

# **The linguistic development of a Japanese-English bilingual at age two: a case study**

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## **Abstract**

This paper presents preliminary observations on the linguistic development of a Japanese-English bilingual at age two. Topics include grammar and vocabulary development, code-mixing and language differentiation, and attitudes towards a non-dominant language. From these early observations it has been concluded that a child growing up in a mostly monolingual environment is likely to be dominant in the language of the community, but is also able to distinguish between two languages even at this early stage in her linguistic development.

## **Introduction**

English-speaking parents in Japan face many difficulties in raising their children to speak English as well as Japanese, especially when one of the parents is a native speaker of Japanese. Despite the prevalence of English education beginning in junior high school (and, more recently, in elementary school), Japan remains a steadfastly monolingual nation. Although there is a widespread belief in the importance of learning English for international communication, and English can be found everywhere from canned soft drinks to T-shirts, the fact remains that the vast majority of Japanese rarely use English in their daily lives. In this environment the best chance for a child to grow up bilingual is to learn English at home.

One might rightly ask why it is important or if it is even desirable to raise a child bilingually in such a monolingual environment. After all, children who grow up speaking only Japanese will be able to function perfectly well in Japanese society. Those wanting to pursue international careers can study English as a second language in school. The shortcomings of English language education in Japan aside, however, there are several reasons why English-speaking parents might want their children to learn English from early childhood. First and foremost is the desire to communicate with their children. Even if the English-speaking parents can speak and understand Japanese well, using their native language with their children is one way to make them feel closer to them. In addition, bilingualism itself offers economic, social, and cognitive advantages that would be unfortunate to give up. See Bialystok (2001) for more discussion on the cognitive advantages of bilingualism.

Many studies on child bilingualism argue for a strict language policy in the home in order to foster the development of the minority language. The one-person-one language approach, first

described by Ronjat in 1913, advocates that parents address their children only in their own native languages (Arnberg, 1987). The purported advantage of this strategy is that it helps children to separate the languages into two distinct systems. Another approach, referred to here as the home immersion strategy, calls for the use of only the minority language in the home. This approach increases children's exposure to the minority language and gives them greater motivation to speak it, as the parents will not respond to the majority language.

For many families in Japan with one non-Japanese parent and one Japanese parent, however, such strict language policies may be neither practical nor desirable. The one-person-one language strategy, for example, seems to ignore the reality of bilingual parents. When a parent speaks both Japanese and English, it is extremely unnatural for them to completely avoid speaking or responding to one of their languages. An English-speaking father who understands Japanese is unlikely to ignore his child's desperate plea in Japanese to go the bathroom, for example, simply because the child is using the "wrong" language. The home immersion strategy is even more unnatural, as it requires one parent to avoid speaking his or her own native language entirely. Even very fluent non-native speakers of English may feel uncomfortable speaking their second language to their own children all the time. They may feel, for example, that English lacks the intimacy of their native language. In addition, the home immersion strategy requires parents to ignore influences from outside the home such as songs and games in Japanese that their children might learn at school.

This paper describes the endeavors of one English-speaking father (the author) to help his daughter Yuki, age two, to become a Japanese-English bilingual following a more natural approach in which no rigid restrictions have been placed on language usage in the home. In this "mixed strategy" (Arnberg, 1987), both parents speak Japanese and English interchangeably. As Arnberg points out, however, the weakness of this strategy is that the majority language tends to dominate and this is, in fact, what we have found at this early stage in our daughter's language development.

## 1. The study

### **The subject and her language background**

This section describes in detail the subject and her language background following the outline of section 4.1.1 of De Houwer (1990). De Houwer's main goal was to examine the separate development hypothesis, which views bilingual language acquisition as the development of separate, "self-contained systems" (p. 6). The question is beyond the scope of the present study, but De Houwer's meticulous attention to the details of her subject's background provides a useful model to follow.

This study documents the linguistic development of an only child, Yuki, who has been exposed to English and Japanese since birth. The study covers Yuki's language learning from birth to age two.

Yuki's is a case of bilingual first language acquisition as defined in De Houwer (1990). That is, Yuki was first exposed to a second language within a week after being exposed to the first, and she

has been addressed in both languages every day since.

Yuki was born to an American father and a Japanese mother in Kyoto, Japan, where the hospital staff and other patients spoke Japanese. Yuki and her Japanese-speaking mother stayed in the hospital for a week, and her English-speaking father visited every day. Yuki was therefore exposed to two languages within a week of birth.

After returning from the hospital, Yuki lived with both parents, who usually spoke to her in their respective native languages. Apart from a few occasions when Yuki's mother was out of town, Yuki has been exposed to two languages every day.

Yuki's parents usually speak English with each other or a mixture the two languages, her mother speaking in Japanese and her father responding in English. Both of Yuki's parents can speak and understand each other's language well, but Yuki's mother speaks English more fluently than her father speaks Japanese, so most conversations between her parents are conducted in English. In addition, Yuki's mother will occasionally address her in English, and Yuki's father sometimes uses Japanese.

Yuki's exposure to Japanese has been much more extensive than her exposure to English, since she has never traveled outside of Japan. The family lived in Ikeda, Osaka Prefecture from the time she came home from the hospital to age six months. After that, Yuki's family moved to Kyoto, where they still live. Most people in the area where Yuki lives speak with a distinct Kansai dialect of Japanese. From about the age of three months, Yuki began attending daycare full time, approximately nine hours a day, five days a week. Although some of her caregivers and classmates know and use a few words of English, all of them speak to her almost exclusively in Japanese.

Yuki's exposure to English, on the other hand, has been limited to mornings and evenings before and after daycare (approximately five hours a day) and on weekends. In addition, her father is essentially the only English-speaking person in her life, although her English-speaking paternal grandparents have visited Japan on several occasions. Her grandmother visited for ten days when Yuki was two to four weeks old, and both grandparents visited for ten days when Yuki was fourteen months old. Apart from that, Yuki has had minimal exposure to other English-speaking adults or children.

In addition to direct contact with speakers of Japanese and English, Yuki has been exposed to media in both languages essentially from birth. She sometimes watches Japanese-language children's programs on television and is exposed to the occasional Japanese program watched by her parents. Her exposure to English-language media, however, has been much greater. Since Yuki's daycare center does not have a VCR or a television, she does not watch videos or television during weekdays. At home, Yuki has a large collection of English-language videocassettes that she watches regularly, and her parents usually watch English-language television programs and movies.

In summary, Yuki has had significantly more contact with Japanese than English during her first two years, but she has also been exposed to a fairly rich English-language environment at home, primarily through her father and audio-visual media.

## Method

The investigator (the child's father) kept a running journal of Yuki's language development in Japanese and English from approximately age eighteen months, noting new vocabulary words and instances of code-mixing. Although perhaps unfortunate, no attempt was made to transcribe Yuki's utterances phonetically, as pronunciation was not a concern of the present study. In addition, both parents worked together to compile a complete list of Yuki's active vocabulary in Japanese and English at age twenty-three months and continued to add to the list up until age twenty-four months. We included only those words that Yuki used regularly in the home. Granted, this list is bound to be incomplete, but we feel that it provides a reasonably accurate snapshot of Yuki's vocabulary at age two, in particular as it provides a means of comparing her development in the two languages.

Admittedly, this method lacks the precision of studies that gathered data through lengthy audio or video recordings (cf. De Houwer, 1990; Meisel, 1989), but the present study is only meant to provide preliminary observations and to explore directions for further research. One potential criticism of the lack of phonetic transcription or recordings is that parent investigators might over-interpret their children's utterances (Deuchar and Quay, 2000). However, the intrinsic value of the parent-observer cannot be overlooked, particularly with young children under age three. Many of us have had the experience of visiting friends or relatives with very young children and not being able to understand what the children are saying. Often only the parents can interpret their children's utterances. Rather than criticize such observations as over-interpretation, they should be valued for their deeper insights into the child's true linguistic repertoire. Deuchar and Quay (2000) also point out that a parent has greater access to their child than an investigator who only visits on occasion. This means that a parent-investigator can observe their child in a larger number of situations and over a longer period of time.

## 2. Analysis

### Vocabulary

A quick comparison of the vocabulary lists (see Appendix) reveals that Yuki's Japanese development has progressed further than her English. In total Yuki uses approximately 104 words and expressions in Japanese and 66 in English, a 22.3% difference. (7 words are English loanwords that are commonly used in Japanese and have been added to both totals since it was difficult at this stage to determine which language Yuki learned them from.) In addition, Yuki has only 20 translation equivalents, approximately 24% of her total vocabulary. When the words are divided according to grammatical category, we notice that Yuki's English vocabulary consists mainly of nouns, while her Japanese is fairly equally divided among nouns, verbs and adjectives (see Table 1).

**Table 1 Comparison of Yuki’s Japanese and English vocabularies by word class**

	Japanese	English
Nouns	30	48
Verbs	21	0
Adjectives/Adverbs	18	4

There are several possible explanations for why nouns dominate Yuki’s English vocabulary. First, nouns are generally among the first words that children learn in any language, as they refer to concrete objects that children can see, point to and touch. It might therefore be said that Yuki’s English development is simply at an earlier stage than her Japanese. Second, a major source of Yuki’s English language input comes from children’s videos that emphasize the teaching of nouns. A final factor in the lack of verbs in Yuki’s English vocabulary may be the relative simplicity of Japanese compared to English. In Japanese, for example, it is possible to form a complete sentence with a single verb because subjects and objects can be omitted if the context makes them clear. To illustrate, one of Yuki’s earliest words was *suwaru*, which her mother uses to ask her if she wants to sit in her chair at the dinner table by asking, “*Suwaru?*” In English, one would have to say, at the minimum, “Do you want to sit?” but even that sounds a bit unnatural. One might say instead, “Do you want to sit in your chair?” or “Do you want to sit at the table?” One would never just say, “Sit?” as in Japanese. This means that a child learning English must tease out the surrounding words to discover the verb, whereas in Japanese there is only one word to learn.

This does not mean, however, that Yuki produces only one-word utterances in Japanese. She can combine many of her words into two-word and even three-word sentences. For example, she says, “Banana choudai” [*Give me a banana*] or “Me-me ippai mama” [“Mama (drew) lots of sheep”]. In English, however, she is still at the one-word stage, mostly using English words only for identifying objects or asking for things. For example, when she sees a dog she points and says, “Dog!” Or when her father asks her, “What’s that?” she says the word for the object he is pointing at. She does mix English and Japanese words to make sentences, but she has not been observed to combine more than one word in English, mainly because her English vocabulary consists almost entirely of nouns.

Another interesting point to note about Yuki’s English vocabulary is that many of the words she knows only in English refer to objects and situations that she finds only at home, e.g. bath time, bubbles, “babuckie” (rubber duckie), “boom-boom” (mother’s breast), bicycle, and car-car. This is to be expected since she does not regularly encounter the Japanese equivalents outside the home. Moreover, Yuki’s Japanese-speaking mother tends to use the English words for these objects, even when the remainder of her utterance is in Japanese.

### **Code-mixing and language differentiation**

Code-mixing is “the alternate use of two languages in the same utterance or conversation” (Grosjean, 1982, p. 204). Grosjean describes a 1977 study on Mexican American children by Erica

McClure in which she found that young bilinguals code-mix often. McClure observed that her younger subjects tended to insert primarily English nouns into Spanish sentences. Similarly, Yuki code-mixes English nouns with Japanese grammar (e.g. "Bicycle *ya na!*" ["It's a bicycle, isn't it."]), mainly because of lexical gaps. That is, she does not know the Japanese words for the objects she is referring to. Grosjean (1982) confirms that code-mixing in young bilinguals "at first is used mainly to express a word or an expression that is not immediately accessible in the other language" (p. 206).

This mixing of two languages has led some observers to believe that young bilingual children are not able to differentiate between their two languages. In other words, it appears that the children do not have a separate linguistic system for each language. Instead, they have only one system, with words from two different languages that they freely mix. Early studies on infant bilingualism concluded that "children acquiring two languages simultaneously initially process their two languages as one, and only gradually differentiate between them" (Lanza 1997, p. 49). Lanza points out, however, that these studies are concerned mainly with the formal aspects of language, and do not take into consideration the important issues of dominance, linguistic input, and context.

In Yuki's case, Japanese is clearly the dominant language, as noted before. According to Grosjean (1982), language dominance is mainly the result of linguistic input and communicative needs. Therefore, it is not surprising that Yuki's dominant language is Japanese since Japanese is the language of the community, and Yuki needs it to communicate with most of the people she encounters regularly. As a result, Yuki usually speaks Japanese, even in an English context (i.e., speaking to her father). In addition, all examples of code-mixing involve the insertion of English nouns into Japanese sentences, and these tend to be words for which Yuki has no Japanese equivalent. It is therefore difficult to determine whether English and Japanese are clearly differentiated in Yuki's mind, at least in the case of certain words. The issue is further complicated by the fact that Yuki's Japanese-speaking mother also uses these English words, even when she is speaking Japanese. How is Yuki to know that "bicycle," for example, is not a Japanese word if she never hears the Japanese equivalent?

Individual lexical items aside, however, code-switching and language dominance cannot prove a lack of language differentiation in the young bilingual child. A great deal of research has been done in this area, and recent works suggest that even very young bilinguals are aware of the existence of their different languages. For example, Lanza's (1997) study of two Norwegian-English bilinguals suggests that even two-year-olds are able to attain bilingual awareness, although not to the same degree as older children. Lanza argues that the children's ability to choose languages according to the situation (i.e., who they are speaking to) demonstrates an awareness of the different languages.

Wanner (1996) also found that his son Jessie, a Japanese-English bilingual, used context to determine language choice as early as one year and nine months, using English more with his English-speaking father. Wanner also provides an interesting example of explicit language awareness in his son. When looking at a picture book together, Jessie pointed to a picture of the

sun and said, "Sun." His father then asked him, "What does mama call it?" and Jessie answered, "Taiyo," the Japanese for sun. This is unmistakable evidence that Jessie was aware of the two different languages, and who spoke them.

Yuki's sensitivity to language choice is not as clear as Jessie's (for example, "What does mama/dada call it?" only arouses blank stares), but this is likely the result of the ambiguous environment she is being raised in. Although Yuki's parents do not strictly follow the one-person-one language approach, they believed that they mostly addressed Yuki in their respective native languages. Upon careful reflection, however, it became obvious that both parents addressed Yuki in both languages quite frequently. This does not mean, however, that Yuki must certainly be unable to distinguish between the two languages. Deuchar and Quay (2000) found that a two-year-old was able to differentiate between her two languages phonologically, lexically, and syntactically, even though her parents did not follow the one-person-one language policy.

### **Attitudes toward English**

Through her attitudes toward English, Yuki has demonstrated an awareness that English is a different language from the Japanese that she hears all around her. For example, she occasionally speaks in a gush of nonsensical sounds peppered with a few Japanese (or English) words in an apparent attempt to imitate the sounds of English, which she seems to think is a stream of meaningless sounds only used by her father or the characters on her videos. Subjective observation suggests that she is using an approximation of English stress, intonation, and phonology, but further study is required to confirm this. In addition, Yuki refers to her English-language vocabulary videos as "munyumunyu" [gibberish], further evidence that she may perceive English as a strange and incomprehensible language. On the other hand, Yuki's nonsensical babbling may simply indicate a desire to speak English, a language for which she has not yet had sufficient input or support to allow her to express what she wants to say.

Yuki has also demonstrated on occasion that she believes English to be "wrong" by correcting her father's attempts to teach her the English way of saying something that she already knows in Japanese, in a strategy known as recasting. Like parents of monolingual children who recast their children's ungrammatical utterances ("Mama shoe." "Yes, that's Mama's shoe."), Yuki's father recasts her Japanese in English. Yuki, however, sometimes takes this as a challenge to teach her father the "correct" Japanese. For example, one of Yuki's earliest words in Japanese was "*owatta*" ("finished"), which she learned to say at the end of her videos. On one occasion when Yuki's video finished, she said, "*Owatta*," and her father said, "Yeah! It's finished." She looked at her father seriously and shook her head as if to correct him by saying, "*Owatta!*" Her father then said, "Finished!" Yuki shook her head again and repeated, "*Owatta!*" They continued this exchange for a few rounds until the father tried to turn the tables on her and said, "*Owatta!*" Yuki just nodded approvingly and said, "*Owatta*."

It is unclear whether Yuki's attempts to correct her father represent a rejection of English or a

genuine desire to help him. What is clear, however, is that Yuki is able to recognize Japanese and English as distinct systems of communication.

## Conclusion

Yuki's experience demonstrates that a child growing up with an English-speaking father and a Japanese-speaking mother in the mostly monolingual environment of Japan is likely to be dominant in Japanese at the age of two, especially when the child attends a Japanese daycare center full time. The influence of the daycare environment is particularly strong, since Yuki's linguistic motivation comes from the desire to communicate with her peers. Another factor leading to Yuki's dominance in Japanese is the home environment, where her parents do not strictly follow the one-person-one language strategy. In addition, Yuki's English-speaking father understands Japanese and often responds positively to her Japanese utterances, which further reduces her motivation to use English. (Although the issue of comprehension has not been addressed here in a systematic way, subjective observation indicates that Yuki is able to understand a great deal of her father's English. In this case, she may be on her way to becoming a passive bilingual). Moreover, the inherent simplicity of some aspects of Japanese grammar (e.g. lack of overt subjects) compared to English should be considered as a contributing factor in the relative ease of learning Japanese.

Yuki's dominance in Japanese, however, does not preclude her from recognizing the difference between the two languages in her environment. Although Yuki has not clearly demonstrated an ability to choose languages based on the situational context (i.e., who she is speaking to) at this point in her development, this is probably due to a lack of a clearly monolingual English speaker among her interlocutors. Through her attitudes toward her non-dominant language, however, Yuki has demonstrated an emerging bilingual awareness.

## References

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Appendix

Table 1 Yuki's active Japanese vocabulary at age two

	Japanese	English equivalent
<b>Nouns</b>	akachan	baby <sup>1</sup>
	ashi	foot
	banana <sup>2</sup>	banana
	boushi	hat <sup>1</sup>
	buroccoli <sup>2</sup>	broccoli
	chiizu <sup>2</sup>	cheese
	dakko	hug
	gohan	rice <sup>1</sup>
	hana	nose <sup>1</sup>
	kaeru	frog
	kirin	giraffe
	kore	this <sup>1</sup>
	kutsu	shoes <sup>1</sup>
	laion <sup>2</sup>	lion
	mama	mama
	meme	eyes <sup>1</sup> /sheep
	mimi	ear <sup>1</sup>
	mushi	bug
	nyanyan	cat <sup>1</sup>
	omutsu	diaper <sup>1</sup>
	o-shiko	pee <sup>1</sup>
	ototo	fish <sup>1</sup>
	otsuyu	miso soup
	panda <sup>2</sup>	panda
	puuru <sup>2</sup>	pool
	ringo	apple <sup>1</sup>
	suika	watermelon
	unchi	poop <sup>1</sup>
	wanwan	dog <sup>1</sup>
	zou-san	elephant
<b>Verbs</b>	atta/ita	There it is! (inanimate/animate)
	choudai	Give me...
	dekita	I did it!/It's done!
	da/ya	be
	deta	(It) came out.
	doite	Go away.
	kashite	Give me!
	kowareta	It broke.
	mita/mite	I saw it./Look!
	nai	It isn't there./There's nothing.
	nenne/nenno	(Let's) sleep.
	ochita	It fell.
	oide	Come here.
	oriru	(I want to) get down.

	owatta	It's finished.
	suru	do
	suwaru	(I want to) sit.
	toreta	It came off./I took it off.
	totte	Take/get it.
	tsuita	It came on./It stuck to me.
	to yutta	I said...
<b>Adjectives/Adverbs</b>	amai	sweet
	atchi	over there, that way
	atsui	hot
	ippai	full, many
	issho	same <sup>1</sup> /together
	itai	ow!
	kawaii	cute
	kayui	itchy
	kirei	pretty
	kotchi	over here, this way
	kusai	stinky
	mada-mada	not yet
	motto	more <sup>1</sup>
	oishii	delicious
	okashii	strange
	sugoi	great, wow!
	takai ("katai")	high, tall
	tsumetai ("mijitai")	cold <sup>1</sup> (to the touch)
<b>Expressions</b>	akan	No! /Don't do that!
	arigatou ("attou")	Thank you. <sup>1</sup>
	bai-bai <sup>2</sup>	Bye-bye.
	chiau	It's wrong/different./No!
	douzou	Here you go.
	gochisosamadeshita ("gochitaitaita")	said at the end of a meal
	hai	Yes! (when her name is called)
	iya	No!/I don't like that.
	moshi-moshi	Hello. (on the phone)
	mou ii	I've had enough.
	mou(i)kkai!	Once more!/Again. <sup>1</sup>
	oi!	Hey! (said to call someone)
	onchinton	Sit down.
	tadaima ("daima")	I'm home.
<b>Grammatical particles</b>	doko	where
	ka	question marker
	mo	too
	na/ne?	isn't it?
	no	possessive marker
	wa	topic marker

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<b>Onomatopoeic words</b>	bisho-bisho	wet
	een	crying
	goshigoshi	scrub scrub (hand washing)
	jaa	a liquid being poured
	kachi	click (mouse, fastener)
	kyukkyu	wipe something clean
	pikapika	clean (empty dish), shiny, flashing
	puu	fart sound
shuu	sliding	

1 Words that Yuki also uses in English

2 Words borrowed from English into Japanese

**Table 2 Yuki's active English vocabulary at age two**

<b>Nouns</b>	apple	hat	
	apple juice	horse	
	baby	keys	
	ball	lion	
	banana	mama	
	bath time	dada	
	bear	milk	
	bicycle	monkey	
	bird(s)	mouth	
	bus	nose	
	breast (milk) ("boomboom")	pants	
	broccoli	paper	
	bubbles	peach	
	car-car	pee	
	cat	poop	
	cheese	rabbit	
	cookie (=cracker)	rice	
	dog	rubber duckie ("babuckie")	
	duck	shoes	
	ear	spoon	
	eyes	tea	
	fish	tomato ("mato")	
	flower	video	
	gorilla	water	
	<b>Numbers</b>	one-ten	
	<b>Adjectives/Adverbs</b>	again	
		cold	
same			
more			
<b>Expressions</b>	No!		
	Oh no!		
	Please.		
	Thank you.		