

The Influence of Context and Parental Input on Language Choice and Mixing in Bilingual Language Acquisition

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This case study of bilingual language use and acquisition focusses on a bilingual, bicultural British-Japanese family living in Japan. Interview data relating to the family language environment and recorded interaction between Shakti, the older daughter (aged 4;3 to 5;6), her Japanese mother and British father, are analysed to investigate possible reasons for language choice and mixing. It is found that in some cases, the subject's language mixing and switching could be attributed to lexical deficit, the previous use of terms in the other language, and language dominance. However, the most significant influence on her language choice and mixing appears to be context, particularly the role of parental input and discourse strategies. Although both parents support the one parent - one language strategy for promoting active bilingualism in the family, parental language mixing and second language use are observed. From the qualitative analysis of recorded interaction between family members, the influence of parental language input on Shakti's language choice and mixing patterns could be inferred. Using Lanza's (1992) categorization, Shakti's parents are found to have negotiated a bilingual context for language use which encourages language mixing and the use of both languages between participants. In the context of the family language environment, Shakti's language mixing could be interpreted as the imperfect use of adult bilingual discourse strategies.

<二言語習得児の言語選択と混合：両親の言語使用が及ぼす影響>

二ヶ国語の使用と習得に関するこの事例研究は、二言語（日・英）、二つの文化を背景に持つ日本在住の家族に焦点を当てる。家庭での言語環境に関するインタビューと、両親（日本人の母親とイギリス人の父親）と長女のShakti（沙紅庭、4;3～5;6才）の会話を録音したものから、長女の言語の選択と混合に影響する要素を分析した。Shaktiの言語選択・混合のいくつかの例は、一つの言語の語彙欠陥、同じ会話の中で他言語の用語使用、あるいは、日本語習得の優勢度に由来したと思われるが、言語選択・混合の主要な要因は生活環境と両親の言語使用状況にあると推測される。家庭内での活発な二ヶ国語使用を進めるため、両親とも子供達に対して自らの母国語のみを使用する（One Parent - One Language）方針を取っているにもかかわらず、両親が二言語を混合し、母国語以外の言語を使用している状況が観察された。家族内での会話を録音し分析した結果、両親の言語使用状況がShaktiの言語の選択と混合に影響を与えている事が推測される。Shaktiの両親が家庭内での言語使用に於いて、日本語と英語のコード切り換えを容認している事が、二者間での会話においてコード切り換えと二言語併用を助長しているバイリンガル環境（Lanza, 1992）を設定していると観察された。家庭での言語環境の背景より、Shaktiの言語混合は、状況に応じて二言語を使い分ける大人の会話法に未習熟である事に起因すると解釈する事が出来るであろう。

INTRODUCTION

This case study of a bilingual, bicultural British-Japanese family living in Japan focusses on the influence of context and parental input on a bilingual child's language choice and mixing. Communication in Japanese and English between Shakti, the older daughter (aged 4;3 to 5;6), her Japanese mother, British father, and younger brother, was analysed qualitatively using audio recordings of interaction between family members and interview data relating to the family language environment. By investigating the mixing and differentiation of Japanese and English by both Shakti and her parents, this study explores the influence of parental language use on a bilingual child's use of her two languages.

Both parents in this study expressed strong interest in promoting bilingualism in their children, adopting the one parent - one language strategy, with the father speaking English and the mother speaking Japanese to the children. The practical application of this strategy is investigated in this report, with analysis focussing on the incidence of language mixing in communication between the parents and in interactions between the parents and their daughter. The subject's language mixing is then reviewed in light of the linguistic context established by the parents.

PREVIOUS RESEARCH

As this case study involves language choice by a child in the process of simultaneously acquiring Japanese and English, and in particular its relationship to parental language use, relevant research can be found in three areas. Studies of bilingual acquisition of other languages can provide related information, with more directly relevant data available in the few studies on the influence of language input on bilingual language acquisition and language mixing, as well as from the limited research into Japanese-English bilingualism to date.

Before discussing the first area of previous research, it is necessary to clarify some relevant terms, as there has been a great deal of debate and confusion about terminology. Firstly, following Lanza (1992) and others, the term *bilingual first-language acquisition* (or *bilingual language acquisition*) will be used to refer to the simultaneous acquisition of two languages from birth. Also following Lanza (1992), the term *context* will be used to refer to a dynamic sociolinguistic concept which incorporates the influence of language used in interaction by each participant and includes setting, participants and topic.

In the literature relating to bilingual language acquisition and use, a variety of terms and definitions are employed by researchers to describe the interaction between a bilingual's two languages, including language mixing, code mixing, odd mixing, fusion, transference, interference, confusion, borrowing, and integration. As these examples of linguistic terminology have been subjected to a range of contrasting, and sometimes conflicting interpretations, I restricted their use to specific references in the literature. In this report I adapted the term *language mixing* to refer to any linguistic interaction between languages, and *codeswitching* for examples of appropriate, consciously selected language mixing.

Bilingual Language Acquisition

One of the most comprehensive early case studies of bilingual language acquisition was Leopold's (1939-49) research on the bilingual acquisition of German and English by his daughter. Observing the mixing of English and German in his child's two- and three-word utterances, Leopold proposed the influential unified system hypothesis, which maintains that infants exposed to two languages initially acquire a combined speech system from which bilingual awareness and language differentiation later develop.

This hypothesis was further developed by Volterra and Taeschner (1978), who proposed a three-stage model of bilingual language development. In this model, the initial acquisition of a unified lexicon with words from both languages is followed by separation of the vocabulary of the two languages within a unified syntactic system, and eventual differentiation of the syntax of the languages.

Research on bilingual first-language acquisition has often focussed on supporting or disputing this unified system hypothesis. Many researchers have maintained that language mixing provides evidence of a unified system, interpreting it as proof of an inability to differentiate between languages. However, this interpretation devalues significant sociolinguistic influences, particularly the use of mixed or differentiated language within the family. In his review of studies of infant bilingualism, Genesee (1989) questioned the interpretation of language mixing as evidence for a unified language system. He suggested that bilingual

infants develop differentiated language systems from the beginning, rather than using both languages indiscriminately in a single system. Maintaining that many previous studies had methodological weaknesses, he emphasised the need for further research on the influence of context and language input in bilingual language acquisition.

The Influence of Input and Context

In contrast to the majority of studies in the 1970s which supported Leopold's unified system hypothesis, Bergman (1977) maintained that independent development of each language was a feature of bilingual language acquisition. The independent development hypothesis proposed in his study of English-Spanish bilingual children was based on environmental factors, with language mixing related to the lack of clear language separation in the family. Other researchers (e.g. Redlinger and Park, 1980) also related infant language mixing to bilingual input from the same speaker.

Some researchers, most notably Fantini (1985) and Hoffmann (1985), observed less mixing in situations where languages were clearly differentiated by people or settings. Research by Arnberg (1984) concluded that bilingual children's failure to actively use their minority language was related to their knowledge that their parents understood both languages.

Although few studies of bilingual first-language acquisition have effectively analysed the influence of context and language input, perceptive sociolinguistic studies by Goodz (1989), Dopke (1986, 1992), De Houwer (1990) and Lanza (1990, 1992), have investigated the complex interrelationship between input, context and bilingual language acquisition.

In a study focussing on parental language mixing in bilingual families, Goodz (1989) investigated four French-English bilingual children in Canada. She concluded that even parents "firmly committed to maintaining a strict separation of language by parent, model linguistically mixed utterances for their children" (Goodz, 1989, p.25). Although the overall frequency of language mixing in these families was low, Goodz maintained that the children were exposed to consistent parental language mixing in situations where children may be particularly attentive, providing a potent model which did not encourage the strict separation of languages.

Similarly, research by De Houwer (1990) pointed out linguistic cues for language mixing in an infant bilingual. In a comprehensive case study of Kate, whose English-speaking mother and Dutch-speaking father used the one person - one language strategy, De Houwer found that the subject's language use patterns suggested an awareness of her interlocutors' linguistic abilities, as she used Dutch consistently with monolingual speakers, in contrast to her mixing of English and Dutch when interacting with bilinguals.

Research by Dopke (1986, 1992) on the linguistic environment of six German-English bilingual families in Australia focussed on language input by parents committed to the one person - one language principle. Observing variable interactional styles, Dopke identified several influential strategies promoting active bilingual acquisition, including separated parental language input, child-centred interaction, the use of vocabulary and grammar teaching techniques, the use of "insisting strategies" to create a monolingual context, and the crucial role of the minority language speaking parent. Dopke maintained that the

motivation for children to use the minority language was minimised by bilingual parents who understood and responded to both languages.

Lanza (1990, 1992) focussed on the influence of context, dominance and input on language mixing and differentiation in infant bilinguals. In her study of two Norwegian-English bilingual children in Norway, Lanza concluded that the children used differentiated languages in contextually sensitive ways from the age of two, separating or mixing languages according to the context. Language mixing was attributed to the influence of dominance, parental input and context.

Lanza also identified five parental discourse strategies which could be used to negotiate context. She suggested that these strategies are located along a continuum ranging from a *monolingual context*, in which the use of one language between two participants is encouraged, to a *bilingual context*, in which two languages are used between two participants. At the monolingual end of the continuum, the *minimal grasp strategy* includes requests for clarification or translation, and feigning incomprehension by the parents. Next along the continuum comes the *expressed guess strategy*, which also involves clarification requests, but with parental reformulation of the utterance for confirmation by the child. Parental translation of the child's utterance was identified as *repetition*, and placed between the monolingual and bilingual extremes. Strategies considered to be on the bilingual side of the continuum were the *move on strategy*, in which the conversation continues despite the occurrence of language mixing, and adult *codeswitching*, which involves the use of both languages by parents interacting with their children. Lanza classified both inter-utterance and intra-utterance changes of language as *codeswitching* and found that in parental discourse, these switches provided cues which promoted language mixing in children. She concluded that parental discourse strategies, particularly those used by the minority language speaking parent, were decisive in promoting or inhibiting active bilingualism.

In this way, recent research suggests that clearly differentiated input will promote early language differentiation in bilingual children, while mixed input will promote language mixing.

Japanese-English Bilingualism

Yamamoto (1995) investigated the relationship between children's bilingual proficiency and patterns of language use in international families in Japan, and concluded that consistent use of English by the English-speaking parent was the most significant factor to promote active bilingualism. Yamamoto also found that the use of English between siblings in bicultural families was strongly suggestive of active bilingualism and that it was encouraged by attendance at English-medium schools.

Fotos (1995), in a study of Japanese-English codeswitching in bilingual children (aged 7 to 11), maintained that language mixing was used to achieve social and communicative objectives. She classified the subject's language mixing according to function, with *situational codeswitching* used to establish and maintain social relationships, and *conversational codeswitching* used to organise and enrich discourse. Conversational codeswitching functions identified by Fotos included emphasis, clarification, topic indication, discourse framing and reporting speech.

RESEARCH FOCUS

This case study of a young Japanese-English bilingual child examines language choice and mixing during bilingual language acquisition. Recorded interaction between the subject, her Japanese mother and British father, as well as interview data relating to the subject's language environment, are used to investigate factors that may have influenced the subject's choice of language or triggered language mixing. The data is also analysed to determine whether the parents negotiated a monolingual or bilingual context and whether the subject's language mixing was appropriate for the type of context that was negotiated.

Language mixing by the subject and her parents is also considered in terms of conversational functions identified by Fotos (1995). Although Fotos' study focussed on older, more bilingually proficient subjects than the subject of the current case study, her functional analysis was useful in identifying some of the language mixing strategies used by the subject and her parents.

By applying previous findings by Lanza and Fotos, then, the current study strives to determine whether the subject's language mixing was appropriate for the context and follows patterns used by older, more proficient bilinguals.

METHOD

Subject

Shakti is the older daughter (aged 4;3 to 5;6) of a mixed couple living in Japan. The family consists of the subject, her British father, her Japanese mother, and her younger brother, Josh, who was aged 1;0 to 2;3 at the time of the current study.

Shakti's father, a native English speaker and an advanced speaker of Japanese, had lived in Japan for eight years at the time of the study. His work involved communication in Japanese and English, including frequent use of both languages in telephone conversations and with visitors at home. Shakti's mother, a native Japanese speaker and an intermediate speaker of English, used Japanese in most situations at home and in the community.

Both parents had a positive attitude towards bilingual language acquisition and supported the principle (although not always the practice) of one parent - one language. Native languages were generally used between the parents and Shakti, with her mother usually communicating in Japanese and her father usually using English. Shakti's father normally spoke English with both children, but in some situations, including emergencies, when discipline was called for, and when significant comprehension problems arose, he used Japanese with his daughter. His Japanese comprehension enabled the children to speak Japanese and be understood by their father.

Language use between the parents included communication in English, in Japanese, and mixing across conversational turns, with the father speaking English and the mother responding in Japanese. As both parents used Japanese and English within the home, the children's awareness of their bilingual environment appeared to include the perception of language mixing as an acceptable form of communication. The parents' pattern of mixing across turns may have provided an influential model for the children, as a

similar pattern of language use was previously observed between Shakti and her father (Haskell, 1995).

In home, school and community environments, the quantity of Japanese input was significantly greater than English, leading to Shakti's greater proficiency in Japanese and her preference for using that language. Language use by Shakti at home was predominantly in Japanese, particularly in communication with her mother and younger brother. The subject had also attended a local kindergarten, where only Japanese was spoken, for five days a week since April 1995 (aged 3;8). Language use between Shakti and her brother was usually in Japanese, reflecting Shakti's Japanese proficiency and her use of Japanese with other children at school and in the community. However, with genuinely monolingual English speakers, or consciously "monolingual" bilinguals who refused to speak Japanese, Shakti was able to speak and comprehend basic English at the time of this study.

A previous case study (Haskell, 1995) examined Shakti's bilingual language acquisition at age 4;3 and concluded that language mixing and differentiation in the family language environment significantly influenced the subject's language choice and mixing. Audiotaped data from that preliminary research was included for analysis in this study. The subject's younger brother, Josh (aged 1;0 to 2;3), was also audiotaped during family interaction, but his language use was limited to Japanese single-word utterances and is not examined here.

Data Collection

This case study focussed on the family language environment, particularly the influence of context and parental input on Shakti's language use. Research was conducted from a sociolinguistic perspective, with the use of naturalistic observational data to provide insight into social and linguistic interaction between family members.

This longitudinal study began as a preliminary investigation in November 1995, with more intensive data collection continuing in July 1996, then monthly from November 1996 to February 1997. The family background and language environment was initially investigated through audiotaped interviewing by the researcher with each parent in November 1995, followed by another interview with the father in January 1997. Interview data was analysed for insights into parental attitudes and language use in interaction between the parents and with their children.

Audiotaped natural interaction between parents and children provided most of the data analysed in this study, with recording sessions organised by the father at the family home. The father audiotaped between 20 and 65 minutes of family interaction each month, at times convenient for the family. Recording included interaction between parents, father and daughter, mother and daughter, and the whole family. Although there are some disadvantages in relying on parental taping rather than recording by an observer, the decision was made to minimise the intrusion and influence of an observer. Relevant contextual information, including time, location, and activities, was provided by the father during audiotaping or in subsequent discussions with the researcher. Information about each recording session appears in Table 1.

TABLE 1: Audiotape Recording Sessions

Date	Nov. '95	Jul. '96	Nov. '96	Dec.'96	Jan. '97	Feb. '97
Length	20 mins.	65 mins.	25 mins.	45 mins.	35 mins.	45 mins.
Participants	Shakti Father (Mother) (Josh)	Shakti Father Mother (Josh)	Shakti Father (Josh)	Shakti Father Mother Josh	Shakti Father Mother Josh	Shakti Father Mother
Interactions	S-F S-F F-(J)	S-F-M S-F	S-F-M S-F S-M M-J	S-F-M-J S-F F-J	S-F-M-J S-M	S-F
Activities	Drawing pictures	Breakfast Lunch Phone	Cooking Breakfast	Dinner Playing Singing	Breakfast Dinner	Playing with Legos Bedtime

KEY: S = Shakti F = Father M = Mother J = Josh
(Josh) = present but no meaningful participation

Transcription

Interaction recorded on each audiotape was transcribed by a team composed of an English and a Japanese native speaker, with co-operative transcription of mixed utterances, overlapping utterances, or confusing passages on the tapes. The transcription was based on the orthographic representation of each language, with Japanese represented by Romanised script (*romaji*) printed in italics and followed by the English translation in brackets. A simplified system of transcription symbols was used and is presented here in the key beneath Example 1.

Transcription was confined to interaction involving Shakti communicating with her father or mother separately, with both parents, or within the whole family. Interactions recorded on the audiotapes but excluded from the transcriptions included longer passages of interaction between parents, passages rendered unintelligible by background noise, and interaction in which Shakti was not actively participating.

Example 1: (Discussing places to live)

Father: So why do you wanna live in Yokohama ? ... Apart from the houses are big, any other reason ?

Shakti: Yeah.

Father: What ?

Shakti: Park is big.

Father: **Parks.**

Shakti: Ah, *o niwa mo hiroishi*. [Because the gardens are also big.]

Father: Yeah, but ... we can have ... big gardens in other places too. Why ... why is Yokohama so special ?

Shakti: *Datte baba n chi ni* {...?...} [Because in grandma's house ...]

Father: { Ah, now we know the reason. (laughing)

{Feb.'97}

KEY:	(Discussing places to live) = contextual information	bold = emphasis
	<i>italics</i> = Japanese [English translation]	... = pause
	{ = overlapping speech	{...?...} = unintelligible speech
	(laughing) = meaningful sound	{Feb.'97} = recording date

Analysis of Data

Data collected during this study, including parental interviews and six audiotapes of recorded family interaction, was analysed qualitatively for patterns of language choice, language mixing and the influence of parental input on child language use. Language which could not be clearly determined to be either English or Japanese was excluded from the analysis. This included place names (e.g. Hayama), personal names (e.g. Shakti), and intelligible sounds (e.g. oh, mm). Pronunciation of foreign or loan words (e.g. *koroke* for croquette, *doa* for door) using the Japanese sound system (*katakana* style) was coded as Japanese.

Units of analysis used in this study include the *utterance*, employed in linguistic analysis, including the calculation of MLU (mean length of utterance), and the *conversational turn*, used in the sociolinguistic analysis of language mixing. The *utterance* has been defined as a single intonation contour bounded by a pause or breath (Lanza, 1990). However, I extended this definition to include pauses within short, meaningful utterances (e.g. Shakti and Daddy and ... Mummy). The *conversational turn* was defined as one or more utterances bounded by the utterances of another interlocutor.

In my analysis, I extended the concept of *intersentential mixing* (mixing between consecutive sentences) to focus on the conversational turn, using *mixing across turns* to indicate the use of different languages by consecutive speakers in conversation. I also adapted the concept of *intrasentential mixing* (mixing within sentences) to examine utterances, using *intra-utterance mixing* (or *mixed utterances*) to indicate the use of two languages by the same speaker within a single utterance, and *inter-utterance mixing* to describe the use of two languages by one speaker in different utterances within one conversational

turn.

Utterances were coded as completely English, completely Japanese or mixed, based on their morpheme composition. Mixed utterances were subdivided into mostly English (with more than 50% English morphemes), mostly Japanese (with more than 50% Japanese morphemes) and balanced, with an equal number of English and Japanese morphemes.

RESULTS

Language Mixing

Language mixing by both Shakti and her parents was evident in the recorded interactions, with numerous examples of mixing across turns, inter-utterance mixing, intra-utterance mixing, and translation. Examples of Shakti's use of each type of mixing are shown below, accompanied by analysis of possible reasons for the mixing.

Mixing Across Turns

Mixing across turns was particularly common between Shakti and her father, with each speaker using their preferred language. With Shakti using Japanese and her father using English, the two speakers provided evidence of their ability to comprehend both languages, as seen in Examples 2 and 3 below.

Example 2: (Drawing pictures)

Father: What about a whale ? Draw a whale.

Shakti: *O sakana. Chichai o sakana kakeru yo.* [A fish. I can draw a small fish.]

Father: A big one.

{Nov.'95}

Example 3: (Asking about an old notebook with Japanese writing in it)

Shakti: *Dore ? Dare ga kaita no ?* [Which one? Who wrote it?]

Father: I did ... all of it.

Shakti: *Eh ? Shakti no noto.* [It's Shakti's notebook.]

{July '96}

Mixing across turns allows bilinguals to use their preferred language for speaking, limiting the use of their other language to mainly comprehension. This pattern of mixing across turns effectively encourages the development of passive bilingualism, establishing a context in which language mixing is frequent and accepted. Lanza (1990) interpreted mixing across turns as an example of the move on strategy, which promotes the use of two languages between participants and is situated on the bilingual side of her contextual continuum.

Inter-Utterance Mixing

Shakti's inter-utterance mixing included combinations of English, Japanese and mixed utterances, as seen in Examples 4 and 5.

Example 4: (Drawing pictures)

Father: That's a **door**? I thought ... it looks like a window to me.

Shakti: This is door ... *Hai, doa no marui yatsu.* [Yes, it's a round **door**.]

{Nov.'95}

Example 5: (Responding to father's question about the location of that day's activities.)

Shakti: Ah, *Niko-niko ja nakatta.* [It wasn't Niko-niko (kindergarten).] I played sea.

{Feb.'97}

The data also included examples of inter-utterance mixing in longer multi-utterance conversational turns, incorporating three or more English, Japanese or mixed utterances, as in Example 6.

Example 6: (Talking about garlic bread)

Shakti: Yeah. Can I have **two**? ... *Shakti kore yaru* ... [I (Shakti) will do it.] Can I?

{Nov.'96}

Although most of Shakti's inter-utterance mixes were addressed to her father only, or to both parents during family interaction, one example of inter-utterance mixing revealed her ability to use different languages with different interlocutors:

Example 7: (At dinner, talking about colours)

Father: We've gotta find something green, haven't we Josh?

Shakti: (To father) Maybe here's green, too. (To Josh) (...?) *Tabena* [Eat it.]

{Jan.'97}

This example of situational codeswitching by the subject included appropriate use of English with her father and Japanese with her younger brother within the same conversational turn. This ability to use both languages appropriately indicated that the subject was acquiring the linguistic and social skills necessary to function effectively as a bilingual speaker of English and Japanese.

Intra-Utterance Mixing

Another common feature of Shakti's speech was intra-utterance mixing, including mostly English mixed utterances, mostly Japanese mixed utterances, and balanced mixed utterances with an equal number of morphemes from each language. One example of each type of intra-utterance mixing by Shakti is given below.

Example 8: (Mostly Japanese)

Shakti: Monday *no toki mo Daddy*. [(I call you) "Daddy" when it's Monday, too.]

{July '96}

Example 9: (Mostly English)

Shakti: This is whale ... *kuchi*. [... mouth]

{Nov. '95}

Example 10: (Balanced)

Shakti: Just spoon *de ii?* [Just a spoon is OK?]

{Nov. '96}

Examination of Shakti's intra-utterance mixing revealed predominantly lexical mixing, most frequently involving the insertion of single nouns. Research on codeswitching has uncovered the tendency of less proficient bilinguals to switch single nouns, which are structurally less integrated and require only limited proficiency to switch (Fotos, 1995). Lexical deficit has been proposed as a major reason for single insertions (e.g. Lindholm and Padilla, 1978), with bilingual children filling in lexical gaps in one language with words from their other language. On the other hand, a pattern of frequent single noun insertions in mixed utterances has been observed in many other studies of adult and child bilingualism. Lanza (1992) interpreted lexical mixing as a characteristic of bilingual maturity, in contrast to the more frequent grammatical mixing of infant bilinguals. Examples of Shakti's lexical mixing were therefore analysed to see if they suggested less or more bilingual maturity.

Some examples of single noun insertions in Shakti's utterances appeared to be indicative of less bilingual proficiency due to lexical gaps in her English. In these instances, unknown English words were replaced by the corresponding terms in Japanese. One case of language mixing due to a lexical gap is presented here as Example 11.

Example 11: (Drawing pictures)

Shakti: This is whale...*kuchi*. [... mouth]

{Nov.'95}

Although the above example suggests that some of the subject's language mixing may have been related to lexical deficits, in many cases lexical mixing occurred despite Shakti's awareness and use of corresponding terms in both languages. One instance of single-item insertion that would be difficult to

attribute to a lexical deficit is given as Example 12.

Example 12: (Asking Shakti about her use of "Papa" and "Daddy")

- Father: What about the other days ? What about today ? Today's Monday.
Shakti: Monday *no toki mo Papa* (...?...) Monday *no toki mo Daddy*. [(I call you)
"Papa" when it's Monday, too. (...?...) "Daddy" when it's Monday, too.]

{July '96}

Interview data indicates that at the time of this study, Shakti knew and used the Japanese words *getsuyobi* [Monday] and *otosan* [Papa, Daddy]. It is therefore not likely that lexical factors triggered her insertion of their English equivalents into a mostly Japanese utterance. Rather, the context of this interaction appeared to have been more influential. The topic of conversation (Shakti's use of the English terms "Papa" and "Daddy") and her father's previous utterance ("Today's Monday") seemed to have influenced the mixing in this example.

In several of Shakti's mixed utterances, the inserted noun identified Shakti's father as the focus or addressee of the utterance:

Example 13:

- Shakti: *Hai, asa, Daddy. Asa.* [Hey, (it's) morning, Daddy. Morning.]

{Nov.'95}

Example 14:

- Shakti: *Kinyobi dake Papa.* [Only on Friday (do I call you) "Papa"]

{July '96}

Such use of English words rather than the Japanese term *otosan* to identify her father in Japanese utterances might be seen as examples of language mixing influenced by parental input, since the data contained instances of Shakti's mother using the same English terms in Japanese sentences, as shown in Example 15.

Example 15: (Serving plates of food)

- Mother: *Kore Shaku-chan no. Kore Daddy no.* [This is Shakti's. This is Daddy's.]

{July '96}

Using English terms, particularly "Mama" and "Papa", to identify parents is a common phenomenon in modern urban Japanese communities, and is an example of socially accepted language mixing in bilingual and monolingual families. Shakti's use of these loan words, and by extension, her insertion of the English term "Daddy" in Japanese utterances, can therefore be regarded as appropriate in the context of her family language environment.

Shakti's intra-utterance mixing also included examples of translation from Japanese to English, invariably occurring in conversation with her father. In Examples 16 and 17, Shakti's use of translation, or switched repetition, can be regarded as conversational codeswitching used for emphasis, as well as a response to her father's encouragement to use English.

Example 16: (Drawing pictures)

Shakti: *Kondo kujira kakko. Kujira ...* [Now let's draw a whale. Whale ...] whale.
 Father: Let's draw a whale.

{Nov.'95}

Example 17: (Talking about colours)

Father: How about the other one ?
 Shakti: (...?...?) one. *Issho* [Same.] ... same.

{Jan.'97}

In intra-utterance mixes involving more than single word insertions, there was a recurring pattern of Shakti starting to speak in English, then changing languages and finishing in Japanese, as seen in Examples 18 and 19.

Example 18: (Asking Shakti to pass him a spoon)

Father: Just any...any spoon's OK.
 Shakti: Just spoon *de ii?* [(Just a spoon) is OK ?]

{Nov.'96}

Example 19:

Father: What did you do today ?
 Shakti: Today ?
 Father: Yeah.
 Shakti: I played *Niko-niko de*. [at Niko-Niko (her kindergarten)]

{Feb.'97}

These two examples of intra-utterance mixing involve a change of language rather than an insertion of one or two words. Example 18 (Just spoon *de ii?*) was a rare case of grammatical mixing, involving the particle *de* as the switching point from English to Japanese. Example 19 (I played *Niko-niko de*) involved the use of the Japanese name of the local kindergarten, an example of conversational codeswitching to indicate a culturally linked topic. This type of codeswitching was also seen in Example 5. Although the name "Niko-niko" was used by the subject's father in otherwise completely English utterances, in Shakti's case the name appeared to serve as a point for switching from English to Japanese. Thus this switch might be interpreted as the imperfect use of a parental codeswitching strategy.

Subject's Proficiency in English and Japanese

In addition to the lexical and contextual factors explored above, the dominance of one language can be considered a motivation for a bilingual to switch into that language. An analysis of Shakti's language use indicated dominance in Japanese, apparently due primarily to the greater quantity of Japanese input in her environment, with the variety of contexts for Japanese use greatly exceeding those for English input and use. Shakti's greater Japanese proficiency was suggested by several aspects of the recorded interactions. First, her Japanese utterances tended to be longer than her English utterances, with an average Japanese MLU of 3.45, as opposed to 2.07 for English. The relative complexity of the Japanese linguistic forms she used also pointed to greater proficiency in that language. The rarity of errors in the subject's Japanese utterances further suggested Japanese dominance, as errors in relatively simple English utterances appeared to be far more frequent. Two examples of the subject's grammatical errors in English are shown below.

Example 20: (Drawing a picture of a house)

Father: Where's the door ?

Shakti: Door is this.

{Nov.'95}

Example 21: (Talking about colours in a picture)

Father: How about green?

Shakti: Huh ? Green ? Oh! ... No mo ... no here's green.

{Jan.'97}

Bilingual strategies used by Shakti also indicated dominance in Japanese, with language mixing evident in interaction with English speakers and in situations where both English and Japanese speakers were present. Language mixing with her father, a bilingual English-Japanese speaker, appeared to be facilitated by his comprehension of both languages. In contrast, interaction between Shakti and her mother, also a bilingual Japanese-English speaker, was conducted exclusively in Japanese, indicating an ability on the part of the subject to restrict herself to that language. Thus, it seems clear that language dominance also influenced the subject's language choice and mixing.

The Influence of Parental Input

We have seen that the subject's language choice and mixing were apparently swayed by lexical deficits, the previous use of inserted items, and language dominance. However, even though these factors may have been influential, consideration of the influence of context, particularly the role of parental input and discourse strategies, is essential for a clearer understanding of her bilingual language acquisition and use.

Evidence of language mixing by Shakti's parents included frequent mixing across turns, occasional inter-utterance and intra-utterance mixing, and second language use. Mixing across turns appears to have provided a model of bilingual communication which may have considerably influenced Shakti's language mixing. Two examples of this type of parental language mixing are presented below.

Example 22: (Discussing Shakti's use of "Daddy" and "Papa")

Father: In France they say "Papa".

Mother: *Ne. Nan de "Papa" { nano* [Yes. Why do they say "Papa"?]

Father: { I don't know the origins.

{July '96}

Example 23: (After a drink spilled on the table)

Father: Got a **cloth** there, please.

Mother: *Ah, hai.* { *Sha-chan.* [Ah, **yes**. Shakti dear]

Father: { Thank you.

{July '96}

Interaction between Shakti and both parents also involved extended patterns of mixing across turns in more complex interaction, with Shakti usually participating in Japanese, as seen in Example 24.

Example 24: (Discussing an old notebook with father's Japanese writing in it)

Father: Maybe everybody looks at this, and they think "wow". This is really strange, huh.

Shakti: *Dore, dore? Dare no?* [Which, which? Whose (is it)?]

Mother: *Kandoteki da ne* {*sore wa.* [It's amazing, isn't it?]

Shakti: { *Dore? Dare ga kaita no?* [Which ? **Who** wrote it?]

Father: I did ... all of it.

Shakti: *Eh ? Shakti no noto.* [It's my (Shakti's) notebook.]

{July '96}

As mentioned in the discussion of Shakti's language use, mixing across turns can be interpreted as the negotiation of a bilingual context, promoting the use of both languages between two participants. This pattern of language mixing between parents was observed by the children during family interaction, and can be related to similar patterns of language mixing observed between father and daughter.

Inter-utterance mixing between parents was also observed within conversational turns during family interaction, as shown in the next two examples.

Example 25: (Discussing Josh's dummy)

Josh: *Ochatta*. [It dropped.]
Mother: *Ochatta*. [It dropped.]
Father: *Ochatta ja nai*. [It didn't drop.] He **threw** it.
Mother: *So na no*. [Is that so?]

{Jan.'97}

Example 26: (Discussing an old notebook with father's Japanese writing in it)

Father: What's **this** in here ?
Mother: *M. ga tsukawanai noto. Sutete ata kara*. [Your (M.'s) notebook which you don't use.
You threw it away.] Just a one page -- you studied Japanese before.

{July '96}

It may be inferred that such parental inter-utterance mixing, although less frequent than Shakti's recorded examples, provided a model which encouraged the child's language mixing. As noted above, Lanza (1990) classified inter-utterance and intra-utterance mixing as codeswitching, a parental discourse strategy which she placed at the bilingual extreme of the continuum because it provides cues which promote language mixing in children.

It was also found that both parents mixed languages within utterances as well. As shown in the examples below, this was sometimes done in the course of reporting or quoting their children's speech, which Fotos (1995) notes is a common conversational codeswitching function.

Example 27: (Eating lunch)

Father : OK, **Shaakti**. What have you got there ?
Shakti: *Kore wa korokke*. [This is a croquette]
Father: It's **not** a *korokke*. [croquette]

{July '96}

Example 28: (A rare early utterance from younger brother Josh)

Josh: *Ara ... { Ara*. [What?]
Mother : { Joshua said, "*Ara, ara*".

{Dec.'96}

Another form of parental codeswitching that appeared in the data was translation across turns. Some examples of translation, or switched repetition, were identified by Fotos (1995) as conversational codeswitching used for emphasis or clarification. Providing or requesting translation can also be interpreted as a parental language teaching strategy, improving bilingual awareness and introducing new vocabulary. However, translation can also be seen to promote a bilingual context for language use, providing a model

of parental language use which reinforces patterns of language mixing within the family. Dopke (1992) maintained that translations should not be regarded as teaching techniques in one parent - one language environments, stressing the ambiguous teaching value of translations and translation requests. Nonetheless, this technique was frequently used by Shakti's father to introduce new English vocabulary or request clarification from his daughter, as in Examples 29 and 30.

Example 29: (Playing with Lego)

- Father : When I was a little boy, I used to play Lego ... all the time.
Shakti: Really ?
Father : Yeah.
Shakti: *Itsumo?* [Always?]
Father : Yep. **Always.**
Shakti: Always.

{Feb.'97}

Example 30: (Talking about a drawing)

- Shakti: *Ano ne. Ima asa ne.* [Errr. It's morning now, isn't it?]
Father: Hm?
Shakti: **Asa.** [Morning.]
Father: It's morning, is it?
Shakti: Mm.

{Nov.'95}

Example 30 also includes a request for clarification of Shakti's meaning (Hm?) by her father as his initial response to her use of Japanese. As explained in the literature review, requesting clarification, including requests for repetition or translation, was regarded by Dopke (1992) as an *insisting strategy*, and classified by Lanza (1990) as the *minimal grasp strategy*. Both researchers maintained that clarification requests effectively encouraged monolingual interaction. In Shakti's family, this strategy was occasionally used, as shown in Example 30. Although her father's reaction in both of the above dialogues was to provide the translation himself in the end, Shakti's repetition of his translation ("Always") in Example 29 can be seen as a positive response to this parental teaching strategy.

Shakti herself was seen to use translation to check her comprehension, sometimes with assistance and confirmation from her father, as in the next example.

Example 31: (Responding to a request to pass a drink)

Shakti: *Kore?* [This?]
Father: No, **all** of it.
Shakti: All of it ... This ?
Father: All. Everything.
Shakti: *Zembu ?* [Everything ?]
Father: The whole **bottle**.

{Jan.'97}

In addition to requests for clarification and translation strategies, Shakti's father used other vocabulary and grammar teaching techniques, as seen in Examples 32 and 33.

Example 32: (After a drink was spilled on the table)

Father: Gimme the cloth, Shakti ...
Shakti: *Kore?* [This?]
Father: Yes.
Shakti: Cloth.
Father: OK, this is a cloth.

{July '96}

Example 33: (Playing with Lego)

Shakti: I want make **robot**, { robot.
Father: { a robot.
Shakti: Robot house.
Father: A robot's **house**. OK. Alright now ...

{Feb.'97}

In the first example, Shakti responded positively to her father's teaching technique by using the new word. However in the second example, she failed to respond to either of his corrections. Thus, although teaching techniques were occasionally used by Shakti's father, they were not always successful, and fluency generally seemed to take precedence over accuracy during father-daughter interaction. This tendency supports Goodz' (1989) findings. In her study of parental language mixing in bilingual families, she reported that parents were often more concerned with encouraging their children to communicate than with concentrating on language separation and correction. Like the parents in Goodz's study, both Shakti's parents expressed support for the one person - one language principle but often did not follow it faithfully. Many examples of parental second language use were recorded during family interaction involving or overheard by the children in this case study. Two are presented here.

Example 34: (Discussing Shakti's use of "Papa" and "Daddy")

Mother: I thought "Papa" is **English**.
Father: No.
Mother: A long time ago.
Father: So? [Really?]
Mother: And after I met you I found "Papa" is **not** English.

{July '96}

Example 35: (Shakti and her father cooking)

Father: *Do shiyo kana, kore?* [What shall I do with this?]
Shakti: *Kore ? Kore ne--Suteru no.* [This? **Throw it away.**]
Father: But it's like ... maybe we should cool it down.
Shakti: *Suteru no. Suteru no. Hayaku suteru no.* [Throw it away. Throw it away. **Quickly** throw it away.]

{Nov.'96}

Goodz (1989) maintained that even though parental language mixing may not occur frequently, it often occurred in situations when children were particularly receptive to language input. It may be inferred that the language mixing by Shakti's parents evidenced in the audiotaped data may have also provided input that promoted language mixing by the subject.

CONCLUSION

From this limited analysis of language use in Shakti's family, it can be inferred that language use by both parents influenced language mixing by their daughter. Parental mixing across turns, inter-utterance mixing, intra-utterance mixing, and second language use, either in direct communication with Shakti or overheard by the children, provided contextualisation cues which may have promoted a bilingual context for language use.

Parental discourse strategies also appeared to encourage language mixing. The minimal use of clarification requests, in contrast to the more frequently observed use of translation, as well as the tendency to continue conversations rather than react to or correct language mixing, may have created a bilingual context in the home. Despite their expressed support for the one person - one language principle, Shakti's parents frequently provided mixed language input, while also accepting and responding to language mixing by their daughter.

Shakti's dominance in Japanese, as determined by several linguistic measures of her output in Japanese and English, appeared to be an influential factor in her language choice and mixing patterns, reflected in contrasting language use with each parent. Interaction with her mother revealed her ability to communicate exclusively in Japanese without using English or mixing languages. However, despite her father's encouragement to speak English, Shakti's interaction with him was never exclusively in English

and involved a significant amount and variety of language mixing. Shakti also was seen to frequently mix languages during interaction with both her parents.

Acquisition of the majority or community language is inevitably achieved through the frequency and variety of input, in interaction with monolingual speakers at school and in the community. Minority language acquisition, however, has been shown to be strongly influenced by the language use and discourse strategies of the minority language speaking parent. Research by Lanza (1990) and Dopke (1992) emphasised the importance of the minority language speaking parent in promoting active bilingualism, and also provided evidence of the effects of language mixing and the use of bilingual discourse strategies by minority language speaking parents.

Shakti's father's role was crucial in promoting the active use of English by his daughter. He used some discourse strategies which encouraged monolingual interaction, including occasional requests for clarification and correction of Shakti's English errors and word omissions. Shakti's positive responses to some of these strategies, including the repetition of corrections and English responses to clarification requests, indicated the potential effectiveness of promoting monolingual interaction.

Nonetheless, many of Shakti's father's teaching and discourse strategies, including his infrequent use of clarification requests, his provision of English translations for Japanese utterances or insertions, his continuation of conversations after Shakti's language mixing, and his use of Japanese in communication with his wife and occasionally with his daughter, tended to encourage bilingual interaction. Although some of his language use promoted monolingual interaction, he also employed strategies which encouraged or accepted language mixing.

One way in which Shakti's mother and father mixed their languages can be classified as codeswitching, which is an accepted and effective communication strategy in many bilingual families and communities. Some examples of language mixing by Shakti and her parents appeared to fulfill communicative codeswitching functions, including switching for emphasis, for clarification, to indicate culturally linked topics, and to report speech. There was also evidence of Shakti's developing competence in using appropriate situational codeswitching.

Thus, evidence from this study indicated that Shakti was in the process of acquiring active bilingual proficiency. Although there were many examples of language mixing and errors, particularly in her use of English, she appeared to be developing the ability to use both languages effectively. As her parents had negotiated a relatively bilingual context for language use within the family, some examples of language mixing across turns, inter-utterance and intra-utterance mixing could be regarded as appropriate in context.

More research on the influence of parental input in Japanese-English bilingual language acquisition is needed, particularly to observe and analyse the complexity of the family language environment. Considering the importance of context in language acquisition research, videotape recording would provide invaluable data to more accurately observe and analyse family interaction. Although ongoing research may focus on the important role of the minority language speaking parent in promoting active bilingualism, the productive and receptive language use of all participants must be included in any comprehensive

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