

A Japanese-English Bilingual Child's System of Answering Negative Questions

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This paper examines one semantic aspect of a Japanese-English bilingual child's linguistic ability: the way she responds to negative questions in her two languages, which have very different systems for formulating answers in such cases. After explaining the differences in the systems the two languages have for responding to negative questions, the paper analyzes the way the child responded to negative questions in English and Japanese during conversation. While the child was able to maintain grammaticality in 97.6% of her responses, some interlingual and intralingual contrasts were found in the form of the response she used for differing forms of questions, suggesting the possibility of interlingual transfer.

<日本語—英語バイリンガル幼児の否定疑問に対する応答システム>

この論文は、5歳の日本語—英語バイリンガル幼児の否定疑問に対する応答システムの研究結果を報告するものである。まず、日本語、英語それぞれの言語の否定疑問における応答システムを概説し、その後、実際のデータの分析結果を報告する。分析の結果、このバイリンガル幼児は、どちらの言語の否定疑問についても、文法的にほとんど誤りをおかすことはなかったが、その応答パターンには、それぞれもう一方の言語からの影響が見い出された。

INTRODUCTION

Although the term "bilingual" is often used to refer to anyone who can speak more than one language, when used alone, it is too general to account for the many variables involved in the ability to speak more than one language. A number of factors have therefore been identified to distinguish types of bilingualism. The order of acquisition of the languages, for instance, is used to distinguish between simultaneous bilinguals, who acquire L1 and L2 simultaneously as first languages, and sequential bilinguals, who acquire L2 after L1 (Valdes & Figueroa, 1994, p. 10).

This paper is concerned with a type of infant bilingualism in which children have been regularly exposed to two languages from birth as a result of each of their parent's speaking a different language. According to Valdes, this can be categorized as early, simultaneous and natural bilingualism (Valdes & Figueroa, 1994, p. 11). In most such cases, each parent speaks his or her native language to the child. This particular principle of each parent adhering to one language is called the principle of "one person one language"; it is considered to be effective in establishing bilingualism in a family because it helps the child separate the two languages by connecting each language with a specific person in the child's mind (Taeschner, 1983, p. 233). Earlier studies on this kind of infant bilingualism have been reported by Taeschner (1983), Saunders (1988) and De Houwer (1990).

This paper examines one semantic aspect of the linguistic ability of a Japanese-English bilingual child raised following the "one person one language" method: namely, her system for responding to negative questions in her two languages. The paper aims to find out whether a bilingual child can distinguish between the very different Japanese and English systems for dealing with negative questions.

SYSTEMS FOR RESPONDING TO NEGATIVE QUESTIONS

What distinguishes a negative clause from a positive clause is the presence or absence of a negative marker. Negative can be defined as a state in which a negative marker is present, whereas positive can be said to be a state of having no negative marker. Huddleston (1984) identifies two types of negation: clausal and subclausal (p. 419). This paper focuses exclusively on the former, the latter being explained here only for contrast.

Clausal negation, sometimes called sentence negation, produces a clause which is both syntactically and semantically negative, as in "She isn't happy" (Huddleston, 1984, p. 419). In this sentence, negation is marked by "n't", one of the two most common markers in English, the other being "not". Other frequent negatives in English are "never" preceding a head verb, such determiners as "neither" and "no" preceding a noun, and pronouns such as "nothing" or "none" as the head of an NP (Huddleston, 1984, p. 420). In Japanese, on the other hand, clauses with clausal negation include with the VP "nai" or "zu" in various inflected forms.

Subclause negation, by contrast, is often called word negation, since it is negation within the limit of a word or phrase. There is something negative about the meaning of a sentence with subclausal negation—"She is unhappy", for example—yet this is not a syntactically negative sentence as a whole, and is considered in this paper to be a positive statement.

Nakau (1984) develops a unique and persuasive discussion of the structure of negative questions and the systems for answering them in Japanese and English. He divides the semantic content of a

sentence into "propositional content" and "modality" (p. 14). In general literature, propositional content is the central meaning of a sentence. Modality, on the other hand, is generally the meaning added to the central meaning of a sentence, or propositional content, and does not affect the meaning of a sentence as a whole. Thus what Nakau refers to when he uses this term in his paper is the conceptual attitude of the speaker at the point of utterance (p. 14).

Japanese and English present a striking contrast to each other as to what functions as the basis of deciding the form an answer to a negative question will take. In Japanese, it is the whole propositional content that determines whether the answer will be "*hai*" (yes) or "*ie*" (no); in other words, it is the whole propositional content that is judged by the answerer to be true or false. In English, on the other hand, it is the positive part of the propositional content that is taken into account in deciding whether the answer will be "yes" or "no".

The following examples from Nakau (1984, p. 14) demonstrate this contrast (in this and all examples to follow, a word-by-word translation will appear below the Japanese, and then the meaning in English will appear below that):

Example J1

Q: *Nani mo kaimasen deshita ka?*
 Anything/didn't buy
 Didn't you buy anything?
 A1: *Hai, nani mo kaimasen deshita.*
 Yes/anything/didn't buy
 I didn't buy anything.
 A2: *ie, hon wo kaimashita*
 No/book/bought
 I bought a book.

Example J2

Q: *Nani ka kaimasen deshita ka?*
 Something/didn't buy
 Didn't you buy something?
 A1: *ie, nani mo kaimasen deshita.*
 No/anything /didn't buy
 I didn't buy anything.
 A2: *Hai, hon wo kaimashita.*
 Yes/book/bought
 I bought a book.

Though the content of the A1 answers to both questions J1 and J2 are the same—that is, the answerer did not buy anything—A1 to question J1 is preceded by "*Hai*" (a Japanese word normally translated "Yes"), while A1 to question J2 is preceded by "*ie*" (a word usually translated as "No"). This is due to the structural difference in the semantic content of questions J1 and J2. Question J1 consists of negative propositional content—*Nani mo kawaNAKATTA* (You did NOT buy anything)—plus positive modality—*ka* (Is it the case that?). The answerer in A1 for question J1 admits that he/she did not buy anything, and therefore answers using "*Hai*" (Yes). In contrast, in question J2, it is the modality which includes the negative marker. The question comprises positive propositional content—*Nani ka katta* (You bought something)—and negative modality—*dewaNAIka* (Is it NOT the case that?). The answerer in A1 for question J2 reckons the propositional content to be false, and therefore answers using "*ie*" (No).

Now contrast this with similar questions in English:

Example E1

Q: You didn't buy anything, did you?
 A1: No, I didn't.
 A2: I bought a book.

Example E2

Q: You bought something, didn't you?
 A1: No, I didn't.
 A2: Yes, I bought a book.

Question E1 consists of negative propositional content—You did NOT buy anything—and positive modality—Is it the case that?—while question E2 consists of positive propositional content—you bought something—and negative modality—Is it NOT the case that? Much as in the two Japanese questions above, these questions have a distinct structure in terms of semantic content; however, there are prominent differences between the two languages as to what stands as the basis of judgment for the answer form. As noted above, it is the positive part of the propositional content that goes through judgment in the case of English, and these two questions have the same positive part: you bought something. Because they share the same basis for deciding the answer form, both questions are answered "No" when the answerer did not buy anything.

According to Nakau's segmentation of the semantic content of a negative question (Nakau, 1984, p. 14), there are four possible patterns as to the polarity of each segment of a negative question and its answer:

- I. Q: PROPOSITIONAL CONTENT (negative) + MODALITY (positive)
 A: PROPOSITIONAL CONTENT (negative)

- II. Q: PROPOSITIONAL CONTENT (negative) + MODALITY (positive)
 A: PROPOSITIONAL CONTENT (positive)
- III. Q: PROPOSITIONAL CONTENT (positive) + MODALITY (negative)
 A: PROPOSITIONAL CONTENT (negative)
- IV. Q: PROPOSITIONAL CONTENT (positive) + MODALITY (negative)
 A: PROPOSITIONAL CONTENT (positive)

This paper will use Nakau's account of the negative answering system, but with some modification. First, because Nakau does not define exactly what propositional content is in his article, this paper will employ the definition proposed by Kuno (1973), that is, that it is the questioner's supposition, or what s/he believes to be true (pp. 273-281). Second, in addition to classifying question-answer pairs into four groups according to their structural differences as shown above, each group will be further divided with regard to the form of the answer. In both Japanese and English, it is quite normal to answer a question with a complete sentence instead of just saying "Yes" or "*Uun*", as can be seen in the following examples.

Example J3

- Q: *Dareka kite nai?*
 Someone/is here/not
 Isn't someone here?
- A: *Kiteiru.*
 Is here
 Someone is here.

Example E3

- Q: Didn't they come here?
 A: They did.

In Japanese, a one-word, predicate-head-only sentence without any subject is often used in this way. The "sentence" is the same as the head of the predicate in the question. In English, answers to non-WH questions can be short sentences consisting of the pronoun and auxiliary verb used in the question. These two sentence forms—one Japanese and the other English—will be referred to as "the basic sentence form" in the rest of this paper, and will be contrasted with simple yes/no answers in analyzing the data.

Dealing With Differing Systems

This paper is a study of the language abilities of one particular bilingual child. It will examine whether or not she can correctly differentiate between the two language systems when answering negative questions, and will also look at the frequency of her use of each different type of answer in each of her languages.

Hoffman (1991), in discussing the interaction of two languages in a bilingual's mind, explains the concept of "language transfer", contrasting it with other concepts that are often used in its place (pp. 95 - 101). "Transfer" is an involuntary use of an element of one language in another, whereas "borrowing" refers to voluntary use. "Transfer" is a neutral term and implies that a bilingual uses all methods from both languages in order to express a meaning. "Interference", on the other hand, while also meaning involuntary use of an element from another language, has a negative meaning. It implies the point of view that a language should be pure without being interfered with by another language.

There are many types of language transfer: phonological, grammatical, and lexical, to name three. The type of transfer most likely to occur in this study is grammatical transfer—the interaction of two grammatical systems. While transfer in itself is not regarded as problematical, in the case of the interaction of the English and Japanese systems for answering negative questions, language transfer may result in the bilingual person communicating a meaning which is the opposite of her intention.

METHOD

The Subject

The speech corpus of this study was provided by a five year-old girl I will call May (not her real name). May was born in 1989, the daughter of a British father who is a university instructor and a

Japanese mother who teaches English at a high school. The family has lived in the Kansai area of Japan ever since May was born. Since both of her parents have jobs, May at present spends weekdays at *hoikuen*, a day nursery, from eight or nine in the morning until five or six in the evening. She spends approximately 32 hours per week with both her parents, 13 hours with her father alone, and 10 hours with her mother alone, excluding sleeping time.

May's father has lived in Japan for more than 10 years, and though he had not encountered the Japanese language until shortly before coming to Japan, he is good at understanding it and fairly good at speaking it. Her mother began learning English as a foreign language at the age of eleven, and she has been using it on a regular basis since she met her husband 10 years ago. She is excellent at both understanding and speaking English. The language choice in the family, between the parents and between each parent and May, has always been about the same ever since May was born. The language used between the parents is mostly English, whether May is present or not, both at home and outside the home. The father speaks exclusively in English to his daughter, and vice versa. Between the mother and May, Japanese is used in most cases, but not all. May speaks to her mother in English more at home than outside the home.

Besides her parents, May does not have anyone around her regularly who speaks English. At *hoikuen*, she is exposed to Japanese only. Yet she talks in English on the phone with her grandparents in England for 10 minutes once a month, and also, English-speaking friends of the family come to stay for three to four days a few times a year. May is also exposed to English through books, audio and video tapes, and TV as much as she is to Japanese.

One change in the normal family language pattern occurs when the family makes one of its frequent journeys to other countries. They visit England and stay there for two to four weeks every year to see her father's family. They have also been to New Zealand, Hawaii, the mainland of the United States, and some other European countries, staying in each of these places for one to three weeks. When they are outside Japan, the proportion of Japanese spoken in the family decreases, while that of English increases. First, the parents speak to each other exclusively in English when travelling abroad. Second, May speaks to her mother roughly equally in Japanese and in English during these trips. Third, her mother speaks to May in English more often than she does in Japan, though the use of Japanese by her mother still exceeds that of English.

The Study

The speech samples in this study were collected during three sessions on June 12, July 17, and September 18, 1994. Each session was about an hour long, following an hour or two of chatting and playing games. May was alone with the researcher in a room during the experiment. The researcher spoke both Japanese and English during the experiment, as well as during the chatting and playing time, so May knew that she has a command of both languages.

In each session, after the researcher read to May one to three paragraphs of a children's book, she asked May several questions, including some negative questions, about the story in the book. The stories read were *The Tale of Benjamin Bunny*, *Baby Brown Bear's Big Bellyache*, *The Little Red Hen*, *I Wish I Was Sick, Too!* and *Nezumi no ie sagashi* (Mouse Looks for a House). As can be surmised from their titles, the first four stories were in English, the last one, in Japanese. However, the questions asked were not always in the same language as the story; the researcher sometimes asked questions in Japanese about a story in English, and vice versa. The language of both the stories and the questions was changed randomly to avoid introducing any kind of pattern into the stimulus. The whole conversation was recorded for each session, with May aware that it was being recorded, but only negative questions and answers to these questions were transcribed afterwards.

Questions and answers were written in the standardized dialect when transcribed. They were then classified into groups according to Nakau's (1984) categorization system.

RESULTS

The three sessions produced a total of 82 negative question-answer pairs. These were classified by language, propositional content (P.C.) of each question and answer (+ or -) and grammatical acceptability, and are presented in Table 1. The relative frequencies of acceptable and unacceptable answers for each type of question in each language are also presented as percentages (in parentheses) in the table. As the table shows, only 2 out of 82 responses can be said to be ungrammatical. Thus, on the whole, May's responses to negative questions contained very few grammatical mistakes.

Table 1: Acceptability of Responses to Negative Questions According to Language and Propositional Content

Category	Question P.C.	Answer P.C.	Language					
			Japanese			English		
			Acceptable	Un-acceptable	TOTAL	Acceptable	Un-acceptable	TOTAL
I	-	-	10 (100%)	0 (0%)	10	13 (86.7%)	2 (13.3%)	15
II	-	+	8 (100%)	0 (0%)	8	7 (100%)	0 (0%)	7
III	+	-	11 (100%)	0 (0%)	11	6 (100%)	0 (0%)	6
IV	+	+	12 (100%)	0 (0%)	12	13 (100%)	0 (0%)	13
TOTAL			41 (100%)	0 (0%)	41	39 (95.1%)	2 (4.9%)	41

The following are some examples of negative questions and responses to them taken from the data collected. For the Japanese questions and answers, English word-to-word translation is provided under each question, followed by translation of the whole sentence. The propositional content and modality are then shown under each question in square brackets [] and pointed brackets < > respectively. The particular sentence in which the propositional content and modality are conveyed is written in a standardized and simplified form for convenience. In the case of a question with an if-clause in the Kansai dialect, for example, the propositional content and the modality are represented in standard Japanese and the if-clause omitted for the sake of convenience. Capitals are used to indicate the negative element in either the propositional content or the modality. Bold letters are used for such particles as *mo*, *ka* and *shika* in Japanese and such words as "anything", "already" and "some" in English, as these words are semantically connected with the positiveness or negativeness of the propositional content of the utterances in which they are used. Although *Hai* (yes) and *Un* (yeah) as well as *iee* (no) and *uun* (naw) are used interchangeably in colloquial Japanese (the latter word in each pair being a less formal way of expressing agreement or disagreement), May used the less formal words exclusively in the sessions.

Japanese Examples

- I. Q: PROPOSITIONAL CONTENT (negative) + MODALITY (positive)
 A: PROPOSITIONAL CONTENT (negative)

Example 1 (This example occurred after May said that she did not want to read the book herself.)

- Q: *Hontoni yomitaku nai no?*
 Really/want to read/not
 You really don't want to read it (yourself)?
 [Anata wa *hontoni yomitaku NAI*]*<ka>*
 [You really do NOT WANT to read it yourself] <Is it the case that?>
- A: *Un.*
 Yeah.

In Example 1, May perceived that the question consisted of a) the propositional content that she did not want to read the book herself and b) positive modality which confirmed the propositional content. Agreeing that the propositional content was true—in other words, agreeing that she did not want to read the book herself—she answered "*Un*" (Yeah).

- II. Q: PROPOSITIONAL CONTENT (negative) + MODALITY (positive)

A: PROPOSITIONAL CONTENT (positive)

Example 2

Q: *Koko wa nani mo warui tokoro nakatta?*
Here/any bad point/there wasn't
There wasn't anything bad about this place?
[*Koko wa nani mo warui tokoro ga NAKATTA*] <ka>
[There was NOT **anything** bad about this place]<Is it the case that?>
A: *Atta.*
There was.

The question in Example 2 can be divided into negative propositional content and positive modality. May accepted the propositional content and answered positively in basic sentence form.

III. Q: PROPOSITIONAL CONTENT (positive) + MODALITY (negative)
A: PROPOSITIONAL CONTENT (negative)

Example 3

Q: *Otomodachi to aenakute sabishikunai no?*
Friends/cannot see/sad/not
Aren't you sad not to be able to see your friends?
[*Anata wa tomodachi to aenakute sabishii*] <no dewa NAI ka>
[You are sad not to be able to see your friends]<Is it NOT the case that?>
A: *Sabishikunai.*
I'm not sad.

In Example 3, May contradicted the researcher's supposition that she missed her friends from *hoikuen*, answering in a basic sentence form.

IV. Q: PROPOSITIONAL CONTENT (positive) + MODALITY (negative)
A: PROPOSITIONAL CONTENT (positive)

Example 4

Q: *Konna tokoro ni sundara, suguni byoki ni natchaunja nai?*
Such place/in/if lived/soon/sick/ become/not
If you lived in such a place, wouldn't you become sick soon?
[*Suguni byoki ni naru*] <dewa NAI ka>
[You would become sick soon]<Is it NOT the case that?>
A: *Un.*
Yeah.

The question in Example 4 consists of a typical negative modality, *-njanai*, and another part that conveys the propositional content. Agreeing with the whole propositional content, May replied "Un" (Yeah).

English Examples

I. Q: PROPOSITIONAL CONTENT (negative) + MODALITY (positive)
A: PROPOSITIONAL CONTENT (negative)

Example 5

Q: They (Mr. and Mrs. McGregor) are not coming home anytime soon?
[They are NOT coming home anytime soon]<Is it the case that?>
A: No.

In the system for answering negative questions in English, it is the positive part of the whole propositional content that is determined to be true or false. Therefore, though the whole propositional content of the

question in Example 5 is negative, only the part without the negative element is the object of judgment. Here, May properly answers "No", denying the positive part of the propositional content, that is, that Mr. and Mrs. McGregor are coming home sometime soon.

Both of the questions May answered incorrectly fall into this category:

Example 6

- Q: B.B.B.'s mother didn't get angry, did she?
[B.B.B.'s mother did NOT get angry]<Is it the case that?>
A: Yes.
Q: She got angry?
A: No!

In Example 6, May followed the Japanese system for answering negative questions, giving her judgment on the whole propositional content instead of on the positive part of it. In other words, she regarded it to be true that B.B.B.'s mother did not get angry, and therefore answered, "Yes". Needless to say, the correct answer is "no", if one considers only the positive part of the whole propositional content, namely, that the mother did get angry.

Example 7 shows a similar mistake on May's part.

Example 7 (After they had read the episode in which, in vain, B.B.B. tried swimming to cure his stomachache.)

- Q: It didn't help B.B.B., did it?
[It did NOT help B.B.B.]<Is it the case that?>
A: Yes.
Q: It did?
A: No!

- II.Q: PROPOSITIONAL CONTENT (negative) + MODALITY (positive)
A: PROPOSITIONAL CONTENT (positive)

Example 8

- Q: Benjamin did not hide himself, did he?
[Benjamin did NOT hide himself]<Is it the case that?>
A: He did.

In the story, Benjamin Bunny did hide himself under a bucket, but the researcher's supposition was that he did not. May corrected her by using the basic sentence form.

- III. Q: PROPOSITIONAL CONTENT (positive) + MODALITY (negative)
A: PROPOSITIONAL CONTENT (negative)

Example 9

- Q: Benjamin was very happy to see his aunt, wasn't he?
[Benjamin was very happy to see his aunt]<Is it NOT the case that?>
A: He wasn't.

The propositional content of the question in Example 9 is positive, and May rightly gave an answer based on judgment of its positive part.

- IV. Q: PROPOSITIONAL CONTENT (positive) + MODALITY (negative)
A: PROPOSITIONAL CONTENT (positive)

Example 10

- Q: "Busy" is the opposite of "lazy", isn't it?
["Busy" is the opposite of "lazy"]<Is it NOT the case that?>
A: Yes.

The question in Example 10 comprises positive propositional content and negative modality. May answered, "Yes", accepting the positive part of the propositional content, namely, that "busy" is the

opposite of "lazy".

As shown above, when answering negative questions, May generally followed the rules of the language in use, independently of the rules of her other language. She answered the questions in Japanese based on judgment of the whole propositional content, either by saying "Un" (Yeah) when accepting it and "Uun" when denying it, or by picking up the head of the predicate in the propositional content of the question. When using English, her answers were based on judgment of the positive part of the whole propositional content, and she answered either by saying, "Yes" when accepting it and "No" when denying it, or by producing a sentence consisting of the pronoun and the auxiliary verb of the propositional content of the question.

Table 2 shows the relative frequency and percentage of the two forms of answer—a single word and the basic sentence form—for each grammatically acceptable response given to in each category (I to IV) in each language. It can be seen that in some cases, May preferred to answer in a basic sentence form and in others, in a single word. Also, differences across languages were apparent.

Table 2: Forms Used in Grammatically Acceptable Answers to Negative Questions

Category	Question P.C.	Answer P.C.	Language					
			Japanese			English		
			Un/Uun Only	Basic Sentence Form	TOTAL	Yes/No Only	Basic Sentence Form	TOTAL
I	-	-	8 (80.0%)	2 (20.0%)	10	4 (30.8%)	9 (69.2%)	13
II	-	+	3 (37.5%)	5 (62.5%)	8	0 (0.0%)	7 (100%)	7
III	+	-	2 (18.2%)	9 (81.8%)	11	5 (83.3%)	1 (16.7%)	6
IV	+	+	1 (8.3%)	11 (91.7%)	12	12 (100%)	0 (0.0%)	12
TOTAL			14 (34.1%)	27 (65.9%)	41	21 (55.3%)	17 (44.7%)	38

DISCUSSION

In general, May's responses to negative questions contained very few grammatical mistakes. She distinguished between the Japanese system for answering negative questions and the English one, the former being a system based on judgment of the whole propositional content and the latter, on the positive part of the propositional content, as described above.

The two grammatical mistakes she made (Examples 6 and 7) could be considered the result of the influence of Japanese on English. They imply that May was following her own internalized rule and was not simply speaking by rote repetition. May seemed to understand the story being read to her in both cases, as she immediately corrected her answer when the questioner asked a similar question: It is possible, however, that she misunderstood the story and suddenly realized that fact when a similar question was repeated. However, this second possibility is very unlikely, because for this type of question-answer pair (Category II), consisting of a question of negative propositional content and a positive answer, May otherwise always answered with the basic sentence form, not with "Yes" or "No" as she did in these two cases (see Table 2).

In looking at May's choice of answer form, we see some sets of contrasts (both interlingual and intralingual) in Table 2 above. May seems to follow certain patterns in her replies, depending upon whether the questions are in Japanese or English (interlingual contrast) and whether the questions have positive or negative propositional content (intralingual contrast).

The first example of interlingual contrast is found in May's preference in answer form when the propositional content of the question is positive (Categories III and IV). In Japanese, she used the basic sentence form to answer in 20 cases (9 cases for Category III and 11 for Category IV) or 87.0% of the

time, while she used "Un" or "Uun" in only 3 cases (2 cases for Category III and 1 for IV), or 13.0% of the time. On the other hand, when answering English questions, she replied "Yes" or "No" in 17 cases (5 cases for Category III and 12 for IV) or 94.4% of the time, while she answered with the basic sentence form in only one case (in Category III) or 5.6% of the time. Thus it is clear she preferred the basic sentence form in Japanese but a simple "Yes" or "No" in English.

The second example of interlingual contrast is found in May's preference in answer form when the propositional content of the question is negative (Categories I and II), though the contrast is not as clear as in the case of questions with positive propositional content. In Japanese she answered with "Un" or "Uun" in 11 cases (8 cases for Category I and three for Category II) or 61.1% of the time, and with the basic sentence form in 7 cases (2 in Category I and 5 in II) or 38.9% of the time. In English, she answered 16 questions using the basic sentence form (9 in Category I and 7 in II) or 80.0% of the time, and four questions with "Yes" or "No" (all in Category I) or 20.0% of the time. Thus she preferred one-word answers in Japanese and the basic sentence form in English.

Also, an intralingual contrast is found in both languages in May's preference in the answer form depending on the polarity of the propositional content of negative questions. In Japanese, she preferred the basic sentence form when answering questions with positive propositional content (Categories III and IV), using it for 20 answers to 23 questions or 87.0% of the time, and a simple "Un" or "Uun" when the propositional content of the question was negative (Categories I and II), using it for 11 answers to 18 questions, or 61.1% of the time. In English, too, she preferred the basic sentence form for questions in Categories I and II, using it for 16 answers to 20 questions in these categories, or 80.0% of the time, while preferring a simple "Yes" or "No" answer for questions in Categories III and IV, using it for 17 answers to 18 questions, or 94.4% of the time.

Looking at each of the four categories of question-answer pairs according to polarity, we find that though May generally showed a considerable adherence to one answer form—either the single word or the basic sentence form—depending on the language and the polarity of the propositional content of the question, this was not the case with one category in each language. In Japanese, the exception was when she answered positively to questions with negative propositional content (Category II). She replied "Uun" in three cases (37.5%), while answering with the basic sentence form in five cases (62.5%). In English, the exception came when she answered negatively to questions with negative propositional content (Category I); she replied "No" in four cases (30.8%) while answering with the basic sentence form in nine cases (69.2%).

These two types of question-answer pairs—Category II in Japanese and I in English—share one property: The answer is the result of denying the basis of judgment, which is the whole propositional content in Japanese and the positive part of the propositional content in English. For questions with negative propositional content, the basis of judgment is negative in Japanese and positive in English. In contrast, when the propositional content of the question is positive, the basis of judgment is positive in both languages. As shown in Table 2, when denying the basis of judgment of questions with positive propositional content (Category III), May showed a more distinct adherence to one answer form. Thus, the inconsistency of her preference in answer form when denying the basis of judgment of questions with negative propositional content in Categories I and II could to some degree be ascribed to the difference in the basis of judgment between the two languages.

It is no coincidence that the only two mistakes that May made while answering the 82 negative questions came in response to questions in Category I, which pairs English questions with negative propositional content and an answer with negative propositional content. Interlingual transfer from Japanese into English made her follow the Japanese system and resulted in grammatical mistakes.

Another form of interlingual transfer seems to be at work in the opposite direction. Although the proportion of the two answer forms differs considerably between the two languages in three of the categories, this is not the case in Category II, where the propositional content of the question is negative and the answer is positive. May preferred to answer such questions using the basic sentence form in both languages (in 5 out of 8 cases in Japanese and 7 out of 7 in English). Her inclination to do so in English would be logical for the following two reasons. First, the pattern accords with that of Category I, the other category with questions of the same polarity; there, she used this form to give negative answers to questions with negative propositional content in 9 out of 13 cases. Second, the pattern contrasts with those of Categories III and IV, the two with questions of positive polarity. If this explanation is correct, it is with the Japanese questions that May is confused. If the proportions of one-word and basic sentence form answers had been opposite and the frequency of the former had exceeded that of the latter, it would have fitted in well with the rest of her answering pattern. That is to say, the way she answered negatively to Japanese questions with negative propositional content deviated from the expected norm. This could be considered to be the result of interlingual transfer from the English system.

CONCLUSION

This paper has examined how a five year-old bilingual child replies to negative questions in her two languages, Japanese and English. The Japanese system of answering negative questions is based on judgment of the whole propositional content of the question, whereas the English system is based on judgment of only the positive part of the propositional content. Beside the fact that May basically differentiated between the Japanese and the English answering systems for negative questions, it was found that she had established a particular pattern as to whether to answer with one word or with the basic sentence form. The way May replied to negative questions varied, depending on the type of question in terms of the language and the polarity of the propositional content. Evidence suggestive of interlingual transfer in both directions was also found.

When questions had positive propositional content, May's preference in answer form was unmistakable, presenting a clear contrast between Japanese and English. She preferred to use the basic sentence form to answer Japanese questions and "Yes" or "No" to answer English questions. On the other hand, when questions had negative propositional content, she showed a less distinct contrast in the answer forms used for Japanese and English. Though May generally preferred to use "Un" and "Uun" in Japanese and the basic sentence form in English, she did not follow this pattern strictly when she denied the basis of judgment in either language. The inconsistency of her preference in the answer form could possibly be ascribed to the difference in the basis of judgment between Japanese and English.

It is pointed out by researchers such as Taeschner (1983) and De Houwer (1990) that the linguistic development of bilinguals does not differ from that of monolinguals. It is quite possible that May's mistakes and inconsistency in answer form are not the result of interlingual interference, but simply the same thing that a monolingual child experiences as a normal process of acquiring one of the two languages. Since this study does not make any comparison of May's language to monolingual native speakers of Japanese and/or English, it would be inappropriate at this point to conclude whether or not May's mistakes and inconsistency in answer form resulted from her familiarity with two languages. It would certainly be interesting to carry out a similar experiment with monolingual children and then compare the results with May's.

REFERENCES

- Bittinger, Judith (Ed.). (1989). *The Little Red Hen*. Reading, Massachusetts: Addison-Wesley.
- Bradley Coco, Eugene. (1989). *Baby Brown Bear's Big Bellyache*. New York: Western Publishing Company.
- Brandenberg, Franz. (1976). *I Wish I Was Sick, Too!* New York: Random House.
- De Houwer, Annick. (1990). *The Acquisition of Two Languages from Birth: A Case Study*. Cambridge, U.K.: Cambridge University Press.
- Hoffman, Charlotte. (1991). *An Introduction to Bilingualism*. London: Longman.
- Huddleston, Rodney. (1984). *Introduction to the Grammar of English*. Cambridge, U.K.: Cambridge University Press.
- Kuno, Susumu. (1973). *The Structure of the Japanese Language*. Cambridge, Massachusetts: Massachusetts Institute of Technology.
- Nakau, Minoru. (1984). 質疑応答の発想と論理 [Shitsugi oto no hasso to ronri—Concept and Logic of Questions and Answers]. 『日本語学』[*Nihon gogaku—Japanese Linguistics*], 3.4, 13-20.
- Piers, Helen. (1986). 『ねずみのいえさがし』[*Nezumi no iesagashi—Mouse Looks for a House*]. Tokyo: Dowaya.
- Potter, Beatrix. (1984). The Tale of Benjamin Bunny. *The Complete Adventures of Peter Rabbit* (pp. 21-34). Harmondsworth: Puffin Books.
- Saunders, George. (1988). *Bilingual Children: From Birth to Teens*. Clevedon: Multilingual Matters.
- Taeschner, Traute. (1983). *The Sun is Feminine: A Study of Language Acquisition in Bilingual Children*. Berlin: Springer-Verlag.
- Valdes, Guadalupe and Figueroa, Richard. (1994). *Bilingualism and Testing: A Special Case of Bias*. Norwood: Ablex Publishing.