

16 保持教室について今現在、通っていますか。あてはまるものに○をつけてください。
(Are you currently attending English maintenance classes?)
通っている (Yes) 通う予定 (I'm planning to) 通っていない (No)

17 英語を伸ばすために努力していることは何ですか。具体的に書いてください。
(What are you doing to improve your English skills? Be concrete.)

18 日本語を伸ばすために努力していることは何ですか。具体的に書いてください。
(What are you doing to improve your Japanese skills? Be concrete.)

ご協力ありがとうございました。(Thank you for your cooperation.)

Language Transfer Between English and Japanese: A Case Study of a Simultaneous English /Japanese Bilingual

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As part of a longitudinal case study of the language development of an English/Japanese bilingual child, this paper examines the subject's language use between the age of 7;2 and 8;3, just after he moved from an English-speaking community to a Japanese one. To investigate the effects of language environment change on language transfer, the data from this period is compared with data from an earlier study when the subject was between 6;2 and 6;10 and living in an English-speaking community. The focus is on syntactic development, especially sentence subject omission and responses to negative questions, using data collected through regular audio recordings of spontaneous speech, story-telling, and elicited speech. Instances of language transfer were analyzed with data from follow-up testing. Comparisons were also made with data from monolingual subjects, both English- and Japanese-speaking.

A two-way transfer effect was observed. The subject made both interference errors and developmental errors; however, not to a crucial degree. Moreover, the subject's language confusion or delay seemed to be of short duration. During the current study period, the language transfer experienced by the subject decreased as a whole except in one area. In some cases, the subject acquired correct language systems or rules even though the quantity of English input decreased and some language attrition was recognized in his English utterances. The rapid acquisition of the subject's ability to answer negative questions correctly in both languages during the same time period suggested that he may have acquired the differences in his two languages rather than learning the rules of each language separately. These findings suggest that although the process of bilingual acquisition may involve some influence between the two languages, the duration of such negative language transfer is not necessarily long.

＜英語・日本語間の言語転移：英語・日本語 同時バイリンガルのケース・スタデー＞

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本研究は誕生から7年2ヶ月を米国で二言語同時習得していた男児が、日本に移住(帰国)してからの13ヶ月間(7歳2ヶ月から8歳3ヶ月)を調査し、二言語同時習得の環境から日本語優位の日本へ言語環境が移行したときに、英語と日本語の言語間の転移がどのように生じるのかを研究したものである。特に先に行なわれた研究、同被験者が6歳2ヶ月から6歳10ヶ月の米国滞在中の二言語習得期に行われた英語と日本語間の言語転移の研究結果と比較し、言語環境が変わったとき、どのような変化が起こるのか、7・8歳という言語習得段階で、どのような言語的発達が見られるのかを研究するのが目的である。研究方法は、日本語と英語の自主発話(spontaneous speech)、物語課題(story-telling)、引き出し発話(elicited speech)を中心としたデータを収集した。データは統語的観点、特に主語の省略と否定疑問文の返答について焦点をあて、フォローアップ・リサーチとモノリンガルの児童(日本語・英語)とのデータの比較も加えて分析した。その結果、つぎの点が明らかになった。被験者には言語干渉(転移)の誤りと発達段階の誤りの両方が見られ、また、言語転移は日本語、英語のどちらの言語からも見られた。しかし両言語について大きな混乱は見られず、いずれも短期間で克服されると推測された。被験者の言語転移は調査期間中、一部を除き、全体的に減少した。日本に帰国後は英語の量的インプットが減ったにもかかわらず、日本語の英語への言語転移が克服されている。一方、被験者の英語のデータに米国滞在中には見られなかった一語返答、単純化や文法の誤りが見られ、英語の言語喪失が見られた。否定疑問文の返答を両言語ともに同時期に急速に習得したことは、それぞれの言語を別々に習得したというより、両言語の違いを理解し、同時に習得したと推測される。以上より、二言語習得は両言語間にいくらかの影響を与え合うが、否定的な言語転移の存続する期間は必ずしも長くないと推測される。

INTRODUCTION

One of the more interesting, controversial and important issues related to early childhood bilingualism is the interactive influence of the two languages (Garcia,1983, p.100). This influence is defined as language transfer, and it acts both positively and negatively. In fact, language transfer is a key factor in discussing the complex issue of bilingual acquisition. The use of rules of the first language as an aid in the acquisition of the second language is called positive transfer. The use of rules of the first language leading to difficulties in acquiring the second language is called negative transfer. Effects may include phonological, morphological, syntactic and semantic influences. As a term, language transfer is almost synonymous with language interference.

As part of a longitudinal case study of a bilingual child, this paper attempts to determine how many errors attributable to language transfer the subject makes, what types of errors are common, and why language transfer occurs. It analyzes the English and Japanese utterances of a Japanese boy acquiring both languages. Yuta was exposed to both languages from birth in a natural setting in the U.S. When he was 7;2 (7 years, 2 months), he moved from the U.S. to Japan.

This paper attempts to objectively investigate his language development between the age of 7;2 and 8;3, after he moved from the English-speaking community where he acquired both languages simultaneously to a community where Japanese is dominant. It examines instances of language transfer by focusing on the subject's syntactic development, especially sentence subject omission and responses

to negative questions, comparing this data with data from previous observation made in the U.S. when the subject was between 6;2 and 6;10 (Hirai, 1997). The purpose of this study is to investigate how the subject acquired two languages by examining language transfer after his language environment changed at the end of his early stages of language development.

LITERATURE REVIEW

Language transfer has been the focus of research in the field of second language acquisition and language teaching for many years. However, the significance it has been attributed in the field of second language learning has varied greatly, and it has been the focus of continuing research only in the past 20 years.

In the 1950s, language transfer was considered a central factor in second language learning theory as well as in approaches to second language teaching. The work of American linguists like C. Fries and R. Lado in the 1940s and 1950s often appears in discussions of early transfer studies. Their main assertion that first language influences could greatly affect second language acquisition was widely accepted in the second language acquisition and teaching field at that time.

In the 1960s, however, the study of language transfer decreased as errors in learners' utterances came to be seen as an aspect of "the creative construction process" (Odlin, 1989). In the 1970s, two important claims about transfer made by American researchers began to be disputed. The first claim was that the existence of cross-linguistic differences made second language acquisition extremely different from first language acquisition. The second held that the difficulties of second language acquisition could be determined through contrastive analysis: "Those elements that are similar to his native language will be simple for him, and those elements that are different will be difficult" (Lado, 1952, p. 2; cited in Odlin, 1989).

The argument against these two theories was that it seemed unlikely that contrastive analysis of languages could be used to predict second language acquisition problems. Indicators that learning difficulties are not always caused by cross-linguistic differences and that problems that do occur are not always predicted by contrastive analyses were beginning to appear in research at that time. Further, because researchers noticed similarities between first and second language acquisition, the theoretical importance of transfer seemed doubtful (Odlin, 1989). In addition, researchers noticed that among earlier studies of child bilingualism, several offered limited evidence of transfer of any kind other than language mixing. For example, Ronjat (1913; cited in McLaughlin, 1984), Pavlovich (1920; cited in McLaughlin) and Raven (1968; cited in Odlin, 1989) concluded that their subjects showed very few signs of language transfer and kept their two languages separate.

Error analysis, or classification of learners' errors, conducted in the 1960s and 1970s raised further debate on the validity of contrastive analysis. Research in the early 1970s (e.g., Dulay & Burt, 1973) suggested that regardless of their first language, children learning English as a second language made the same types of mistakes with grammatical morphemes. These studies support the idea that speakers are guided more by input than by learning experience.

Additionally, Dulay and Burt's cross-sectional studies (1972, 1973) provide proof of the existence of developmental sequences in second language acquisition. Using such evidence of developmental sequences, Dulay, Burt and Krashen (1982, cited in Odlin, 1989) and others have argued that transfer plays only a small role in the acquisition of grammar. They assert that second language acquisition is essentially the same as child language acquisition (Odlin, 1989).

Later researchers (e.g., Hakuta, 1974; Hecht & Mulford, 1982; Mace-Matluck, 1982; Rosansky, 1976; Wode, 1978), however, found that transfer from the first language does occur in the speech of children from certain first-language backgrounds or at certain times in the learning process (McLaughlin, 1984a). Empirical studies in the 1970s and 1980s have provided persuasive new evidence of the role of transfer in all subsystems. Many studies comparing the grammar and vocabulary of learners with different first languages point to acquisition differences attributable to cross-linguistic influence (e.g., Schumann, 1986; Singler, 1988). Moreover, Weinreich's seminal survey (1953/1968, cited in Odlin, 1989) cites a great deal of research not only on borrowing but also on substratum transfer.

Recent studies therefore favor a more balanced perspective, acknowledging the role of transfer as it interacts with a host of other factors in ways not yet fully understood. As language transfer is quite complex, it is safe to say that transfer errors occur in all bilingual learning situations. The important issue is to determine when and to what extent they occur in different situations (Wode, 1981). Many researchers agreed on this point. McLaughlin (1984a) also argued that transfer errors occur and are extremely interesting for the researcher because of what they reveal about the learner's strategies (p. 228).

Currently, then, the study of language transfer strives to determine in which situations or circumstances this phenomenon occurs, why it occurs, and how bilingual acquisition works positively or negatively in small children. The areas of contrastive analysis most often studied are discourse, syntax, phonetics, phonology and writing systems. Much evidence has also been found linking syntactic transfer (both positive and negative) to word order, relative clauses, and negation (Solis, 1986; Hakuta, 1975; Clark & Clark, 1977).

Solis (1986) examined the acquisition of negation in English as a second language in a four-year-

old Salvadoran girl, a Spanish-dominant bilingual. The study looked for evidence of language transfer, focusing on the following syntactic structures: negative-verb sequence, the inclusion of "do" in the verb form, and sentence subject omission. The findings, gathered over a five-month period, provided evidence that there was a two-way transfer effect, that is, mutual influence of Spanish and English.

In addition, several studies have involved target languages other than English, and some have indicated that transfer interacts with other factors in acquisition (Jansen, Lalleman, and Muysken, 1981; Wode, 1981). However there are few empirical studies of language transfer, especially in child bilingual acquisition (Wode, 1981; DeHouwer, 1990). Thus it is meaningful to conduct a case study which focuses on syntax transfer between a bilingual child's two languages.

A longitudinal case study was therefore initiated to examine this type of language transfer. Observation of an English/Japanese bilingual subject, Yuta, between the ages of 6;2 and 6;10 when he was living in the U.S., yielded three main findings which were presented in an earlier paper (Hirai, 1997). First, there was evidence of a two-way transfer effect, that is, the child's Japanese influenced his English and vice versa. Second, the subject exhibited both interference and developmental errors while acquiring semantic structures in his two languages simultaneously. Third, he also experienced syntactic confusion in the process of acquiring language, though this transfer did not hinder his ability to interact and communicate with others in either language--that is, not to a critical degree. Thus, the data in this earlier study would not support the separate development hypothesis, which argues that during simultaneous acquisition of two languages in infancy, each language develops separately.

The present study builds on this earlier study, focusing specifically on sentence subject omission and responses to negative questions, and comparing new data collected just after Yuta moved to a Japanese-speaking community with the data collected earlier while the subject was living in the U.S.

STUDY

Subject

The subject of this study is the present researcher's son, a Japanese boy named Yuta who acquired English and Japanese simultaneously. During the period of observation reported on in this paper, Yuta met the criteria Solis (1986) asserted were necessary for this type of research. According to Solis, to qualify as an appropriate subject, a child must be in the early stages of language development, have an outgoing personality, like to talk to both children and adults, be both mentally and physically healthy without any history of hospitalization or serious illness, and be in the process of acquiring two languages. During this phase of the longitudinal case study, Yuta was observed twice: once during his first-grade year in an American elementary school, and once during his second-grade year in a Japanese

elementary school. He was also given a test of 32 yes/no questions, as well as a follow-up test at the end of the period of observation.

Yuta was born and raised in the U.S. in a home where Japanese was the primary language. He was exposed to Japanese and English from birth onward, and until he was five years old, he had no siblings to affect his language acquisition. His family lived in the U.S. for seven years and six months. Then he moved from the U.S. to Japan with his family. Now he lives in Tokyo with his parents and a younger sister, who is two years old.

Yuta's parents both graduated from colleges in Japan and received graduate degrees in the U.S. Since his parents interacted with native English speakers more than with Japanese speakers during their residence in the States, Yuta had many more American friends than Japanese friends.

When Yuta was 1;8, an English-speaking babysitter began to care for him two afternoons a week. At the same time, he started to go to pre-nursery school two mornings a week. At age three, Yuta was enrolled in a small, private nursery with a low teacher-student ratio. He was the only Japanese child in this nursery school. Yuta also began taking a Kumon class for Japanese and math once a week at age three.

Subsequently, he was enrolled in a local public elementary school. Both in kindergarten and first grade, Yuta was the only Japanese child in his class. When he was five, Yuta began attending a Japanese Weekend School every Saturday and also started an advanced reading and writing class for native English students once a week.

During his stay in America, Yuta visited Japan with his family and stayed at his grandparents' house on four occasions: when he was 10 months old, two years old (2;11), four years old (4;8), and six years old (6;5). He stayed in Japan for one month during each visit.

When Yuta was six, before he moved to Japan, he was described as a talkative child in both languages. Furthermore, he seemed to possess a normal amount of self-confidence in and positive feelings for both languages. Interviews with his teachers suggested that Yuta had almost the same language proficiency in listening, speaking, reading and writing as monolingual children around his age. Yuta's English ability was confirmed by an interview with the classroom teacher of his local elementary school, while his Japanese ability was determined by an interview with the classroom teacher of his Japanese Weekend School and with his Kumon teacher for Japanese studies. His proficiency in both languages was also suggested by his behavior; for example, he enjoyed watching movies and appreciated stories in both languages.

Since Yuta moved to Japan, he has been attending a local elementary school. He is in a regular

class of the second grade. Although it is a public school, there are many returnees who have overseas experiences much like Yuta's. In his class alone, there are five other returnee children besides Yuta. As a result, although there is no special program at the school for these returnees, the teachers and staff understand the unique needs of these children and give them appropriate care. Yuta enjoys and has not been absent from Japanese school.

In addition to these classmates, Yuta has a bilingual friend who has an American mother and a Japanese father. Yuta gets together with him about once every other week. They speak English while they play. Yuta has taken two to three English lessons a week since he moved to Japan. One lesson stresses reading and writing skills; the others stress conversational skills. Two of his lessons are private or semi-private, and the other is a group lesson. Since his return to Japan, Yuta writes letters to his friends in America often and calls them sometimes. He also visited his hometown in America, once for three weeks, five months after he moved to Japan.

Yuta's language environment during the period of observation in Japan is depicted below in a table based on DeHouwer's model.

TABLE 1: Yuta's Language Environment in Japan (Age 7;2 ~ 8 ;3)

			Convers ation Partners / Languag e Estimate d Exposur e
			Languag e Environ ment (Average)

			Caregivers

Mother

Japanese (mostly)	5 hours a day	
	English (sometimes)	6 hours a month

Father	Japanese (mostly)	15 hours a week
	English (sometimes)	1 hour a month

Visitors/Visits

Most visitors & visits	Japanese	2 hours a week
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Some visitors & visits	English	1 hour a week
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Peers outside school	Japanese (mostly)	1 hour a day
	English (sometimes)	1 hour a week

Group Situations

Local School	Japanese	30 hours a week
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Returnees class	English	2 hours a week
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Semi-private class	English	45 minutes a week
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Media & Other

TV	Japanese(mostly)	1 hour a day
	English (sometimes)	1- 2 hours a week

Shops and Services	Japanese	2 hours a week
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Previous Findings

Since this paper builds on research conducted when Yuta was living in the States and compares data collected in Japan with data from the earlier study, I would like to summarize the findings of that paper (Hirai, 1997). The period of evaluation was nine months when Yuta was six years old (6;2 to 6;10). The purpose of the study was to objectively investigate how many and what types of errors occurred in the subject's language and to explore why language transfer appears in the utterances of children acquiring two languages.

Data on the subject's Japanese and English production were collected through regular audio recordings of spontaneous speech in both Japanese and English in natural settings and story-telling tasks. In addition, the subject was administered tests consisting of 32 yes/no questions in each language, and given similar follow-up tests at the end of the observation period. Spontaneous speech samples were also collected from a number of monolingual English-speaking and monolingual Japanese-speaking children for comparison purposes. The yes/no question test was also administered to some of these monolinguals.

Data analysis focused on four syntactic structures: (1) verb-object sequence, (2) sentence subject omission, (3) wh-questions (using standard reverse word order), and (4) answering systems for negative questions. The data on verb-object sequence was found to suggest an English influence on Japanese in Yuta's speech. In contrast, the data on wh-questions and responses to yes/no questions suggested a Japanese influence on English in his speech, while the data on sentence subject omission suggested that the languages influenced each other.

Since the present study also looks at sentence subject omission and answers to yes/no questions, I will briefly explain the differences between English and Japanese usage in these areas and how they were reflected in the findings of the previous study.

There is fairly general agreement that in English, sentences are required to be syntactically complete, with the exception of command sentences and some colloquial expressions like "Can't see." or "Coming." In Japanese, however, it is acceptable and indeed quite common to omit a subject, especially if it is "I" or "you." For example, the sentences "*Mama, boku onaka ga suita*" (Mom, I'm hungry) and "*Mama, onaka ga suita*" (Mom, hungry) are both grammatically correct, even though in the second sentence, "*boku*," which means "I," is omitted. Thus, if subjects--especially "I" and "you"--are omitted in English speech samples, it is taken to indicate rule transference from Japanese to English. On the other hand, if subjects--especially "I" and "you"--are not omitted in Japanese speech samples, it would indicate rule transference from English to Japanese.

In the previous study, the data on sentence subject omission indicated that Yuta included sentence subjects in his English speech 94.1% of the time and in Japanese, roughly 60% of the time, as shown in Table 2. Yuta's 60% retention rate for subjects in Japanese sentences was much higher than the rate for the monolingual Japanese children observed; they retained sentence subjects only 16.2% of the time. It can therefore be said that Yuta used subjects such as "I" and "you" more often than necessary in his Japanese utterances. This result supports an interpretation of English-to-Japanese transfer.

Influence in the opposite direction was also shown, although less dramatically: Yuta omitted sentence subjects in his English speech 5.9% of the time. Although this percentage is small, his answers were completely ungrammatical in some cases. For example, he produced the following expressions: [I] "So cried yesterday" and [I] "Did it for you." The English monolingual subjects in this study did not use such expressions. Thus, these results were interpreted as suggesting Japanese-to-English transfer.

TABLE 2: 1995 Data on Sentence Subject Omission (All Subjects)

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No. of Utterances (Percentage) No. of Utterances (Percentage)

Yuta: Mar.'95~Nov.'95 (6;2~6;10)

Correct/Common	Sentence Subject Inclusion	Sentence Subject Omission
	271 (94.1%)	I 23 (32.9%) I & You 32 (40.0%)
Incorrect/Uncommon	Sentence Subject Omission	Sentence Subject Inclusion
	17 (5.9%)	I 47 (67.1%) I & You 48 (60.0%)

English Monolingual Subjects Japanese Monolingual Subjects

Correct/Common	Sentence Subject Inclusion	Sentence Subject Omission
	65 (100%)	I & You 31 (83.8%)
Incorrect/Uncommon	Sentence Subject Omission	Sentence Subject Inclusion
	0 (0%)	I & You 6 (16.2%)

The other syntactic structure explored in both the previous and present studies is the system of answering negative questions such as "Aren't you coming?" In English, the speaker answers "yes" or "no" depending on his or her intention about the matter. In Japanese, however, the speaker answers "yes" or "no" to indicate agreement or disagreement with the literal meaning of the question. In response to the question "Aren't you coming?" in Japanese, the speaker answers, "No, I am coming" if s/he intends to come. If the speaker does not intend to come, s/he answers, "Yes, I am not coming." In other words, in response to a negative question, Japanese *hai* (yes) means, "What you just said is correct" and *iie* (no) means, "What you just said is incorrect." Therefore, although the system of answering positive questions is the same in Japanese and in English, the system for answering negative questions is exactly the opposite (Akiyama, 1979, p. 488).

Thus, in English speech samples of negative question response, if the subject uses "yes" or "no" to

show agreement or disagreement with the literal meaning of the question, this would indicate transference from Japanese to English. In Japanese speech samples, if the subject uses "yes" or "no" to show his intention about the matter, this would signify transference from English to Japanese. In the earlier study, a notable finding was the fact that Yuta had difficulty answering English negative questions, especially negative-tag questions. He answered 33.3% of the negative-tag questions incorrectly in spontaneous speech, and in both elicited speech and the test of 32 yes/no questions, he answered this type of question incorrectly 100% of the time, as shown in Table 3. In contrast, the English monolingual subjects answered negative-tag questions correctly 85.9% of the time. The difference between English and Japanese systems for answering negative questions appeared to lead Yuta to give the wrong answers in English. Akiyama reached the same conclusion in his study (Akiyama, 1979, p. 499). This result was interpreted as evidence supporting language transfer from Japanese to English.

TABLE 3: 1995 Data on Negative Questions

U t t e r a n c e s	E n g l i s h	Spontaneous Speech		E n g l i s h		
		No. of Utterances (Percentage)	No. of Utterances (Percentage)			
	J a p a n e s e	Spontaneous Speech		J a p a n e s e		
		No. of Utterances (Percentage)	No. of Utterances (Percentage)			
	English (6;2~6;10)		Japanese		English	
	Spontaneous Speech		Spontaneous Speech		Spontaneous Speech	
	No. of Utterances (Percentage)		No. of Utterances (Percentage)		No. of Utterances (Percentage)	
	100%		100%		100%	
	100%		100%		100%	
	100%		100%		100%	
	100%		100%		100%	
100%		100%		100%		

English (6;2~6;10) Japanese No. of Utterances (Percentage) No. of Utterances (Percentage) Spontaneous Speech Spontaneous Speech

	Correct	Incorrect	Correct	Incorrect	
Negative Questions	4 (80%)	1 (20 %)	4 (100%)	0 (0%)	Negative-
Tag Questions	2 (66.7%)	1 (33.3%)	3 (100%)	0 (0%)	
	Elicited Speech		Elicited Speech		
Negative Questions	8 (100%)	0 (0%)	7 (87.5%)	1 (12.5%)	
Negative-Tag Questions	0 (0%)	8 (100 %)	7 (87.5%)	1 (12.5%)	
	32 Yes/No Questions		32 Yes/No Questions		
Negative Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%)	
Negative-Tag Questions	0 (0%)	3 (100%)*	8 (100%)	0 (0%)	

* The other 5 answers did not contain either yes or no.

Moreover, although Yuta almost always answered negative and negative-tag questions correctly when speaking in Japanese, he answered them with unnatural delay--usually three to five seconds longer than it took him to answer in English or to give answers to other types of questions in Japanese. Akiyama also found similar results with his Japanese monolingual subjects. He argued that Japanese monolingual children had difficulties answering negative and negative-tag questions in comparison with English monolingual children. Hence, Yuta's slow response rate was in keeping with Japanese monolingual children's response rates. Thus, it would not indicate any language transfer--simply developmental errors.

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4: Data on Follow-Up Tests Conducted in Early 1996

Yuta: Jan. 31, '96 & Feb. 1, '96	English		Japanese	
	No. of Utterances (Percentage)		No. of Utterances (Percentage)	
	32 Yes/No Questions		32 Yes/No Questions	
	Correct	Incorrect	Correct	Incorrect
Negative Questions	8 (100%)	0 (0%)	7 (87.5%)	1 (12.5%)
Negative-Tag Questions	3 (37.5%)	5 (62.5%)	7 (87.5%)	1 (12.5%)
	Additional Questions		Additional Questions	
	Correct	Incorrect	Correct	Incorrect
Negative Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%)
Tag Questions	1 (12.5%)	7 (87.5%)	8 (100%)	0 (0%)

Interestingly, when Yuta was given the Japanese follow-up test (for which the data is presented in Table 4 above), his answers were much quicker than before, though still not automatic. It appeared that he was acquiring the Japanese system for answering negative questions. This stage of development mirrors that of Japanese monolingual children.

Research Questions

This paper is a continuation of a longitudinal case study of language development and language transfer in a simultaneous English/Japanese bilingual. In addition to dealing with questions that remained after the previous study, it attempts to analyze the effects of a change in the subject's language environment from the English-speaking community where he acquired both languages simultaneously to a Japanese-speaking community. Specifically, the following research questions guide the current study. First, how did Yuta's language transfer, as shown in the previous study, change in terms of sentence subject omission and responses to negative questions after his language environment changed from one in which English was dominant to one in which the majority language is Japanese? Second, during the

period of study, was language transfer between Japanese and English evident in his sentence subject usage in each language? If yes, where and why? Third, was transfer between the two languages evident in the acquisition of a system to answer negative questions in each language? If yes, where and why? Finally, if the quantity of English input decreased in Japan, did the subject lose his English? If yes, how did this affect his language transfer?

Methodology

Observations were conducted over a 13-month period when Yuta was between the ages of 7;2 and 8;3. Yuta was observed in the following situations:

- 1) Engaging in spontaneous speech in a natural Japanese language setting with Japanese friends, his mother, his father or his little sister;
- 2) Engaging in spontaneous speech in a natural English language setting with an English-speaking friend or an adult native speaker;
- 3) Recalling in both languages a story he read in Japanese and in English. An adult native speaker (in Japanese, Yuta's mother or father; in English, Yuta's English teacher) read the books and asked questions about the stories.

Original English books and Japanese translations with the same pictures (see Appendix I, Books Used for Story-Telling) were used for the story-telling tasks. Goldman suggested this approach in her 1983 study. Story-telling was used because narratives are not only entertainment, but also the communication of social values and morals. Moreover, narrative stories are one of the most organized kinds of texts children are exposed to because they have dialogue (Goldman, 1983). Story-telling is also an effective way to elicit utterances which show the child's comprehension as a whole. In addition, asking questions about the story is an effective way to examine the child's ability to answer negative questions.

The spontaneous Japanese conversation (situation 1) data was recorded on an audio cassette for about 30 minutes once a week; a total of about 20 hours of this type of data was collected during the 13-month observation period. The spontaneous English conversation (situation 2) data was recorded for about 30 minutes once a week on Friday afternoons during the subject's private English lessons, or during play with his native English-speaking friend; the total was about 22 hours. The story-telling tasks (situation 3) were recorded for about 30 minutes in English and 30 minutes in Japanese, the tasks being done on different days to avoid the subject's becoming too accustomed to the stories. These sessions were held about every two months; a total of about six hours of story-telling data were collected. For all three types of observation, some of the scheduled sessions were missed due to the subject's illness or

conversation partners' absence. Altogether, about 48 hours of data were recorded for this study.

Furthermore, to examine how Yuta's ability to answer negative questions in Japanese and English improved or changed during the observation period, he was tested with the same type of materials that Akiyama used for his 1979 study. Akiyama tested his 18 subjects by asking a total of 32 yes/no questions in English and Japanese. Four types of questions (positive, negative, positive-tag and negative-tag) and four verbs (*is*, *are*, *do* and *can*) were used to develop unique verb-question combinations (Akiyama, 1979). Thirty-two sample questions of this type are reproduced in Appendix II. This type of test was administered to Yuta two times during the observation period (in June 1996 and January 1997). Follow-up tests were given in March and April of 1997. In addition to the original 32 yes/questions, the tests given in January, March and April 1997 included 16 extra negative and negative-tag questions.

In order to evaluate the differences between bilingual and standard monolingual acquisition, comparisons were made between Yuta and English and Japanese monolingual subjects of the same age concerning sentence subject omission and answers to negative questions. A total of 12 monolingual seven-year-olds participated in this study. These children were friends of Yuta's. With the permission of their parents, their spontaneous speech during play sessions was covertly recorded. Eight of the children were also given the tests of 32 yes/no questions to check their ability to answer negative questions correctly.

All the data were audiotaped with a portable cassette tape recorder. The subjects did not know that the conversations, including their spontaneous speech, were being taped during any of the observation situations. This covert recording system was used to avoid making the subjects nervous or hindering their conversation. However, during the last stage of the observation period, Yuta started to notice the use of the tape recorder during the elicited speech (story-telling) situations. Fortunately, as he had become used to story-telling, and thanks to his open character, his knowledge of the taping did not hinder the data collection.

All of the data were taped by the present researcher. As the subject is the researcher's son, the researcher was able to attend observations as a partner in conversations in situations (1) and (3), and also observed other conversations in all situations without hindering data collection in a natural setting.

All the data were transcribed the same week the taping took place. A native speaker of English who had an M.A. degree in English helped the researcher transcribe the data. Other informal data or findings within or apart from situations (1), (2) and (3) were recorded in the researcher's journal.

The goal of this research was to examine objectively and accurately the process of bilingual

acquisition. To try to exclude the kind of bias inherent in a case study, the following measures were taken: The researcher selected subjects carefully using established criteria, covertly recorded the subjects' spontaneous speech, and tried to maintain a consistent tone of voice while asking the same questions in the same order based on sample tests.

RESULTS

Sentence Subject Omission

Since one of the goals of this study was to observe how the subject's language transfer differed after his language environment changed, it was decided that the observation period should be divided into terms for comparison. In setting the boundaries of these terms, the following facts were taken into consideration. First, the number of samples of spontaneous speech in Japanese was not deemed sufficient to divide into more than two terms. Second, 10 months after the research began, Yuta's utterances in the spontaneous speech samples changed in terms of sentence subject omission. And finally, although the data was collected once a week, the number of samples of spontaneous speech varied, and those related to sentence subject omission occurred more frequently toward the end of the observation period. In order to balance the amount of data on sentence subject omission and to reflect the change in Yuta's syntax in this area, the research period was divided into two terms of unequal length: March 1996 to December 1996, and January 1997 to April 1997.

In the English speech samples for the March to December 1996 period, Yuta used a subject in 99.3% of his sentences, that is, he omitted sentence subjects 0.7% of the time. For example, he used the following expressions: "[I] Can't do these at once" and "[I] Can do this one." However, in the samples for the January to April 1997 term, Yuta used a subject in his English sentences 100% of the time.

The Japanese data showed that in the period from March to December 1996, Yuta omitted the sentence subject "I" 61% of the time and included it 39% of the time. In contrast, during the January to April 1997 term he omitted the sentence subject "I" 78.8% of the time.

One change noticed in this area during the observation period was that Yuta began giving one-word answers to questions in English--something he had not done before. This was especially apparent during the second term, when Yuta otherwise retained the sentence subject 100% of the time in the English speech samples. Specifically, he omitted "It's" in some answers. For example, when Joanna (his English teacher) asked, "What's the weather in Africa?", Yuta answered, "[It's] Hot." When Joanna asked, " How did you feel about the story?" , Yuta replied, "[It's] Funny".

In the observations of the monolingual subjects, it was found that the English monolinguals used sentence subjects 100% of the time, while the Japanese monolingual subjects omitted the sentence

subject "I" 86.7% of the time and retained it only 13.3% of the time.

These results are tabulated for easy reference in Table 5.

TABLE 5: Sentence Subject Omission (All Subjects)

English

Japanese

No. of Utterances (Percentage) No. of Utterances (Percentage)

Yuta: March ~ December 1996

Correct/Common	Sentence Subject Inclusion		Sentence Subject Omission	
	267	(99.3%)	25	(61.0%)
Incorrect/Uncommon	Sentence Subject Omission		Sentence Subject Inclusion	
	2	(0.7%)	16	(39.0%)

Yuta: January ~ April 1997

Correct/Common	Sentence Subject Inclusion		Sentence Subject Omission	
	357	(100%)	26	(78.8%)
Incorrect/Uncommon	Sentence Subject Omission		Sentence Subject Inclusion	
	0	(0%)	7	(21.2%)

Monolingual Subjects

English Monolinguals

Japanese Monolinguals

Boy C

Girl A

Boy A

Boy B

Correct/Common	Sentence Subject Inclusion		Sentence Subject Omission	
	71 (100%)	70 (100%)	31 (83.8%)	34 (89.5%)
Total: 65 (86.7%)				
Incorrect/Uncommon	Sentence Subject Omission		Sentence Subject Inclusion	
	0 (0%)	0 (0%)	6 (16.2%)	4 (10.5%)
Total: 10 (13.3%)				

Negative Questions

Six months after the present study started, Yuta's responses to negative questions in the spontaneous speech samples clearly changed. The data on responses to negative questions was therefore divided into two terms to reveal this change. Two terms were deemed sufficient because there were not enough negative question responses in the spontaneous speech samples for more divisions. This division also served to make the two sections of this research parallel, although the dates for the division of the terms are not the same. The terms for analysis of Yuta's responses to negative questions were March through August 1996, and September 1996 through April 1997.

Because the number of Yuta's answers to negative questions in spontaneous speech was not large enough during the first term, responses were elicited by asking negative and negative-tag questions about the story-telling tasks between September 1996 and March 1997. Yuta was also given tests of 32 yes/no questions two times during the observation period (in June 1996 and January 1997) in addition to the follow-up tests.

In Yuta's spontaneous English speech samples, he answered 100% of the positive and positive-tag questions correctly in both the first and the second terms. On the other hand, he answered 20% of the negative questions incorrectly. For example, when his friend Chris asked, "Didn't you go outside?", Yuta replied, "Yes. Yes, I didn't." Negative-tag questions and negative questions in which the subject and verb were not reversed appeared to be even more of a problem for Yuta in the first term: He answered half of them (50%) incorrectly. For example, to Chris's question, "You don't want to go?", Yuta responded, "Yeah, I don't want to" in the first term. In the second term, however, he was able to correctly answer 100% of the negative questions and 80% of the negative-tag questions. Nonetheless, when his friend Daniel said, "We don't have any red cards?" Yuta answered, "Yes, we don't."

In his elicited English speech samples, Yuta answered 100% of both the negative and negative-tag questions correctly. In responding to the 32 yes/no questions in English on the test administered in June 1996, Yuta answered 100% of the positive and positive-tag questions correctly, but answered 75% of the negative questions and 100% of the negative-tag questions *incorrectly*. On the test administered in January 1997, however, he scored 100% right for all four types of questions. In answering additional questions on the test in January 1997, he answered 100% of both the negative and negative-tag questions correctly.

In his spontaneous Japanese speech, Yuta answered 100% of all four types of questions correctly in both the first and the second terms. However, in the first term, he took a long time (3 - 5 seconds) answering negative and negative-tag questions, much as he had in the previous study. In the second

term, however, his answers were quicker.

In his elicited Japanese speech samples, Yuta answered 100% of both the negative and negative-tag questions correctly. In answering the 32 yes/no questions in the Japanese test, he scored 100% correct for all four types of questions in both June and January. In answering additional questions in January, however, he only scored 87.5% correct for both the negative and negative-tag questions. During the test in June, he didn't answer either negative or negative-tag questions automatically, but on the test in January his answers were as automatic as his answers to positive and positive-tag questions. In fact, his answers were produced as quickly as in English. Yuta's better scores on the tests might indicate that they were easier to answer than questions in spontaneous speech because of the pattern of repeated questions in the tests. These results are tabulated for easy reference in Table 6.

TABLE 6: Negative Questions (Yuta)

English	Japanese			
	No. of Utterances (Percentage)		No. of Utterances (Percentage)	
	Spontaneous Speech		Spontaneous Speech	
	Correct	Incorrect	Correct	Incorrect
Mar. '96 ~Aug. '96				
Negative Questions	4 (80%)	1 (20 %)	5 (100%)	0 (0%) Negative-
Tag Questions	2 (50%)	2 (50%)	4 (100%)	0 (0%)
Sept. '96 ~Apr. '97				
Negative Questions	7 (100%)	0 (0 %)	5 (100%)	0 (0%)
Negative-Tag Questions	16 (80%)	4 (20%)	20 (100%)	0 (0%)
	Elicited Speech		Elicited Speech	
Negative Questions	5 (100%)	0 (0%)	5 (100%)	0 (0%)
Negative-Tag Questions	6 (100%)	0 (0 %)	6 (100%)	0 (0%)
June '96	32 Yes/No Questions		32 Yes/No Questions	
Negative Questions	2 (25%)	6 (75%)	8 (100%)	0 (0%)
Negative-Tag Questions	0 (0%)	8 (100%)	8 (100%)	0 (0%)
Jan. ' 97	32 Yes/No Questions		32 Yes/No Questions	
Negative Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%)
Negative-Tag Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%)
Jan. '97	Additional Questions		Additional Questions	
Negative Questions	8 (100%)	0 (0%)	7 (87.5%)	1 (12.5%)
Negative-Tag Questions	8 (2) (100%)	0 (0%)	7 (87.5%)	1 (12.5%)

Eight seven-year-old monolingual children were also given the test of 32 yes/no questions. Four

were English monolinguals and four, Japanese monolinguals, with two boys and two girls in each language group. Their scores for the negative and negative-tag questions are presented in Table 7. As

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(75%) wrong. Their combined scores are 100% correct for the positive, positive-tag and negative questions, and 81.3% correct for the negative-tag questions. Similarly, three of the Japanese monolinguals answered all 16 questions correctly, but one boy answered one of the negative-tag questions incorrectly, making the combined score of the Japanese monolinguals on the negative-tag questions 96.9% correct.

TABLE 7: Negative Questions (Monolingual Subjects)

English Monolingual Subjects

	Negative Questions		Negative Tag Questions	
	Correct	Incorrect	Correct	Incorrect
Boy C	8 (100%)	0 (0%)	2 (25%)	6 (75%)
Boy D	8 (100%)	0 (0%)	8 (100%)	0 (0%)
Girl A	8 (100%)	0 (0%)	8 (100%)	0 (0%)
Girl B	8 (100%)	0 (0%)	8 (100%)	0 (0%)
TOTAL	32 (100%)	0 (0%)	26 (81.3%)	6 (18.7%)

Japanese Monolingual Subjects

	Negative Questions		Negative Tag Questions	
	Correct	Incorrect	Correct	Incorrect
Boy A	8 (100%)	0 (0%)	8 (100%)	0 (0%)
Boy B	8 (100%)	0 (0%)	7 (87.5%)	1 (12.5%)
Girl C	8 (100%)	0 (0%)	8 (100%)	0 (0%)
Girl D	8 (100%)	0 (0%)	8 (100%)	0 (0%)
TOTAL	32 (100%)	0 (0%)	31 (96.9%)	1 (3.1%)

Yuta was given follow-up tests in March and April of 1997. On the tests of 32 yes/no questions, he scored 100% on all four types of questions in both languages. In answering additional questions in March and April, Yuta correctly answered 100% of both the negative and negative-tag questions. These results are presented in Table 8.

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Follow-Up Tests (Yuta)

	English		Japanese	
	No. of Utterances (Percentage)		No. of Utterances (Percentage)	
March 1997	32 Yes/No Questions		32 Yes/No Questions	
	Correct	Incorrect	Correct	Incorrect
Negative Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%) Negative-
Tag Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%)
March 1997	Additional Questions		Additional Questions	
	Correct	Incorrect	Correct	Incorrect
Negative Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%) Negative-
Tag Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%)
April 1997	32 Yes/No Questions		32 Yes/No Questions	
	Correct	Incorrect	Correct	Incorrect
Negative Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%) Negative-
Tag Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%)

April 1997	Additional Questions		Additional Questions	
	Correct	Incorrect	Correct	Incorrect
Negative Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%)
Tag Questions	8 (100%)	0 (0%)	8 (100%)	0 (0%)

DISCUSSION

To investigate developments in the subject's language transfer after his language environment changed from one in which English was dominant to one in which the majority language is Japanese, the data gathered in this study, when the subject was living in Japan, is compared with data from the previous study, which was gathered in the U.S.

Sentence Subject Omission

In Solis's study (1986), the subject included sentence subjects in her negative constructions in English 90% of the time, and in Spanish 60% of the time. Solis argued that "these results hinted the inclusion of subjects in the negative English, as well as negative Spanish constructions could be a result of English influence on Spanish" (Solis, 1986, p. 63).

Although Spanish and Japanese are different, these languages have the same option in terms of subject omission, and in fact, the data of my previous study almost duplicated Solis's findings. As was seen in Table 2 on page 64, Yuta included the sentence subject in his English speech 94.1% of the time and in Japanese roughly 60% of the time in the previous study. Although the percentage of English sentences in which he omitted subjects was small (5.9%), his answers were completely ungrammatical. Therefore, these results were interpreted as suggesting Japanese-to-English influence. Additionally, in comparison with the Japanese monolingual subjects, Yuta retained the sentence subjects "I" and "you" much more often. These results could indicate English influence on Japanese.

In the current study, Yuta omitted sentence subjects only 0.7% of the time in his English speech samples. In these cases, he said "[I] Can't do these at once" and "[I]Can do this one." These expressions are very similar to acceptable expressions like "Can't see." Thus, it is possible to infer a reduction in the influence of Japanese on Yuta's English speech. What is significant is that this reduction appears to have taken place even though the quantity of English input in the subject's environment had decreased.

Yuta's usage of subjects in Japanese sentences also appeared to become closer to monolingual norms during the present study. During the first term of the observation period, he omitted the subject in his Japanese sentences 61% of the time, while in the second term, he omitted the subject 78.8% of the time. The Japanese monolingual subjects in the present study omitted sentence subjects 86.7% of the time. These results suggest reduced English influence on Japanese.

Another salient finding was the fact that Yuta started to produce one-word answers in English, which he did not use when he was in the U.S. He especially tended to omit "It's". For example, in response to the question, "What's the weather in Japan now?", Yuta said, [It's] "Hot." This omission of "It's" might be the result of Japanese influence on English, because in Japanese "it" is not used. To say "It is hot" in Japanese, we say "*Atsui desu,*" [is hot], not "*Sore wa atsui desu*" [it is hot]. However, Yuta's omission of "It's" might have been the result of a loss of English ability, because his English input decreased after he moved to Japan. Thus, it is possible to interpret this new development in two ways. One is that the omission of "It's" might be the result of Japanese influence on English. The second is that Yuta was losing his English because his English input decreased after he moved to Japan.

Negative Questions

The previous study showed that Yuta had difficulty answering English negative-tag questions. This is probably because of the difference in the Japanese and English systems for answering negative questions. Since the word order of English negative-tag questions is the same as a statement (that is, the subject and verb order are not reversed as in most questions; e.g., You can't dive, can you?), Japanese-English bilingual children tend to react to the statement rather than to the tag question when they answer negative-tag questions. Thus, Akiyama (1979) found that Japanese-English bilingual children tend to give wrong answers to negative-tag questions in English. The data from the previous study were therefore interpreted as evidence supporting language transfer from Japanese to English.

In contrast, Yuta's slow response rate in answering Japanese negative and negative-tag questions in the previous study was seen to be in keeping with Japanese monolingual children's response rates. Moreover, Yuta's answers were much quicker when he was given follow-up tests on January 31 and February 1, 1996. During those tests, the results of which were presented in Table 4 on page 66, he answered three to five seconds quicker than previously. His answers were becoming automatic. In other words, he was acquiring the Japanese answering system.

After Yuta moved to Japan in March 1996, the quantity of his English input decreased. It would be reasonable to expect that this negatively affected his acquisition of the English rules for answering negative questions. In fact, this was true for the first six months. However after that, this trend was

reversed: his incorrect usage actually disappeared. He answered 100% of the negative and negative-tag questions correctly in elicited English speech between September 1996 and April 1997.

A notable finding in the current study is the fact that Yuta's answers clearly changed at a certain period. Yuta's spontaneous speech samples were therefore divided into two terms (March 1996 - August 1996 and September 1996 - April 1997) to try to highlight this development. However, the exact time when the change began was not apparent in these samples.

The results of the yes/no question tests and additional questions, however, can be used to infer when this change began to take place. When Yuta took the test of 32 yes/no questions in June 1996, he answered 75% of the negative questions and 100% of the negative-tag questions incorrectly. At this point, his scores were actually worse than in the previous study, and it could be inferred that the decrease in his English input was negatively affecting his English ability. However, in the test of 32 yes/no questions he took in January 1997, he answered all negative and negative-tag questions correctly, and in all tests taken after that time, his answers to both negative and negative-tag questions were always correct. It follows that Yuta acquired the rules for answering negative questions in English, or the difference between English and Japanese in responding to negative questions, between September 1996 and January 1997. This acquisition seems to be different from his acquisition of correct sentence subject usage in that the change was so dramatic.

The results of these analyses suggest that Yuta had acquired or learned the linguistic rules for responding to negative questions in English even though his English input had decreased. In this context, "acquire" means that children develop language proficiency subconsciously through use in a natural setting; "learn" means that children develop language proficiency consciously through classroom activities. A "natural setting" is any situation that does not include pre-planned language tasks.

Yuta's answers to negative questions in Japanese reflect a similar development. Although he didn't answer either negative or negative-tag questions automatically on the Japanese test of 32 yes/no questions in June 1996, he answered both negative and negative-tag questions automatically on all tests after January 1997. This suggests that Yuta finally acquired the Japanese system for responding to negative questions from frequent Japanese input in a natural setting. The period when he acquired the Japanese system is the same as that in which he acquired the English system for answering negative questions. This suggests that Yuta acquired the difference between the Japanese and English systems rather than acquiring each system individually.

CONCLUSION

The findings of this study can be summarized as follows. The data on sentence subject omission

suggests a reduction in the mutual influence of the two languages in Yuta's speech during the period of observation (7;2 to 8;3). The data on responses to negative questions suggests a removal of Japanese influence on English in Yuta's speech during the same period.

These findings suggest three things. First, there was a two-way transfer effect. Additionally, the subject made both interference errors and developmental errors. Previous research (Hakuta & Cancino, 1977; Hecht & Mulferd, 1982; Zobl, 1980; all cited in McLaughlin, 1984) supports my conclusion on this point. Yuta had interference errors in both his sentence subject usage and his responses to negative questions. He also had developmental errors in his responses to negative questions. Language transfer in sentence subject usage occurred at only a low rate and did not cause crucial language confusion. The data in this study therefore shows that there was still a two-way transfer effect, but not to a crucial degree. That is, this transfer did not hinder Yuta's ability to interact and communicate with others in either language. He corrected his errors in both languages in a short period. His language confusion or delay seemed to be of short duration.

Second, the findings regarding sentence subject omission and negative questions suggest that the subject acquired correct language systems or rules even though the quantity of input in one language decreased. That is, a subject who is around seven to eight years-old can correct his grammatical errors in both languages using meta-linguistic knowledge. In addition it was suggested that, rather than acquiring the rules of two languages separately, the subject may have acquired the difference between the Japanese and English systems, after which time he was able to use both systems correctly.

Finally, in investigating sentence subject omission, it was found that the subject produced one-word answers, simplification, repetitions, and sometimes confused the usage of the auxiliary verb "be" and the main verb, or of the third person singular in English--things he didn't do when he was in the U.S. These results were interpreted as evidence of English language attrition. Thus, although he was "learning" or "acquiring" some English rules, in other usage he was losing his English.

Although this is only one case study, it is one in which the subject acquired two languages. It suggests that although the process of bilingual acquisition may involve some temporary interference between the two languages, the duration of such negative language transfer is not necessarily long. It shows that even when the language environment changes and input in one language decreases, a bilingual may continue to acquire the rules of this language while also experiencing its attrition. It also suggests that for some rules of syntax, a simultaneous bilingual may acquire the differences in his two languages rather than learning the rules of each language separately.

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APPENDIX I

Books Used for Story-Telling

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APPENDIX II

Yes/No Question Test (32 Sample Questions)

- 1) Is it cold today?
 Isn't it cold today?
 It's cold today, isn't it?
 It isn't cold today, is it?
- 2) Are you a 7-year-old boy (girl)?
 Aren't you a 7-year-old boy (girl)?
 You are a 7-year-old boy (girl), aren't you?
 You aren't a 7-year old boy (girl), are you?
- 3) Do you like hamburger?
 Don't you like hamburger?
 You like hamburger, don't you?
 You don't like hamburger, do you?

- 4) Can you go to Grandma's house by yourself?
Can't you go to Grandma's house by yourself?
You can go to Grandma's house by yourself, can't you?
You can't go to Grandma's house by yourself, can you?
- 5) Was it Monday yesterday?
Wasn't it Monday yesterday?
It was Monday yesterday, wasn't it?
It wasn't Monday yesterday, was it?
- 6) Were you the tallest boy (girl) in your class last year?
Weren't you the tallest boy (girl) in your class last year?
You were the tallest boy (girl) in your class last year, weren't you?
You weren't the tallest boy (girl) in your class last year, were you?
- 7) Did you take violin lessons when you were five?
Didn't you take violin lessons when you were five?
You took violin lessons when you were five, didn't you?
You didn't take a violin lesson when you were five, did you?
- 8) Could you read a book when you were a baby?
Couldn't you read a book when you were a baby?
You could read a book when you were a baby, couldn't you?
You couldn't read a book when you were a baby, could you?

＜認知能力の発達と表現能力の発達＞

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本稿の目的は、幼児の認知的な能力の発達と表現能力の発達との関係を、二言語(英語・日本語)併用児の発話資料を用いて明らかにすることである。検討項目は、幼児の発達指標となる諸概念の表現である過去表現と疑問詞の二項目である。本稿の研究対象児 Steve (仮名) は、米国で生まれ、生後8ヵ月の時来日し、それ以来日本で生活している男児である。彼は家庭では両親の共通言語である英語を使い、それ以外では日本語を使うことの多い、英語と日本語を同時習得している二言語併用児である。従来の研究 (Clancy, 1985; Mishina, 1997) では、英語でよりも日本語での方が過去表現の習得が早いと示唆されてきたが、本稿の研究対象児 Steve については、二言語における過去を表す表現と疑問詞の使用ないし出現はほぼ同時期で、二言語における両者を含んだ表現の特徴も近似していることが確認され、「二言語併用児は新しく獲得した概念を一方の言語で表現するようになれば、あまり大きな時間的隔たりを見ずに、もう一つの言語においても表現するようになる」という仮説が支持された。幼児が獲得する諸概念のうち認知的な発達に伴って理解される概念を言語化して表現する時期が、言語によって左右されることがほとんどないこと、そして、その時期が幼児自身の認知能力の発達と深く関係していることの二点を、二言語併用児の発話資料を用いながら、これまでより一層明確にした。

Interdependence of Cognitive and Linguistic Development: Evidence from the Development of a Bilingual Child

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The present study is an investigation of the interdependence of cognitive competence and linguistic ability in an English-Japanese bilingual child between the ages of 2;6 and 4;0 years. This study is specifically concerned with the acquisition of expressions for past experiences and wh-type questions in the subject's two languages. The subject of