

Original Paper

Japanese Adjective Conjugation Patterns and Sources of Difficulty in Foreign Language Learning

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URL: <http://dx.doi.org/10.22158/sll.v4n3p83>**Abstract**

This paper is a study of the complexity of Japanese adjective conjugations in relation to sources of foreign language learning difficulty. It focuses on two types of adjectives: i-adjectives and na-adjectives and their conjugation patterns, including their respective morphological requirements for particular grammatical functions. This study regards knowledge of Japanese adjective conjugations as one of the levels of abstract lexical structure: morphological realization patterns. To explore sources of learner errors in producing Japanese adjective conjugations, the speech performance data are from two groups of adult speakers of American English learning Japanese as a foreign language. This study makes two claims: Any successful acquisition of a foreign language must involve the complete acquisition of not only foreign language lexical items but also its morphological realization patterns, and any successful foreign language learner must be able to use language-specific morphological realization patterns as surface devices in speech production. This study offers some pedagogical suggestions for successful acquisition of Japanese adjective conjugation patterns.

Keywords

i-adjective, na-adjective, conjugation, abstract, morphological, inflectional, function, learner error

1. Introduction

This paper attempts to explore potential sources of learning difficulty caused by the complexity of Japanese adjective conjugations in terms of their inflectional requirements, morphological realization patterns and communicative functions ([https://en.wikipedia.org/wiki/Adjectiveal_noun_\(Japanese\)](https://en.wikipedia.org/wiki/Adjectiveal_noun_(Japanese))). It describes the idiomaticity of Japanese adjective conjugation systems by focusing on two types of adjectives: *i*-adjectives and *na*-adjectives (https://en.wikipedia.org/wiki/Japanese_equivalents_of_adjectives) and relates their respective

inflectional features of conjugation and relates them to sources of learning difficulty and some frequently occurring foreign language learner errors created by from some college students speaking American English as their native language and learning Japanese as a foreign language in the classroom settings. The learner error data for the study were collected two grammatical judgement tests, one for testing the grammaticality of the use of Japanese adjective conjugations for tense forms by 21 students who had studied the language for about 100 hours, and the other for testing the grammaticality of the use of Japanese adjective conjugations for modification by 24 students who had studied the language for about 150 hours.

Based on the analysis of the learner error data, some potential sources of learner errors are identified in terms of cross-linguistic differences in the morphosyntactic requirements for realizing the same abstract grammatical concepts. In addition, the nature of learner errors is explained in terms of their constrains on the learning process. This study adopts the Bilingual Lemma Activation (BLA) model of bilingual speech and foreign language acquisition (Wei, 2002, 2015, 2020), which claims that the bilingual mental lexicon contains language-specific (idiomatic) lemmas (i.e. abstract linguistic entries or pieces of information) about lexemes, and such language-specific lemmas are in contact in foreign language learning. Thus, this study analyzes typical instances of learner errors in producing the Japanese adjective conjugation forms as driven by these two types of adjectives and explains such learner errors in terms of the nature and activity of the bilingual mental lexicon during Interlanguage (IL) development. This study proposes that, from a pedagogical perspective, Japanese adjective conjugations should be taught not only as abstract knowledge of Japanese adjective conjugations but also be taught “meaningfully” by relating the language-specific morphosyntactic features (i.e., language knowledge) to particular communicative functions (i.e., language use).

2. Japanese Adjective Conjugations and their Morphosyntactic Features

Like adjectives in other languages, Japanese adjectives carry their own semantic content and play a descriptive or modifying function. Unlike adjectives in most languages, Japanese adjectives are categorized into two types: *i*-adjectives and *na*-adjectives, as introduced in most Japanese language textbooks (Banno, Ikeda, Ohno, Shinagawa, & Tokashiki, 2011; Tohsaku, 1995; Makino, Hatasa, & Hatasa, 1998). In addition, Japanese adjectives function like verbs in terms of their morphology and syntax. Some scholars regard them as belonging to a verb category (Okutsu, 1980; Akasak, 1982). Each type of these adjectives has its own morphosyntactic features and, accordingly, their particular conjugational requirements and constraints (Tsuji-mura, 2007). Furthermore, different from adjectives in many languages, Japanese adjectives are conjugated (similar to “inflected”) for tense/aspect, speech style, and other abstract concepts. What makes Japanese adjective conjugations is that these two types of adjectives are constrained by their respective conjugational systems. Figure 1 and Figure 2 illustrate the conjugational differences between these two types of adjectives.

Adjectives like *samui* “cold” belong to *i*-adjectives, and adjectives like *shizuka* “quiet” belong to *na*-adjectives. One complication is that each adjective can be conjugated for about 10 morphological words (i.e., conjugated adjective forms) with their respective grammatical concepts and speech styles, such as tense marking (e.g., present or past), affirmative or negative sentence, speech style variations (e.g., short form, long form, polite form, impolite form, formal or informal speech, or nominalized adjective form). Another complication is that these two types of adjectives have very different conjugational systems (Kageyama, 1988; Makino & Tsutsui, 1989). Figure 1 and Figure 2 illustrate such complications.

This study claims that it is such complex morphosyntactic properties of adjectives (i.e., their forms and functions driven by particular conjugations) and different conjugational systems which may cause learning difficulties and learner errors.

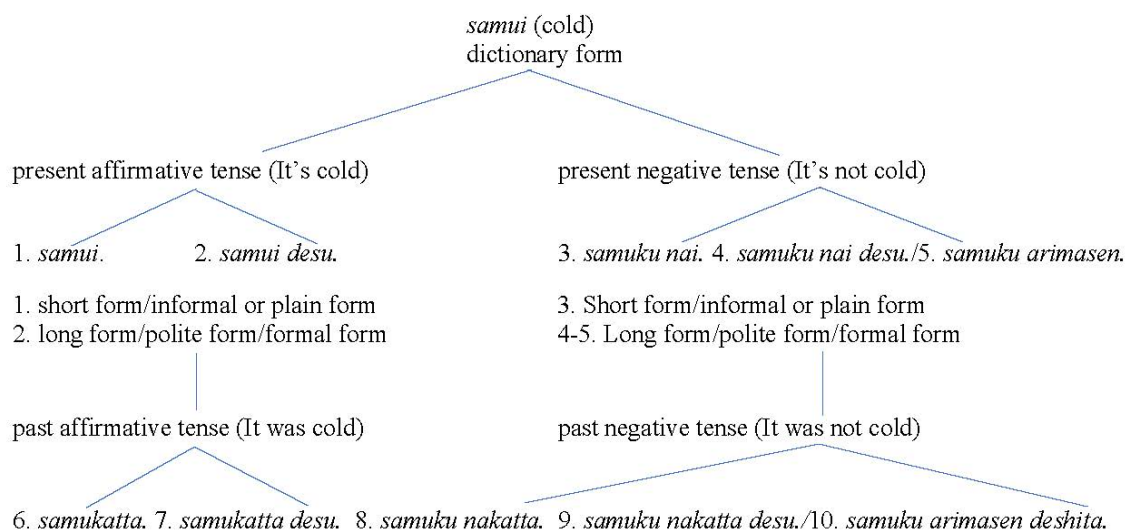


Figure 1. *i*-adjective Conjugations

- | | |
|--------------------------------------|---|
| 6. short form/informal or plain form | 8. Short form/informal or plain form |
| 7. long form/polite form/formal form | 9-10. Long form/polite form/formal form |

Figure 1 illustrates the adjective conjugations of *samui* (cold) for 10 different forms and their functions: *samui*, *samui desu*, *samuku nai*, *samuku nai desu*, *samuku arimasen*, *samukatta*, *samukatta desu*, *samuku nakatta*, *samuku nakatta desu*, and *samuku arimasen deshita*. *Samui* is one of the *i*-adjectives and is also considered as one of the adjectival verbs (Wikipedia, Japanese equivalents of adjectives, 2019). It is categorized as an *i*-adjective because of its word final vowel *i*. Since the basic word order of Japanese is Subject Object Verb (SOV), verbs or adjectival verbs appear in the sentence final position. Japanese verbs and adjectival verbs have their various conjugations for their particular grammatical

functions or speech styles. For the negative form of *i*- adjectives, *-i* is conjugated to *-ku* and then the negative *nai* is added to the end of the word: *samuku nai*. For the past tense, *i* is conjugated to *-katta*: *samukatta*. However, for the past tense and negative, a double conjugation must come into play: *i* is conjugated to *ku* and *nai* is conjugated to *nakatta*: *samuku nakatta*. Furthermore, there is irregular adjectives ending in *ii* (good) require a special conjugation rule (e.g., (Present): *ii desu*, *yoku nai*, *yoku nai desu*, *yoku arimasen*; (Past): *yokatta*, *yoku nakatta*, *yoku nakatta desu*, *yoku arimasen deshita*). Japanese adjectives are also conjugated for different speech styles such as polite vs. impolite, formal vs. informal. For example, in sentences 9 and 10: *desu* or other polite expressions like *-arimasen deshita*, including the conjugation for tense marking, are added as endings to the adjective.

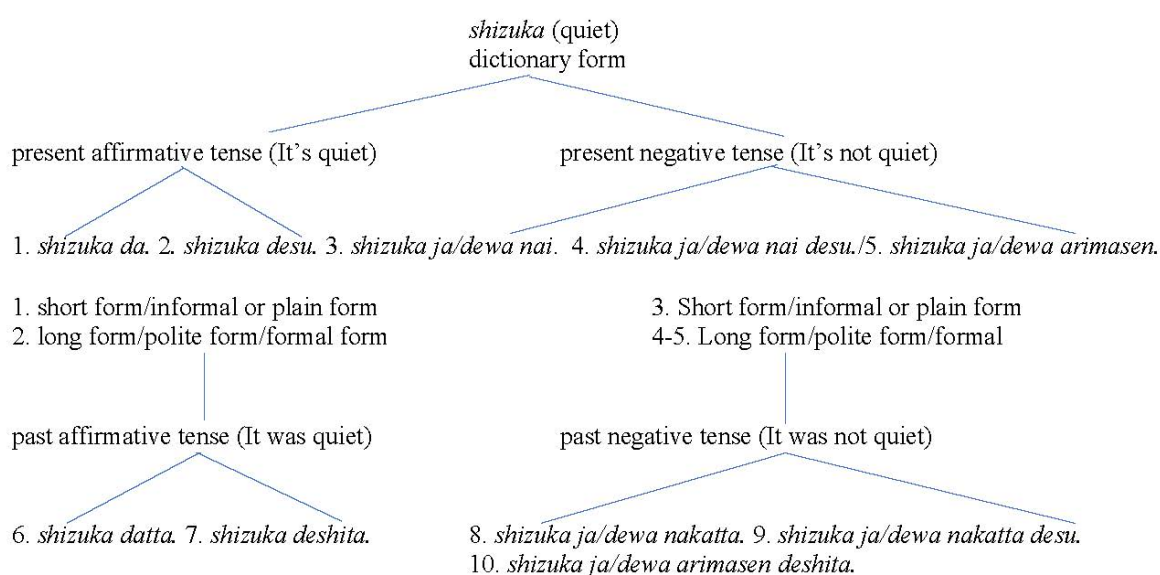


Figure 2. *na*-adjective Conjugations

Figure 2 illustrates that the adjective conjugations of *shizuka* (quiet) for 10 different forms and their functions: *shizuka*, *shizuka desu* (it is quite), *shizuka ja/dewa nai*, *shizuka ja/dewa nai desu*, *shizuka ja/dewa arimasen* (it is not quite), *shizuka datta*, *shizuka deshita* (it was quite), *shizuka ja/dewa nakatta*, *shizuka ja/dewa nakatta desu*, *shizuka ja/dewa arimasen deshita* (it was not quite). The *na*-adjective conjugation rules are the same as those of *desu* (to be), which is a copula verb. For example, *gakusei* (student) can appear in the same position as a *na*-adjective: *gakusei desu*, (I am a student), *gakusei ja nai*, *gakusei ja/dewa nai desu*, *gakusei ja/dewa arimasen* (I am not a student), *gakusei datta*, *gakusei deshita* (I was a student), *gakusei ja nakatta*, *gakusei janakatta desu*, *gakusei ja arimasen deshita* (I was not a student). This indicates that “the *na*-adjective + *desu*” and “the noun + *desu*” share the same morphosyntactic structure for their various forms and functions (cf. Tsujimura, 2007).

It should be noted that *na*-adjectives are also called “adjectival noun” which modify nouns, the *-na* is added to build the modification relation. That is why they are called “*na*-adjectives” because they end in *na* in order for them to modify nouns. For the same reason, *i*-adjectives end in *i*. Both types of adjectives modify nouns: *shizuka-na hito* (a quite person), *yasui hon* (a cheap book). Figure 1 and Figure 2 illustrate the different conjugation patterns of these two types of adjectives.

3. Learner Errors and their Categorizations

The typical examples of learner errors for the study were collected from two Japanese adjective conjugation exercises. Table 1 contains the learner errors in producing the tense forms by 21 students who have studied the language for about 100 hours (elementary level).

Table 1. Adjective Conjugation Errors in Tense/Negative/Polite Forms

Expected Adjective Conjugations	Conjugation Errors–1	Conjugation Errors–2
1. アトランタの夏は暑 <u>かった</u> です。 <i>Atoranta no natsu wa atsukatta desu.</i> It was hot in summer in Atlanta.	暑いでした <i>Atsui deshita</i> N8 (38%)	暑かったです <i>Atsui katta desu</i> N4 (19%)
2. 今日は天気がよ <u>かった</u> です。 <i>Kyō wa tenki ga yokatta desu.</i> The weather was good today.	よいでした <i>Yoi deshita</i> N8 (38%)	いかったです <i>i katta desu</i> N4 (19%)
3. あの人は有 <u>名</u> でした。 <i>Ano hito wa yūmei deshita.</i> That person was famous.	ゆうめいなでした <i>Yūmei-na deshita</i> N6 (29%)	ゆうめかったです <i>Yūme katta desu</i> N8 (38%)
4. 沖縄の海はととも <u>きれ</u> いでした。 <i>Okinawa no umi wa totemo kirei deshita.</i> The sea was beautiful in Okinawa.	きれいなでした <i>Kirei-na deshita</i> N5 (24%)	きれかったです <i>Kirekatta desu</i> N2 (10%)
5. 数学のクラスはあまり好 <u>き</u> じゃ <u>な</u> かった <u>で</u> す。 <i>Sūgaku no kurasu wa amari suki ja nakatta desu.</i> I did not like my math class so much.	好きだったじゃないです <i>Suki datta ja nai desu</i> N7 (33%)	好きじゃなかった <i>Suki ja nai deshita</i> N8 (38%)
6. あのホテルは <u>きれ</u> いじゃ <u>な</u> かった <u>で</u> す。 <i>Ano hoteru wa kirei ja nakatta desu.</i> That hotel was not beautiful.	きれいじゃなかった <i>Kirei ja nai deshita</i> N7 (33%)	きれくなかった <i>Kire-ku nakatta desu</i> N5 (24%)
7.あの映画は面白 <u>く</u> な <u>か</u> った <u>で</u> す。 <i>Ano eiga wa omoshiroku nakatta desu.</i> That movie was not interesting.	面白くなかった <i>Omoshiroi-ku nakatta desu</i> N8 (38%)	面白じゃなかった <i>Omoshiroi ja nakatta desu</i> N4 (19%)
8.日本語のテストはあまり難 <u>し</u> く <u>な</u> った <u>で</u> す。 <i>Nihongo no tesuto wa amari muzukashiku nakatta desu.</i>	難しかったじゃないです <i>Muzukashi katta ja nai desu</i>	難しいじゃなかった <i>Muzukashii ja nai deshita</i>

The Japanese test was not so difficulty.	N5 (24%)	N8 (38%)
9.昨日のクラスは静かじゃなかったです。	静かじゃなかったです	静かじゃなかったです
<i>Kinō no kurasu wa shizuka ja nakatta desu.</i>	<i>Shizuka-na ja nakatta desu</i>	<i>Shizuka-ku nakatta desu</i>
The class was not quiet yesterday.	N5 (24%)	N5 (24%)
10.あの人はあまり親切じゃなかったです。	親切じゃなかったです	親切じゃなかったです
<i>Ano hito wa amari shinsetsu ja nakatta desu.</i>	<i>Shinsetsu-ku nakatta desu</i>	<i>Shinsetsu-na ja nakatta desu</i>
That person was not very kind.	N6 (29%)	N8 (38%)
11.このアルバイトは大変じゃなかったです。	大変だったじゃないです	大変じゃありませんでした
<i>Kono arubaito wa taihen ja nakatta desu.</i>	<i>Taihen datta ja nai desu</i>	<i>Taihen ja nai deshita</i>
This part-time job was not tough.	N6 (29%)	N4 (19%)
12. 私の成績はあまりよくなかったです。	よかつたじゃないです	よくありませんでした
<i>Watashi no seiseki wa amari yoku nakatta desu.</i>	<i>Yokatta ja nai desu</i>	<i>Yoku nai deshita</i>
My grades were not so good.	N8 (38%)	N2 (10%)

The conjugation errors listed in Table 1 can be described in terms of their types.

Type 1 conjugation errors: incorrect copular verb forms of *desu/deshita*

The conjugation errors in 1-4: *atsu-i deshita*, *yoi deshita*, *yūmei-na deshita*, and *kirei-na deshita* show the absence of the conjugations as required for the adjective + was + copular verb's past tense *-deshita* for the polite style. The *i*-adjective dictionary form in *atsui* (hot) + *deshita* (was) and *yoi* (good) + *deshita* (was) is not conjugated for the past tense or the polite style. It should be conjugated as *-i→katta* for the past tense and + *desu* for its polite style.

Since *ii* is an irregular *i*-adjective and non-conjugation word, *yoi* is required to replace *ii*, but when it occurs with any conjugation, it should be *yo + katta* (past) *desu* (polite). The usage of the copular verb – polite form *desu* is normally attached to a noun, *na*-adjective (adjectival noun) or *i*-adjective past tense *-katta*. Learners also made the same errors in the past negative sentences:

(5-2) *Suki ja nai deshita* (... did not like)

(6-1) *Kirei ja nai deshita* (... was not beautiful)

(11-2) *Taihen ja nai deshita* (... was not tough)

(12-2) *Yoku nai deshita* (... was good)

It seems that some learners are confused by the double conjugations for the tense and style(s) (polite or impolite). They use the copular verb's past tense *deshita* (polite) and attach it to all present plain negative forms of adjectives.

The conjugations in the following sentences illustrate the complexity that learners need to be aware of:

(a) Affirmative sentence (noun + *desu/deshita* for politeness)

Watashi wa gakusei desu. (I am a student.)

Watashi wa gakusei deshita. (I was a student.)

(b) Negative sentence (noun + ja nai desu/ja nakatta for politeness)

Watashi wa gakusei ja nai desu. (I am not a student.)

Watashi wa gakusei ja nakatta desu. (I was not a student.)

(c) Affirmative sentence (na-adjective + desu/deshita for politeness)

Koko wa totemo shizuka desu. (Here is very quiet.)

Koko wa totemo shizuka deshita. (Here was very quiet.)

(d) Negative sentence (na-adjective + ja nai desu/ja nakatta desu for politeness)

Koko wa amari shizuka ja nai desu. (Here is not very quiet.)

Koko wa amari shizuka ja nakatta desu. (Here was not very quiet.)

(e) Affirmative sentence (i-adjective + desu/katta desu for politeness)

Kyō wa totemo atsui desu. (It is very hot today.)

Kinō wa totemo samukatta desu. (It was very cold yesterday.)

(f) Negative sentence (i-adjective + nai desu/nakatta desu for politeness)

Kyō wa amari atsuku nai desu. (It is not very hot today.)

Kinō wa amari samuku nakatta desu. (It was not very cold yesterday.)

Type 2 conjugation errors: no required conjugation

(1-2) *Atsui katta desu* (... was hot)

(7-1) *Omoshiroi-ku nakatta desu* (... was not interesting)

(9-1) *Shizuka-na ja nakatta desu* (... was not quiet)

(10-1) *Shinsetsu-na ja nakatta desu* (... was not kind)

The correct conjugations for the past negative sentences with their polite styles be like *-ku nakatta desu* for *i*-adjective or *-ja nakatta desu* for *na*-adjective. Many early stage learners cannot drop the adjective ending *-i* or *-na* but use the words which they have learned from the textbook vocabulary list and focus on their conjugation requirements for the past negative forms only. *Na*-adjectives are normally conjugated by dropping the word final *-na* and combining with different forms of the copular verb, such as *da* (short form) or *desu* (polite). In other words, *-na* should not be taken as the suffix of *na*-adjectives. A copular verb is a special kind of verb to join an adjective or a noun complement to a subject. Both types of adjectives appear before the copular verb *desu* (polite), but only *na*-adjectives can appear before the copular verb's short form *da/datta*.

Type 3 conjugation errors: mixed up conjugations

(3-2) *Yūmei katta desu* (... was famous)

(4-2) *Kirekatta desu* (... was beautiful)

(6-2) *Kire-ku nakatta desu* (... was not beautiful)

(7-2) *Omoshiroi ja nakatta desu* (... was not interesting)

(8-2) *Muzukashii ja nai deshita* (... was not difficulty)

(9-2) *Shizuka-ku nakatta desu* (... was not quiet)

(10-1) *Shinsetsu-ku nakatta desu* (... was not kind)

Types 3 conjugation errors show the mixed up of the conjugations of *i*-adjectives and *na*-adjectives. The *na*-adjectives: *yūme(i) katta desu* (... was famous), *kire(i) katta desu* (... was beautiful) and *kire(i) ku nakatta desu* (... was not beautiful) are mistakenly regarded as *i*-adjectives due to the same kana *i*. Adjectives like *kirei* and *yūmei* end in a kana *i*, but this kana is actually a long vowel and should not be conjugated in the same way as *i*-adjectives. Such adjectives belong to *na*-adjectives as irregular adjectives and must be distinguished from *i*-adjectives. Also, as revealed, some learners mistakenly regard *i*-adjectives as *na*-adjectives such as *omoshiroi* (interesting), *muzukashii* (difficulty) by using *-ja nakatta desu* or create double mistakes with past conjugation form like *-ja nai deshita*. We also see the confusion of the two types of adjectives. For instance, to add the *i*-adjective past negative form *-ku nakatta desu* to the *na*-adjective endings, such as *shizuka* or *shinsetsu -ku nakatta desu* (... was not quiet, ... was not kind) and so on.

Type 4 conjugation errors: no double conjugations

(5-1) *Suki datta ja nai desu* (...did not like)

like (*na*-adjective) past-short form was not

(8-1) *Muzukashi katta ja nai desu* (...was not difficulty)

difficulty (*i*-adjective) past-short form was not (present negative-polite)

(12-1) *Yo katta ja nai desu* (...was not good)

good (*i*-adjective) past-short form was not (present negative-polite)

In these sentences, learners can conjugate the past-short form successfully for their affirmative forms but cannot produce the past-short form successfully for their negative forms. They attach *-ja nai desu* to the ending of either *i*-adjectives or *na*-adjectives with no further conjugation.

The conjugation errors listed in Table 2 can also be described in terms of their types. The typical instances of learner error data for the study were collected from a grammatical multiple-choice test by 24 students who had studied the language for about 150 hours (early intermediate level).

Table 2. Adjective Conjugation Errors in Modifying Nouns and Verbs

Expected Adjective Conjugations	Conjugation	Conjugation	
	Errors-1	Errors-2	None
1. 部屋をきれいにしてください。 <i>Heya o kirei-ni shite kudasai.</i> Please make your room beautiful.	きれく <i>Kire-ku</i> N5 (21%)	きれいで <i>Kirei-de</i> N3 (13%)	N3 (13%)
2. 彼女は日本語を上手に話します。 <i>Kanojo wa nihongo o jōzu-ni hanashimasu.</i> She speaks Japanese very well.	上手な <i>Jōzu-na</i> N5 (21%)	上手で <i>Jōz-de</i> N5 (21%)	N4 (17%)
3. 今朝早く学校に来ました。	早くて	早いく	N2 (8%)

<i>Kesa haya-ku gakkō ni kimashita.</i>	<i>Hayaku-te</i>	<i>Hayai-ku</i>	
This morning I came to school very early.	N7 (29%)	N3 (13%)	
4.週末はたいてい <u>遅く</u> 起きます。	遅いに	遅い	N5 (21%)
<i>Shūmatsu wa taitei oso-ku okimasu.</i>	<i>Osoi-ni</i>	<i>Osoi</i>	
I usually get up later on weekends.	N7 (29%)	N3 (13%)	
5.子供たちは公園で <u>楽しく</u> 遊んでいます。	楽しいに	楽しくて	N2 (8%)
<i>Kodomo-tachi wa kōen de tanoshi-ku asonde imasu.</i>	<i>Tanoshii-ni</i>	<i>Tanoshiku-te</i>	
Children play happily in the park.	N5 (21%)	N7 (29%)	
6. すみませんが、 <u>静か</u> に話してください。	静かく	静かで	N3 (13%)
<i>Sumimasen ga, shizuka-ni hanashite kudasai.</i>	<i>Shizuka-ku</i>	<i>Shizuka-de</i>	
Excuse me, please speak quietly.	N7 (29%)	N5 (21%)	
7.彼女はとても <u>忙しい</u> 人です。	忙しいな	忙しくて	N5 (21%)
<i>Kanojo wa totemo isogashii hito desu.</i>	<i>Isogashii-na</i>	<i>Isogashiku-te</i>	
She is a very busy person.	N6 (25%)	N2 (8%)	
8.私は <u>古い</u> 車を買いたいです。	古いの	古いな	N4 (17%)
<i>Watashi wa furui kuruma o kaitai desu.</i>	<i>Furui-no</i>	<i>Furui-na</i>	
I want to buy a used car.	N7 (29%)	N3 (13%)	
9.私は <u>親切</u> な人が好きです。	親切の	親切	N4 (17%)
<i>Watashi wa shinsetsu-na hito ga suki desu.</i>	<i>Shinsetsu-no</i>	<i>Shinsetsu</i>	
I like kind person.	N4 (17%)	N4 (17%)	
10.私は日本で <u>新しい</u> 友だちを作りました。	新しいの	新しいな	N3 (13%)
<i>Watashi wa nihon de atarashii tomodachi o tsukurimashita.</i>	<i>Atarashii-no</i>	<i>Atarashii-na</i>	
I made some new friends in Japan.	N8 (33%)	N2 (8%)	

An *i*-adjective can be used as an adverb by changing its ending *-i* into *-ku*, and a *na*-adjective can also be used as an adverb by using its stem + *ni* instead of *na*. According to the copular verb conjugation, the *ni*, *de* and *dat(ta)* are *na*-adjective's continuative forms.

Type 1 conjugation errors: wrong word final endings

(1-2) *Kirei-de* (cleanly-adv)

(2-2) *Jōzu-de* (well-adv)

(3-1) *Hayaku-te* (early-adv)

(5-2) *Tanoshiku-te* (happily-adv)

(6-2) *Shizuka-de* (quietly-adv)

(7-2) *Isogashiku-te* (busy-adj)

The error in *kirei-de* (cleanly) and *jōzu de* (well) is that these adjectives are *na*-adjectives, and when they are used as adverbs to describe verbs, *ni* should be attached to their stems instead of *na*. The errors in *hayaku-te* (early) and *tanoshiku-te* (happily) is that these adjectives are *i*-adjectives, and when they are used as adverbs to modify verbs, *i* must be conjugated into *ku*. It should be noticed learners may mix them up with *te/de*-form. “The *te*-form of an *i*-adjective is formed by substituting *kute* for the final *i*. The *te*-form of a *na*-adjective and a noun + *desu* sequence is formed by adding *de* to the base or noun” (Banno *et al.*, 2011, p. 173).

Type 2 conjugation errors: mixed-up adjectives

(2-1) *Jōzu-na* (well-adv)

(7-1) *Isogashii-na* (busy-adj)

(8-2) *Furui-na* (old-adj)

(10-2) *Atarashii-na* (new-adj)

The stem in *jōzu-na* (well) is a *na*-adjective, when it is used as an adverb in a sentence like “She speaks Japanese very well”, *na* must be conjugated into *ni*. Adjectives like *isogashii* (busy), *furui* (old) and *atarashii* (new) are *i*-adjectives, which are used to modify nouns. Learners may mix up the two types of adjectives and over generalize *na* to *i*-adjective endings.

Type 3 conjugation errors: wrong use of the possessive particle “no”

(8-1) *Furui-no* (old-adj)

(9-1) *Shinsetsu-no* (kind-adj)

(10-1) *Atarashii-no* (new-adj)

The Japanese particle *no* is used as a possessive particle and is used to indicate the structural relation between two nouns. For example, in *tomodachi no uchi* (my friend’s house), two nouns are connected by the particle *no*. Learners may use the possessive particle “no” as a conjugation device without knowing its structural function.

Type 4 conjugation errors: mixed-up adjectives and wrong use of “ku”

(1-1) *Kire-ku* (cleanly-adv)

(3-2) *Hayai-ku* (early-adv)

(6-1) *Shizuka-ku* (quietly-adv)

Learners are not only confused about the word class but also add *ku* to each word final for changing them into adverbs. The words *kirei* (clean) and *shizuka* (quiet) are *na*-adjectives but are mistakenly regarded as *i*-adjectives and thus *ku* is added to their finals. When *hayai* (early) becomes an adverb, its final *i* must be dropped because *i* is conjugated into *ku*.

Type 5 conjugation errors: mixed-up adjectives and wrong use of “ni”

(4-1) *Osoi-ni* (late-adv)

(5-1) *Tanoshii-ni* (happily-adv)

Both *osoi* (late) and *tanoshii* (happily) are *i*-adjectives. When they are used to describe verbs, their final

i must be conjugated into *ku* in order to be an adjectival adverb. Such errors may also be caused by mixing up the two types of adjectives. Learners may use *ni* as a conjugation of *na*-adjectival for an adverb and attach it to *i*-adjective finals.

Type 6 conjugation errors: no conjugation

(4-2) *Osoi* (late-adv)

(9-2) *Shinsetsu* (kind-adj)

Learners may fail to conjugate any type of adjectives.

4. Learner Errors as an Outcome of Bilingual Lemmas in Contact

Based on the analysis of the learner error data, potential sources of learner errors are identified in terms of cross-linguistic differences in the morphosyntactic requirements for realizing the same concepts. In addition, the nature of learner errors is explained in relation to their constraints on the learning process. Based on the evidence that some morphosyntactic differences between Japanese and English may cause cross-linguistic interference with the early stages of learning. This study adopts the BLA model (Wei, 2002, 2015, 2020) to make some linguistic assumptions about the sources of learner errors and the nature and activity of the bilingual mental lexicon in foreign language learning.

From some psycholinguistic perspectives, the BLAM aims to identify sources of abstract lexical structure in the bilingual mental lexicon in relation to IL development in general and language transfer in particular (cf. Talmy, 1985; Pinker, 1989a, 1989b; Levelt, 1989; Jackendoff, 1990; Bock & Levelt, 1994; Myers-Scotton & Jake, 1995; Jake, 1998; Fuller, 1999; Wei, 2001a, 2001b, 2002, 2003; Liu, 2015; Wei & Liu, 2017). This model makes four assumptions about the nature and activity of the bilingual mental lexicon in foreign language learning: (1) The mental lexicon does not simply contain lexemes but abstract elements called “lemmas”, which are abstract entries (i.e., pieces of information) about a particular lexeme. Lexemes may be shared among languages, but lemmas are language-specific in the bilingual mental lexicon, and language-specific lemmas are in contact in IL production. (2) Lexical structure is “abstract” in the sense that it contains several discrete but interacting subsystems, such as lexical-conceptual structure, predicate-argument structure, and morphological realization patterns, each of which is a particular component of grammar. Abstract lexical structure in the developing IL system may have different sources at different levels of foreign language learning. (3) Language transfer or first language influence in IL construction is transfer of abstract lexical structure at each of these subsystems. Such a transfer becomes indispensable and necessary for learners to fill particular gaps in the incompletely acquired TL items. (4) Parts of the abstract lexical structure from learners’ first language lexical entries (i.e., lemmas) may influence the abstract lexical structure of incompletely acquired target language lexical entries in IL production.

Levelt (1989), Bock and Levelt (1994), Myers-Scotton and Jake (1995) and Wei (2001a, 2001b, 2002) assume that abstract lexical structure contains several discrete but interacting subsystems including

lexical-conceptual structure, predicate-argument structure, and morphological realization patterns (Chomsky, 1981; Jackendoff, 1990; Talmy, 1985), and such an abstract lexical structure in IL may have different sources, such as those from learners' L1 and /or the TL. That is, for each lexical item, the mental lexicon contains its lemma information about the word's lexical content ((i.e., semantics). For example, the lemma for *put* requires a subject that carries the thematic role of AGENT, and object that carries the thematic role of THEME, and a prepositional object that carries the thematic role of LOCATION (e.g., *Mary put the flowers on the table*). That is, each thematic role assigned to the relevant noun must be available in order for the verb to be meaningful. Lemmas also contain information about the word's syntactic environment (i.e., morphosyntax). For example, the lemma for *he* requires the word to be used as a male subject and that any following present-tense main verb must be inflected with *-s* for the subject-verb agreement, tense, aspect, voice, etc. In addition, lemmas contain information about the word's phonological structure, syllabic composition, and accent structure. Furthermore, lemmas may contain information about the word's register, the kind of discourse in which it typically appears, and its pragmatic function. It is in this sense that the mental lexicon is defined as the speaker's "internal" representation of knowledge (i.e., lemmas) about the surface forms. The crucial assumption underlying the BLA Model is that lemmas are language-specific, and language-specific lemmas in the bilingual mental lexicon are in contact in IL production (Wei, 2000a, 2000b, 2002).

What becomes most relevant to this study is cross-linguistic differences in lemmas about language-specific morphological realization patterns. Every natural language must possess its own surface devices to realize abstract grammatical concepts like tense, aspect, voice, mood, etc. in addition to its surface word order, but different languages may have different morphological realization patterns to realize universal abstract grammatical concepts. For example, English verbs are inflected for the past tense, the perfect/progressive aspect, the passive voice, etc. by adding a particular morpheme: *-ed* as in *prepared* (past), *have prepared* (perfect), and *be prepared* (passive); *-ing* as in *be preparing* (progressive). Thus, English relies on so-called "bound" grammatical morphemes to be "attached" to regular "free" lexical morphemes (i.e., independent (free standing) lexical items) for particular abstract grammatical concepts. In other words, in English, verbs are "inflected" by bound grammatical morphemes to realized abstract grammatical concepts. It should be noted that in English, irregular verbs such as *write*, *go*, *speak*, *do* and others are also inflected through internal vowel change (e.g., *write* (present), *wrote* (past), *be written* (passive), and *have written* (perfect)). For English speakers or learners, all they need to know is the function(s) of a particular bound grammatical morpheme so as to observe the English morphological realization patterns.

In addition to bound grammatical morphemes, in English, adjectives themselves do not transform when speakers talk in the negative, past, or past negative tense. As shown in the following sentences, the adjective does not change.

The car is expensive.

The car is not expensive.

The car was expensive.

The car was not expensive.

It should also be noted that in English adjectives belong to the same lexical category without being further classified into types and cannot play the same syntactic role as verbs.

It seems that Japanese is different from English in several morphological and morphosyntactic aspects: (1) Japanese does not have the similar bound grammatical morphemes directly attached to the word stems to realize abstract grammatical concepts. (2) Japanese classifies adjectives into two types: *i*-adjectives and *na*-adjectives. The type of adjective is determined by its ending or, more precisely, the grammar that is required to join the adjective to nouns or transform the adjective into an adverb. (3) Japanese adjectives are conjugated for tense, negation, and speech style, but English adjectives cannot be inflected for the same grammatical purposes. For example, in Japanese both types of adjectives are conjugated in different ways for the same abstract grammatical concepts.

i-adjective: *takai* (expensive) → *takakatta* (past) → *takaku nai* (present negative) → *takaku nakatta* (past negative) → *takai desu* (present polite) → *takakatta desu* (past polite)

na-adjective: *shizuka* (quiet) → *shizu deshita* (past) → *shizuka ja nai* (present negative) → *shizuka ja nakatta* (past negative) → *shizuka desu* (present polite) → *shizuka deshita* (past polite)

Though “conjugation” is a hyponym of “inflection”, it becomes necessary to make a distinction between the two similar concepts. The difference between conjugation and inflection is that conjugation is the coming together of things while inflection is a change in the form of a word that reflects a change in grammatical function. What makes Japanese conjugations different from English inflections is that while English relies on bound grammatical morphemes for verb inflections, Japanese relies on the verb or adjective conjugations of several elements such as tense, negation and politeness, that is, all such elements “come together” as a combination of grammatical concepts. Another important difference is that in Japanese the morphological device of “conjugation” also applies to adjectives for various lexical and/or grammatical functions. What makes Japanese adjective conjugations complicated is that the two types of adjectives have their own morphological realization patterns.

This study claims the potential sources of learning difficulty of Japanese adjective conjugations are caused by cross-linguistic lemma differences between Japanese and English in morphological realization patterns. While in Japanese, several abstract grammatical concepts as contained in “lemmas” (i.e., pieces of grammatical information) are conjugated “together” in an adjective (also in a verb), in English, the verb is inflected with a particular bound morpheme for one single abstract grammatical concept.

According to the BLA Model, to be successful in foreign language learning, learners must completely acquire language-specific lemmas for all lexical items, including language-specific lemmas for surface

morphological realization patterns. As commonly observed, certain language-specific morphological procedures and requirements turn out to be difficult to acquire because of their idiomaticity. As predicted, early-stage foreign language learners may create certain errors either caused by their incomplete knowledge of certain aspects of the target language or caused by their failure in the application of such knowledge. Such learner errors may not have much to do with learners' first language or first language transfer. However, as also observed, early-stage learners may turn back on their first language in their foreign language production to meet their immediate communicative needs. If this happens, language transfer may result. Of course, learners do not transfer "blindly", that is, they only transfer certain items or aspects of their first language, whether lexical, grammatical or morphological, into their foreign language production as assumed to be workable. The BLA Model claims lemmas contained in the bilingual mental lexicon are language-specific and are in contact in IL development, and language transfer should be recognized as lemma transfer because learners are trying to speak their target language anyway. Thus, sources of learning difficulty should be explored at an abstract level, that is, at the lemma level.

5. Conclusion

This study attempts to relate Japanese adjective conjugation patterns to their potential learning difficulties for foreign language learners and offers some important implications for understanding both.

1) Like any other natural languages, Japanese adjective conjugations have their own particular morphological realization patterns. Different from many other languages, Japanese adjective conjugations play some special roles in realizing abstract grammatical concepts, such as tense, negation and speech style, and changing parts of speech, such as changing adjectives to adverbs or changing adjectives to adjectival nouns. All such morphosyntactic and morphological features are conjugated together in an adjective (i.e., in relation to an adjective). Also, different from many other languages, Japanese adjectives play the same syntactic role as verbs. In English, only verbs are inflected for all abstract grammatical concepts, but in Japanese, adjectives are conjugated for the same grammatical concepts. Such cross-linguistic differences may become one of the sources of learning difficulty.

2) Another complexity of Japanese adjective conjugations is caused by the distinction between *i*-adjectives and *na*-adjectives (in addition to some irregularities of some adjectives). Each type of adjectives has its own morphological realization requirements for tense, negation and speech style. Such a distinction is new to learners whose native language does not morphosyntactically classify adjectives into types. This may also become one of the potential sources of learning difficulty.

3) Different from many previous studies, by adopting the BLA Model, this study describes and explains linguistic features of a particular language at an abstract level and relates them to potential learning difficulties. It claims that it is the cross-linguistic differences in lemmas for the three abstract levels of

the mental lexicon: lexical-conceptual structure, predicate-argument structure, and morphological realization patterns which may cause learning difficulties. This study focuses on the lemma differences between Japanese and English in morphological realization patterns. It further claims that the bilingual mental lexicon contains language-specific lemmas, and bilingual lemmas are in contact in foreign language learning. Thus, this study regards learner errors as an outcome of bilingual lemmas in contact. Lemma differences in morphological realization patterns may become another source of learning difficulty.

4) Since lemmas in the bilingual mental lexicon are language-specific, they must be learned as they are. Thus, two fundamental issues need to be addressed. One issue is that how foreign language knowledge is acquired to realize language surface forms. The other issue is how such language knowledge is applied to language use in IL production. This study proposes that learners must be familiar with the lemmas in the target language in the first place and then put them into use in real-time speech. On the one hand, learners' complete acquisition of foreign language knowledge may not guarantee the successful use of particular language items or morphosyntactic and morphological features in question. It is the frequent practice of language use that can strengthen what they know. On the other hand, learners' incomplete acquisition of foreign language knowledge will unavoidably induce learner errors.

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