,' while the *-na* form *okasi-na* tends to have the negative meaning 'odd, strange, weird.'

### 3. The Modification Source of Adnominal Adjectives in Japanese

The previous section shows several syntactic and semantic differences between the *-i* and *-na* forms derived from the same adjectival stem. Based on these observations, this section demonstrates that adnominal adjectives in Japanese do not function as indirect modifiers in some cases, contrary to Sproat and Shih's (1991) claim.

#### 3.1 The -I Form as a Classifying Modifier

Adnominal adjectives exhibit free ordering in Japanese, as repeated in (13).

- (13) a. *tiisa-na*      *sikaku(-k)-i*      *teeburu*  
       small-NA      square(-K)-I      table  
 b. *sikaku(-k)-i*      *tiisa-na*      *teeburu*  
       square(-K)-I      small-NA      table  
       'small square table'  
       (Sproat and Shih 1991: 582)

Watanabe (2012) observes, however, that certain semantic classes of adnominal modifiers in Japanese must be adjacent to the modified noun: the modifiers of material and nationality/origin must appear in the position adjacent to the modified noun, as shown in (14) and (15).<sup>2</sup>

- (14) a. *tiisa-na*      *ki-no*      *hasi*<sup>3</sup>  
       small-NA      wooden-NO      bridge  
       'small wooden bridge'  
 b. *ki-no*      *tiisa-na*      *hasi*  
       wood-NO      small-NA      bridge  
 (15) a. *tiisa-na*      *tyuugoku-no*      *kabin*  
       small-NA      China-NO      vase  
       'small Chinese vase'  
 b. *tyuugoku-no*      *tiisa-na*      *kabin*  
       China-NO      small-NA      vase  
       (Watanabe 2012: 507)

Shimamura (2014) explains this fact by claiming that the modifiers of material and nationality/origin are not adjectives but are classifying modifiers, which must appear closer to the modified noun than other

adnominal modifiers. She shows that when adjectives function as classifying modifiers, they have the following syntactic and semantic properties, as shown in (16).

- (16) a. A classifying modifier cannot be gradable.  
 b. A classifying modifier must be adjacent to the head noun: another modifier cannot intervene between the classifying modifier and the head noun.

The *i*-form of the size adjectives *ooki(-k)-i* 'big' and *tiisa(-k)-i* 'little' exhibits the properties of classifying modifiers when they have the interpretations 'being older' and 'being younger.' These adjectives are not gradable, because they cannot be modified by degree adverbs. As in (17), the adjective *ooki(-k)-i* can only be modified by the degree adverb *totemo* 'very' when it denotes being physically big.

- (17) *totemo*      *ooki(k)-i*      *ani*  
       very      big(-K)-I      elder.brother  
       'elder brother who is very big in size' but not  
       'much older elder brother'

Lexical integrity effects can also be found in the case where the *-i* form of size adjectives functions as a classifying modifier. As in (18), other modifiers cannot intervene between the *-i* form of the size

<sup>2</sup> The modifiers of material and nationality/origin are not morphologically adjectives in Japanese. Instead, nouns are used as modifiers by attaching the morpheme *-no* to the nouns. In this paper, I leave it open whether the morpheme *-no* is a genitive marker or linking element.

<sup>3</sup> In (14) and (15), the *-na* form of the adjective *tiisa(-k)-* 'little' is used, but the same result can be obtained with the *-i* form *tiisa(-k)-i*, as given in (i).

- (i) a. *tiisa(-k)-i*      *ki-no*      *hasi*  
       small(-K)-I      wood-NO      bridge  
       'small wooden bridge'  
 b. *ki-no*      *tiisa(-k)-i*      *hasi*  
       wood-NO      small(-K)-I      bridge

adjective *ooki(-k)-i* 'big' and the modified noun when the adjective has the interpretation 'being older.'

- (18) a. *kogara-na*                      *ooki(-k)-i*  
 physically.small-NA    big(-K)-I  
 ani  
 elder.brother  
 'older elder brother who is physically small'  
 b.??*ooki(-k)-i*    *kogara-na*  
 big(-K)-I    physically.small-NA  
 ani  
 elder.brother

A similar observation can be found when both the *-i* and *-na* forms of size adjectives modify a noun. The *-i* form of size adjectives must appear closer to the modified noun than the *-na* form derived from the same adjectival stem when the *-i* form denotes being older or being younger. The *-na* form of size adjectives, in contrast, does not have the meanings 'being older' or 'being younger,' and it does not function as a classifying modifier.

- (19) a. *ooki-na*    *ooki(-k)-i*    ani  
 big-NA    older(-K)-I    elder.brother  
 'older elder brother who is physically big'  
 b.??*ooki(-k)-i*    *ooki-na*    ani  
 older(-K)-I    big-NA    elder.brother

These facts show that the *-i* form of size adjectives functions as a classifying modifier and does not indirectly modify the head noun when it has a specific interpretation.

### 3.2 The -Na Form as a Modifier of the Nominal Root

We have seen that only the *-na* form of the adjective *ooki(-k)-* 'big, large' is used in idiomatic expressions. The *-na* form in idiomatic expressions also exhibits several different properties from other

adnominal adjectives in Japanese. First, the *-na* form in idiomatic expressions cannot be modified by the degree modifier *totemo* 'very,' as in (20).

- (20) a.??*totemo* *ooki-na*    *kao-o*    *su-ru*  
 very    big-NA    face-Acc    do-Nonpast  
 intended: 'swagger around a lot'  
 b.??*totemo* *ooki-na*    *kuti-o*    *kik-u*  
 very    big-NA    mouth-Acc    say-Nonpast  
 intended: 'boast a lot'  
 c.??*totemo* *ooki-na*    *osewa*  
 very    big-NA    care  
 intended: 'none of your business at all'

Second, the constituent formed by the adjective *ooki-na* and the head noun exhibits lexical integrity: other modifiers cannot intervene between the adjective *ooki-na* and the head noun.

- (21) a.\**ooki-na*    *erasoo-na*    *kao-o*    *su-ru*  
 big-NA    arrogant-NA    face-Acc    do-Nonpast  
 b.\**ooki-na*    *siturei-na*    *kuti-o*  
 big-NA    rude-NA    mouth-Acc  
 kik-u  
 say-Nonpast  
 c.\**ooki-na*    *yokei-na*    *osewa*  
 big-NA    unnecessary-NA    care

Although the *-na* form in idiomatic expressions shows similar syntactic behaviors to classifying modifiers, it does not function semantically as a classifying modifier; it does not specify the subclass of the entity denoted by the head noun. However, the above observations suggest that the *-na* form in idiomatic expressions does not modify the head noun in the same way as other adnominal adjectives.

### 3.3 The -Na Form as a Direct Modifier

Cinque (2010) mentions that (reduced) relative clauses use an indirect modification source in the sense of Sproat and Shih (1991). Given that indirect

modifiers correspond to (reduced) relative clauses, indirect modification adjectives behave identically or similarly to predicative adjectives. On the assumption that adnominal adjectives in Japanese are indirect modifiers, it is predicted that they can be used in the predicative position.

Consider the adjectival stem *atataka(-k)-* 'warm,' for example. As in (22), both the *-i* and *-na* forms can be used in the predicative position. Notice that the morpheme *-d(a)* is used as the allomorph of *-na* in the predicative position, while the morpheme *-i* can be used both in the prenominal position and in the predicative position.

- (22) a. *atataka(-k)-i/-na* *heya*  
 warm(-K)-I/-NA room  
 'warm room'
- b. *Heya-ga atataka(-k)-i-∅/*  
 room-Nom warm(-K)-I-Nonpast/  
*atataka-da.*  
 warm-DA.Nonpast  
 'The room is warm.'

However, the same observation does not hold true for the adjectival stem *okasi(-k)-* 'funny, ridiculous, strange.' The *-na* form appears in the prenominal position, but not in the predicative position. Recall that there is a semantic difference between the *-i* and *-na* forms derived from the adjectival stem *okasi(-k)-*: the *-i* form tends to have the positive meaning 'funny, amusing,' while the *-na* form tends to have the negative meaning 'odd, strange, weird.' The morpheme *-da*, the allomorph of the morpheme *-na*, cannot attach to the adjectival stem *okasi-* in the predicative position, as in (24b). Only the *-i* form *okasi(-k)-i* can be used predicatively, and it does not have the same meaning as the *-na* form *okasi-na*.

- (23) a. *kare-no okasi(-k)-i kao*  
 he-Gen funny(-K)-I face  
 'funny face'
- b. *Kare-no kao-ga okasi(-k)-i-∅.*  
 he-Gen face-Nom funny(-K)-I-Nonpast  
 'His face is funny.'
- (24) a. *kare-no okasi-na kao*  
 he-Gen odd-NA face  
 'suspicious expression on his face'
- b. *\*Kare-no kao-ga okasi(-k)-i-∅/*  
 he-Gen face-Nom odd(-K)-I-Nonpast/  
 \**okasi-da.*  
 funny-DA.Nonpast  
 'His face is odd.' or 'His face is funny.'  
 but not 'He has a suspicious expression on his face.'

That is, the *-na* form *okasi-na* 'odd, strange, weird' does not have the predicative use. This observation suggests that the *-na* form does not have the same structure for (reduced) relative clauses, i.e., it does not have the indirect modification source.

#### 4. Summary

This paper demonstrates three cases where adnominal adjectives do not function as indirect modifiers in Japanese, based on the observations on the two morphological forms of adjectives derived from the same adjectival stem. First, the *-i* form of size adjectives is a classifying modifier when it denotes being older or being younger. Second, the *-na* form of the size adjective *ooki-na* 'big, large' in idiomatic expressions does not modify the head noun in the same way as other adnominal modifiers. Third, the *-na* form derived from the adjective *okasi-na* 'odd, strange, weird' directly modifies the head noun.

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