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Grammatical congruence in Japanese-English insertional code-switching

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Abstract

This study concerns grammatical structure in Japanese-English code-switching (CS). The basic premise in the research is that CS is a rule-governed phenomenon. It is not a random alternation of two languages, but some underlying constraints are governing what appears to be random. A study of Japanese-English CS is potentially fruitful because of the typological differences between Japanese and English. How can two languages which are structurally so different be mixed in a sentence? The present paper examines the internal structures of embedded language (EL) materials and explores what rule or principle is applied when insertional CS takes place. The question addressed is what creates congruence between the two languages. The reason congruence is worth exploring is that it seems that a lack of sufficient congruence may explain why certain structures are avoided or are impossible in switching between specific language pairs. Using CS data produced by Japanese children living in the UK, the paper shows that whatever speech categories are switched, the EL materials are treated as nominal and put into the word formation rule of Japanese, the matrix language (ML). It is suggested that it is nominalization that creates congruence between the two languages and that it is sufficient congruence that determines the type of CS as insertional.

Keywords: code-switching, Japanese-English, insertion, congruence, nominalization

1. Introduction

There has been considerable interest in the grammatical perspectives of bilingual code-switching (CS), and a number of researchers have attempted to formulate the linguistic constraints on intra-sentential CS (e.g., Poplack, 1980; Di Sciullo, Muysken & Singh, 1986; Myers-Scotton, 1993[1997]). The basic premise in the research is that CS is a rule-governed phenomenon. It is not a random alternation of two languages, but some underlying constraints

are governing what appears to be random (Azuma, 1998). A study of Japanese-English CS is potentially fruitful because of the typological differences between the two languages. How can two languages which are structurally so different be mixed in a sentence?

This study investigates grammatical structure in Japanese-English CS. My previous paper (Takagi, 2006b) showed that CS can be characterized as insertional when the base language is Japanese, because whatever embedded language (EL) elements are switched, Japanese is kept as the matrix language (ML). In other words, syntactically relevant system morphemes are always in Japanese. It was noted that EL materials were treated as single words. The purpose of the present paper is to examine the internal structures of EL materials and explore what rule or principle is applied when insertional CS takes place.

Researchers such as Sebba (1995) have stressed that there needs to be a categorical equivalence or congruence between the constituent inserted and the ML node into which it is inserted. In Myers-Scotton's MLF model (1993[1997]), it is congruence[1] which allows the EL morphemes to occur within mixed constituents, whose frame is determined by the ML. Myers-Scotton & Jake (1995) introduced the notion that in order for EL morphemes to appear, they must be checked for 'sufficient congruence' with their ML counterparts. However, the issue of what sufficient congruence means has not yet been adequately defined, and what constitutes congruence in contact phenomena is still largely unstudied (Myers-Scotton, 2002). The present paper addresses the question of what creates congruence between the two languages. The reason congruence is worth exploring is that it seems that a lack of sufficient congruence may be the reason why certain structures are avoided or are impossible in switching between specific language pairs (Myers-Scotton, 2002).

Using CS data[2] produced by Japanese children living in the UK, the present paper will show that whatever speech categories are switched, the EL materials are treated as nominal and put into the word formation rule of the ML. It is argued that nominalization plays an important role for the occurrence of insertional CS.

2. Theoretical framework: insertion vs. alternation

Muysken (1997, 2000) suggests that there are three separate patterns of intra-sentential CS[3]. The three patterns are: 1) insertion of material (lexical items or entire constituents) from one language into a structure from the other language; 2) alternation between structures in different languages; 3) congruent lexicalization of material from different lexical inventories

into a shared grammatical structure. These three basic processes are constrained by different structural conditions, and operate to a different extent and in different ways in specific bilingual settings. The three processes correspond to the dominant models for CS that have been proposed by researchers.

Approaches that adopt the notion of insertion (associated with Myers-Scotton, 1993) as a point of departure view the constraints in terms of the structural properties of some base or matrix structure. Here, the process of CS is seen as akin to borrowing, i.e. the insertion of an alien lexical or phrasal category into a given structure. Approaches that adopt alternation (associated with Poplack, 1980) as a point of departure view the constraints on CS in terms of the compatibility or equivalence of the languages involved at the switch point. From this perspective, CS is akin to the switching of codes between turns or utterances. There is a true switch from one language to the other, involving both grammar and lexical items. The term "congruent lexicalization" refers to a situation where the two languages share a grammatical structure which can be filled lexically with elements from either language. From this perspective, CS is akin to style or register shifting and monolingual linguistic variation. It is quite possible that there are no structural constraints for congruent lexicalization, since all that is involved is insertion of words into one single syntactic structure (Clyne, 1987).

In my grammatical analysis of CS data, I examined whether the switches found in each base language were insertion or alternation. The present paper focuses on the switches observed in the Japanese base language, which were all analyzed as the insertional type (Takagi, 2006b).

3. Lexical categories and word formation in Japanese

This section concerns lexical categories and affixation in Japanese, which will be essential to my later discussion. Two categories need to be referred to, namely, adjectival nouns and verbal nouns. Let us look at these two categories.

3.1 Adjectival nouns

Adjectival nouns[4] are characterized by their dual behaviour as both adjectives and nouns. They are like adjectives in that they modify the nouns that follow them, and also they can be modified by a degree adverb like *totemo* (very), as adjectives can, a property which regular nouns do not have. This is demonstrated by the examples in (1).

(1) *kirei-na kami*   *totemo kirei-na kami*   (adjectival nominal attribute)

    pretty paper   very pretty paper

    (pretty paper)   (very pretty paper)

In (1), *kirei* (pretty) is an adjectival noun. It is adjectival in syntax, and *-na* is added to it when it modifies the following noun.

Adjectival nouns also share certain characteristics with nouns: they do not inflect, and they take the copula when they are used as predicates. For example,

(2) a. *Ano hito   wa   gakusei da.*   (nominal predicate)

      that person TOP student copula

      (That person is a student.)

    b. *Ano hito   wa   kirei   da.*   (adjectival nominal predicate)

      that person TOP pretty copula

      (That person is pretty.)

In these examples, *gakusei* (student) is a noun, and *kirei* (pretty) is an adjectival noun. Unlike adjectival nouns, adjectives inflect, and can constitute predicates without taking copulas. For example,

    c. *Ano hito   wa   utsukushi-i.*   (adjectival predicate)

      that person TOP beautiful-PRES

      (That person is beautiful.)

    d. *Ano hito   wa   utsukushi-katta.*   (adjectival predicate)

      that person TOP beautiful-PAST

      (That person was beautiful.)

    e. *Kono hon   wa   atarashi-i.*   (adjectival predicate)

      this book TOP new-PRES

      (This book is new.)

    f. *Kono hon   wa   atarashi-ku-te omoshiro-i.*   (adjectival predicate)

      this book TOP new   and interesting-PRES

      (This book is new and interesting.)

In these examples, *utsukushi-katta* and *atarashi-ku-te* are inflected forms of *utsukushi-i* (beautiful) and *atarashi-i* (new), respectively.

Adjectival nouns take the conjugation paradigm of nouns, together with the copula, rather than that of adjectives. In this sense, they are called nouns. However, adjectival nouns differ from regular nouns in that they cannot directly take case particles such as the nominative mar-

ker *ga* or the accusative *o*. Therefore, **kirei ga* (pretty-NOM) and **kirei o* (pretty-ACC) are not possible. Also, while regular nouns can be modified by demonstrative words, such as *kono* (this) and *sono* (that), as well as by other nouns, adjectival nouns cannot. As has already been seen in (1), when an adjectival noun modifies a noun, *-na* is added to establish the modification relation, but this modification relation is expressed by the genitive case particle *no* when a noun modifies another noun, as in *Hanako-no hon* (Hanako-GEN-book). Thus, the *na* ending indicates that the word preceding it is an adjectival noun.

3.2 Verbal nouns

The term verbal noun[5] (VN) indicates that these words have a dual status as both verb and noun. Verbal nouns are identified by their ability to take *suru* (do) when used as finite verbs, as in *kenkyuu-suru* (do study) and *ryokoo-suru* (do travel). The verb *suru* by itself is a full-fledged verb, but when it is combined with a verbal noun, its own meaning is hardly retained. Rather, the meaning of the compound verb consisting of a verbal noun and *suru* is based mainly on the meaning of the verbal noun. The primary role of *suru* is, then, to carry the verbal inflection, such as non-past, past, and so on. Note that ordinary nouns cannot be verbalized by *suru* (e.g., **hon-suru* and **yama-suru*) [6].

Verbal nouns are like other nouns in that they can function as subject or object, taking the case particles *ga* or *o* respectively:

(3) a. *Kenkyuu-ga hitsuyoo   da.*   b. *kenkyuu-o   hajimeru*
        study-NOM necessary copula   study-ACC   begin
        (Studying is necessary.)   (begin studying)

This nominal nature of verbal nouns yields analytic syntactic expressions alongside compound verbal expressions. This situation is schematized in (4).

(4) *kenkyuu-suru* → *kenkyuu o   suru*
        study-do   study   ACC   do
        (VN)   → (N)   (V)

The special categories of adjectival nouns and verbal nouns have an important function in the Japanese lexicon when considering CS data from a grammatical perspective. As Kageyama (1982) and Shibatani (1990) show, they are the categories to which certain newly derived forms belong, and more importantly, they are the categories most actively used in borrowing and compounding.

3.3 Affixation

A very common process of word formation is affixation, which subsumes prefixation and suffixation. Japanese has a large number of suffixes which, as predicted by Williams (1981), perform the category-changing function. One example is the suffixation of the noun-forming derivational morpheme[7] -te (agentive), e.g., *kak-u* 'write' → *kak-i-te* 'writer'. The suffix -te is affixed to verbal stems and changes the category of verb to that of noun. Similarly, the suffix -sa is added to adjectival roots and changes them to nouns (e.g., *utsukushi-i* 'beautiful' → *utsukushi-sa* 'beautifulness').

Adjectival nouns are like adjectives in that they can also be nominalized by the derivational morpheme -sa, which cannot be attached to regular nouns:

(5) *kirei-sa*   'prettiness'   (< adjectival noun)

gakusei-sa   'student-ness'   (noun)

There is one derivational suffix that generates adjectives from nouns, namely, -rashii. Thus, nouns, such as *gakusei* (student), yield adjectives such as *gakusei-rashii* (student-like). Once a noun, e.g. *gakusei*, is made into an adjective by the suffixation of -rashii, it can then be nominalized by -sa like other adjectives: *gakusei-rashi-sa* (student-like-ness).

An example of a prefix is the derivational morpheme *su-* (bare). In (6), the morpheme *su-* is prefixed to a noun:

(6) a. *ashi*   'leg'   →   *su-ashi*   'bare leg'

b. *hada*   'skin'   →   *su-hada*   'bare skin'

c. *te*   'hand'   →   *su-de*   'bare hand'

d. *kao*   'face'   →   *su-gao*   'bare face'

The *su-* prefixation does not change the category of the word to which it is attached, but changes its meaning. That is, the morpheme *su-* supplies the base noun with the meaning of bareness.

Some Sino-Japanese prefixes often change nouns to adjectival nouns. The following are some examples:

(7) a. *chuui*   'attention'   →   *fu-chuui*   'careless'

b. *jyooshiki* 'common sense' →   *hi-jyooshiki* 'senseless'

c. *shinkei*   'nerve'   →   *mu-shinkei*   'insensitive'

The prefixes *fu-, hi-, mu-* are all of Chinese origin, and they add a negative meaning to the base form. Note that *na* is used with adjectival nouns to establish a modification relation with the following noun. In contrast, when a prenominal modifier is a noun, the modification relation is

mediated by the genitive case particle *no*, as is seen in (8).

(8) <u>noun</u>   <u>adjectival noun</u>

    a. *chuui   -no   kotoba*   ⇒ *fu-chuui   -na   hito*

       attention-GEN   word   careless   person

       (words for attention)   (careless person)

    b. *jyooshiki -no   koto*   ⇒ *hi-jyooshiki-na   hito*

       common sense-GEN matter   lacking-in-common-sense person

       (matters of common sense)   (a person lacking in common sense)

    c. *shinkei-no   byooki*   ⇒ *mu-shinkei-na hito*

       nerve-GEN illness   insensitive   person

       (illness from nerves)   (an insensitive person)

The fact that the prefixed nouns take *na*, rather than *no*, to mediate a modification relation with the following nouns in (8) shows that these prefixed words, *fu-chuui* 'careless', *hi-jyooshiki* 'lacking-in-common-sense', and *mu-shinkei* 'insensitive', are adjectival nouns.

4. Findings and Discussion

The grammatical categories of code-switched constituents were examined and their distribution was tabulated. A basic assumption is that the categories of constituents switched are considered to be equivalent or congruent by the bilinguals themselves.

4.1 Nouns and noun phrases

As was expected, nouns were the category most frequently switched by all the children. In the data, 92 of all the switch types[8] were nouns, which account for 47% of the total (N = 196). In the mixed constituents, various Japanese post-positional particles such as case-markers (*ga, o, ni,* etc.) and the topic marker (*wa*) attach to switched English nouns, as in the following examples.

(9) *Sore-de* **mouse** *ga   ne,   ouma ni   natte-kurete ne*

    and   NOM sentence-final-PTL   horse into turn   sentence-final-PTL

    'And the mice turned into horses.'

(10) *Soshitara ano-ne,* **horses** *ni   notte   ne,*

    then   filler   DAT get on sentence-final-PTL

    'Then (they) got on horses ...'

It has often been reported in the literature that nouns are the most frequently switched category. This is because they are the most congruent grammatical category between languages. It is clear that some categories are better candidates for CS because of their cross-language congruence than others. It is relatively easy to find the equivalent of nouns in the other language, but the same is not true of some other categories, such as relative clauses, for example. Sebba (1998) points out that pronouns are less likely to be cross-linguistically congruent, as they behave idiosyncratically from language to language. A similar point is made by Muysken (1995:193): "A category often recognized as equivalent may be noun, and also noun phrase will be recognized as such, whereas conjunctions are perhaps less likely to be interpreted as equivalent."

In my data, noun phrases were the phrasal category which was switched most frequently. The difference between nouns and noun phrases is simply the size of the element inserted. Noun phrases act as if they are single units from the standpoint of the constituent frame, and thus they are embedded in the ML in the same process as single nouns (Takagi, 2006b). Although a noun phrase is syntactically more complex than a noun, it can be seen as congruent by the speaker and so is treated as a single unit. What, then, enables syntactic categories or constituents to be recognized as congruent? We need further data to determine what constitutes congruence between categories in the two languages in question. In the following section, we will examine EL adjectives and adjective phrases.

4.2 Adjectives and adjective phrases

EL adjectives were switched by five of the children. In all cases Japanese post-positional morphemes attached to the English adjectives[9]. Three types of post-positional morphemes were observed: the copula, i.e. *da, de, datta*, etc., the resultative particle *ni* (into), and the genitive case-marker *no*. The insertion of adjectives and adjective phrases can be explained in the same way as that of nouns and noun phrases. Some examples are given below.

· EL adjective/AP + ML copula

(English adjectives/ AP + Japanese *da, de, da-tta* ...)

   (11) **Prince** *wa*   *anoo* **handsome** *da-tta*   *no.*

          TOP filler   copula-PAST   sentence-final-PTL

    'The prince was handsome.'

(12) **Ugly sisters** *ga*   *moo ne,*   **very mad** *nan-da yo,*

           NOM   EMPHASIS   copula sentence-final-PTL

'The ugly sisters are very mad.'

(13) *Soshitara ne,*   **wrap** *shi* **wrap up** *shita kara*   *ne,*

    then   sentence-final-PTL   do   did   because   sentence-final-PTL

    nice and warm *de*   *ne,*

           coupla   sentence-final-PTL

'Then (they) wrapped (him)up, so (he) was nice and warm.'

· EL adjective/AP + ML resultative particle *ni* + verb *naru*

(English adjective/ AP + Japanese *ni naru*)

*ni naru: turn into, become

*The verb *naru* (become) is complemented by the resultative particle *ni*.

(14) Cinderella *no*   *fuku*   *wa*   *anoo mukashippoku te* **ragged** *ni*   *na-tta.*

           GEN clothes TOP filler old-fashioned and   into turned

'Cinderella's clothes were old-fashioned and turned ragged.'

(15) **big wave** *ga*   *kite*   *ne,*   **wet** *ni*   *naru*   *ka-naa,*   *to*   *omotta*

           NOM come sentence-final-PTL   into become PTL-question QUO thought

'big wave came and (he) thought that he might get wet.'

(16) *nanka* **like uh** ... **still shiny** *ni*   *na-tte-ta*   *ja-nai?*

    filler   into has turned tag

'(the shoe) has turned like... still shiny, hasn't it?'

· EL adjective + ML genitive case-marking particle *no* + noun

(17) *sore-de* **big** *no*   *momo ga*   *ki-te* ...

    and   GEN peach NOM come

'and a big peach came...'

The examples above show how English adjectives and adjective phrases are inserted into the Japanese ML frame. Interestingly, they are treated as adjectival nouns when they are incorporated into Japanese. In (17), an adjective 'big' is exceptionally treated as a regular noun. As stated earlier, nouns can take modifiers which precede them and those noun modifiers take the genitive case particle *no*. In the attributive use of an adjectival noun, it is *na*, which is the inflec-

tive form of the copula, that should be appended to the adjectival noun. Therefore, in the case of (17), 'big *na momo*' would be grammatically correct. The slots where English adjectives and adjective phrases are embedded are basically slots for adjectival nouns in Japanese. We noted the lexical category called adjectival nouns in 3.1. They are adjectival in syntax, and modify the nouns which follow them with *na* inflection. And they are like nouns in that they take the copula *da* when they are used as predicates. EL adjectives and adjective phrases act as adjectival nouns when they are embedded in the ML. This is illustrated by the following sentences in (18) and (19).

(18) a. *Kanojo wa   kirei   da-tta.*

      she   TOP pretty copula-PAST

      (She was pretty.)

    b. Prince *wa*   **handsome** *da-tta.*

        TOP   copula-PAST

      (The prince was handsome.)

(19) a. *Ano ko   wa   kirei   ni   na-tta.*

      that child TOP pretty into become-PAST

      (That child became pretty.)

    b. *Momotaro wa*   **wet** *ni   na-tta.*

        TOP   into become-PAST

    (Momotaro became wet.)

Kirei in (18a, 19a) is an adjectival noun. The English adjectives 'handsome' and 'wet' are put into the slots for adjectival nouns. It seems that EL adjectives and adjective phrases are nominalized by the attached post-positional morphemes when they are embedded in the ML. The nominalization of EL materials is noted in the process of insertional CS. Such a nominal usage of EL materials is also seen in verbs. In the following section, we will see how EL verbs are treated in CS.

4.3 Verbs and other EL islands

One feature in terms of verb switching is the children's use of the '*do* construction' (Takagi, 2006b). English verbs are used with the Japanese verbs *suru* (do) or *dekiru* (can), most of which are inflected with other Japanese suffixal auxiliaries (e.g., marry-*shita*, invite-*shi-nai*). The verb *suru* seems particularly susceptible to being used in the construction of new verbs. We noted the lexical category of verbal nouns. *Suru* combines with verbal nouns and creates new verbs

meaning 'to do what the noun refers to', as in (20).

(20) *dokusyo- suru*

to read

When English verbs are incorporated into Japanese, they act as verbal nouns, inflecting with *suru*. There is no perceptible semantic difference between the original English verbs and the *suru*-compounds, since *suru* has little or no semantic content. This situation is schematized in (21).

(21) VE → VN → VJ (VN: verbal noun, E: English, J: Japanese)

A similar pattern is reported by Yoon (1992) in his Korean-English CS data, where English words were immediately followed by an inflected form of the Korean helping verb *-hada*. Here, the helping verb is called an 'operating verb', meaning a verb that carries the inflections necessary to indicate various functions. This type of operator is often used in Indic languages. Appel and Muysken (1987) show that when an Indic language is mixed with English, a helping verb, i.e. a form such as 'make' or 'do', is added to English elements. For example, in Surinam Hindustani, speakers use *kare* with English elements, in which *kare* (do) serves as the helping verb. Similar examples are shown in Chana and Romaine's (1984) study of Panjabi-English speakers. Appel and Muysken (1987) introduced the notion of a 'search for neutrality' and referred to this type of mixing as a strategy of neutrality that serves to nativize a switched word. Muysken (1995) claims that, in agglutinative morphology, where the components of a word are more loosely connected, insertional CS is predicted to be easier, and that this morphological possibility makes it extremely easy to borrow EL verbs.

The *suru*-compounding can be analyzed syntactically as follows. In principle, VE-*suru* can be paraphrased as 'VE *o* (ACC) *suru*', where the English verb acts as the object of *suru*. For example, one child said:

(22) *Dakara ne,*   **boat** *ni*   *no-tte*   **sail** *o*   *shinai-to*

so   sentence-final-PTL   DAT get on-and   ACC have to do

'So, (they) have to get on the boat and sail.'

'Sail' with *o* (ACC) in the above example clearly functions as the direct object of *suru*. EL verbs are treated as nouns when they are incorporated into Japanese. Kageyama (1982) points out that the direct object is the element most liable to nominalization. We can postulate a rule of nominalization for EL verbs. English verbs are nominalized by *o* (ACC), and then they are turned back into verbs by the addition of *suru*. This process is schematized in (23).

(23) [[VE] o → N] *suru* → VJ

ACC

Again, the nominal usage of EL elements in CS is noted.

Besides EL adjectives and verbs, other syntactic constituents also take part in the nominalization process. In the following example, a more extensive EL island is switched.

(24) *Soshite* **prince** *ga* **marry**-*shite ne,* **gone to the palace**.

and NOM do sentence-final-PTL

'And the Prince married, and (he was) gone to the palace.'

The underlined part is an EL island, which is entirely English. No Japanese morpheme is appended to it. However, this EL island could be used with the past form *shita* (did), as follows:

(25) (gone to the palace)-*shita*.

do-PAST

We can see that the verbal phrase in (25) acts as the object of *shita*. It is treated as a single unit and nominalized in the process of switching. Here is another example of an extensive EL island.

(26) **She is clean** *ne,* **house** *o shinai-to-dame na no.*

SFP ACC do-must copula SFP

'She is clean(ing) .... (she) must clean the house.'

The internal structure of this sentence is analyzed as follows:

(27) (she is cleaning the house) *o suru*

ACC do

The construction (27) represents the simplified structure of (26), and is identical with the '*do* construction'. The part in parentheses acts as the object of *suru*. This indicates the nominalization of the entire sentence.

4.4 Nominalization in CS

I have shown that Japanese-English CS is characterized as the insertion of EL nominal when the base language is Japanese. In all the patterns examined, we have found an interesting processing phenomenon that has not been focused on or discussed by previous researchers, i.e., the occurrence of internal change in speech categories. We have seen how Japanese system morphemes such as case-markers or postpositions attached to EL nouns. EL adjectives and verbs were also treated as nominal when they were incorporated into the ML. I suspect that there might be a noun-forming function in Japanese post-positional morphemes. The nominal use of EL materials should be noted as the central feature of Japanese→English CS, because

this implies that insertional CS involves a nominalization process.

The concept of congruence is significant in considering insertional CS. It seems that nominalization contributes to creating congruence when insertional CS takes place. Nouns are considered to be congruent between languages. According to Kageyama (1982), the treatment of foreign verbs and adjectives as nouns (verbal nouns and adjectival nouns respectively) is not mysterious if we consider foreign words in general. He states that exotic words will most probably be regarded as direct quotes, and direct quotes resemble nouns in many syntactic respects.

It is interesting that nominalization occurs not only lexically but also syntactically. Phrasal and clausal structures are treated as single units in switching. We have seen in (27) that an entire sentence can be nominalized. This indicates nominalization at the syntactic level, where the complexity of the syntactic unit is disregarded. In my view, the ML word formation rule is applied to the process of EL insertion.

Here, I want to re-examine the Japanese suffix -sa, which was introduced in section 3.3. The suffix -sa, which nominalizes adjectives, can nominalize an entire desiderative clause produced by the suffix -tai, which is itself an adjectival clause, as well as an adjectival clause produced with the predicate *hoshii* (want), as the following examples show. The portion enclosed in the square brackets [   ] is the nominalized part.

(28) a. *sake o   nomi-ta- i*

      ACC drink-want-PRES

      (want to drink sake)

   b. [*sake o   nomi-ta*] *-sa ni* ...

      (out of desire of drinking sake)

(29) a. *utsukushi-sa   ga   hoshi-i*

      beautiful-ness NOM want-PRES

      (want beautifulness)

   b. [*utsukushi-sa   ga   hoshi*] *-sa ni* ...

      (out of desire of having beautifulness)

(30) a. *sensei   ni   home-rare-ta -i*

      teacher   by praise-PASS-want-PRES

      (want to be praised by the teacher)

   b. [*sensei   ni   home-rare-ta*] *-sa ni* ...

      (out of desire to be praised by the teacher)

(cited in Shibatani, 1990)

These forms typically occur in a purposive clause marked by the particle *ni*, and with the meaning of 'so as to'. The crucial point is that the desiderative clause is a syntactic unit having its own internal structure with elements such as case particles and nouns. The lexical process of nominalization by the suffix *-sa* is applied to this complex syntactic unit. In (29), *sa*-nominalization occurs once lexically with the adjective *utsukushi-i* (beautiful), and once again at the syntactic level of the desiderative clause. In (30), before *-sa* is attached, the desiderative clause has undergone a passive transformation. Thus, the *sa*-nominalization involves both lexical and syntactical suffixation. It should be pointed out that the clausal *-sa* forms aspire to become lexical units, in that they tend to suppress clause internal case particles such as *ga* (NOM) and *o* (ACC). This leads to forms such as *sake-nomi-ta-sa* and *utsukushi-sa-hoshi-sa*, which are pronounced as single lexical items. We have here a case where a morphological process applies outside the domain of the lexicon and interacts with syntax (Kageyama, 1982). It is possible to think that a similar situation is repeated in the process of insertional CS. That is, EL syntactic units, which are treated as single items, are nominalized and inserted into the ML frame.

5. Conclusion

I have shown that whatever speech categories are switched, the EL materials are treated as nominal and put into the word formation rule of Japanese, the ML. The concept of congruence is important in considering the grammatical structures of insertional CS. It was suggested that it is nominalization that creates congruence between the two languages, and that it is congruence that determines the type of CS as insertional. In other words, for the occurrence of insertional CS, sufficient congruence is necessary.

However, our analysis in this paper only focused on switches observed in the Japanese base language, so it is not certain whether this assumption is only applicable when the ML is Japanese, which is an agglutinative language. The following questions now arise. What type of CS will be observed when the base language is English? And if there were a lack of sufficient congruence, what type of compromise strategy would be employed? Would alternation take place, instead of insertion, in the case of insufficient congruence? Further investigation is necessary to answer these questions.

Notes

1) Congruence is a match between the ML and the EL at the lemma level with respect to linguistically relevant features (Myers-Scotton & Jake, 1995).

2) The details of the data-collection procedure are given in Takagi (2006a).

3) Muysken (2000) uses the term 'code-mixing', rather than CS for the general process of mixing. The reason he avoids using the term CS is based on the idea that switching is only an appropriate term for the alternational type of mixing. According to Muysken (2000), the term CS is less neutral in two ways: as a term it already suggests something like alternation (as opposed to insertion), and it separates code-mixing too strongly from the phenomena of borrowing and interference. I use the term CS as a general term to refer to the use of two languages by bilinguals in the same sentence or discourse; it covers any utterance or discourse containing features of both languages, irrespective of the reasons which cause this to happen.

4) In traditional Japanese grammar, this category is called *keiyoo-dooshi* (adjectival verb). Contrary to what the traditional term seems to suggest, members of this category are really more like nouns than verbs. Many grammarians refer to this category as nominal adjectives (e.g., Kuno 1973), but I use the term adjectival nouns following Martin (1975), since these, unlike regular adjectives, take the copula *da*.

5) It is quite possible to analyze them as a sub-class of nouns. However, this paper treats verbal nouns as constituting an independent category, because when they occur with the dummy verb *suru* (do), the verbal noun with *suru* is regarded as a verb.

6) Recently, some ordinary nouns have begun to be verbalized by *suru*, such as *ocha-suru* (do tea) and *gakusei-suru* (do student) as in the following examples.

   a. *ocha-shi-te   kaeru*

      tea do -and go (home)

      (have tea and go home)

   b. *itsumademo gakusei-shi-te-iru*

      forever   student do   PROG

      (being student forever)

7) Derivational morphemes are bound morphemes that may change the meaning and/or the category of the word to which they are attached (Tsujimura 1996).

8) In an attempt to quantify CS, I counted the number of types (different items), not tokens (the total items), because some items were used repeatedly by the same speaker.

9) There was one exception, when an example of bare form was observed in the data, as follows:

   Researcher: Donna hito ?   (What kind of person?)

   Child   : **Naughty**.

In this case, the copula or its inflective form would be necessary to conform to Japanese grammar. The following examples can be postulated.

Examples (invented) : -Naughty *da-tta*.   '(They) were naughty.'

           copula-PAST

     -Naughty *na*   *no*.   '(They) are naughty.'

           copula   sentence-final-PTL

     -Naughty-*na hito*.   'Naughty person.'

           person

Appendix

The following abbreviations were used in the explanations of the examples in this paper.

ACC: accusative   AP: adjective phrase   DAT: dative   GEN: genitive   N: noun

NOM: nominative   O: object   Pass: passive   PTL: particle   PRES: present

PROG: progressive   QUO: quotation   SFP: sentence final particle   TOP: topic marker

V: verb   VN: verbal noun

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