Child Bilingual Verb Mixing

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1.0 Introduction

In previous articles published in this journal, we have discussed the patterns of mixing Japanese and English by bilingual teenagers (Patschke, 1997a, 1997b). In this study, we take on the inconsistent productions by bilingual children to see what we can learn about child bilingual language-mixing development. We assume that these inconsistencies reveal to us something about how they are trying to process their language, or in this case, the mixing of their languages.

The focus of our study is on 'errors' in code-mixing data taken from children at the age in which syntactic verb mixing just starts emerging at about 8 and 9 years old. They attempt to mix like the more mixing-fluent teenager, but quite often they demonstrate that they have a ways to go before they abide by the grammatical rules of mixing, mastered by their seniors. The purpose of examining children of this age is to examine the language development of verb mixing at its onset.

1.1 Definitions

The field of linguistics that looks at the use of two or more languages used alternately is called Code-switching. Within the field of Code-switching, a further distinction is made between

code-switching and code-mixing. In this paper, we will distinguish mixing from switching in the following way: when someone starts out speaking in one language, and completes a clause or sentence before switching to another language, we call it code-switching (see example 1). Language mixing, on the other hand, is the use of one language's phrase or word within the grammar of another host language, as seen in (2). In (2), the verb phrase is Japanese and consists of an onomatopoeic adverb plus verb. Intraword mixing, also called sublexical mixing, refers to the combination of morphemes from two languages, forming a hybrid word. In (3), for example, the English third person singular -s is attached to the Japanese verb *shaberu* (speak). (The abbreviations used in the glosses in this paper are as follows: +pass for passive affix, +pres for the non-past affix for present and future, and +prog for progressive aspect, as well as onom: for onomatopoetic adverbs.)

Examples.
code-switching:
(1) I couldn't believe I saw him. *Terebi-de miru yori kakkoii!*
　　　　　　　　　　　　　　　　TV-particle see+pres than cool
　　　　　　　　'He was cooler than he looks on TV!.'

code-mixing:
(2) We were *guchi iimakutteru* when *Kondo-sensei* passed by.
　　　　　　gossip say-on-and-on+prog+pres　Mr. Kondo
　　　'We were gossiping big time when Mr. Kondo passed by.'

intraword mixing:
(3) She always *bera bera shaberu*-s every secret.
　　　　　　onom:blabber talk+pres-
　　　'She always blabbers every secret.'

1.2 Data and Data Gathering

The data used for this study are hybrid sentences of Japanese verbs in English sentences. The participants of this study include 12 children of mixed marriages, age 0-8, who were videotaped monthly, in longitudinal studies of two to five years; two sets of siblings, age 6-12, who were videotaped annually for three years; one time interviews with children of international schools, grades 1 through 7, totaling 57 children. The adult data consists of tapes and letters exchanged between 5 bilinguals between age 14 and 22, and four bilinguals over 40 who were born and raised in Japan and have remained in Japan. All participants are part of the international community in which English is the dominant language of communication.

Roger Brown (1973) looked at children's language as an entity different than adult language. It might not occur to someone to do so when what children speak is what eventually evolves into adult language. One would be tempted to see it as somehow incomplete and full of 'errors' instead of correct for the child's stage in linguistic and cognitive development. As we describe the results of the children's hybrid verbs, we use terms like "correct" and "erroneous". These judgments are based on the standard of the language mixing found to be consistent among bilingual mixers of age 16 and above. However, by no means do we intend to imply that the child's production is inappropriate for his/her age. We assume the contrary to be true, that is, what mixing we find the children producing, we assume to be appropriate mixing for that child's age.

1.3 Adult verb-mixing

The adult patterns of Japanese verbs with English sentences which we use as a baseline have been described in part in

Nishimura (1997) and further by Patschke (1998b, 2001a, 2001b). The Japanese verb phrase may consist of the simple verb, the verb with aspect suffixes, the verb plus the do affix *-suru* (e.g. *enryou-suru* 'politely refuse'); They may be predicates (e.g. *atama-ni kita* 'get angry') or even sentential predicates, generally involving fixed expressions of volition (e.g. *hara ga hetta,* 'get hungry'), all with appropriate tense marking. Below, we describe the types of verb mixing common in adult code-mixing.

Below are examples taken from the adult language data in which Japanese verbs or verb phrases are used in English based sentences. Each one represents a 'rule' which is adhered to by 'mixers' in the international community, where English is the dominant language.

A. Present (or future) verbs

The Japanese present tense, also called the non-past, ends with *-u/-ru.* There is no inflection in English, and so there is no intraword mixing.

(4) I told you to *akirameru* him — I thought you were going to
                give-up (on)+pres

  akirameru him!

  ' I told you to give up on him — I thought you were going to give up on him!'

B. Third person singular, present

The third person singular marker, -s, of the English language, attaches to the Japanese verb in present tense. There is no such marking in the Japanese language.

(5) Why am I explaining my words to the *idainaru* Anna-*ko*
                            The-Great

who *wakaru*-s?
　　understand+pres-
'Why am I explaining my words to Anna the Great, who understands?

C. Past tense

The past tense affix is *-ta*. When the Japanese verb occupies the verb slot in an English sentence, the tense is carried only by this affix, and does not receive the English past tense suffix -ed[1].

(6) [explaining a dream]
　　And I *nakidashita* and Melody *okotta*　and said "*yamero*"
　　　　cry+start-to+past　　　get-angry+past　　　stop+imp
　　to you and you　*waaaa-to*　*okotta*　and
　　　　　　　　　　[onom: scream]-quotive get-angry+past
koroshita me and Melody.
kill+past
'And I started to cry and Melody got angry and said "Stop it" to you and you got [in a rage] and killed me and Melody.

D. Progressive

Progressive (and perfective) forms of the mixed verb phrase involve the Japanese verb with the Japanese progressive affix -*te(i)r*- plus the tense suffix *-u* only (50% of the time), or both the Japanese progressive plus tense affixes plus the English progressive form -ing (50% of the time) Note (7). Each form appears to be equally acceptable.

(7) I'm *komatteru*-ing because I want to go to Lidia's wedding
　　　　have-trouble-decide+prog+pres
　　but it'll shorten my stay in St. Louis.
　　' I'm having trouble deciding because I want to go to Lidia's wedding, but it'll shorten my stay in St. Louis.'

(8)　I went to the buses where they were *nokketeru* the players,
　　　　　　　　　　　　　　　　　　　　　　　let-on+prog+pres
　　　cheerleaders, and other people.
　　　' I went to the buses where they were letting on the players,
　　　cheerleaders, and other people.

The two aspectual marking in (7) serve the same function. The reason for this allowance appears to be for no other reason than that while redundant, the copula triggers the -ing marking, as they work together to express progressive.

D.　Passives

In the case of the passive, the Japanese verb has a passive infix -(*r*)*are-*, while English passives are expressed with copula + verb (participle). The mixing of passives from both languages results in the use of both passive expressions simultaneously, that is, the Japanese verb is used within the slot for the participle verb, with the Japanese passive affix and tense affix.

(9)　[about a TV program]
　　　I hope that it's just that he gets *kegasaserareta* real bad be-
　　　　　　　　　　　　　　　　　　　　injure+caus+passive+past
　　　cause he's too *kakkoii* to die.
　　　　　　　　　　cool
　　　' I hope that it's just that he gets injured real bad because he's too cool to die.'

F.　Imperatives

The adult data showed no mixing with imperative sentences. In other words, imperatives occurred only in Japanese or English.

In summary, there are two tense cases in which Japanese verbs receives English inflection productively in code-mixed

sentences, producing hybrid verbs: the third person singular -s, as seen in rule B, and the progressive -ing, as described in rule D. The Japanese verb to which these English inflections affix carry the tense information. This point becomes a major challenge to the children just learning to mix.

2.0 Children's "errors" in verb mixing

2.1 Data Collection

In the hundreds of hours of tapes that have been transcribed, we are struck by the absence of mixing by children of all ages, or the near absence of mixing at all, when eavesdropping conversations with their fellow international school student tells us that kids mix. If one goes through the pages of transcripts, one sees that regardless of the researchers' tireless efforts to make it a mixing-friendly environment, the children don't join in the mixing. Several possible explanations come to mind: the researcher is an adult and not a member of their ingroup, there are school rules against mixing in the school building, they may have assumptions that adults don't approve of mixing, or in fact, they themselves don't approve of it. Perhaps they are aware of the researcher's hope of catching mixing on tape and they don't want to oblige. Notes taken of the participants' mixing when not on tape serve as the bulk of the mixing data.

To supplement the naturally produced data we elicited verb mixing[2], by providing the start of a sentence, and asking them to finish it in Japanese, in an attempt to see if the children at age 8 and 9 are capable of mixing upon demand. This data follows the natural data.

2.2 Child verb mixing data

2.2.1 Natural data

In this section, we present the types of errors found in verb mixing by mid-elementary school children. Following the data in which the mixed verb error is found, we add the 'correct' version, indicated by the prime mark. As a start, take (10).

(10) (to cat) Stop doing that or I'm gonna *oshiri-pen-pen* you!

　　　　　　　　　　　　　　　　　　　　bottom-onoma: spank

　　'Stop doing that or I'm gonna spank you!'

(10') Corrected:

　　Stop doing that or I'm gonna *oshiri-pen-pen-suru!*

　　　　　　　　　　　　　　　　　bottom-onoma: spank-do+pres

The expression '*Oshiri-pen-pen-suru wa yo*' is used by parents with children, often to convince them they need to obey 'or else'. In this example, the child is scolding the cat. It is clear by the addition of the object pronoun 'you' at the end of the sentence (10), that this child is speaking in the English grammatical frame to the end of the sentence, using '*oshiri-pen-pen*' as a single verb, rather than a predicate verb with *oshiri* ('bottom') as the object. To a child, this would be a logical assumption. However, for the expression '*oshiri-pen-pen*' to be used in an English sentence correctly, the suffix -*suru* (do) would be required[3].

Other types of mistakes involving the do-affix -*suru* can be found. In (11), the do-verb suffix is attached and in past tense, but with the base verb also in past tense. Let's assume the intended verb was '*burasshi-suru*'. *Burasshi,* has been switched to 'brushed' and the do-affix retained. In adult mixing, the do-verb -*suru* takes the tense and becomes -*shita*, so that part is 'correct'. However, the main verb to which -*suru* attaches ought to

remain in its non-past form[4]. Thus the 'error' in (11) is that not only does the do-verb -*suru* take the tense, the tense is also marked on the main verb. English.

(11) But I brushed-*shita*!
                  do+past

(11') Corrected:
    But I brush-*shita*!
              do+past
    'But I did brush!' or 'But I brushed!'

It is also possible that the child intentionally affixed -*shita* to the English verb as an emphatic auxiliary, treating it as an free morpheme.

The following, on the other hand, used the verb stem and attached the objective pronoun. The 'errors' with imperatives surprised us when we first heard it. When the children were kicking a stone in turn, one yelled out the imperative found in (12). We all know children love the imperative. This kind of error was not uncommon. We have no way to 'correct' this type, as the adult mixing rules don't allow for mixing imperatives. What is clear is that the children consider the word 'it' to be an objective affix, rather than a free morpheme.

(12) *Ker*-it! *Ker*-it!
    kick-   kick-
    'Kick it! Kick it!'

In *ker*-it! (kick it), the child analyzes the verb, and affixes the English object pronoun to its bound morphemic stem. It's a brilliant, purer form of mixing, not done by adults[5].

Though this age has yielded various types of experimental verb mixing, we have seen no mixing with passives. In fact, mixing with passives do not emerge until the teenage years[6].

2.2.2 Elicited sentences

The children who participated in the elicitation exercises were also 8 and 9 years old. Some are stronger in Japanese and other stronger in English, but all were born and raised in Japan. They all attend an international school. First we asked the children separately, and found that some of the children switched at the predicate phrasal level rather than the single verb word level, and claimed it impossible to use a single verb in an English sentence. Secondly, the many children produced for us multiple sentences, each repaired several times over. They gave us looks of one seeking approval, or flat out asked us if they got the answer right. The non-answers and the multiply-repaired answers indicated a lack of confidence in mixing. Next we asked them work together to see if they would come up with one answer. However, the children kept their answers different. Interestingly, by the end of the sessions, the children who only switched full predicates were influenced by the other children who produced a wide variety of verb mixing, and produced mixed sentences in which only the Japanese verb was switched. The results mirrored the naturally obtained data in general. However, two more types of 'error's surfaced through the elicited data.

A rather unusual error can be found in (13). The verb is a predicate verb including the object *iro,* or 'color', and the past tense of *nuru* 'to paint' (or 'spread'), or *nutta.* The English past tense -ed is affixed on to the past tense of *nuru,* breaking the rule mentioned in rule C. above.

(13) Yesterday I *iro o nutta*-ed.
> 'color'+past

　'Yesterday I colored (it).'

(13') Corrected:
> Yesterday I *iro o nutta.*
> 'color'+past

The progressive 'errors' such as seen below were quite frequent, on the other hand. More often than not, the children 'erroneously' selected the Japanese infinitive form of the verb with the English progressive affix. This type of error was common.

(14) She's always *hanakuso hojiru*-ing —honto.
> 'pick-(one's)-nose'+pres --true

　'She's always picking her nose—I'm not kidding.'

(14') Corrected:
> a. She's always *hanakuso hojitteru*-ing —honto.
> 'pick-(one's)-nose'+prog+pres --true

> b. She's always *hanakuso hojitteru* —honto.
> 'pick-(one's)-nose'+prog+pres --true

The two correct options are to either add the English progressive -ing on the Japanese verb already marked with progressive, or to exclude the English -ing altogether. The children have no problem with the progressive if the English -ing is excluded, as they then use the progressive affixed Japanese verb; however, when using the English progressive -ing, they invariably choose the verb in non-past, breaking adult mixing rules, even though their choice is actually more economical. This same 'error' is seen with the progressive involving the do-verb affix. In (15), you can see the child producing the 'error' and then repairing it.

(15) She is *benkyou-suru*-ing because she wants a great brain.
    study-do+pres
She is *benkyou-shiteru.*
    study-do+prog
'She is studying because she wants a great brain. She is studying.'

2.3 Discussion

Before we discuss the 'errors', it must be mentioned that the English third person singular, present, -s was affixed on Japanese verbs often and with no error. Child early language acquisition studies (O'Grady 2005) show that progressive affix -ing is acquired before third person -s is, with -ing being the first affix on the list of bound morphemes. With mid-elementary students' verb mixing, however, the -ing appears to be the more difficult task than the -s. The child is inconsistent in how he/she negotiates the mode and structure that will carry this information.

'Errors' appear in ages 8-9 data as the children at this age practice their language mixing. Let us summarize the types of 'errors' found. We have seen the absence of the do-verb affix -*suru* on Japanese onomanopoeia adverbs indicating the failure to have Japanese tense marking. We have seen the erroneous presence of English past tense suffix -ed on Japanese verb already marked for past tense indicating the failure to have single past tense marking. There was the presence of English past tense suffix -ed on an English borrowed word, with the past tense do -affix -*shita*; or -*shita* attached to English verb marked for past tense indicating the failure to have single past tense marking. The absence of the Japanese progressive marking on the verb that has English progressive affix -ing showed a failure to double mark for progressive. The absence of tense marking

in imperative expressions, and the affixing of object pronoun 'it' was another failure to mark for properly for tense.

What we see, by laying out the 'errors' in Table 1, is that children are still experimenting with tense distribution when mixing. In some cases, there is no tense marking where there should be only one (examples 10 and 12), and in other cases double tense marking where there should be one (11 and 13). In addition, there isn't double aspect marking on the Japanese verb where there should be (14). Consider the fact that the children attach the third person singular (present) -s to Japanese verbs without any error. Aspect markers not shared across the two languages, pose no confusion when mixing. However it's when the aspect and tense is shared, there is a problem. How is the child to know that in the case of the progressive, aspect from both languages are allowed though the English marking optional, while verbal tense is the responsibility of the embedded verb?

There is an indication that the children are aware of a 'correct' answer during the elicitation exercises. Many times, after a response, the child would ask if they got it right. Another indication is that they often revised their answer until it 'sounded right'. At times they have a string of four attempts at one problem. Comments, such as 'You should ask Mary and Sakura, they are really good at this', referring to bilingual teenagers, revealed that they considered this a skill yet to be mastered.

What is clear is that although by age 8-9 children have acquired tense in both languages solidly, they have not acquired the cognitive skills necessary for mixing verbs involving tense and aspect markers shared across languages.[7]

Table 1

Error	Error Type	Error in Japanese	Error in English
The absence of the do-verb affix -*suru* on Japanese onomanopoeia adverbs	tense	failure to have Japanese tense marking; needs do-verb -*suru* to carry the tense.	
The presence of English past tense suffix -ed on Japanese verb already marked for past tense.	tense		failure to have single past tense marking; don't need English past tense -ed.
The presence of English past tense suffix -ed on an English borrowed word, with past tense -*shita*; or -*shita* attached to English verb marked for past tense.	tense		failure to have single past tense marking; don't need English tense marking -ed
The absence of the Japanese progressive marking on the verb that has English progressive affix -ing	aspect	failure to double mark for progressive; need Japanese progressive aspectual affix -*tei*-	
The absence of tense marking in imperative expression, and the affixing of object pronoun 'it'.	tense; word boundary	failure to mark for tense; need Japanese tense affix	treats 'it' as an affix

3.0 Future Research

Child bilingual mixing is reported in the earlier stages of acquisition of both languages (see Clark, 2003), but children stop mixing after this initial stage, and don't pick it up again until mid-elementary (Patschke et al 2001), Assuming that the older child has acquired the morpho-syntactic rules of both languages sufficiently, mixing takes on a different function and different picture. A comparison of these two types of mixing, the sublexical mixing of early language acquisition and the morpho-syntactic mixing of later language development, requires further attention.

It is also clear from the easy influence of one child's speech on the other's that the surrounding social input is a quick and strong factor in children's mixing. It is necessary to look into what environments, from the mixed family home to the international schools' playgrounds provide what kind of direct input.

Results show that the children had varying degrees of bilingual ability. The data on the teenagers in Patschke 1997a and 1997b were children of similar background and nearly equal bilingual language skills. However, today the demographics of the international schools are changing, and there is a big difference in their bilingual language skills, with more of the children Japanese, and fewer foreign children present in Japan long enough to become bilingual. How this changes the socio-linguistic scene among the mixers needs further satudy.

Acknowledgments

Notes

1　Having said that the English past tense -ed never occurs with the Japanese verb in an English based sentence, I'd like to give two exceptions to the rule, used commonly with adults who have spent a long time in Japan. The two words are *gaman*-ed ('endured; tolerated') and *gambatta*-ed ('tried hard; did one's best'). Going by the rules of Japanese/English mixing, *gaman* should take -*suru* as it does in Japanese, with -*suru* taking the tense marking as in *gaman-shita* ('endured; tolerated'), and gambaru, *gambatta* ('tried hard'; 'did one's best'). But it appears these two words have been lexicalized into their English lexicon for it's frequency and lack of a good translation in English.

2　We tried the direct method of elicitation, to determine whether the target age group could use Japanese verbs in English-based sentences on command, appropriately. We asked them to complete the following sentences in Japanese.

    1. [friend's name] always _____.
    2. Yesterday, he/she _____.
    3. Today I _____.
    4. Tomorrow I _____.
    5. Just hurry and _____.

3　The onomatopoeia adverb is generally described as requiring the quotation '-*to*' with it, as in "*Ton-ton to tataku*" ('hit lightly'). However, there is a set of onomatopoeia words and repeated adjectives that are used with children which take on a different grammatical structure. Consider the following expressions commonly used with children:

（ⅰ）*Hai-hai-suru* （to crawl）

    Chapu-chapu-suru （to play in water）

    Iiko-iiko-suru （to rub the child's head, as in a compliment）

    Yoshi-yoshi-suru （to comfort the child）

4 The Japanese rule for this can be seen in the examples below, in which the borrowed English verb (or noun) is attached to -suru without the English past tense morpheme:

  (ii) *sukii-shita* (skiied)

    dantsu-shita (danced)

    jampu-shita (jumped)

    surippu-shita (slipped)

5 Other examples of the imperative mixing by children include *taber*-it! ('eat it'), and *uta*-it ('sing it')

6 At this point, the 'errors' appear at the onset of their use, as in (iii).

  (iii) Soon her life was *uchiaketa* and it was really sad.

        revealed

  (iii') Corrected: Soon her life was *uchiakerareta* and it was really sad.

It seems that in these cases, the Japanese verb form is a translation of the verb form in English. Another way to analyze this choice of verb form is looking at redundancy: as the English leading into the Japanese verb is 'X was', perhaps the Japanese affix -*rare*- could be considered redundant.

7 Similar results are found with intrasentential code-switching involving complement clauses (Patschke, et al 2001c). The data shows an absence of code-switching that involves the head plus complement phrases until age 8, at which point the productions are dubious. However, by age 12, a wide array of mixing at this level is observed.

References

Brown, R. 1973. *A First Language: The Early Stages*. Cambridge, MA: Harvard University Press.

Clark, E. 2003. *First Language Acquisition*. Cambridge, UK: Cambridge University Press.

Karmiloff, K, and A. Karmiloff-Smith. 2001 *Pathways to*

Language. Cambridge, MA: Harvard University Press.

Nishimura, M. 1997. *Japanese/English Code-switching - Syntax and Pragmatics.* New York: Peter Lang Publishing, Inc.

O'Grady, W. 2005. *How Children Learn Language.* Cambridge, UK: Cambridge University Press.

Patschke, C. 1997a. Japanese/English Code-mixing Part I. *Chukyo University Bulletin of the Faculty of Liberal Arts* Vol. 38 No. 2.

Patschke, C. 1997b. Japanese/English Code-mixing Part II. *Chukyo University Bulletin of the Faculty of Liberal Arts* Vol. 38 No. 3

Patschke, C. 2001a. Code-mixing as a natural language. In ed. C. Patschke, N. Miyake, H. Shirai, and M. Tsuzuki. *Code-switching by Japanese/English Bilinguals* Research Project Grant-in-Aid for Scientific Research (C)(2) Report of Research Results

Patschke, C., N. Miyake, H. Shirai, and M. Tsuzuki. 2001b. *Code-switching by Japanese/English Bilinguals* Research Project Grant-in-Aid for Scientific Research (C)(2) Report of Research Results

Patschke, C., J. Shirai, and H. Shirai. 2001c. The Development of the Hybrid Complement Clause Structure by Bilingual Children. In ed. C. Patschke, N. Miyake, H. Shirai, and M. Tsuzuki. *Code-switching by Japanese/English Bilinguals* Research Project Grant-in-Aid for Scientific Research (C)(2) Report of Research Results.