

Nonnative Maternal Input: Language Use and Errors in a Thai Mother's Interactions in Japanese with her Child

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Abstract

This study examines the speech of a Thai mother who chose to use Japanese to her child from birth. Video data from ages 1;2 to 2;6 revealed that, despite the mother's avowal to speak Japanese, her native Thai and her L2, English, were occasionally used. She reverted to Thai most often and made use of Thai baby words and discourse particles which led to some limited production by the child. The mother's Japanese input was mostly accurate with a low percentage of errors. The rate of child errors was even lower than the rate of maternal errors. Particle use errors were proportionately higher than most other errors types for both mother and child. Analysis of this error type showed that both mother and child errors were characteristically different, indicating that maternal errors did not influence child errors. These findings suggest that nonnative maternal input did not adversely affect the accuracy of the child's early production of Japanese.

ノンネイティブ母親の言語入力:子供に対する在日タイ人母親の日本語使用と誤用

本研究では、日本語で育児を行うことを決意したタイ人の母親の言語入力に焦点をあてた。分析には、1歳2ヶ月から2歳半まで子どもと母親間の会話を記録したビデオ・データを使用した。その結果、母親は日本語を使用することを決めていたにもかかわらず、母語のタイ語と第二言語である英語を折に触れて使用していた。その二言語の中でも、タイ語の使用頻度が最も多く確認された。母親がタイ語の幼児語や談話標識を多用する事から、子どもの断続的なタイ語の発話行為が促されたと考えられる。母親の日本語の誤用は少なかったが、子どもの日本語の誤用はほぼ無いに等しかった。助詞は母子共々、比較的多くの誤用が観察されたので分析を行った。その結果、両者の誤用の特徴は異なっており、母親の誤用は、子どもへの影響がない事が分かった。このようにノンネイティブ母親の言語入力は子どもの初期言語使用の正確性に負の影響を与えないことが、本研究で示唆された。

Introduction

Nearly half of the world's migrants are women and East Asia is an important origin and destination for female migration (Kim, 2011). In Japan, international marriages made up 4.3% of all marriages from 1992 to 2013 and 76.8% of them were between Japanese men and non-Japanese women, predominantly of Chinese, South/North Korean, Filipino or Thai nationality (Ministry of Health, Labor and Welfare, 2015). Similar trends are also observed in other affluent Asian countries such as South Korea, Taiwan and Singapore, where the rates of international marriages between local men and foreign women from neighboring countries are increasing (Jones & Shen, 2008). The high number of non-Japanese women married to Japanese men in Japan indicates that these women play an important role in the raising of bicultural children and that they can potentially encourage their children's bilingualism. While there has been much research conducted on child bilingualism in Japan, particularly on children in intercultural families who are acquiring English and Japanese simultaneously through the

implementation of the One-Parent-One-Language (OPOL) policy, not all foreign parents speak their native language to their children. As Yamamoto (2002) suggests, parental perceptions of how society evaluates their type of bilingualism can affect their language use and, consequently, their children's bilingualism. She found that parents who speak a native language other than English generally tend to assess societal perceptions of their bilingualism less positively than those who speak English, and that they often use Japanese as the only medium of communication in the home. Indeed, the Japanese-Thai children in Ishii (2010) and the Japanese-Filipino children in Jabar (2013) were reportedly not taught their mothers' native languages. Furthermore, the children in Yamamoto's (2005) study were rarely addressed in the native language(s) of their Filipino mothers. The alternative to a bilingual policy is a monolingual one where the father's language, i.e. the societal language, is spoken. Nevertheless, migrant mothers' use of the societal language may not be useful for children's language development if they lack proficiency in it (Golberg et al., 2008; Hammer et al., 2009; Paradis, 2011). Given the tendency for migrant mothers to use Japanese and the potential impact of this practice on their children's language development, there is a need to investigate nonnative maternal speech in the Japanese context. This paper examines the speech of a trilingual Thai mother in Japan who had no intention of teaching her native language, Thai, and her L2, English, to her child. The mother attempted to restrict her interactions with her child to primarily Japanese from birth. Based on longitudinal data of mother-child interactions, this study will investigate the extent to which she used Japanese in her actual language practices and the types of errors in her Japanese utterances to determine their impact on her child's early language development.

Nonnative Input in Language Development

The use of a nonnative language to a child is a contentious issue which depends heavily on whether or not it contributes to monolingual or bilingual development. Nonnative speech to support the bilingual development of a child who would otherwise be monolingual is generally encouraged due to both the perceived benefits of bilingualism and the idea that maintaining linguistic diversity at the societal level is desirable. This has been termed as 'elective bilingualism', 'artificial bilingualism' or 'nonnative bilingualism' (Pearson, 2008) and may be practiced by nonnative parents who want their children to acquire a second language. The notion of providing linguistic input in a second or foreign language to a child is ostensibly influenced by the valorization of elite bilingualism (Piller, 2001) and the equating of bilingual parenting with good parenting (King & Fogle, 2006).

A nonnative language is commonly used in bilingual families who practice the Minority Language At Home (ML@H) policy. The nonnative spouse uses the native language of the other spouse to support their children's development in the minority language (e.g. Kennedy & Romo, 2013). It is also observed in OPOL settings where children successfully acquire a language despite receiving input solely from a nonnative-speaking parent. Saunders' (1988) children became active users of German despite receiving nonnative German input exclusively from their Australian father. The English-Japanese bilingual child in Nakamura and Quay (2012) even experienced faster development in English, the language he solely heard from his Malaysian mother, than in the societal language, Japanese. The facts that Saunders was a teacher of German, and that the mother in Nakamura and Quay (2012) had near native English abilities, indicate that the nonnative speaking parents' high level of proficiency in both of these studies contributed towards their children's language development. Without it, parenting in a nonnative language can become a challenging task as Kouritzin (2000) discovered. The Canadian mother-researcher spoke Japanese to her children to support their acquisition of her spouse's native language in Canada. In a commentary of her own childrearing experience, she described how she struggled in reading stories and lacked confidence in offering correct language models to her child presumably because of her limited Japanese proficiency. She also lamented the absence of maternal models of Japanese that can teach her how a loving mother speaks, for example, when stroking her child's

hair and wiping away tears. Her difficulties suggest that caregivers need some knowledge of sociocultural norms when raising children in a nonnative language. Kouritzin also expressed concern that she would miss the signs of nonstandard usage or delay because she did not know what normal Japanese development was and that was probably the reason why her children's language development was not clearly explained in her commentary.

Nonnative language use by babysitters and domestic helpers do not seem to have a negative impact on language development possibly because, in a supporting caregiver role, their nonnative input is ancillary to the greater amounts of native input that children receive elsewhere. The trilingual child in Quay (2004) produced the same proportion of standard German constructions with his Chinese babysitter as he did with his German babysitter. Likewise, English listening tests of L2-learning Hong Kong children who had Filipino domestic helpers at home were compared with those who did not by Leung (2012). The results revealed that the exposure to the domestic helpers' Filipino English did not affect the children's ability to listen to American-, British-, and Hong Kong English. In fact, it made them better at listening to Filipino-accented English than children who did not have such exposure.

In contrast to the positive cases of nonnative bilingualism that involved proficient parents and caregivers who play supporting roles, recent North American studies found that, at low levels of fluency, migrant parents' use of English does not have any discernible influence on their children's English skills. Golberg et al. (2008) discovered that the receptive vocabulary and lexical diversity of migrant children learning English as an L2 in Canada were most consistently predicted by their mothers' level of education. Yet, mothers with higher levels of education provided less English input, suggesting that their children's L2 vocabulary learning possibly benefited from their mothers' higher order and nonlanguage specific interactional styles, and L1 vocabulary-building input. In families where mothers had lower levels of education, more English was used despite low fluency, but this did not enhance the children's English vocabulary. In another study by Paradis and Kirova (2014), Canadian-born children did not perform better at narrative tasks than foreign-born children even though they were exposed to more English at home for an extended period of time. Likewise, Hammer et al. (2009) found that greater use of English by Spanish-speaking mothers in the US did not contribute to their bilingual children's English vocabulary and early literacy development in kindergarten and first grade. They theorize that English exposure in school was sufficient for the children to acquire English skills so increased maternal English use made no difference.

In recent studies of migrant families, language development seems to relate to children's linguistic experiences outside the home. Paradis (2011) discovered that it was the length of time spent in a preschool/school program and the richness of children's experiences in English outside school that influenced their English vocabulary and verb morphology scores. Place and Hoff (2011) and Hoff et al. (2014b) also found that it was the portion of input from native speakers that predicted Spanish-English bilingual two-year-olds' English vocabulary and grammatical complexity. These studies suggest that the use of English by non-proficient migrant parents does not particularly help their children. Hammer et al. (2009) postulate that limited linguistic knowledge affects the complexity of parents' speech and their ability to produce well-formed language models in English, resulting in impoverished input. Hoff et al. (2013) demonstrated how native-speaking parents produce richer language than nonnative-speaking parents by using a higher number of word types and longer utterances. The use of English in homes with two Spanish-speaking parents also takes away from the child's development of Spanish without benefitting English development (Hoff et al., 2014a), indicating that it is probably better for migrant parents to use their native languages to avoid minority language decline and loss. In sum, these studies suggest that the qualitative nature of nonnative input affects language acquisition. Children who are exposed to only nonnative input have no difficulty acquiring the language when proficient caregivers can provide input that is sufficiently rich. Nonnative input is less useful when it is provided by caregivers who lack proficiency and it is the

native input that children obtain elsewhere that supports their language acquisition.

The Study

Research Questions

Studies of nonnative input have so far investigated children in migrant families who are exposed to both their native language and the societal language at home. There remain, however, several gaps in the existing literature pertaining to parents' efforts to raise their children solely or predominantly in a nonnative language. In Japan, many migrant mothers speak only or mostly Japanese even though it is not their native language (Ishii, 2010; Jabar, 2013; Yamamoto, 2005) and, as previous studies have shown, in instances where the parent's L2 proficiency is low, the benefit to the child's language development is questionable. Specifically, there may be implications from receiving nonnative input in the first three years of life because mothers are usually the primary caregivers. Exposure to native input may be limited at this age because the children have not started attending kindergarten and, in general, spend less time with their working fathers and school-age siblings. Given these potential implications, this paper will examine nonnative maternal speech and its effect on early monolingual acquisition. A case study method was chosen because the researcher managed to recruit a trilingual Thai mother, Sri (pseudonyms used for research participants), who explicitly expressed her intention to speak her third language (Japanese) to her child, Ken, from birth.

Two aspects of the Thai mother's linguistic behavior are of particular interest. The first is the implementation of her language policy because, as several studies on bilingual childrearing have shown, parental reports of language use do not necessarily reflect actual language use (Goodz, 1989; Haskell, 1998; Kasuya, 1998). This study will determine the extent to which the mother's Japanese monolingual policy transpired into practice, and whether other languages were, in fact, actually used. The second area of interest relates to the errors in her Japanese speech. While both native and nonnative speech may deviate from the norm, native speakers' mistakes (e.g., slips of the tongue) are unsystematic deviations that are usually noticed and corrected immediately by the speaker (Corder, 1967). In contrast, not only do nonnative speakers make more slips in their L2 than in their L1 (Poullisse, 1999), they make repetitive and systematic errors that reflect a lack of proficiency (Corder, 1967; Götz, 2013). Therefore, nonnative speaking parents can potentially expose their children to a higher number of uncorrected and repetitive errors, adversely affecting the accuracy of the child's speech. This study investigates these two aspects of nonnative maternal speech and their impact on the child's early language development. Specific questions that will be addressed are:

- i. Does the mother consistently provide input in Japanese or does she resort to other languages in her linguistic repertoire?
- ii. To what extent are non-Japanese language forms used by the mother reproduced by the child?
- iii. To what extent do maternal errors in Japanese influence the accuracy of the child's speech?
- iv. What are the implications of a mother's use of a nonnative language on early monolingual acquisition?

Participants

Sri is a Thai of ethnic Chinese origin who met her Japanese husband when they were pursuing higher degrees in Australia. She has lived in Kawasaki, Japan for 12 years and has been a full-time housewife since the birth of her first child. Sri is a mother of two. The older child is a girl, and the younger child, Ken, is a boy. Ken is the child participant in this case study. While Thai is Sri's native language, it is not used for communication within the family. Her L2, English, is the language used for communication between parents. Japanese, her third language, is used by both parents with their children and between siblings. In addition to some exposure to Thai from Thai relatives during trips to Thailand at ages 1;4 (age;month) and 1;8 as well as indirect exposure to

English from his parents who spoke English to each other, Ken received Japanese input from all of his family members. Sri chose to speak to Ken in Japanese from birth, and not Thai or English, because she considered Japanese to be important for his future. Her choice was also influenced by her experience with her older child whom she described as having delayed speech development due to exposure to Thai. Therefore, Sri believed that by speaking only Japanese, Ken would not experience any significant problems in his language development and would be able to transition smoothly into a Japanese preschool at the age of three.

An additional reason for Sri electing to speak Japanese to Ken was her increased proficiency in the language after 12 years of residency in Japan. She has attended weekly community-based Japanese language courses and an intensive short-term language course which covered the requirements of the Japanese Language Proficiency Test (JLPT) Level 2, the second highest level for learners of Japanese as a Foreign Language (JFL). Thus, Sri's level of proficiency allowed her to carry out everyday activities in Japanese including liaising with teachers and mothers in her older child's elementary school. At the time of the study, Sri was Ken's primary caregiver. During weekdays, Sri took care of Ken at home while her older child attended school and her husband was at work. Ken played with his sister when she returned from school. However, his father worked late on weekdays and mainly interacted with him on weekends. The child's exposure to native input also came from attending daycare every Tuesday morning from age 1;10 when his mother started teaching English at the local ward office. The family lived far from Ken's paternal grandparents so he had few opportunities to interact with them. Therefore, over the course of a week, while Ken received regular native input particularly from his sister and father, his main source of linguistic input came from Sri.

Procedure

Data for this study come from 17 monthly video recordings of the mother-child dyad, recorded at the participants' home while the child was between the ages of 1;2 and 2;6. Before the study commenced, Sri was informed that the purpose of the study was to investigate verbal interactions between herself (as a nonnative Japanese-speaking mother) and her child, and his development in Japanese. She gave her written consent to participate in the research project. The recordings were made by the researcher during an arranged weekday morning when Sri's older child was at school. Each recording lasted for 30 minutes and captured natural interactions between mother and child as they played, sang, read, snacked and drew pictures together. To measure Ken's language development and how it compares with his peers, Sri was asked to complete the Japanese MacArthur Bates Communicative Development Inventory (JMCDI) checklists for infants and toddlers at ages 1;0 and 1;10 respectively. The infant checklist measured vocabulary development whereas the toddler form measured vocabulary and grammar development.

Transcription and Coding

Video recordings were transcribed in romanized form according to the Codes for the Human Analysis of Transcripts (CHAT) for Japanese (Oshima-Takane et al., 1998) by a trained research assistant. Each completed transcript was validated by the researcher, and transcription differences were discussed and reconciled with the research assistant. After transcription, coding procedures were performed by the research assistant and the same validation and reconciliation procedures were repeated. Thereafter, the transcripts were analyzed using the Computerized Language Analysis (CLAN) program from the Child Language Data Exchange System (CHILDES) (MacWhinney, 2000). Non-Japanese utterances were coded as *Thai* (THA), *English* (ENG) or *mixed* (MIX). Mixed utterances were further analyzed as *Japanese-Thai*, *Japanese-English*, *Thai-English* and *Japanese-Thai-English*. Proper nouns, such as those used to address Thai family members, were excluded.

Maternal utterances were also coded as errors if they were clear deviations from the speech of native-speaking mothers in Standard Japanese. These were utterances that native-speaking

mothers generally did not use with their children. Therefore, unconventional use of Japanese that potentially existed in native maternal speech was not coded as errors. For instance, Japanese mothers usually affix the honorific *-san* (Mr.) to animals, e.g. *sakana-san* (Mr Fish). Sri's use of masculine affix *-kun* to a fish, *sakana-kun*, is uncommon but not considered an error. Another instance of non-error is the ellipsis of non-semantic and purely grammatical particles that Japanese mothers tend to practice with their children (Morikawa, 2006). For example, the utterance *kenchan ga onigiri suki* [Ken likes rice balls] is incorrect because the topic marker *wa*, not the subject marker *ga*, should be used to refer to Ken. However, while the subject marker *ga* was also required to mark riceballs, that is, *onigiri ga suki*, its omission from spoken language is not unusual among native speakers and thus was not treated as an error.

To ensure that only Japanese utterances that clearly deviated from native mothers' speech were analyzed, additional validation work on errors was performed by a second research assistant. Unconventional uses of Japanese that may or may not be erroneous were removed. Both research assistants involved in the coding and validation of errors were female native-speakers who lived in the Kanto area where Sri resided and were mothers themselves. Therefore, they were familiar with the speech of native mothers in the region (Standard Japanese) by which Sri's utterances were compared against. Errors were coded into the following five types:

- i. *Incorrect inflection* (e.g., verb or adjective). For example, the use of the intransitive verb *modotte* (return), instead of the correct transitive form *modoshite* to request the child to return his toys to the toy box.
- ii. *Incorrect particle use*. For example, in the question *nani ga asobitai?* (what do you want to play with?), the instrumental particle *de* should be used instead of the subject marker *ga*.
- iii. *Incorrect choice of word/phrase*. For example, Sri showed Ken a bunch of crayons and asked *docchi ga kiiro?* (which is yellow?). When a choice of more than two items has to be made, the correct question word is *dore*, not *docchi*.
- iv. *Omission of a particle*. For example, in her question *akachan namae wa?* (What baby name?), the mother omitted the possessive particle *no* to refer to the baby.
- v. *Omission of other parts of speech* (e.g., noun or verb). For example, Sri wanted to ask Ken about a toy character's catchphrase in her question *shokupanman nani?* (what is shokupanman). However, the question is unclear without the quotative particle *to* and the verb *iu* (say).

Utterances were coded multiply for errors because each utterance may contain more than one error type. Child utterances that differed from standard linguistic forms used by native-speaking adults were also coded according to these categories to identify deviations that arose naturally due to the child's developing language and those that may be influenced by nonnative maternal input.

Results

Maternal Language Use

Despite the mother's avowal to speak only Japanese (JPN), she produced Thai, English and mixed utterances, particularly in the earlier months. Figure 1 shows that the percentage of Thai utterances was as high as 13.5% of total utterances when Ken was age 1;2. From when the child was aged 1;11, Sri most often used English and mixed utterances. One-word English utterances such as *look* and *see* were inserted between Japanese utterances. The use of Thai, English and mixed utterances gradually decreased with age and only amounted to 4.6% of her total utterances when Ken was age 2;6.

Out of the four types of mixed utterances, Japanese and Thai combinations ($n=243$, 79.5% of all mixed utterances) were most frequently produced (cf. Figure 2). Further analysis of Thai and mixed utterances revealed that Thai discourse particles and baby talk were the most

commonly used linguistic forms (cf. Figure 3). Utterances which did not fall into these two categories (e.g., the Thai greeting, *sawadeekaap*) were categorized as others. Thai baby talk was most frequently produced in the earlier months. Not many types of Thai baby words were used. However, the types of Thai baby words that were used were produced repetitively in daily routines, for example, *um* (eat or open up) and *mumum* (food or eat) when feeding.

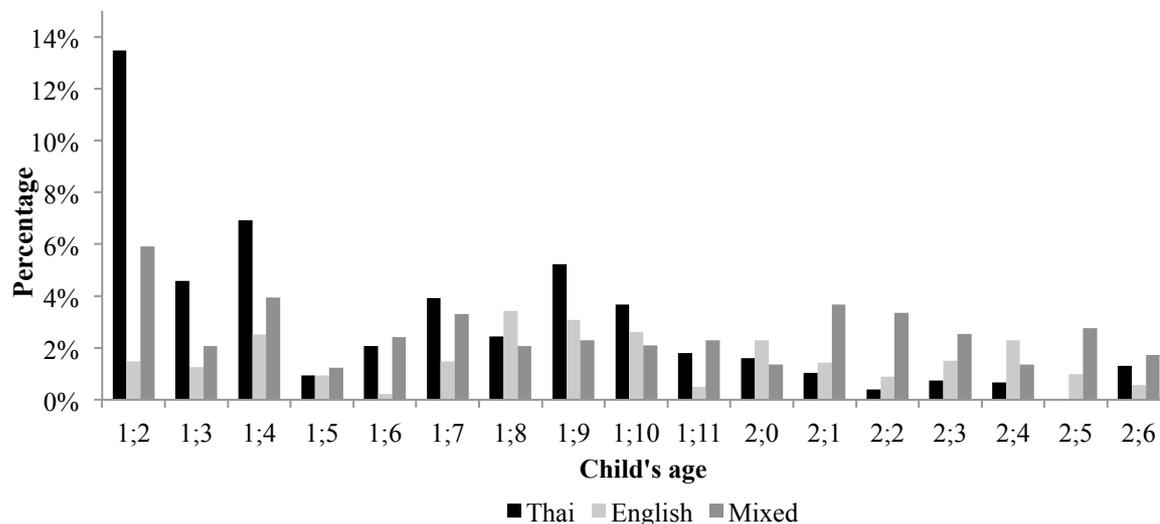


Figure 1: Thai, English and mixed utterances produced by the mother as a percentage of total utterances

From age 1;9 onwards, more Thai discourse particles than Thai baby words were featured in Sri's Thai and mixed utterances. Sri most often inserted the Thai discourse particle, *na*, at the end of an utterance to emphasize an instruction or fact. For instance, she used *na* in the utterance, *issho ni na* (together okay), to get Ken to start a song routine with her. This is distinguished from the phonetically similar Japanese discourse particle *na* which is typically used in Standard Japanese by men to express emotions and wishful thinking, elicit responses and casually emphasize a decision, suggestion or opinion (Kawashima, 1999). Sri's use of *na* was considered as Thai because of its pragmatic difference from the Japanese *na* and this was confirmed with her after the video recordings ended. Another Thai discourse particle, *nae*, was used at the beginning of a Japanese utterance to attract the child's attention. For instance, Sri requested Ken to take a photograph using a toy camera by saying *nae shashin totte* (hey take a photo). The Thai discourse particle, *wuy*, was also frequently used to express surprise.

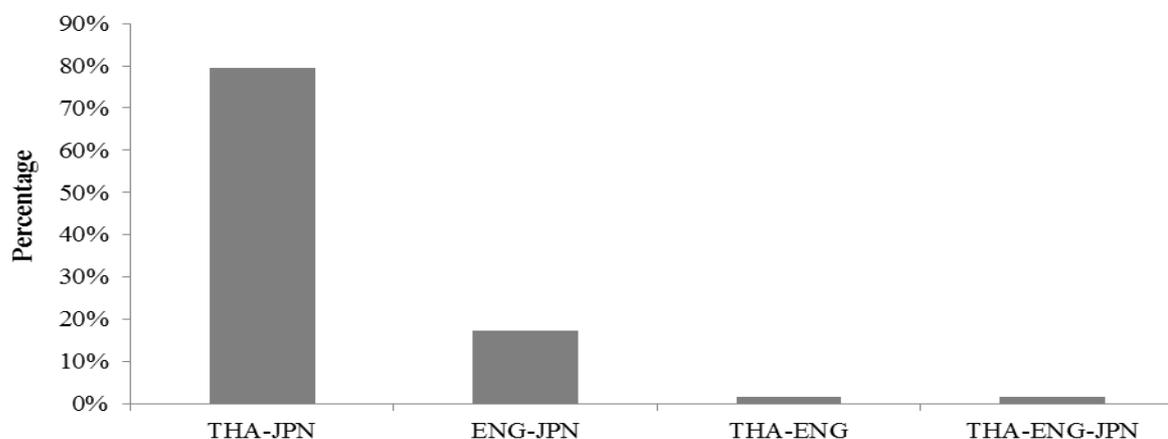


Figure 2: Thai-Japanese, English-Japanese, Thai-English and Thai-English-Japanese utterances produced

by the mother as a percentage of mixed utterances

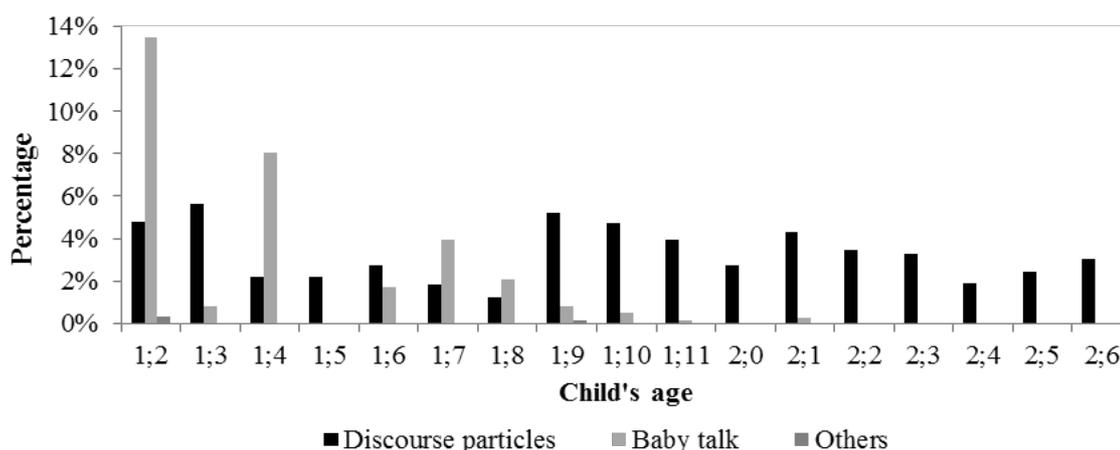


Figure 3: Maternal utterances containing Thai discourse particles, Thai baby talk and other forms of speech in Thai as a percentage of total utterances

Child Language Development and Language Use

Based on the completed JMCDI checklists, the child's language was compared to the same-age peers from Watamaki and Ogura (2004a, 2004b). As shown in Table 1, Ken's Japanese development was impressive. On his first birthday, his receptive and productive vocabularies were in the 95th percentile. At age 1;10, his productive vocabulary reached 262 words, reflecting his rapid vocabulary growth within the 10-month period. He also began using particles and auxiliaries, signaling an advanced development of grammar that belonged to the 90th percentile. While the JMCDI checklists are not a complete measure of language development because they rely solely on parental recollection of children's receptive and productive vocabularies, these results suggest that the child's acquisition of Japanese is on a par with, if not more advanced than, his peers.

Table 1. Ken's early development of Japanese (based on JMCDI data).

	Age 1;0		Age 1;10	
	No.	Percentile	No.	Percentile
Receptive vocabulary	322	95	-	-
Productive vocabulary	16	95	262	75
Use of particles			10	90
Use of auxiliary verbs			6	90

Maternal use of Thai and English had minimal influence on the child's language use. As shown in Figure 4, Thai, English and mixed utterances were sparse and intermittent, and they tapered off from age 1;11. Only in the earlier months of the study, a relatively high percentage of Thai utterances were produced, that is, ages 1;2 ($n=7$, 23.3% of total utterances) and 1;4 ($n=15$, 26.3% of total utterances). These utterances consisted predominantly of baby talk. This broadly corresponded to Ken's mother's greater use of Thai baby talk in the earlier months (cf. Figures 1 and 3). He often produced *um* (eat or open up) and *mumumum* (food or eat), the same Thai baby words that were frequently used by Sri. They were used not only when eating but also when looking at picture books and in pretend play. Ken was able to produce such words probably because they were simple baby words that his mother used repetitively during feeding routines.

Figure 4 also shows that Ken produced some English words particularly from ages 1;7 to 1;10 because his mother was explicitly teaching him how to greet, count and say the alphabet. Sri taught him how to respond to simple questions (e.g., *how are you?*) and Ken was able to produce the appropriate formulaic responses. These results indicate that Thai and English were used in limited contexts and the repetitiveness of the language used in those contexts facilitated some production of Thai and English at specific ages.

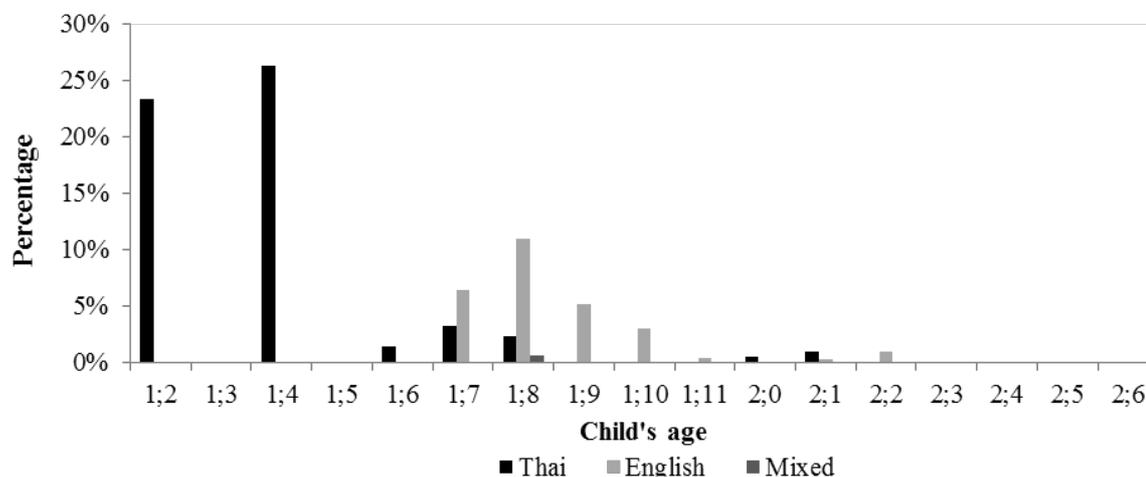


Figure 4: Thai, English and mixed utterances produced by the child as a percentage of total utterances

Nevertheless, as indicated in Figure 4, the percentage of Thai, English and mixed utterances gradually decreased from age 1;11 and none were produced after age 2;3. This is perhaps due to the fact that, from this age onwards, Sri's use of Thai was generally limited to mixed utterances with Thai discourse particles (cf. Figures 1 and 3). Ken did not actively produce Thai discourse particles as he did with Thai baby words. Only the Thai discourse particle, *na*, was used by Ken in three instances at ages 2;0 and 2;1. This includes Example 1 which shows how Ken used the Thai *na* instead of Japanese particles at age 2;0, just as his mother occasionally did for emphasis. In this example, utterances produced by Sri and Ken are displayed in the main tier marked by an asterisk (*) with Thai particles shown in uppercase letters. This is followed by dependent tiers that indicate the English translation (%eng), the situation in which the utterance took place (%sit) and a possible correct form of the utterance in Japanese (%com).

- (1) *Sri: *ichiban ue wa dare?*
 %eng: who is right on top
 %sit: KEN is building a high tower of blocks
 *Ken: *anpanman NA.*
 %eng: it is anpanman
 %sit: KEN tries to put a cartoon character block on top of tower
 %com: anpanman da yo

Figure 5 compares the mother's and child's use of discourse particles and baby talk in Japanese and Thai. The results show that Sri produced more discourse particles and baby talk in Japanese than in Thai and this probably contributed to the greater production of Japanese discourse particles and baby talk by Ken. Nevertheless, while maternal use of Thai baby talk led to some production of Thai baby talk by the child, the same was not observed for Thai discourse particles. The child produced very few Thai discourse particles despite the fact that they appeared more frequently than Thai baby talk in his mother's speech.

The use of Thai and English by Sri raises the question as to whether the child constituted a case of trilingual acquisition rather than monolingual acquisition. However, the percentage of

maternal Thai, English and mixed utterances did not exceed 10% of total utterances for a particular month except at age 1;2 (cf. Figure 1). Consequently, it did not meet the 10% criterion for bilingual exposure (Marchman et al., 2004; Place & Hoff, 2011). Moreover, the qualitative nature of the input, that is, the limited types of Thai baby talk and discourse particles used, arguably did not support any lexical and syntactic development in Thai or English. This was reflected in the sporadic production of Thai and English by the child, which discontinued after age 2;2 (cf. Figure 4). These findings suggest that the low levels of limited Thai and English use by the mother were insufficient input for the child's Thai and English to develop.

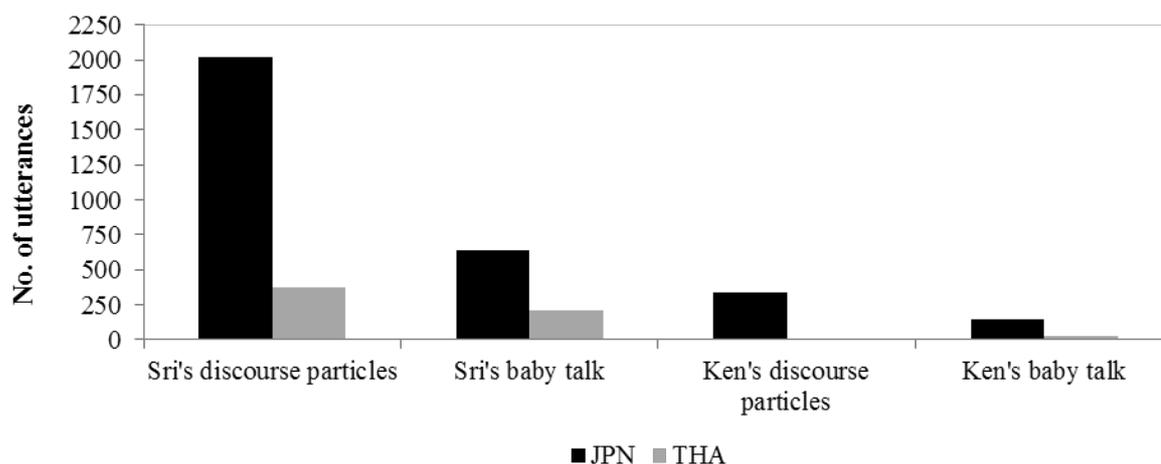


Figure 5: Discourse particles and baby talk produced by Sri and Ken from ages 1;2 to 2;6

Errors in the Use of Japanese

The results revealed a high level of accuracy in Sri's speech. Only 407 (3.65%) of the sum of her Japanese utterances and mixed utterances with Japanese ($n=11,151$) contained errors (cf. Table 2). The number of errors ($n=519$) is higher than the number of erroneous utterances ($n=407$) because an utterance can contain more than one error type. The accuracy in Ken's speech is higher than his mother's with only 0.38% ($n=11$) of the sum of his Japanese utterances and mixed utterances with Japanese ($n=2,860$) containing errors. Incorrect inflection of a verb or adjective was the most common type of maternal error. It appeared in 1.38% ($n=154$) of Sri's Japanese utterances and mixed utterances with Japanese. The *-i* adjective was often wrongly conjugated by inserting the copula *da* in utterances such as *densha hayai da* (train is fast) and *kore muzukashii da* (this is difficult) when it was not required. Sri also had some difficulty inflecting verbs correctly. For instance, in Sri's instruction to Ken to draw a picture on his own, the plain form of the verb *yaru* (do) in the utterance *jibun de yaru* (do it yourself) should be replaced with the instructive *-te* form *yatte*. In contrast to Sri, inflectional errors were only present in 0.07% of Ken's utterances. Only two errors of the type were made throughout the 17-month period of study; the incorrect inflection of the verb *yatta* (did it) at age 1;6 and the adjective *taiben* (dire) at age 2;1 (cf. Table 5).

Incorrect particle use was the second most frequent type of maternal error ($n=129$, 1.16% of Japanese utterances and mixed utterances with Japanese). Many of them involved the incorrect use of sentence-internal particles. Particle errors were also higher than other error types for Ken ($n=6$, 0.21% of Japanese utterances and mixed utterances with Japanese). To examine the possibility of maternal particle use errors influencing child errors, they were further analyzed into the different types of sentence internal (*wa*, *ga*, *ni*, *de*, *no*, *wo*, *mo* and *to*) and sentence final (*ne* and *na*) particles. As shown in Table 3, almost half ($n=64$) of Sri's errors involved incorrect use of the topic marker *wa*. Being one of the most common particles in the Japanese language, it was often used in place of other particles. For example, in the utterance, *cars wa kyoutumi aru ne* (cars are

interested, aren't they?), the locative particle *ni* should have been used instead of the topic particle *wa* to indicate Ken's interest in cars. There was also a high proportion of errors involving the means particle *de* ($n=25$, 19.2% of particle use errors). For example, in the utterance *kore de ushiro ni*, the means particle *de* was wrongly used instead of the object particle *wo* to request Ken to put a toy figure at the back of a toy train.

Table 2. Types of errors made by Sri and Ken from ages 1;2 to 2;6.

	Inflection	Particle use	Word Choice	Particle omission	Omission (others)	Total no. of errors	No. of utterances with errors
Sri	154	129	106	84	46	519	407
%*	(1.38)	(1.16)	(0.95)	(0.75)	(0.41)		(3.65%)
Ken	2	6	1	3	0	12	11
%*	(0.07)	(0.21)	(0.03)	(0.10)	(-)		(0.38%)

* Percentage of Japanese utterances and mixed utterances with Japanese ($n=11,151$ for Sri and $n=2,860$ for Ken)

Table 3. Types of particle use errors made by Sri and Ken (from ages 1;2 to 2;6).

	<i>wa</i> *	<i>ga</i>	<i>ni</i>	<i>de</i>	<i>no</i>	<i>wo</i>	<i>mo</i>	<i>to</i>	<i>ne</i>	<i>wa</i> **	Total
Sri	64	16	3	25	13	4	0	2	1	2	130 ⁺
%	(49.2)	(12.3)	(2.3)	(19.2)	(10.0)	(3.1)	(-)	(1.6)	(0.8)	(1.6)	
Ken	0	3	2	0	0	0	1	0	0	0	6
%	(-)	(50.0)	(33.3)	(0.0)	(-)	(0.0)	(16.7)	(-)	(-)	(-)	

* topic marker ** sentence-final particle

⁺ differs from the number of particle use errors in Table 2 ($n=129$) because one utterance contained two particle errors

Ken's particle use errors contrasts with his mother's because half of his errors ($n=3$) involved the subject marker *ga* whereas only 12.3% ($n=16$) of maternal errors involved it. He faced some difficulty using sentence-internal case particles such as *ga* accurately from the time of acquisition. *Ga* was overgeneralized twice at age 2;1 for the comitative particle *to* and once at age 2;6 for the question particle *ka* (cf. Table 5). Further investigation revealed that the child's errors in *ga* usage were different from his mother's (cf. Table 4). While the mother tended to overgeneralize *ga* for the topic marker *wa*, this was not found in the child's speech. Likewise, Ken's overgeneralizations of *ga* for the comitative *to* and question *ka* particles were not found in Sri's speech. These results show that the characteristics of Sri's and Ken's errors were different and that her particle errors probably did not influence his.

Table 4. Particle *ga* errors by Sri and Ken (from ages 1;2 to 2;6).

	Redundant use	<i>wa</i> *	<i>wo</i> *	<i>ni</i> *	<i>mo</i> *	<i>to</i> *	<i>ka</i> *	Total
Sri	4	7	3	1	1	-	-	16
Ken	-	-	-	-	-	2	1	3

* Overgeneralization of the particle *ga* for each particle

Table 5. Errors produced by the child (ages 1;2 to 2;6)

Age	Utterance	Correct form
Inflection (<i>n</i> =2)		
1;6	<i>yatta.</i> (did it)	<i>yatte.</i> (do it)
2;1	<i>karepanman ga meronpanman taihen no.*</i>	<i>karepanman to meronpanman taihen na no.</i> (<i>karepanman</i> and <i>meronpanman</i> are in trouble)
Word choice (<i>n</i> =1)		
2;4	<i>anpanman no mono.</i> (anpanman's thing)	<i>anpanman no kao.</i> (anpanman's face)
Particle omission (<i>n</i> =3)		
2;2	<i>kenchan ban ne.</i> (Ken turn)	<i>kenchan no ban ne.</i> (Ken's turn)
2;2	<i>kenchan ban ne.</i> (Ken turn)	<i>kenchan no ban ne.</i> (Ken's turn)
2;3	<i>baikinman hana.</i> (baikinman nose)	<i>baikinman no hana.</i> (baikinman's nose)
Particle use (<i>n</i> =6)		
2;1	<i>karepanman ga meronpanman taihen no.*</i>	<i>karepanman to meronpanman taihen na no.</i> (<i>karepanman</i> and <i>meronpanman</i> are in trouble)
2;1	<i>dokinchan ga baikinman ga kareraisu no.</i>	<i>dokinchan to baikinman ga kareraisu wo.</i> (<i>dokinchan</i> and <i>baikinman</i> are (eating) curry rice)
2;4	<i>anpanman ni ?</i> (to anpanman)	<i>anpanman no?</i> (anpanman's)
2;6	<i>nani ga haitteru.</i>	<i>nani ka haitteru.</i> (something is inside)
2;6	<i>kocchi ni happa ni tonderu.</i> (flying to a leaf)	<i>kocchi ni happa ga tonderu</i> (a leaf is flying here)
2;6	<i>boku mo no bun mo.</i>	<i>boku no bun mo</i> (my share too)

* Same utterance with two error types

Discussion

This study examined the speech of a trilingual Thai mother who restricted her linguistic input to primarily Japanese, and considered the impact of this nonnative input on the early monolingual acquisition of her child. Despite the fact that a large part of Ken's Japanese exposure was from his nonnative mother, he experienced advanced development in vocabulary and syntax, as evidenced by his JMCDI scores. Native input has been found to predict language development (Hoff et al., 2014b; Place & Hoff, 2011), and Ken's linguistic precocity is perhaps attributable to the potentially richer native input he received from his father and older sister despite the shorter lengths of exposure. Nevertheless, Sri's nonnative input was also likely to have contributed to Ken's advanced development because his JMCDI scores were higher than many same-age peers who were exposed to native input only. Unlike new migrant parents in Canada whose low levels of fluency made little difference to their children's English skills (Paradis, 2011; Paradis & Kirova, 2014), Sri appeared proficient enough to provide input that supported Ken's development at the early stages of speech. She possessed knowledge of sociocultural norms acquired through interactions with Japanese mothers from her older child's kindergarten and elementary school. Having access to models of maternal speech that Kouritzin (2000) probably did not have, she was able to sing songs, play games and talk about Ken's favorite cartoon characters with ease, as

observed in the video data.

Yet, speaking a non-native language consistently to a child at all times may be challenging and the results showed that Sri's Japanese policy was not strictly adhered to because she occasionally made use of Thai and English. The discrepancy between language policy and practice corroborates with bilingual studies that show that parental reports of language use do not necessarily reflect actual language use (Goodz, 1989; Haskell, 1998; Kasuya, 1998). However, unlike bilingual studies which highlighted the tendency of parents to switch to the societal language, this study demonstrated how a mother who decided to speak the societal language reverted to her native Thai and, to a lesser extent, her L2, English. This suggests that, regardless of the language that bi- or multilingual parents claim to speak to their children, they may tap into their full linguistic repertoires in actual language practice.

Sri did this by making use of Thai baby words during feeding, an important daily routine at the early stages of development. They appeared easy for the child to understand and facilitated word production because Ken could produce these words at an early age. However, as he grew, Ken was able to engage in other activities (e.g., drawing), and feeding became a less important aspect of mother-child routines. Consequently, maternal use of Thai baby talk did not continue and neither did the child's production of it. The use of Thai baby talk was probably an instinctive move Sri temporarily took to bond with her young child and such simple onomatopoeic words may not have been regarded by her as a deviation from her Japanese policy.

Thai discourse particles were also fairly often used by the mother. Sri switched to Thai discourse markers for emphasis, to attract attention, and to discipline Ken. These motives were similar to those of other bilingual and multilingual mothers (e.g. Goodz, 1989; Kirsch, 2012). They appear to be an emblematic part of her Japanese speech style because their beginning or end positions did not affect the remainder of the utterances (Poplack, 1980). Language transfer probably occurred from Thai to Japanese because of the functional similarities between the Thai particle *na* and the Japanese particle *ne* (Chusri, 2011) and this resulted in the use of the Thai *na* as a sentence final particle in an utterance that is otherwise Japanese. Despite consistent maternal use of Thai discourse particles throughout the study (cf. Figure 3), there were only three child productions. The lack of child production may be explained by input frequency effects. Under the usage-based theory of language acquisition, token and type frequencies are two input properties that affect linguistic output (Bybee, 2008; Lieven & Tomasello, 2008). Type frequency probably played a role because the child was more exposed to maternal utterances punctuated by Japanese discourse markers ($n=2018$, 84.3% of discourse particles in both languages) than Thai ones ($n=376$, 15.7%), as shown in Figure 5. Ken was also exposed to Japanese discourse particles from native-speaking family members. The greater exposure probably helped him to produce the Japanese discourse particle, *ne*, at age 1;7. Contrarily, the Thai discourse particle *na* only appeared at age 2;0 and there were only two more further productions at age 2;1. Figure 5 also shows how Ken produced far fewer Thai discourse particles compared to Thai baby talk. This difference is probably influenced by Sri's speech because there was a higher proportion of Thai in her baby talk ($n=214$, 25.2% of baby talk in both languages) than in her use of discourse particles ($n=376$, 15.7% of discourse particles in both languages). However, the semantic and syntactic properties of this word class may have also interacted with input frequency effects. Goodman et al. (2008) found that the closed class (e.g., particles and auxiliaries) has a weaker relationship with input frequency compared to nouns and other categories because of its semantic-syntactic diversity. Unlike Thai baby words that were used almost exclusively for feeding routines, Thai discourse markers have more diverse semantic and syntactic properties and were used in more varied contexts, making them less salient to the child.

The results also show that, while Sri made errors, her speech was highly accurate with only a small proportion of errors (3.65%) that was largely related to inflection and particle use. Ken's speech was mostly accurate with an error rate that was even lower than his mother's (0.38%). Analysis of particle errors, which were higher than most of the other error types for both mother

($n=129$, 24.8% of total errors) and child ($n=6$, 50.0% of total errors), revealed different error characteristics. Sri tended to overgeneralize the topic marker *wa* ($n=64$, 49.2% of particle use errors) whereas Ken tended to overgeneralize the subject marker *ga* ($n=3$, 50.0% of particle use errors). Further scrutiny of the overgeneralizations of *ga* revealed that, while Sri tended to substitute *ga* for *wa* or used *ga* redundantly, Ken replaced *ga* for the particles *to* and *ka*. The different characteristics of their errors indicate that Sri's particle errors were not picked up by Ken.

These results suggest that Ken's errors were a result of his developing language rather than influenced by Sri's errors. According to Morikawa (2006), although Japanese-speaking children acquire particles early, they do not completely master their use and continue to make errors beyond the age of three. As the subject marker *ga* is one of the earliest particles Japanese children acquire (Hirakawa, 2004; Kuriyama, 2001), instances of its overgeneralization are common, particularly for the object marker, *o* (Morikawa, 1997). While Ken did not exhibit this *ga*-for-*o* overgeneralization in the video data, his *ga*-for-*to* overgeneralizations reflect the similar use of particles that are typically acquired early (e.g., *ga*) for those that are typically acquired later (e.g., *to* and *no*). Likewise, the two verbal inflection errors he made were probably due to his unfamiliarity with correct adult forms. Although verbal inflections are typically used by Japanese-speaking children by age 2;0, it is common in the beginning for a given verb root to have a single inflection (Clancy, 1985). In requesting his mother to draw him a picture at age 1;6, Ken inadvertently produced the past tense form *yatta* (did it) instead of the correct instructive form *yatte* (cf. Table 5) because this was the first and only inflection of the verb produced up to this age. Moreover, even when particles have been acquired, they may still be omitted from use. In the parental checklist, Sri documented *kore wa Kento no* (this is Kento's) as one of his longest utterances at age 1;10, indicating that he was already capable of using the topic *wa* and possessive *no* particles accurately at this age. However, all of the particle omission errors Ken made ($n=3$, 0.1% of Japanese utterances and mixed utterances with Japanese) at ages 2;2 and 2;3 involved the omission of the possessive particle *no* (cf. Table 5), suggesting that newly-acquired particles were not necessarily used in all subsequent utterances. Input frequency effects help explain the lack of influence of maternal errors on the child. Under the conserving effect of token frequency, 'repetition strengthens memory representations for linguistic forms and makes them more accessible' (Bybee, 2008, p.218). However, in this study, there were generally too few tokens of errors, particularly with respect to inflection and particle use, in the mother's speech for the child to build memory representations of them. Contrarily, it is the higher token frequency of correct forms in her speech and that of native speakers around Ken that probably helped entrench his understanding and use of correct forms.

Conclusion

The results of this study contribute to our understanding of maternal use of a nonnative language from birth in a case of monolingual acquisition. The study addresses the first research question relating to the extent to which the Thai mother provided Japanese input to her child. It found that, while adhering to a Japanese policy most of the time, there was some use of her native Thai and her L2, English. Sri reverted to Thai the most by producing Thai baby words and discourse particles. In answer to the second question, relating to the child's reproductions of his mother's non-Japanese and mixed utterances, the use of Thai was identified in a few limited contexts but there were proportionately more Thai baby talk than Thai discourse particles produced. The mother's Japanese input was mostly accurate with a low rate of errors. The rate of child errors was even lower than the rate of maternal errors. To answer the third question on the effect of maternal errors on the accuracy of the child's speech, particle use errors were analyzed because they were proportionately higher than most other errors types for both mother and child. No discernible influence was found because the characteristics of many of the child's particle use errors were different from that of maternal errors. Input frequency effects were arguably at play

because the child was largely exposed to one language, Japanese, and its correct forms. This resulted in child utterances that were predominantly Japanese and mostly accurate in production. With regard to the final question, the results showed that the mother's limitation of linguistic input to that of a nonnative language had no negative implications on her child's early monolingual acquisition. Sri's level of Japanese proficiency appeared to be sufficient to support his development at this early stage of speech. Yet, given the fact that the current study only examined the speech of a single mother-child dyad until the child was age 2;6, it is necessary to investigate further how nonnative input by mothers who practice a predominantly monolingual policy in a nonnative language impacts language development and the quality of parent-child communication at later developmental stages. This study is also limited to the examination of language use and errors so further research is required to investigate other aspects of nonnative input, such as communicative style, and its impact on the language socialization of the child.

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References

- Bybee, J. (2008). Usage-based grammar and second language acquisition. In P. Robinson & N. C. Ellis (Eds.), *Handbook of cognitive linguistics and second language acquisition* (pp. 216-236). New York: Routledge.
- Chusri, A. (2011). Nihongo joshi NE to Tai no joshi NA no dentatsu kinoo: Taijin gakushuusha no Nihongo no danwa ni okeru shiyoo keikoo [Communicative functions of Japanese particle NE and Thai particle NA: Interferences in Thai-speaking learners' Japanese usage trends]. *The Association of Japanese/Japanese Language Education*, 2, 99-118. <http://www.cocopb.com/NichiNichi/journal_backnumber.html> (accessed 5 December 2014)
- Clancy, P. (1985). The acquisition of communicative style in Japanese. In B.B. Schieffelin & E. Ochs (Eds.), *Language socialization across cultures* (pp. 213-250). New York: Cambridge University.
- Corder, S.P. (1967). The significance of learners' errors. *International Review of Applied Linguistics*, 5, 161-170.
- Golberg, H., Paradis, J. & Crago, M. (2008). Lexical acquisition over time in minority first language children learning English as a second language. *Applied Psycholinguistics*, 29(1), 41-65.
- Goodman, J.C., Dale, P.S. & Li, P. (2008). Does frequency count? Parental input and the acquisition of vocabulary. *Journal of Child Language*, 3(3), 515-531.
- Goodz, N.S. (1989). Parental language mixing in bilingual families. *Infant Mental Health Journal*, 10(1), 25-44.
- Götz, S. (2013). *Fluency in native and nonnative English speech*. Amsterdam, Netherlands: John Benjamins.
- Hammer, C.S., Davison, M.D., Lawrence, F.R. & Miccio, A.W. (2009). The effect of maternal language on bilingual children's vocabulary and emergent literacy development during Head Start and kindergarten. *Scientific Studies of Reading*, 13(2), 99-121.
- Haskell, D. (1998). The influence of context and parental input on language choice and mixing in

- bilingual language acquisition. *Japan Journal of Multilingualism and Multiculturalism*, 4(1), 33-53.
- Hirakawa, M. (2004). Acquisition of case and topic particles and development index for Japanese. In Kiyoshi Otomo (Ed.), *Comparative research for a developmental index for first and second language of Japanese and English* (pp. 167-174). (Report of the Grant-in-aid for scientific research (B) (1) (20001-2003) Project No. 13410034).
- Hoff, E., Coard, W. & Señor, M. (2013). Bilingual parents' child-directed speech in two languages: Do native and nonnative input differ? Poster presented at the meeting of the Society for Research in Child Development, Seattle, WA, April 18-20.
- Hoff, E., Rumiche, R., Burrige, A., Ribot, K.M. & Welsh, S.N. (2014a). Expressive vocabulary development in children from bilingual and monolingual homes: A longitudinal study from two to four years. *Early Childhood Research Quarterly*, 29, 433-444.
- Hoff, E., Welsh, S., Place, S. & Ribot, K.M. (2014b). Properties of dual language input that shape bilingual development and properties of environment that shape dual language input. In T. Grüter & J. Paradis (Eds.), *Input and Experience in Bilingual Development* (pp.119-140). Amsterdam, Netherlands: John Benjamins.
- Ishii, K. (2010). "Japanese" children with "Thai" mothers: The identity of Japanese-Thai mixed-ethnic children in Japan. *Nagoya University of Commerce and Business Administration Journal of Economics and Information Science*, 54 (2), 13-23.
- Jabar, M. A. (2013). The identity of children of Japanese-Filipino marriages in Iota, Japan. *Japan Journal of Multilingualism and Multiculturalism*, 19, 28-39.
- Jones, G. & Shen, H. (2008). International marriage in East and Southeast Asia: trends and research emphases. *Citizenship Studies*, 12(1), 9-25.
- Kasuya, H. (1998). Determinants of language choice in bilingual children: The role of input. *International Journal of Bilingualism*, 2(3), 327-346.
- Kawashima, S. A. (1999). *A dictionary of Japanese particles*. Tokyo, Japan: Kodansha.
- Kennedy, K. D. & Romo, H.D. (2013). "All colors and hues": An autoethnography of a multiethnic family's strategies for bilingualism and multiculturalism. *Family Relations*, 62(1), 109-124.
- Kim, Y. (2011). *Transnational migration, media and identity of Asian women: Diasporic daughters*. New York: Routledge.
- King, K. & Fogle, L. (2006). Bilingual parenting as good parenting: Parents' perspectives on family language policy for additive bilingualism, *International Journal of Bilingual Education and Bilingualism*, 9(6), 695-712.
- Kirsch, C. (2012). Ideologies, struggles and contradictions: an account of mothers raising their children bilingually in Luxembourgish and English in Great Britain. *International Journal of Bilingual Education and Bilingualism*, 15(1), 95-112.
- Kouritzin, S. G. (2000). A mother's tongue. *TESOL Quarterly*, 34(2), 311-324.
- Kuriyama, Y. (2001). Nihongoji no kaku-jyoshi sansyutsu no bunseki (Emergent productivity in the use of case particles by Japanese children). In H. Sirai (Ed.), *A cross linguistic study for the universal developmental index*, 114-123. (Report of the Grant-in-aid for scientific research (A) (2) (1999-2001) Project No. 11694009).
- Leung, A. C.-H. (2012). Bad influence? – an investigation into the purported negative influence of foreign domestic helpers on children's second language English acquisition, *Journal of Multilingual and Multicultural Development*, 33(2), 133-148.
- Lieven, E. & Tomasello, M. (2008). Children's first language acquisition from a usage-based perspective. In P. Robinson & N.C. Ellis (Eds.), *Handbook of cognitive linguistics and second language acquisition* (pp. 168-196). New York: Routledge.
- MacWhinney, B. (2000). *The CHILDES Project: Tools for analyzing talk (3rd ed.)*. Mahwah, New Jersey: Lawrence Erlbaum.
- Marchman, V. A., Martínez-Sussmann, C. & Dale, P.S. (2004). The language-specific nature of grammatical development: Evidence from bilingual language learners. *Developmental Science*,

- 7(2), 212–224.
- Ministry of Health, Labour and Welfare, Japan. (2015). Table 9-19. Marriages by nationality of bride and groom: Vital statistics in Japan. <http://www.e-stat.go.jp/SG1/estat/GL08020103.do?_toGL08020103_&listID=000001127023&requestSender=dsearch> (accessed 2 March 2015)
- Morikawa, H. (1997). *Acquisition of case marking and argument structures in Japanese*. Tokyo, Japan: Kuroshio.
- Morikawa, H. (2006). The acquisition of case markers. In M. Nakayama, R. Mazuka and Y. Shirai (Eds.), *The handbook of East Asian psycholinguistics Vol. II: Japanese* (pp. 76-82). Cambridge, England: Cambridge University.
- Nakamura, J. & Quay, S. (2012). The impact of caregivers' interrogative styles on early bilingual development. *International Journal of Bilingual Education and Bilingualism*, 15(4), 417-434.
- Oshima-Takane, Y., MacWhinney, B., Sirai, H., Miyata, S. & Naka, N. (1998). *CHILDES Manual for Japanese, 2nd ed.* The JCHAT Project. Nagoya, Japan: Chukyo University.
- Paradis, J. (2011). Individual differences in child English second language acquisition: Comparing child-internal and child-external factors. *Linguistic Approaches to Bilingualism*, 1(3), 213-237.
- Paradis, J. & Kirova, A. (2014). English second-language learners in preschool: Profile effects in their English abilities and the role of home language environment. *International Journal of Behavioral Development*, 38(4), 342-349.
- Pearson, B. Z. (2008). *Raising a bilingual child: A step-by-step guide for parents*. New York: Random House.
- Piller, I. (2001). Private language planning: The best of both worlds? *Estudios de Sociolingüística*, 2(1), 61-80.
- Place, S. & Hoff, E. (2011). Properties of dual language exposure that influence 2-year-olds' bilingual proficiency. *Child Development*, 82(6), 1834-1849.
- Poplack, S. (1980). Sometimes I'll start a sentence in Spanish Y TERMINO EN ESPANOL: toward a typology of code-switching. *Linguistics*, 18(7-8), 581-618.
- Poullisse, N. (1999). *Slips of the tongue: Speech errors in first and second language production*. Amsterdam, Netherlands: John Benjamins.
- Quay, S. (2004). Caregiver input and language development. In ed. G. Fulton, W. J. Sullivan and A. R. Lommel (Eds.), *LACUS forum XXX: Language, Thought and Reality* (pp. 227-234). Houston, Texas: Linguistic Association of Canada and the U.S.
- Saunders, G. (1988). *Bilingual children: from birth to teens*. Clevedon, England: Multilingual Matters.
- Watamaki, T. & Ogura, T. (2004a). *Nihongo Makkaasa nyuuyooji gengo battatsu shitsumonshi (Go to bunpoo) Tebiki* [Technical manual of the Japanese MacArthur Communicative Development Inventory: Words and Grammar]. Kyoto, Japan: Kyoto International Social Welfare Exchange Center.
- Watamaki, T. & Ogura, T. (2004b). *Nihongo Makkaasa nyuuyooji gengo battatsu shitsumonshi (Go to miburi) Tebiki* [Technical manual of the Japanese MacArthur Communicative Development Inventory: Words and Gestures]. Kyoto, Japan: Kyoto International Social Welfare Exchange Center.
- Yamamoto, M. (2002). Language use in families with parents of different native languages: An investigation of Japanese-non-English and Japanese-English families, *Journal of Multilingual and Multicultural Development*, 23(6), 531-554.
- Yamamoto, M. (2005). What makes who choose what languages to whom?: Language use in Japanese-Filipino interlingual families in Japan. *International Journal of Bilingual Education and Bilingualism*, 8(6), 588-606.