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Code-switching and L1 development in Japanese-speaking children living in an L2 dominant environment

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Abstract

This study concerns Japanese children living abroad due to their fathers' work. These children need to acquire the language of the host country, while at the same time maintaining their Japanese so that they will be able to adjust to Japanese society in the future. It would be expected that their language development has been considerably influenced by the bilingual environment in which they live. The question focused on in this paper is what happens to the L1 of Japanese children who live abroad as a result of contact with a dominant L2 environment. We can speculate about it by observing code-switching (CS) patterns. The paper investigates CS produced by Japanese children living in the UK from a grammatical perspective. The source of data is an elicitation by using one language at one time. The data was analyzed in the framework of the Matrix Language Frame (MLF) model and the 4-M model. It is shown that the children's CS is characterized as the incorporation of L2 into L1, because syntactically relevant system morphemes were always from Japanese. This implies that the L1 is maintained at the surface level of the language configuration. The results of the study suggest that the language contact situation for Japanese bilingual children may lead to L1 maintenance with convergence to L2. It is argued that L1 is maintained on the surface linguistic configuration, with converging toward L2 at the conceptual level.

Keywords: Code-switching, language contact, CS grammar, Japanese children abroad,
L1 maintenance

1. Introduction

This study concerns Japanese children living abroad due to their fathers' work. These children are called 'returnees' (*kikokushijo*) when they return to Japan. By comparison with the large numbers of recent studies of returnee children in Japan, there has been less research into

Japanese children's linguistic experience in their host countries (Yamada-Yamamoto, 1998a).

The language contact situations of Japanese children have some characteristics which may distinguish them from other ethnic minority children whose second language acquisition, mother tongue maintenance, or bilingualism have been extensively studied in the past. First language loss or attrition can occur as a result of migration when the language of the host country is used to the exclusion of the first language (Pan & Gleason, 1986). The major determinants of the degree of development or regression of the first language are social factors relating to the contact situation. When immigrants settle permanently in their host country, and higher priority is given to the acquisition of the host country's language, the tendency to shift to this language may grow stronger. The priorities of Japanese children living abroad are acquiring the language of the host country (second language: L2), while at the same time maintaining their Japanese (first language: L1) so that they will be able to adjust to Japanese society in the future. In this situation, what is the effect of exposure to an L2 dominant environment on children's language behaviour?

This paper investigates code-switching (CS) produced by Japanese children living in the UK from a grammatical perspective, and explores the characteristics of the children's L1 configuration. The question addressed is what happens to the L1 of Japanese children who live abroad as a result of contact with a dominant L2 environment. We can speculate about it by observing CS patterns. The source of the data used in this study is audio-taped story-telling elicited in one language at a time. The data is analyzed in the framework of the Matrix Language Frame (MLF) model and the 4-M model presented by Myers-Scotton (1993 [1997], 1999, 2002). It is shown that the children's CS is characterized as the incorporation of L2 into L1, because syntactically relevant system morphemes are always from Japanese.

2. Language contact in bilingual children

2.1 Language shift or maintenance?

Some researchers have noted that bilingual acquisition may result in various types and degrees of bilingualism depending on the social context in which the two languages are acquired and used. The languages of young bilingual children may not remain balanced and intact when bilingual development occurs in an unstable social environment. The outcome, often labeled as 'subtractive' (Lambert, 1977) or 'recessive' (Baetens Beardsmore, 1982) bilingualism, has been associated with situations of language shift where the minority L1 becomes affected, aban-

done, or replaced by the majority L2. Another possibility is that changes in the environment lead to the wax and wane of languages in the bilingual child (Grosjean, 1985). Some studies have been more interested in the process of language shift across generations (e.g. Li, 1994; Backus, 1996).

In a language contact situation, whether a minority language is transmitted and maintained or replaced by the dominant language, and whether language shift occurs, often becomes an important question for the first generation of bilingual children raised in the dominant language community. In many cases, especially in bilingual communities where the home language is different from the majority language, children who start out adding a second language to their linguistic repertoire end up with their L1 fading away or being heavily influenced by the L2 (Kaufman & Aronoff, 1991; Schlyter, 1993). Bolonyai (1998) argues that whether the pressures of heavy contact and imbalanced exposure to the L1 and L2 will lead to language shift from L1 to L2 or to L1 maintenance with convergence to L2 is always conditioned by socio- and psycholinguistic factors. Thus, for example, it is suggested that an increase in exposure to the waning L1, or an increased sense of ethnic identity, may delay or reverse an ongoing language shift. Alternatively, even if a child maintains positive identification with both the minority (L1) and the majority (L2) groups, if he/she has unlimited access only to the majority language, L1 attrition and convergence to the L2 might be expected. In contrast, when changes in the child's sociolinguistic environment are such that access and attitudes to both languages are balanced, it is more likely that the two languages will be used separately and structural intrusions will be rare.

2.2 Background: Language development of Japanese children in the UK

Japanese families living in the UK have some group-specific characteristics. In the survey of 320 families conducted by Yamada-Yamamoto and Richards (1998), a typical profile emerged, i.e. of a family which has been in the UK for about three years and anticipates returning to Japan within the next two years. The father always has a job whereas fewer than one mother in five are working. Despite the fact that the fathers are working for Japanese companies or organizations, the vast majority use English exclusively or frequently at work. The parents seem to belong to a unique community of their own, because they are living in the UK for only a limited amount of time, and because of the nature of the fathers' work, and the mothers' general lack of communicative skills in English.

A survey of Japanese parents' attitudes while they were in the UK (Yamada-Yamamoto, 1998b) showed that nearly two-thirds of the parents gave English and Japanese equal priority,

while a third gave Japanese higher priority than English. The view that Japanese is more important seemed to be held more by the parents of pre-school children than those of school-aged children. The survey also revealed the existence of parents' worries and concerns regarding their children's language and education. Parents claimed that their children seemed to be behind in both Japanese and English. Many parents were in a dilemma; they would have liked their children to become better at English in order to adjust to their local schools. At the same time, however, they also wanted their children to maintain and develop their Japanese. The parents' dilemma was often compounded because they felt they lacked access to proper assessment of and advice and guidance about their children's ability in both English and Japanese. Many of the parents' worries and concerns related directly to their children's language development, either in Japanese or in English. They were concerned about the interaction of the two languages, such as language mixing, and the effects of the use of Japanese on the learning of English or vice versa. Their concerns were also related to their children's adjustment to school, both in the UK and in Japan on their return.

Though it is valuable for children to maintain their Japanese language and to have contact with two different cultures, it does place a burden on children who are attending host country schools. Nevertheless, for such children, becoming bilingual and bicultural can be a natural and enriching consequence of living in a foreign country. Yashiro (1995) argues that acquiring a host country's language and maintaining one's mother tongue is not an either-or issue: they are compatible, and they both need to be pursued for a person to be whole.

3. Data and subjects

The subjects of this study were ten Japanese children, four boys and six girls, of Japanese-speaking parents from Japan. They were between the ages of five and eight years, and all had Japanese as their first language. The data was collected by tape-recording children's story-telling. The monolingual context was elicited by specifying the base language in which the child would tell the story. Each child told the researcher about Cinderella and Momotaro in English, and then Japanese, or vice versa, while looking at picture books¹⁾. Here, the focus was on L1 Japanese contexts. In particular, the CS patterns of a girl called Rie observed in the Japanese base language were examined. My previous paper (Takagi, 2006) showed that she code-switched prominently in terms of both the amount and type; she was the only child who produced a considerable amount of syntagmatic CS²⁾. She switched to English frequently and smoothly and

also comprehensibly. She may have maintained some structural consistency even in her seemingly ‘risky’ switching.

4. Theoretical framework: The Matrix Language Frame model & the 4-M model

The Matrix Language Frame (MLF) model sets the theoretical framework for the analysis of the present data because it is able to describe and explain the complex structure of CS data. The model is also helpful in handling all types of language contact phenomena, for instance, language change (Türker, 2005). The MLF model was first extensively presented by Myers-Scotton (1993 [1997]). This book constitutes a major step forward in CS research for the following reasons: (1) The model is psycholinguistically based and thus tries to explain CS behaviour by relating it to models of speech production. (2) It attempts to deal with all CS data, including single lexical items, in a coherent way. (3) Examples are provided from a wide variety of typologically different language pairs, which makes the evidence much more convincing. Also, in line with Garrett (1990) and Levelt (1989), it is assumed that speakers first build a syntactic frame and then go on to fill this frame with words. We thus have an insertional approach to CS, rather than linear approaches. Modified versions of the model have since appeared (Jake & Myers-Scotton, 1997; Myers-Scotton, 2002; Myers-Scotton & Jake, 1995, 2001), and the definitions of some terms of the MLF model have been elaborated or revised. Its application to other language contact phenomena has also been tested with positive results (Bolonyai, 1998; Jake & Myers-Scotton, 1997, etc.)

Myers-Scotton (1993 [1997]) identifies two important sets of distinctions in the structure of intra-CP³ CS: the first is the matrix language (ML) vs. embedded language (EL) distinction, and the second, the content morpheme vs. system morpheme distinction⁴. The contact languages play different roles. The language with the more dominant role, that is, the one that is used for the system morphemes, is called the ML. The EL is the language from which content morphemes are inserted into the ML. The MLF model claims that in mixed ML + EL constituents, only the ML is used to build the frame. Stated formally, the ML determines the morphosyntax of ML + EL constituents. This hypothesis has two testable principles. The first is the Morpheme Order Principle, according to which the surface morpheme order will be that of the ML in ML + EL constituents. The second is the System Morpheme Principle, which asserts that all ‘syntactically or externally relevant’ system morphemes come only from the ML in ML + EL constituents. Any system morpheme is considered ‘syntactically relevant’ only if it takes part in

agreement relationships external to its own head. EL system morphemes may occur in CS only in EL islands⁵⁾. The ML has been shown to have implications for language competence, and ML turnover is interpreted as part of the process of language shift (Bolonyai, 1998).

Within the MLF model, a sub-model called the 4-M model has been posited (Myers-Scotton, 1999, 2002; Myers-Scotton & Jake, 2001). This model is a refined version of the content vs. system morpheme opposition, and explains how different morphemes are accessed in different ways in speech production. The heart of the 4-M model is the fact that system morphemes are activated at two different abstract levels. There are four categories of morphemes in the 4-M model, i.e. content morphemes and three types of system morphemes⁶⁾.

Content morphemes are activated at the lemma level and assign or receive a thematic role. They are ‘directly-elected’ by the semantic/pragmatic feature bundle, mapping conceptual structure on to the lemma. While the MLF model emphasizes the content vs. system morpheme opposition, the 4-M model adds the distinction between early and late system morphemes. Like content morphemes, early system morphemes are activated at the lemma level, but they do not assign or receive thematic roles. Such morphemes are ‘indirectly-elected’ because content morphemes ‘point to’ them (cf. Bock & Levelt, 1994). Formally, early system morphemes are realized inside the maximal projection of the content morpheme that elects them. Their form depend on the content morpheme with which they occur: an example would be the English plural suffix. Late system morphemes are neither activated at the lemma level, nor do they receive/assign thematic roles. They are structurally assigned and not accessed until later. That means the grammatical information they contain is unavailable until the formulator projects and fully assembles the constituent structures of maximal projections. While the lemmas include slots for such morphemes, their form depends on information not available until the level of the formulator. It has been observed by psycholinguists that case is a late process, making it a late system morpheme. Furthermore, late system morphemes are separated into two types⁷⁾. The differentiation between early and late system morphemes will be useful in analyzing and explaining the CS data in the present study. Using the 4-M model, Japanese post-positional morphemes (case-markers, postpositions, copula, etc.) are classified as late system morphemes.

5. Findings and Discussion

The analysis of the data showed that CS can be characterized as insertional⁸⁾ when the base language is Japanese. Switching was found to be an insertion regardless of whether it was

paradigmatic or syntagmatic. The switches categorized as syntagmatic can be characterized as the insertion of phrasal constituents. The data containing insertional CS can be applied to the MLF model. We will first look at paradigmatic CS and then at syntagmatic CS.

5.1 Paradigmatic CS

Paradigmatic CS can be seen as single-item insertion. The grammatical categories of single-item switches were nouns, adjectives and verbs. (Nouns were the most frequently switched.) Obviously, the data analyzed as single-item switching all accords with the hypotheses of the MLF model. That is, all the system morphemes are drawn from the ML, Japanese; English content morphemes are inserted while the Japanese frame is kept intact. However, some inconsistent patterns were found in the data.

Within the paradigmatic type, let us examine the switches in which system morphemes are involved. It was pointed out that system morphemes were also switched by English-dominant children (Takagi, 2006). An example is the plural ‘s’. A Japanese-dominant child switched to the singular form ‘mouse’ to refer to six mice, and an English-dominant child switched to the plural form ‘mouses’ to refer to two mice. While the Japanese-dominant child conformed to Japanese grammar, in which there is no distinction between singular and plural forms, the English-dominant child conformed to English grammar. Other plural nouns were used by Rie, as the following examples show.

- (1) *Soshitara anone, horses ni notte ne,*
 then filler DAT get on sentence-final-PTL
 ‘Then (they) got on horses ...’
- (2) *Cinderella ga wear shiteta yatsu wa rags ni natta kedo*
 NOM doing-PAST one TOP into turned but
 ‘The one (shoe) Cinderella was wearing turned into rags, but’

In the MLF model, it is congruence which allows EL morphemes to occur within mixed constituents, whose frame is determined by the ML. Plural nouns are considered as ‘congruent’ by the English-dominant children, because the insertion of plural nouns makes no structural difference from the case of processing singular nouns. It does not violate the Japanese surface structure, although English may dominate at the conceptual level of sentence production. Another system morpheme which was involved in CS is the article ‘a’. For example, Rie produced:

- (3) A bird *wa* fly *dekiru kara ne*, jump *dekiru kedo ne*,
 TOP can because sentence-final-PTL can but sentence-final-PTL
demo jump dekinai-n-da yo, doggie to monkey *wa*.
 but can't sentence-final-PTL and TOP
 'A bird can jump because (it) can fly, but doggie and monkey can't jump.'

'A bird' is treated as a single unit when it is involved in switching. It is embedded in the ML with the same process as a single noun. Both the article and plural suffix are system morphemes of the EL but they are not 'syntactically relevant.' That is, such morphemes do not have relations external to their heads—which is what the System Morpheme Principle specifies.

EL verbs were switched by children regardless of L1 or L2 dominance. One feature in terms of verb switching is the children's use of the 'do construction' such as 'fight-*suru*' and 'marry-*shita*'. English verbs are used with the Japanese verbs *suru* (do) or *dekiru* (can), most of which are inflected with other Japanese suffixal auxiliaries. The data show that it is not only single verbs but also phrasal verbs that are combined with *suru* such as 'wrap up-*shita*' and 'come out-*shita*'. Note that phrasal verb particles are system morphemes in English. Such cases were observed in two English-dominant children, one of whom was Rie. For example:

- (4) *Soshitara motto* grew up-shite *ne*,
 then more do sentence-final-PTL
 'Then (he) grew up more, ...'

Here, the verb *suru* is suffixed to English 'grew up', which is treated as one unit.

In Japanese matrix utterances involving English verbs, the inflection is usually placed not on the English verb, but on the dummy verb *suru* which is suffixed on to the finite verb form of English. However, Rie also switched English participles, which are system morphemes. Examples were found of English verbs being switched in the past or present participles and being attached to the Japanese '*shita*' or '*shite-iru*', resulting in 'double morphology'. In the following example, the 'ing' is not dropped when the Japanese aspectual inflection *-shite-(i)ru* is suffixed to the embedded English.

- (5) *Ouchi ni* sweeping-shite-ru *-kanaa to omotte-iru*.
 home at do-PROG -question QUO think-PROG
 '(They) are thinking, "(Is she) sweeping at home?"'

Likewise, the past participle was switched in the following way.

- (6) *Soshitara ojiisan ga moo surprised-shita -n-da yo.*
 then grandfather NOM EMPHASIS do-PAST-copula sentence-final-PTL
 ‘Then, the grandfather was so surprised!’

These morphological variations of EL verbs make no difference to the surface structure when they are incorporated into the ‘do construction’. EL verbs can be involved in any morphological form, undergoing the same process. In fact, ‘double morphology’ is recognized by Myers-Scotton, and is not considered a violation of her hypothesis. According to Myers-Scotton (2002), such examples as (5) and (6) indicate that CS treats English participles as holistic forms. This implies that they are holistic forms in the mental lexicon (i.e. the verb stem and any affix in a single lemma). This may offer one explanation for their appearance in the ML. Under the 4-M model, the EL affixes on present participles and on past participles at least in English are early system morphemes; their form depends on their relation to their heads and they add conceptual information to their heads. Myers-Scotton (2002) writes, “the Early System Morpheme Hypothesis is: only early system morphemes may be doubled in classic CS.” In fact, the system morphemes involved in paradigmatic CS are all what the 4-M model specifies as early system morphemes.

5.2 Syntagmatic CS

Syntagmatic CS can be seen as phrasal insertion. The grammatical categories examined here are noun phrases (NP), adjective phrases (AP), verb phrases (VP) and prepositional phrases (PP), all of which are classified as of the syntagmatic type. Let us look at how EL noun phrases are treated when they are involved in switching. Here are some examples.

- (7) *anone, heavy things wa ne, anone, carry-shite ne,*
 filler TOP sentence-final-PTL filler do sentence-final-PTL
 ‘(they) carried heavy things.’
- (8) *Soshite ne, different different different shoe o*
 then sentence-final-PTL ACC
wear shita-n-ja-nai, like some anoo, two more no ne,
 did tag filler GEN sentence-final-PTL
the other one, another one o ne, wear shita-n-da yo.
 ACC sentence-final-PTL did sentence-final-PTL
 ‘And then, (she) did wear the different shoe, didn’t she? like some, well,
 (she) did wear the other one of the two (shoes).’

(11) *nanka like uh ... still shiny ni natte-ta ja-nai?*

filler into has turned tag

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

Similarly, VP switching, which involves a more extensive phrasal structure, was used by Rie, as we can see in the following example:

(12) *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, given that *suru*-compounding is extremely productive (Kageyama, 1982), it could be possible to produce this EL island using the past form *shita* (did), as follows:

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

do-PAST

We can see that the VP in (13) is also treated as a single verb in the ‘do construction’. There is no structural difference between the insertion of phrasal constituents and the insertion of single words, in that CS takes place without changing the overall structure of the ML. It seems that the Japanese language can incorporate any English element by producing EL islands. Such EL islands are under the ML control at least at the surface level. Here is an interesting example of an extensive EL island, which was produced by another child.

(14) *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.’

He started this utterance in English, but he realized his mistake and re-oriented himself to Japanese, and as a result produced the sentence above. I analyze the internal structure of this sentence as follows:

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

ACC do

The construction (15) represents the simplified structure of (14), and is identical with the ‘do construction’. The part in brackets has the unitary character of a single word. Its function is to complement the accusative case particle *o* to form the ‘do construction’. At first glance, the English elements appear to be a violation of the System Morpheme Principle. However, a closer analysis shows that not only does it not violate it, but in fact the data strongly supports the principle. It is possible to think that the extensive EL island of the sentence level is inserted into the

ML frame without changing the overall structure of the ML. The EL island is still under ML control because “it occurred within an ML maximal projection which is hierarchically superior to the EL maximal projection” (Myers-Scotton, 1998). Note that the predicate of (14) is *shinai-to-dame da* (must do + copula), so this sentence is seen as Japanese, which provides the ML maximal projection. ‘She is clean house’ is part of the ML maximal projection headed by *o shinai-to-dame* ‘must do ()’.

Finally, the switching of PP was seen in the following utterance by Rie:

- (16) **Ugly sisters** *ga kite ne, soshitara ne, talking-shite-ta -n-da yo,*
 NOM come SFP then SFP doing-PAST copula SFP
about the about the lovely girl *o ne, talking-shite -ta -n-da.*
 ACC SFP doing-PAST copula

‘The ugly sisters came and (they) were talking about the lovely girl.’

The underlined part ‘about the lovely girl’ is an EL island, and it is well-formed English. Again, at first sight, it appears to violate the System Morpheme Principle. Yet, in fact, it supports the principle. The English PP is inserted in object position as an NP of the Japanese sentence. It occurred within the ML maximal projection (as the NP in the matrix sentence) which is hierarchically superior to the EL maximal projection (PP). Therefore, it is under ML control. The construction may be analyzed as follows:

- (17) (about the lovely girl) *o talking- suru*
 ACC V- do

Here again, the English PP is treated as a single unit. The construction in (17) is identical with the ‘do construction’. It is the Japanese accusative case particle *o* that is ‘syntactically relevant’ in this constituent.

5.3 CS grammar and L1 configuration

I have shown that CS with Japanese as the base language is insertional, because whatever EL elements are switched, the overall ML frame does not change. The MLF model accounts well for CS in the Japanese base language. The System Morpheme Principle, and in particular, the notion of ‘syntactically relevant’ system morphemes, helps to explain the otherwise seemingly inconsistent data. The 4-M model supplies more precise prediction about what types of EL morphemes can be switched and what types cannot. Under the 4-M model, the System Morpheme Principle’s intent is to block late system morphemes (Myers-Scotton & Jake, 2001). This accounts well for the unusual behaviour of the plural, articles, phrasal verb particles and

participles, which are all early system morphemes. According to Myers-Scotton and Jake (2001), an early system morpheme is activated at the lemma level, along with the content morpheme that supports it, and the bond of indirect election between content morphemes and early system morphemes is hard to break. Since content and early system morphemes are rather tightly connected, it is predicted that switching would be difficult between them; rather, they would be switched together. In my analysis, it is Japanese post-positional morphemes that are ‘syntactically relevant’. I suggest that the English phrasal or clausal constituent is ‘re-analyzed’ as a single word, and embedded in the content morpheme slot of the ML; the Japanese post-positional morpheme is attached to this re-analyzed word.

Rie had a wider range of switch categories than the other children in that she did more syntagmatic CS, and her switch pattern could be ‘risky’ if it lacked a structural coherence. However, analysis has revealed that she maintained some structural consistency in her switching. That is, while producing EL islands, she did not change the ML. However frequently and extensively she switched to English, she maintained Japanese as the ML. It is assumed that as long as the children use post-positional morphemes, Japanese is kept as the ML, and if so, case-marking particles could be said to be the indication of Japanese maintenance. This assumption is compatible with Yukawa’s (1998) report that case-marking particles are the most susceptible to attrition. The fact that Rie used quite a range of post-positional morphemes in her speech may indicate that she maintains at least a crucial part of Japanese.

5.4 Convergence with CS

Another point to be noticed in her L1 is that convergence toward L2 was apparent in the constituent order. In a Japanese sentence, grammatical relationship is indicated by case-markers, so the order of adjuncts is relatively free in Japanese. Of course, word order in general is regulated not so much by syntactic rules as by pragmatic principles, but the flexible constituent order might easily be influenced by the rigid word order of English. It seems that Rie’s preferred word order is converging toward the unmarked order of English. There are four noticeable patterns showing that her L1 constituent order is converging toward that of L2, which are illustrated in Figure 1.

Figure 1. Japanese constituent orders converging toward English

Japanese	⇒	English	
① S1 particle (QUO) V	→	V (COMP) S ¹	*S ¹ & S ² represent sentences.
② S O V	→	S V O	
③ S ¹ because, S ²	→	S ² , because S ¹	
④ N ¹ particle (GEN) N ²	→	N ² of N ¹	

Examples are given below. The pattern ①, ②, ③ and ④ in Figure 1 are represented by (18), (19), (20) and (21) respectively.

- (18) **Fairy** *ga yutta-n-da yo,* “**Come back-shinasai ne**” *tte.*
 NOM said QUO
 V (COMP) S1
 ‘The fairy said, “Please come back”.’

- (19) ... **talking-shiteta-n-da yo, about the lovely girl o ne,**
 doing-PAST ACC
 V O
 ‘(they) were taking about the lovely girl.’

- (20) **Baby** *ga naite-iru-n-de, datte cold datta kara.*
 S², because S¹
 ‘The baby is crying, because (he was) cold.’

- (21) **Cinderella** *ga ne, person datta-n-da yo, ano nice dress no.*
 NOM copula-PAST that GEN
 N² of N¹
 ‘Cinderella was the person of that nice dress.’

A similar tendency is found in Turkish, whose order of constituents is relatively free. A relevant example is given by Boeschoten (1994), who states, “An obvious global prediction would be that contact with German will result in a tendency to favour patterns of constituent order conforming to patterns of German, the word order of which is much more rigidly fixed”. He says that when children mix Turkish and German, certain structures persistently crop up which invariably have German VO order.

It seems that Rie actively converges in order to facilitate CS. CS and convergence may go hand in hand (Sebba 1998), and a number of researchers have noted a connection between the two. For example, Clyne (1987) notes that many individuals’ syntactic system in their L1 converges toward L2, and that syntactic convergence in specific sentences often accompanies CS.

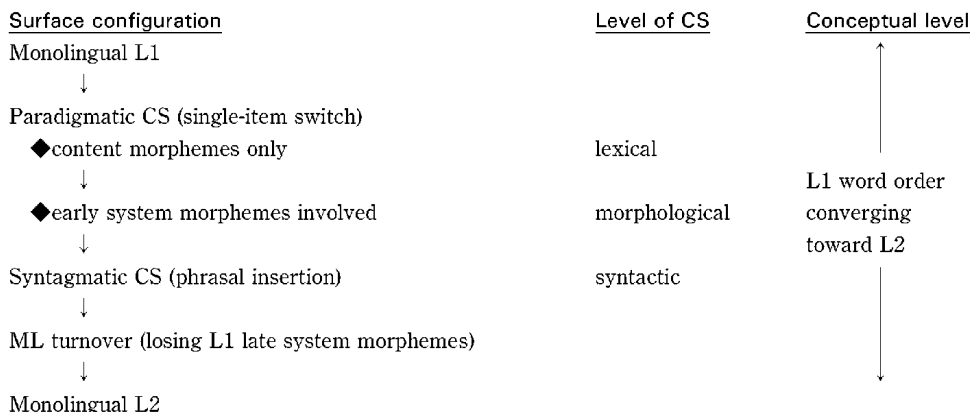
Clyne (1987) further states that syntactic convergence will take place around the switch, apparently in order to make CS easier. It should be pointed out that a process like convergence is by nature quantitative, as Poplack (1993) claims. Research is still needed into what actually causes syntactic convergence toward L2; whether it is due to L2 influence accompanying CS, or whether it may be ascribed to the increase of word order variation for pragmatic purposes or afterthought. Nevertheless, it seems to me that the constituent order is especially susceptible to convergence when Japanese is in contact with English.

6. Conclusion

The children's CS was considered as the incorporation of L2 into L1, because 'syntactically relevant' system morphemes were always from Japanese. This implies that the L1 is maintained at the surface level of the language configuration. As I have stated, as long as case-marking particles are used, Japanese is kept as the ML. In other words, if a child starts losing the case-marking system of Japanese, ML turnover may take place. Given that case-marking particles are late system morphemes, the use of L1 late system morphemes could indicate L1 maintenance.

This study sheds light on how the children's L1 is influenced by contact with the L2. Based on the analysis of the present study, one would predict the changing relationship of the two languages to be as follows:

Figure 2. The process of the changing relationship of L1 and L2



In order to discuss the process of children's bilingual development, research on the basis of longitudinal observation would be necessary. For example, it is not certain whether or not ML tur-

nover will actually take place. We noted that the children used in this study were in a situation where L1 maintenance was necessary while they were acquiring the L2. The outcome of language contact will be different from that of immigrant children. Balanced bilingualism might be achieved rather than a shift toward L2. And if ML turnover really takes place, how will it progress? Further research is needed to answer these questions.

However, the results of the present study suggest that the language contact situation for Japanese bilingual children may lead to L1 maintenance with convergence to L2. It is possible to say that L1 is maintained on the surface linguistic configuration, with converging toward L2 at the conceptual level.

Notes

- 1) For the details of the data-collection procedure, please see Takagi (2006).
- 2) The dichotomy of paradigmatic and syntagmatic dimensions was used to classify the CS types (Takagi, 2006). Paradigmatic CS is defined as the process of producing a ‘single unit’, while syntagmatic CS produces a ‘string of units’ in the other language.
- 3) Myers-Scotton explains that CP (Complementizer Phrase or “S-bar”) is the unit of analysis. CP is claimed to be a less ambiguous unit than either a “sentence” or “clause” (Myers-Scotton, 1995, 1999, 2002; Myers-Scotton & Jake, 1995, 2001). Thus, the MLF model and its constructs apply to intra-CP CS, not intra-sentential CS.
- 4) The distinction is similar to but not identical with that between closed- and open-class items suggested by Garrett (1975) and Joshi (1985). Content morphemes usually include verbs, nouns, adjectives, and sometimes prepositions, whereas system morphemes are largely function words and inflections.
- 5) EL islands are grammatically EL-based chunks or phrases that operate as a whole (Türker, 2005).
- 6) Definitions and examples of morpheme types in English are given in Myers-Scotton (1999), Myers-Scotton & Jake (2001).
- 7) The two types of late system morphemes are bridges and outsiders. (An explanation is provided in Myers-Scotton, 1999; Myers-Scotton & Jake, 2001).
- 8) Alternation and insertion are discussed by Muysken (1997, 2000) as separate processes of intra-sentential CS.

Appendix

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

ACC: accusative COMP: complementizer DAT: dative GEN: genitive N: noun
NOM: nominative O: object PTL: particle PROG: progressive QUO: quotation
S: subject SFP: sentence final particle TOP: topic marker V: verb

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