

Morphemic Code-Switching in Japanese/English Bilingualism⁽¹⁾

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要旨

コード・スイッチングとは、一人の話者によって少なくとも二つのコード（言語または方言）を交互に切り替えながら話す行為であり、バイリンガル研究の重要な一分野をなしている。特に、形式面の研究においては、文や節の中のどこでコード・スイッチングが起こり得るか（あるいは起こり得ないか）といった文法的特性を明らかにすることに主眼が置かれ、過去数十年にわたってさまざまな文法的制約が特定のコードの組み合わせに基づいて提唱されてきた。本論文では、これまでに提唱されてきた主要な六つの文法的制約を検証する。特に、日本語と英語の切り替えにおいては、英語の文や節に日本語の助詞のような拘束形態素のみが現れる形態素レベルのコード・スイッチングが散見されるが、本論文はこうした現象がこれまでの文法的制約によっては十分に説明できないことを示す。

【キーワード】 code-switching, morphemes, constraints, English, Japanese

1. Introduction

Intrasentential code-switching, the alternate use of at least two codes (languages or dialects) within the same clause, has been an object of linguistic studies over the past few decades. Earlier studies on code-switching had a tendency to pursue the speculation that intrasentential code-switching resulted from the performance of imperfect bilinguals and posit that ideal bilingual speakers made no intrasentential mixture. Now that code-switching is widely studied in both formal and functional aspects, however, many recent researchers have assumed that intrasentential code-switching is not a haphazard mixture of linguistic systems but it exhibits

structural regularities. Accordingly, several syntactic constraints have been formulated on the basis of particular language pairs (e.g., Poplack, 1980; Joshi, 1985; Di Sciullo, Muysken, & Singh, 1986; Myers-Scotton, 1993, 1995; Belazi, Rubin, & Toribio, 1994; MacSwan, 1999, 2000, 2004).

One of the questions that has been touched from time to time but not explored in this area is what may be called “morphemic code-switching,” a phenomenon in which one language offers affix-like elements to attach to lexemes provided from another. The following sentences in (1) provide a few examples:

(1) a. She spent her own money *o*⁽²⁾.

ACC⁽³⁾ (Nishimura, 1997: 117)

b. Look at the things she buys for Sean *ni*.

DAT (Nishimura, 1997: 119)

c. She *wa* took her a month to come home *yo*.

TOP DISC

‘As for her, (it) took her a month to come home, you know.’

(Nishimura, 1985: 77)

d. I don’t know the bus stop *no* name.

GEN

‘I don’t know the bus stop’s name.’ (Morimoto, 1999: 24)

All the examples in (1) show that one language (Japanese in this case) offers only morphemic elements to the mixed sentences: In (1a), the English direct object ‘her own money’ is marked further with the Japanese accusative case particle ‘*o*.’ Similarly, in (1b), the NP ‘Sean,’ the object of the preposition ‘for,’ is marked with the dative case particle ‘*ni*.’ In (1c), the pronoun ‘she’ is marked with the topic particle ‘*wa*,’ and the discourse particle ‘*yo*’ is attached to the sentence-final position. In (1d), the genitive particle ‘*no*’ is inserted between two English NPs ‘the bus stop’ and ‘name.’

As previous research on intrasentential code-switching has been focusing on

switching at the phrasal or sentential level, little attention has been given to the point. In this paper, giving a review of the relevant literature on the formal aspect of code-switching, I demonstrate that none of the structural constraints that have been proposed so far can account for the morphemic-level code-switching.

2. Structural Constraints on Code-Switching

In this section, I discuss six influential constraints on the structural properties of intrasentential code-switching, focusing on their theoretical problems.

2.1 The Free Morpheme and Equivalence Constraints

One of the earlier attempts to formalize the process of intrasentential code-switching is Poplack's (1980) constraints on word order. Poplack (1980) proposed the following two syntactic constraints:

(2) The Free Morpheme Constraint

Codes may be switched after any constituent in discourse provided that constituent is not a bound morpheme.

(3) The Equivalence Constraint

Code-switches will tend to occur at points around which the surface structures of the two languages map onto each other.

(Poplack, 1980: 585f)

The intent of (2) is that a switch is prohibited between a bound morpheme and a lexical item, i.e., a bound morpheme in one language cannot be attached to a lexical item in the other⁽⁴⁾. The item in (4) below shows an ungrammatical switching, in which the Spanish bound morpheme ‘*-iendo*’ is affixed to the English V root ‘eat:’

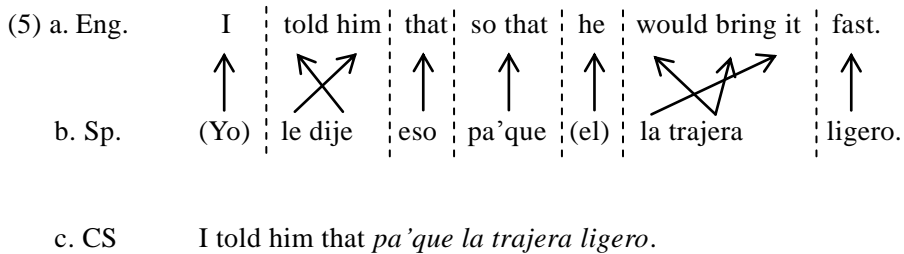
(4) *eat-*iendo*

GER

‘eating’

(Poplack, 1980: 586)

The constraint in (3), on the other hand, is aimed at disallowing a switch between two constituents unless the relative word order is shared at S-structure by the two languages involved. Acceptable switching points depend upon where juxtaposition of L₁ and L₂ constituents conforms to each other’s surface syntactic structure. The figure in (5) below illustrates permissible switching points in Spanish/English code-switching:



(Poplack, 1980: 586)

In (5), the arrows indicate the ways in which elements from the two languages map onto each other and the dotted lines indicate permissible switching points, at which the arrows do not cross. Theoretically, the speaker can switch their codes at any point(s) that the dotted lines designate. The sentence in (5c) is the speaker’s actual mixed utterance, the switching point of which satisfies the prediction of the equivalence constraint.

Although these two constraints are, according to Poplack (1980), enough to account for all the instances of Spanish/English code-switching that she collected, they do not hold true for the Japanese/English code-switches. For example, all the sentences in (1) above, repeated as (6) below, violate the free morpheme constraint:

(6) a. She spent her own money *o*.

ACC (Nishimura, 1997: 117)

b. Look at the things she buys for Sean *ni*.

DAT (Nishimura, 1997: 119)

c. She *wa* took her a month to come home *yo*.

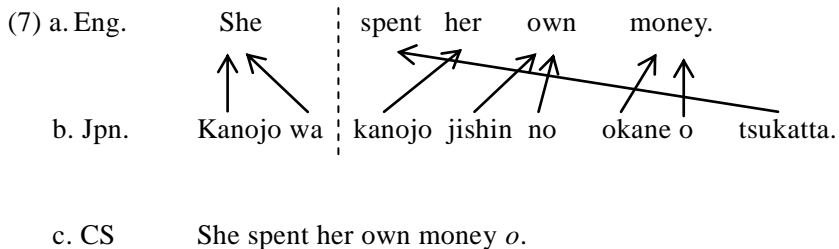
TOP DISC (Nishimura, 1985: 77)

d. I don't know the bus stop *no* name.

GEN (Morimoto, 1999: 24)

As can be seen in (6) above, Japanese bound morphemes (*o*, *ni*, *wa*, *yo*, and *no*) are affixed to various English lexical items. The free morpheme constraint is not capable of justifying the grammaticality of the examples in (6).

In addition, some of the sentences in (6) show disobedience to the equivalence constraint. Take (6a) for example, whose L_1 and L_2 juxtaposition is given in (7) below:



As is illustrated in (7), the equivalence constraint sets only one permissible switching point; it draws one dotted line between the first constituent (i.e., 'she' in (7a); 'kanojo wa' in (7b)) and the second (i.e., 'spent' in (7a); 'kanojo' in (7b)). However, this point does not accord with the actual switching point in (7c).

2.2 The Asymmetry and Closed Class Constraints

Based on the language pair of Marathi and English, Joshi (1985) attempted to formulate the structural constraints on intrasentential code-switching, called the

asymmetry constraint and the closed class constraint. Let us look first at the asymmetry constraint, which is stated in (8) below:

(8) The Asymmetry Constraint

Let G_m be the matrix grammar and G_e be the embedded grammar.

Then $A_m \times A_e$ where A_m is a category of G_m , A_e is a category of G_e , and

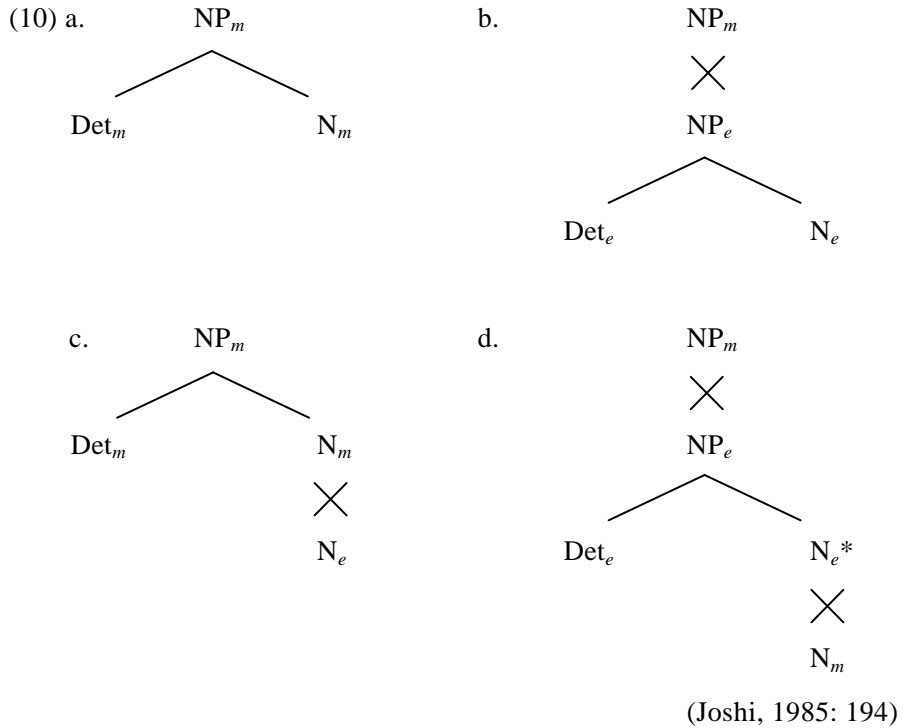
$A_m \approx A_e$. (Joshi, 1985: 192)

The asymmetry constraint in (8) intends that at any stage of the derivation, switching a category of the matrix grammar (A_m) to a category of the embedded grammar (A_e) is permitted, but not vice versa, if A_m categorically corresponds (\approx) to A_e (e.g., $NP_m \approx NP_e$). In this respect, Joshi (1985) assumes the asymmetrical relationship between the matrix language (L_m) and the embedded language (L_e). The examples in (9) below can attest this constraint:

- | | |
|----------------------------|-----------------------------|
| (9) a. <i>kāhi khureyā</i> | $\text{Det}_m \text{N}_m$ |
| some chairs | |
| b. some charis | $\text{Det}_e \text{N}_e$ |
| c. <i>kāhi</i> chairs | $\text{Det}_m \text{N}_e$ |
| d. *some <i>khureyā</i> | * $\text{Det}_e \text{N}_m$ |

(Joshi, 1985: 194)

In (9), there are four combinations of Marathi/English determiners and nouns. A combination of the English determiner ‘some’ and the Marathi noun ‘*khureyā*’ in (9d) is ungrammatical, while others in (9a-c) are grammatical. The ungrammaticality of (9d) can be accounted for with the unidirectionality of switching between the matrix and embedded languages, as is schematically shown in (10) below:



According to Joshi (1985), the distinction between L_m and L_e in Marathi/English code-switching is invariable: Marathi is always L_m and English is L_e . In this light, we see that (10a-c) are observant of the asymmetry constraint; all the switches in (10a-c) are unidirectional, i.e., from Marathi to English. (10d), on the other hand, acts in violation of the asymmetry constraint because of the switch from English (N_e) to Marathi (N_m).

Joshi (1985) also sets a rule for the switchability of the so-called closed class items, as is shown in (11) below:

(11) Constraint on Closed Class Items

Closed class items (e.g., determiners, quantifiers, prepositions, possessive, Aux, Tense, helping verbs) cannot be switched⁽⁵⁾. (Joshi, 1985: 194)

The following provides an example:

- (12) a. *kāhi khureyāwar*
 some chairs on
 b. **kāhi khureyā* on

(12b) is ungrammatical since it involves the switching between closed class items, i.e., the Marathi postposition ‘*war*’ switches to the English preposition ‘on.’

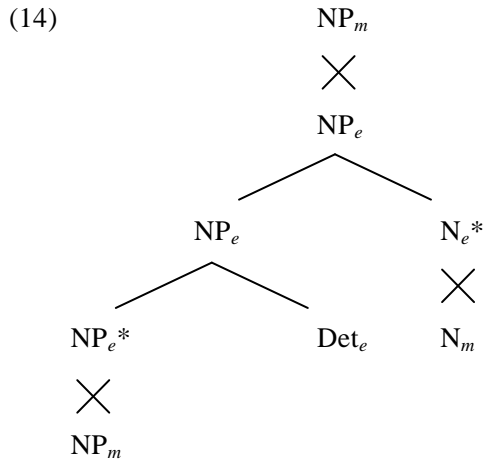
Joshi’s (1985) constraints, however, fail to grasp the process of affixation in Japanese/English code-switching. Observe the sentence in (1d), repeated as (13) below:

- (13) I don’t know the bus stop *no* name.

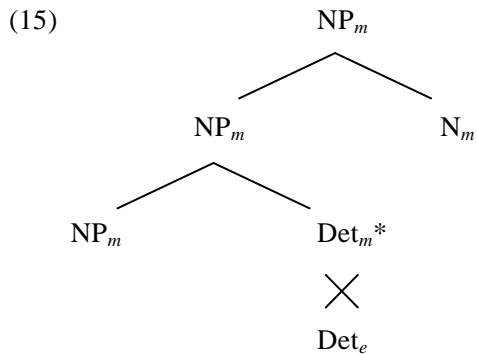
GEN

‘I don’t know the bus stop’s name.’ (Morimoto, 1999: 24)

In (13), the English genitive marker ‘’s’ is switched to the Japanese genitive particle ‘*no*.’ Unlike Marathi/English code-switching, in which Joshi (1985) presumes Marathi to be L_m , the distinction between L_m and L_e in Japanese/English code-switching is not rigid. In this case, however, we can be fairly certain that L_m is English. On the assumption that both ‘’s’ and ‘*no*’ are genitive case assigners dominated by Det (Fukui, 1995: 27f, 31), Joshi’s way of deriving the NP ‘the bus stop *no* name’ is then schematically illustrated in (14) below. As is shown in (14), NP_e has to be switched with NP_m in order to obtain the well-formed switch. This switch, however, incurs a violation of the asymmetry constraint in (8) above, which does not permit switching A_e to A_m :



What occurs if we assume NP_m to expand into Det_m and N_m rather than to be switched to NP_e ? See (15) below. The diagram in (15) reveals that Det_m has to be replaced with Det_e , both of which belong to the closed class items. This fact is not in agreement with the constraint in (11), which inhibits closed class items from switching to each other:



2.3 The Government Constraint

Di Sciullo, Muysken, and Singh (1986) attempted to give a characterization of intrasentential code-switching within the theoretical framework of government⁽⁶⁾. According to them, switching is disallowed when a government relation holds between constituents of a sentence. The government constraint that they proposed is formulated in (16) below:

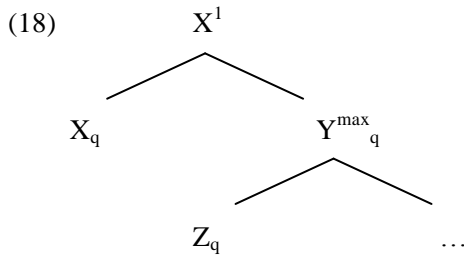
(16) if X governs Y, ... X_q ... Y_q ... (Di Sciullo, Muysken, and Singh, 1986: 5)

The constraint in (16) states that if X has the language index q and if it governs Y, Y must also have the same language index q . Here they present the notion of ‘language index,’ which marks words that are drawn from a particular lexicon. The language index q must be shared between elements bearing the government relation to each other⁽⁷⁾. The q index of a maximal projection is determined by the L_q carrier, the highest lexical element in a maximal projection, as is shown in (17) below:

- (17) a. If L_q carrier has index q , then Y^{\max}_q .
 b. In a maximal projection Y^{\max} , the L_q carrier is the lexical element which asymmetrically c-commands the other lexical elements or terminal phrase nodes dominated by Y^{\max} .

(Di Sciullo, Muysken, and Singh, 1986: 6)

Schematically, the constraints in (16) and (17) are shown in (18) below:



(Di Sciullo, Muysken, and Singh, 1986: 7)

The diagram in (18) illustrates that the L_q carrier of a governed category (Z) must have the same L_q index as its governor (X). The L_q carrier also assigns the q index to its projection (Y^{\max}).

The following Hindi/English mixing provides a good example:

(19) a. I told him that *rām bahut bimār hai*

b. **ki*

Ram very sick AUX

I told him that Ram was very sick.

(Di Sciullo, Muysken, and Singh, 1986: 17)

The sentence in (19a) is grammatical since the English V *told* and the English complementizer *that* bear the same language index due to their government relation, whereas (19b) is ungrammatical because the Hindi complementizer *ki* does not take on the language index of the governing English V.

This approach has been defended in Halmari (1993) and extended to morphological assimilation in intrasentential Finnish/English code-switching. According to her, it is possible to insert English lexical items into terminal nodes, provided that case and agreement morphology are in Finnish when a government relation holds between those lexical items and Finnish elements. Two overt constraints work in this pair of code-switched languages: case assignment and agreement. The first constraint involves the case-assigning verb and the object DP. Halmari (1993) argues that sentences are grammatical when the Finnish verb, or an English verb stem with Finnish verb morphemes, assigns the Finnish accusative case to its object DP, while they are ungrammatical when the language of the case assigner does not match with that of the case. The following provide a few examples:

(20) a. **Minä siivos + i + n the building.*

I clean + PST + 1SG

‘I cleaned the building.’

b. **I cleaned rakennukse + n.*

building + ACC

c. **I cleaned building + in.*

building + ACC

d. Minä siivosin *building* + in.

I cleaned building + ACC

e. Minä *clean* + as + i + n *building* + in.

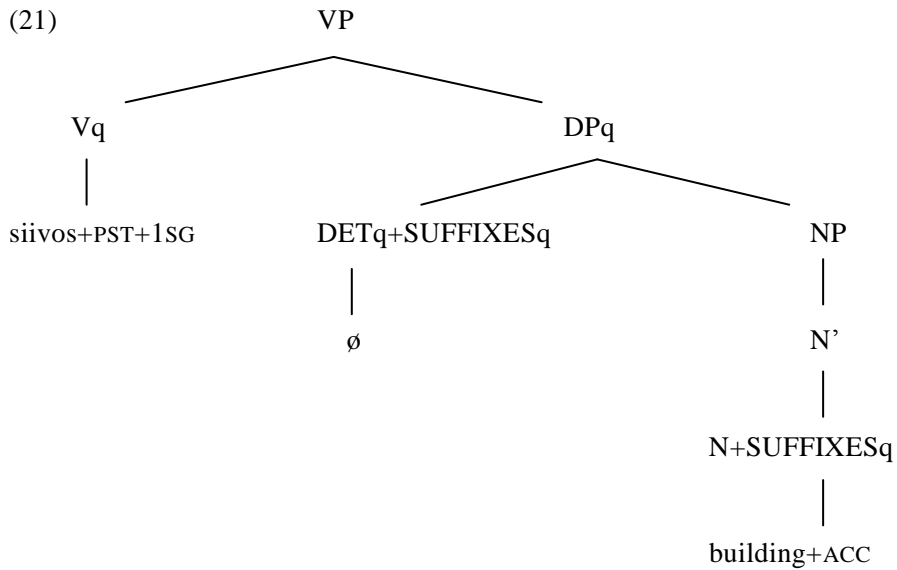
I clean + VERBMARKER + PST + 1SG building + ACC

f. Minä *clean* + as + i + n rakennukse + n.

I clean + VERBMARKER + PST + 1SG building + ACC

(Halmari, 1993: 1056)

The asymmetry between (20a-c) and (20d-f) in grammaticality can be reduced to the notion of government. (20a) is ungrammatical because the governing Finnish V does not go with the English DP. (20b) and (20c) are also ungrammatical since the English V does not fit with the Finnish DP or the English DP with the Finnish nominal morpheme. On the other hand, (20d-f) are grammatical; the case-assigning Finnish V and its English object DP are consistent with each other in terms of Finnish case marking. In view of the language index *q*, (20d), for instance, is schematically drawn as in (21) below. As is shown in (21), the lexical governor (V_q), the highest lexical non-governing element of the governed maximal projection (DET_q+SUFFIXES_q), and the case of the governed maximal projection (SUFFIXES_q) share the language index *q*:



The second constraint is concerned with the subject-verb agreement. Halmari (1993) maintains that the ungrammaticality of the sentences in (22) below is ascribed to the disparity between the language of the subject and that of the verb:

(22) a. **Minä cleaned the building.*

I

b. **I siivos + i + n rakennukse + n.*

clean + PST + 1SG building + ACC

c. **I clean + as + i + n building + in.*

clean + VERBMARKER + PST + 1SG building + ACC

(Halmari, 1993: 1056)

In (22a), the Finnish first person singular (1SG) subject does not conform to the English V. In (22b) and (22c), the English 1SG subject is not consistent with the Finnish V or the English V stem with the Finnish verbal morphemes. In contrast, (20d-f) above, repeated as (23) below, are well-formed due to the fact that the Finnish 1SG subject agrees with the morphosyntactic form of the Finnish V or the English V stem with the Finnish verbal morphemes:

(23) a. Minä siivosin *building* + in.

I cleaned building + ACC

b. Minä *clean* + as + i + n *building* + in.

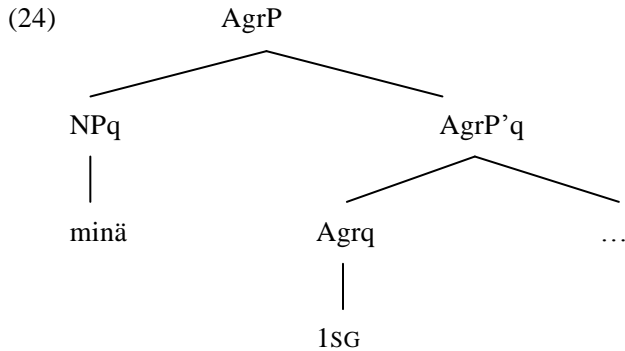
I clean + VERBMARKER + PST + 1SG building + ACC

c. Minä *clean* + as + i + n rakennukse + n.

I clean + VERBMARKER + PST + 1SG building + ACC

(Halmari, 1993: 1056)

Let us then look at how the language index *q* functions in (23a) above. See the diagram in (24) below:



(Halmari, 1993: 1060)

As is shown in (24), the Finnish agreement (Agrq), which can be regarded as a governing element, governs the subject position (NPq). Hence, the *q* index is shared between them.

However, both Di Sciullo *et al.*'s (1986) and Halmari's (1993) approaches fail to account for the morphemic-level switching data in Japanese/English code-switching. Let us take a look at the sentence in (1a), repeated as (25) below:

(25) She spent her own money *o*.

ACC

(Nishimura, 1997: 117)

In (25), apparently, the case-assigning verb is the English V ‘spent,’ while the object DP is the English DP ‘her own money,’ which is also case-marked with the Japanese accusative particle ‘o.’ Note that the sentence is grammatical despite the fact that there is a mismatch between the language of the case-assigning verb and the case.

Their approaches are also unsuccessful in explaining the subject-verb agreement in Japanese/English code-switching. Let us have a look at the sentence in (26) below:

(26) *Camp-seikatsu-ga* made him rough.⁽⁸⁾

life NOM

‘(The) camp life made him rough.’ (Nishimura, 1997: 120)

Ostensibly, in (26), the verb is the English V ‘made,’ and the subject, which must show agreement with its verb in number and person, is the mixed constituent ‘camp-*seikatsu*.’ Here we notice the fact that the subject phrase in (26) is morphologically assimilated to Japanese, carrying the Japanese nominative particle ‘ga,’ which exhibits a mismatch between the morpheme of the subject phrase and the morphosyntactic form of the verb. This is also inexplicable in both Di Sciullo *et al.*’s (1986) and Halmari’s (1993) approaches, which allow no mixing in elements between which a government relation holds.

2.4 The Functional Head Constraint

Di Sciullo *et al.*’s (1986) line of thinking has been developed further by Belazi, Rubin, and Toribio (1994). They argue that Di Sciullo *et al.*’s (1986) government constraint fails to rationalize a number of switches in that it is ‘too restrictive (p. 224).’ In accounting for the grammaticality of those perplexing data, according to them, the distinction between functional heads (e.g., C⁰, D⁰) and lexical heads (e.g., V⁰, N⁰) should be exploited. Adopting Abney’s (1987) idea of *f-selection*, a special relation between a functional head and its complement, they propose the constraint in (27) below:

(27) The Functional Head Constraint (FHC)

The language feature of the complement f-selected by a functional head, like all other relevant features, must match the corresponding feature of that functional head. (Belazi, Rubin, and Toribio, 1994: 228)

The FHC in (27) thus restricts switching between a functional head and its complement due to the strong relation that exists between them. In brief, switching is disallowed between C^0 and its complement IP, between D^0 and its complement NP, etc. Take the Spanish/English code-switching in (28) below, for example. In (28a), which is judged grammatical, the language feature of the Spanish complementizer ‘*que*’ matches that of its Spanish complement IP ‘*el estudiante había recibido una A*’. In contrast, (28b) is ungrammatical in which the English complementizer is not in the same language as its complement clause that is Spanish. This distinction in grammaticality is explicable in Belazi *et al.*’s (1994) FHC but not in Di Sciullo *et al.*’s (1986) government constraint, which requires that the complementizer of a complement be in the same language as the governing head (i.e., the English V ‘said’):

(28) a. The professor said *que el estudiante había recibido una A.*

that the student had received an A

‘The professor said that the student had received an A.’

b. *The professor said that *el estudiante había recibido una A.*

(Belazi, Rubin, and Toribio, 1994: 224)

However, the FHC seems *too restrictive* in Japanese/English code-switching. Again, observe (1d), repeated as (29) below, in which the Japanese genitive case particle ‘*no*’ is inserted between the two English lexical items ‘the bus stop’ and ‘name’:

(29) I don’t know the bus stop *no* name.

GEN

‘I don’t know the bus stop’s name.’ (Morimoto, 1999: 24)

In either language, the genitive case marker has been identified as a determiner, i.e., a functional head (cf. Fukui 1995). In this view, the syntactic structure of the DP concerned in (29) is given in (30) below:

(30) I don't know [_{DP} the bus stop [_{D'} [_D *no*] [_{NP} name]]].

As demonstrated in (30) above, a problematic code switch occurs, seeing that the Japanese D '*no*' takes the English NP complement 'name.' This fact goes against the FHC, which predicts that switching will be disallowed between D⁰ and its complement NP.

2.5 The Matrix Language Frame Model

Developing Azuma's (1991, 1993) frame-content hypothesis further, Myers-Scotton (1993, 1995) propounds the Matrix Language Frame (MLF) Model, which, like Joshi (1985), recognizes an asymmetric relation between the two languages involved in code-switching and differentiates between the matrix language (ML) and the embedded language (EL). However, unlike Joshi's (1985) asymmetry constraint, which stresses the unidirectionality of switching between the ML and the EL, the MLF model gives weight to the morphosyntactic framing of the ML in code-switching construction, as stated in (31) below:

(31) The ML Hypothesis

The ML determines the morphosyntax of ML + EL constituents.

(Myers-Scotton, 1995: 239)

The MLF model thus requires that the ML delineate the positions for content morphemes and system morphemes⁽⁹⁾ at the S-structure level. This requirement resolves itself into the following two principles:

(32) The Morpheme Order Principle

Surface morpheme order will be that of the ML in ML + EL constituents.

(33) The System Morpheme Principle

All ‘syntactically or externally relevant’ system morphemes come only from the ML in ML + EL constituents.

(Myers-Scotton, 1995: 239)

The Morpheme Order Principle in (32) states that morphemes within a bilingual utterance must follow the order that the ML prescribes. An example of Swahili/English code-switching is taken to illustrate this principle:

(34) a. *Anakula mbili *plate*...

b. Anakula *plate* mbili...

‘He eats two plates...’

(Myers-Scotton, 1995: 244)

(34a) is not acceptable due to the precedence of the Swahili modifier ‘mbili [two]’ over its English head ‘*plate*,’ which exhibits the morpheme order of English, the EL. Conversely, (35b) is well-formed for the reason that it follows the order of Swahili, the ML.

The System Morpheme Principle in (33) above states that every system morpheme in bilingual utterance must originate from the ML. See another example of Swahili/English code-switching in (35) below:

(35) ...Unaanza ku-*behave* kama watu wa huko wa- -na- -vyo- -*behave*

INFIN-

3PL NON-PST MANNER

‘...You being to behave as people of there behave.’

(Myers-Scotton, 1995: 244)

In (35), all of the verbal conjugations, i.e., system morphemes, attached to the

English V ‘*behave*’ emanate from Swahili, which is presumed to be the ML in this code-switching construction.

However, the matter is not quite as simple as the MLF model suggests. Look at the sentence in (36) below:

(36) I slept with her basement *de*.

LOC

‘I slept with her in (the) basement.’ (Nishimura, 1985: 52, 117)

In (36), the Japanese locative particle ‘*de*’ is affixed to the English N ‘basement.’ In light of the relative frequency of morphemes from the participating languages, one of Myers-Scotton’s (1995) criteria for identifying the ML⁽¹⁰⁾, it is obvious that the ML of (36) is English. The Morpheme Order Principle is then not capable of defending the well-formedness of (36) since the mixed constituent ‘basement *de*’ does not follow the order of English but that of Japanese.

Now recall our earlier example in (1d), repeated as (37) below:

(37) I don’t know the bus stop *no* name.

GEN

‘I don’t know the bus stop’s name.’ (Morimoto, 1999: 24)

The frequency-based criterion proves clearly that the ML of the mixed constituent in (36) is English. The System Morpheme Principle above then obliges all the system morphemes in (37) to derive only from English. However, the distribution of them fails to meet what the principle in (33) above expects. Let us take a look at (38) below:

(38) I don’t know the bus stop no name.

The underlined items in (38) are considered to be system morphemes since they have the feature [+Quantifier] (i.e., negative ‘n’t’, determiner ‘the’, and possessive

'no') or [- θ -role assigner] (i.e., 'do' verb). Note that there appears a Japanese system morpheme as well as English system morphemes in (38). Furthermore, the Japanese morpheme 'no' does not take the form of a satisfactory EL island. This fact exhibits no compliance with the System Morpheme Principle, suggesting the refutation of the ML hypothesis in (31) above.

2.6 The Minimalist Approach

MacSwan (1999, 2000, 2004) applies the Minimalist Program (MP) to an approach to intrasentential code-switching. Building on Minimalism, which converges on the minimal use of theoretical assumptions, MacSwan (1999) supposes that it is only natural to take the view that there are no code-switching-specific constraints. However, according to him, code-switching in syntax is allowed, while code-switching in phonology is disallowed because it is assumed that the phonological component of the computational system for human language (C_{HL}) is diverse from the syntactic component. This point is formed as below:

(39) *PF Disjunction Theorem*

- i. The PF component consists of rules/constraints which must be (partially) ordered/ranked with respect to each other, and these orders vary cross-linguistically.
- ii. Code switching entails the union of at least two (lexically-encoded) grammars.
- iii. Ordering relations are not preserved under union.
- iv. Therefore, code switching within a PF component is not possible.

(MacSwan, 2004: 300)

This theorem predicts that code-switching below X^0 is not permitted since X^0 s are inputs to PF. The following Spanish/English code-switching serves as an illustration of the theorem in (39):

(40) a. *Juan *eat-ió*

Juan eat-PST/3SS

‘Juan ate.’

(MacSwan, 2004: 300)

b. Juan *parqueó* su coche

Juan park-PST/3SS his car

‘Juan parked his car.’

(MacSwan, 2004: 301)

(40a) is an ill-formed construction since the English V stem is attached to the Spanish verbal morpheme. This switch is prohibited by the theorem in (39) because they represent an X^0 -level element. In contrast, (40b) is well-formed due to the fact that the English V stem is phonologically integrated into the language of the inflectional morpheme. In this case, no code-switching occurs within X^0 .

However, the ban on X^0 -internal code-switching is contrary to the well-formedness of Japanese/English code-switching at the morphemic level. Once again, look at the sentences in (1) above, repeated as (41) below:

(41) a. She spent her own money *o*.

ACC

(Nishimura, 1997: 117)

b. Look at the things she buys for Sean *ni*.

DAT

(Nishimura, 1997: 119)

c. She *wa* took her a month to come home *yo*.

TOP

DISC (Nishimura, 1985: 77)

d. I don't know the bus stop *no* name.

GEN

(Morimoto, 1999: 24)

As we can recognize from (41), Japanese nominal morphemes are affixed to the English Ns without the phonological integration of their host Ns. Because ‘affixation is a phonological operation (MacSwan, 2004: 301),’ these examples produce X^0 -internal code-switching. This is incompatible with the theorem in (39).

3. Conclusion

This paper discussed several theoretical problems of the previous research on intrasentential code-switching and demonstrated that none of the above syntactic constraints gave a satisfactory explanation for morphemic-level code-switching in Japanese/English bilingual utterances.

The following questions then arise: Where do these affix-like elements come from? What assigns these foreign morphemes to the ‘apparently’ monolingual constituents? To discuss these questions further would require another article.

Notes

(1) I am grateful to Prof. Rakesh Bhatt and Prof. James Yoon for their useful comments on earlier versions of this paper. All errors are mine.

(2) Following academic conventions, the italicized items in the examples indicate “switched” elements.

(3) The following abbreviations are used to annotate the examples:

ACC = accusative	LOC = locative
AUX = auxiliary verb	NOM = nominative
DAT = dative	PST = past tense
DISC = discourse	TOP = topic
GEN = genitive	1SG = first person singular subject agreement
GER = gerundive	3PL = third person plural subject agreement
INFIN = infinitive	3SS = third person singular subject agreement

(4) Poplack (1980) adds that a switch may occur if one of the morphemes has been phonologically integrated into the language of the other (p. 586).

(5) Joshi’s (1985) closed class constraint is similar to Poplack’s (1980) free morpheme

constraint, but it must be noted that Joshi (1985) allows closed class items to appear in the mixed utterance by expanding the embedded phrase (e.g., NP_e) into the closed class item (e.g., Det_e) plus the open class item (e.g., N_e).

- (6) Di Sciullo, Muysken, and Singh (1986) adopt the following definition of government: X governs Y if the first node dominating X also dominates Y, where X is a major category N, V, A, P and no maximal boundary intervenes between X and Y (p. 6).
- (7) According to Di Sciullo, Muysken, and Singh (1986), Language indexes are assigned to individual lexical items at the S-structure level.
- (8) To be exact, this is not a morphemic-only mixed sentence, on which I focus in the present paper, due to the presence of the Japanese N *seikatsu*. However, it serves well as a counter-example to Halmari's (1993) constraint.
- (9) The distinction between content and system morphemes is grounded on the distinctive features [\pm Quantifier]/[\pm potential θ -role assigning/receiving category]/[$\pm\theta$ -role assigner/receiver]. We may leave the details to Myers-Scotton (1995: 240-42).
- (10) Myers-Scotton (1995) also lists sociolinguistic and psycholinguistic criteria, but here I limit the discussion to the intrasentential or morphosyntactic criterion.

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