CHARACTERISTICS OF
MATERNAL SPEECH IN KOREAN

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by
Soyoung Lee, M.A.

The Ohio State University
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Master’s Examination Committee:
Dr. Robert Allen Fox, Adviser
Dr. Mineharu Nakayama

Approved by
Adviser
Department of Speech and
Hearing Science
ABSTRACT

This study investigates the characteristics of Korean maternal speech. Eighteen Korean mothers and infant dyads living in Seoul, Korea were observed in their homes. The results were compared with results from a previous study on Japanese maternal speech in order to find out whether there were cultural differences between Korean and Japanese maternal speech.

The data showed that Korean maternal speech reflected beliefs and values specific to Korean culture, and it was different from the characteristics observed in Japanese maternal speech. There were no significant differences between Korean and Japanese maternal speech in terms of the number of noun labels such as adult form, diminutive form, and onomatopoeic words. However, Korean mothers used noun labels with less consistency than Japanese mothers. Korean mothers used more verbs than Japanese mothers, while Japanese mothers provided social routines more frequently than Korean mothers. These differences can be ascribed to the cultural differences between Korean and Japanese, such as information-oriented speech vs. affect-oriented speech, respectively.

The results of this study indicate that maternal speech of the two languages could have different cultural characteristics even though they have the similar sentence structures.
Both sentence structure and cultural variations should be considered at the same time in order to understand characteristics of maternal speech across languages.

For a more comprehensive understanding of Korean maternal speech, investigators should focus their research on the cultural characteristics that were not part of this study. The influence of infants' age and developmental level on maternal speech should be investigated in the future.
Dedicated to my parents

Sung-Mook Lee

Chung-Hyung Lee
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VITA

August 5, 1967 ...........................................Born - Seoul, Korea

1990 .........................................................B.A., Special Education
                                      Ewha Womans University, Korea

1992 .........................................................M.A., Special Education
                                      Ewha Womans University, Korea

1992-1995 ...................................................Special Educator and Researcher
                                      Seoul Southern Rehabilitation Center
                                      Seoul, Korea

Fields of Study

Major Field: ........................................Speech and Hearing Science

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CHAPTER 1

INTRODUCTION

Maternal speech is defined as mothers’ speech to their children that is modified for their children’s developmental level. A number of researchers have investigated the characteristics of maternal speech since maternal speech to their children is considered as serving several significant functions in child language development. There is a growing number of literature on maternal speech to prelinguistic infants. Mothers’ speech to their infants has a significance for the development of the infants’ communication skills and eventually their language development (Sachs, 1977).

This study is concerned with maternal speech to infants. Thus, maternal speech in this study is specifically defined as infant-directed speech. Compared with speech to adults, it is characterized as containing modifications in suprasegmental, phonological, syntactic, semantic, and interactional features (Nelson, 1976). Although maternal speech in different languages shares universal characteristics, several cross-linguistic studies revealed different characteristics of maternal speech among languages (Morikawa et al., 1986; Clancy, 1986; Fernald et al., 1989; Shatz, 1989; Toda et al., 1990; Bornstein et al., 1992; Fernald & Morikawa, 1993; Choi & Gopnik, 1995).
Cross-linguistic studies have claimed that differences of sentence structure across languages could constrain the form of mothers’ speech input to their infants. For instance, Gopnik and Choi (1990) note that Korean and Japanese have the Subject-Object-Verb (SOV) word order while English has the Subject-Verb-Object (SVO) word order and claim that such structural differences could lead to the different emphasis on nouns versus verbs in adult speech. Thus, one would expect that Korean and Japanese mothers would emphasize verbs while American mothers would emphasize nouns. Choi and Gopnik (1995) found that Korean mothers used more verbs and more various types of verbs than American mothers whereas American mothers produced more object nouns and more various types of nouns than Korean mothers.

Culture-specific aspects of each language have a powerful influence on mothers’ speech to their infants in different languages (Shatz, 1991). For example, although the use of baby talk itself may be universal, the frequency of baby talk differs among cultures. Japanese mothers used baby talk more frequently than American mothers. The frequent use of baby talk in Japanese maternal speech could reflect Japanese infants’ roles in Japanese society (Toda et al., 1990).

Fernald and Morikawa (1993) compared English and Japanese maternal speech. They found that Japanese mothers, like Korean mothers, used fewer noun labels than American mothers. However, Japanese mothers used noun labels with less consistency and fewer question than American mothers. Furthermore, Japanese mothers provided social routines more frequently to their infants than American mothers. They concluded that the differences were only partially due to the differences of sentence structure between English and Japanese. Instead, different cultural aspects such as interactional
styles and beliefs strongly influenced the choice of the sentence construction and content in the mothers’ speech to their infants.

Previous research studies provided valuable information on maternal speech. However, they have some limitations. For instance, Choi and Gopnik (1995) focused on linguistic influences on Korean maternal speech but did not investigate cultural aspects such as social routines. Their 1990 study hypothesized that Japanese maternal speech would have similar aspects to Korean maternal speech due to their similar sentence structure, i.e., basic word order. This hypothesis, however, should be carefully examined. Even though Korean and Japanese have the similar sentence structures, there may exist different cultural aspects in the maternal speech of the two languages. In fact, there seems a discrepancy. Fernald and Morikawa (1993) found that Japanese mothers used fewer action verbs than American mothers, while Choi and Gopnik (1994, 1995) reported that Korean mothers used more action verbs than American mothers. No researchers have pointed out that this discrepancy might be attributable to the differences in Korean and Japanese mothers’ communicative styles. Therefore, it is important to investigate whether there are differences in Korean and Japanese maternal speech.

Fernald and Morikawa (1993) compared Japanese with American maternal speech in order to find out whether the differences between Japanese and American were determined more by structural or by communicative style. However, it would be difficult to determine whether sentence structures or cultural variations contribute more to the differences of maternal speech because Japanese and English are both different from each other in terms of their sentence structures and cultures. Since Korean and Japanese have the similar sentence structures, differences in maternal speech between the two languages
could be attributed to the cultural differences rather than the structural differences. The present study explores this issue. Since cultural characteristics of Korean maternal speech have not been comprehensively studied so far, this study will also provide detailed information about cultural characteristics of Korean maternal speech. Fernald and Morikawa's (1993) criteria will be adopted during the course of investigation so that the Korean data obtained in this study can be directly compared with their Japanese data.

The organization of this study is as follows: Chapter 2 will provide a review of previous studies. Studies on two major factors, sentence structures and cultural variations, that influence maternal speech will be discussed, and then, the research questions will be presented. Chapter 3 will describe the experimental procedure for investigating cultural characteristics of Korean maternal speech. Chapter 4 will report the experimental results and the comparison of Korean with Japanese maternal speech. The findings of the characteristics of Korean maternal speech will be described in Chapter 5 and the results of the comparison of Korean with Japanese maternal speech will be also discussed. Concluding remarks - including suggestions for future research - will be provided in the last chapter.
CHAPTER 2

PREVIOUS STUDIES

This chapter will discuss previous studies on maternal speech to their infants.\footnote{Researchers use different terms to refer to subjects under 2 years old such as infants, young children, and children. The term ‘infants’ will be consistently used in this study because infancy refers to the developmental period from birth to about 18 months or 2 years of age (Berk, 1995).} First, common characteristics of maternal speech will be described. Next, two main influences on maternal speech, i.e., sentence structures and cultures will be discussed. Then, limitations of the previous studies will be discussed. Finally, the purpose of this study will be provided.

2.1 Common characteristics of maternal speech

Studies on maternal speech to their infants have shown that certain characteristics of maternal speech appear to be universal. Snow (1972) and Philllips (1973) found that maternal speech had less complex syntactic structures than those to other adults. Newport et al. (1977) reported that mothers used shorter utterances and well-formed isolated phrases. They produced grammatically correct sentences and never mumbled or
slurred their words. Ferguson (1978) reported phonological and syntactic modifications, simplified lexicon, and exaggerated prosody as common features of maternal speech to infants in 27 different languages.

Bornstein et al. (1992) reported that maternal speech universally contained affect-oriented utterances such as greeting and onomatopoeic words as well as information-oriented utterances such as direct statements and questions. However, no systematic effects ascribable to the gender of the infants or to the mothers’ age or education level emerged in their study.

Fernald and Morikawa (1993) investigated the common characteristics of English and Japanese maternal speech. In both languages, the maternal speech was linguistically simple, often containing only one word and frequently repeated. The frequent use of object sounds was also considered as typical maternal speech. For example, *bowwow* and *wanwan* were frequently used in English and Japanese maternal speech, respectively.

Altogether, these studies indicate that maternal speech to their infants shows phonologically, syntactically, semantically and pragmatically similar characteristics across languages. The modified styles of maternal speech reflect mothers’ considerations on their infants’ limited attention and memory capacities. It can lead the infants to pay attention to their mothers’ speech (Newport et al., 1977).

2.2 Influence of sentence structure

2.2.1 The structure of the Korean language

Let us briefly discuss the structure of the Korean language that is relevant to the current study. First, the basic word order of Korean is Subject-Object-Verb although its
word order is relatively flexible (Kim & Ko, 1985). Nouns usually appear preverbally and a verb appears at the end of the sentence. This verb position is considered to be perceptually salient. English, on the other hand, takes the Subject-Verb-Object word order. Since nouns typically appear at the end of sentence, they are considered perceptually salient¹ (Gopnik & Choi, 1990; Slobin, 1973). For example, compare the following English and Korean sentences.

(1) a. Mary eats an apple.
    
    b. *Mary-ka sakwa-leol muke-yo.*

Mary-subject particle apple-object particle eat-honorific suffix

The noun apple in English example (1a) appears at the end of the sentence while the verb muke-yo ‘eat’ appears at the end of the sentence in Korean example (1b).

Second, subject and object noun phrases are often omitted whereas verbs are obligatorily pronounced in Korean. For example, Korean verb for English ‘eat’ does not require the use of subject, object and location. (1b) can have only muke-yo in the context in which Mary and apple are already known to the listener, yet the sentence is grammatical.

The Subject-Object-Verb word order and the frequent noun deletion in Korean are two syntactic aspects different from English. It is important to point out that these aspects are also observed in Japanese.

2.2.2 Child language influenced by the structure of the target language

In several cross-linguistic studies, researchers have found that child language development appears different depending on a target language. They have argued that the

¹ This argument does not apply to intransitive verbs in English

Cross-linguistic studies on Korean and Japanese (Choi, 1991; Goldfield & Reznick, 1990; Lieven et al., 1992; Tomasello, 1992) claim that Korean- and Japanese-speaking children are sensitive to verbs and might have an advantage in learning verbs because the structures of these languages highlight verbs rather than nouns. For instance, Gopnik and Choi (1990) observed that the naming spurt of five Korean infants emerged several months later than that of American infants. They argue that this developmental difference could be partially attributed to the syntactic differences between Korean and English.

Choi and Gopnik (1995) also compared infants’ lexical development between English and Korean. From 1 year 2 months to 1 year 10 months, the lexical development of nine Korean infants was observed through monthly visits and maternal reports. These Korean data were compared to English longitudinal data that were obtained in the previous study. They found that Korean infants used verbs productively when they were as young as 1 year 3 months. Seven of the nine infants showed a verb spurt at around 1 year 7 months which is much earlier than that in American infants. For six of these infants the verb spurt occurred before the noun spurt while no American infants showed the verb spurt before the noun spurt. They argue that language-specific input plays an important role in the early acquisition of semantics. The prominent use of nouns and verbs in child’s early lexicon development is ascribed to the specific types of language the child hears.
Choi and Gopnik (1990) claim that the different word order between the two languages and noun deletion in Korean and Japanese may lead to the different emphasis on nouns versus verbs in adult speech. Thus, Korean and Japanese mothers emphasize more verbs than nouns producing verbs more often than nouns to their infants whereas American mothers emphasize more nouns than verbs.

The studies discussed above have argued that infants’ language development appears to differ across languages. The difference may be influenced by the different linguistic inputs across the languages.

2.2.3 Different linguistic input

In order to investigate whether or not there are differences in linguistic inputs between Korean- and English-speaking mothers, 18 Korean speaking mother-infant dyads and 20 English speaking mother-infant dyads living in California were observed in Choi and Gopnik (1995). All Korean mothers only spoke Korean to their infants. The average age of Korean infants was 1 year and 6.2 days and that of the American infants was 1 year and 6.4 days. The same toys such as a miniature house with furniture were used for both groups. The mothers were asked to play with the toys and talk to their infants. Each mother and infant interaction was video-taped for five minutes. The tape-recorded speech was segmented into utterances on the basis of pauses and prosodic information. The average number of utterances produced by Korean mothers was 108.7 and by American mothers was 91.9.

Choi and Gopnik (1995) conducted a morpho-syntactic analysis, where the words in the mothers’ utterances were categorized into the grammatical categories such as nouns and verbs. Nouns and verbs were divided semantically. Noun category was divided into
concrete nouns referring to objects or people, and abstract nouns such as household. Verbs were subcategorized into verbs referring to specific actions or activities and non-action verbs such as attention-getting verbs like see and look, stative verbs such as like and feel, and mental verbs like think and know.

In general, the Korean-speaking mothers used more verbs and more various types of verbs than English-speaking mothers. Semantically, Korean-speaking mothers provided both action-verbs and non action-verbs more often than English-speaking mothers. In contrast, English-speaking mothers used more object nouns and more various types of nouns than Korean-speaking mothers. These results indicate that the different types of linguistic inputs exist in maternal speech between Korean and English and these mothers’ language-specific inputs influence early lexical development between Korean and American infants.

2.3 Influence of cultural variations

2.3.1 Importance of cultural aspects in maternal speech

Another aspect that influences child language development is the cultural values of the society in which infants are socialized. When the parents talk to their infants, they both directly and indirectly teach their infants what the acceptable social behaviors are and what the social values in their community are (Shatz, 1991).

Toda et al. (1990) argue that in American and Japanese cultures, infants should learn the ability to use appropriate sentences in order to participate in their societies. Maternal speech play an important role to help their infants to learn how to socialize and how to use culturally appropriate communication styles (Bornstein et al., 1992).
2.3.2 Cultural influences on maternal speech across languages

There have been several studies that investigated the culturally different styles of maternal speech among languages. Shatz et al. (1989) found that German mothers used modals such as *must* and *can* more often than American mothers when they talked to their infants. This may be because German mothers’ emphasis on obligation, that is prevalent in German culture. In contrast, American mothers used agreement, intention, and possibility more often than German mothers. American mothers showed an egalitarian style of child rearing, which is popular in American culture.

Bornstein et al. (1992) reported the cultural differences of maternal speech among four languages: Argentine, French, and English in Western culture, and Japanese in Eastern culture. The content of maternal speech was divided into affect-oriented speech style and information-oriented speech style. Each category had several subcategories. The affect-salient speech was composed of greetings, recitations, onomatopoeia, and endearments. The information-salient speech was composed of direct statement, questions, and reports. They found that Japanese mothers were highest in the use of affect-oriented speech. Japanese mothers often played with sounds while speaking to their babies, using nonsense words, song, and onomatopoeic words. They engaged their infants in social routines more often than the mothers in other languages. In contrast, mothers from the three Western cultures favored information-oriented speech style. Their speech had more characteristics of adult-adult conversation than Japanese maternal speech. These results were interpreted as indicating that Western mothers were more
interested in supporting individual expression and imparting information to their infants from an early age.

Bornstein et al. (1992) also found consistent differences in the maternal speech among the three languages in Western cultures. Argentine mothers displayed higher frequency of direct statement than mothers in the other languages, and tended to direct their infant's action very often. American mothers tended to question their infants the most. French mothers used report forms less often than the other mothers. The different style of maternal speech appeared to reflect cultural characteristics of each language. Frequent questions to their infants may be a way for American mothers to emphasize the information components of speech. American mothers tried to convey information by questioning or labeling. Frequent directed-oriented speech of Argentine mothers such as imperative syntactic forms could reflect their traditional child rearing style, i.e., authoritative child-rearing orientation. Less frequent report-forms of French mothers such as declarative syntactic form could reflect their less emphasis on achievement stimulation and more emphasis on emotional support.

Toda et al. (1990) compared American and Japanese maternal speech in terms of function and syntactic form. They found that American mothers used more question forms especially yes/no questions while Japanese mothers used more nonsense sounds, onomatopoeic words, and baby talk. According to their study, these differences in maternal speech indicate that American maternal speech is information-oriented speech style while Japanese maternal speech is affect-oriented speech style.
2.4 Cultural characteristics of maternal speech in Japanese

A number of studies have investigated the cultural characteristics of Japanese maternal speech while those of Korean maternal speech have not intensively studied. Studies of Japanese maternal speech could provide an index for investigating cultural characteristics of Korean maternal speech. Thus, four characteristics of Japanese maternal speech will be discussed.

2.4.1 Frequent use of baby talk

One of the characteristics of Japanese maternal speech is that Japanese mothers use more baby talk. Japanese people consider infants' roles as different from adults' social roles (Morikawa et al., 1988). Japanese people favor the use of baby talk to infants and are more tolerant of infants' immature speech because Japanese people believe that infants should be treated differently from adults. In contrast, American mothers expect their infants to be independent from their parents. Thus, they provide less baby talk to their infants, and treat their infants as adults earlier than Japanese mothers (Fisher 1970).

Toda et al. (1990) found that there was a significant difference in the mean frequency of baby talk between American and Japanese mothers. Japanese mothers used baby talk more often than American mothers. Japanese mothers also used a greater variety of baby talk while American mothers mostly used "mama" and "tummy". Bornstein et al. (1992) observed that Japanese mothers tended to use onomatopoeic words more frequently than languages in Western cultures. Fernald and Morikawa (1993) reported that Japanese mothers used nonsense sounds and onomatopoeic words
very often while American mothers almost never used these forms, stating that this is the most striking cultural difference.

2.4.2 Indirect communicative style

According to Clancy (1985), intuitive and indirect speech is the typical communication style in Japanese. The ideal interaction in Japanese is that speakers and listeners understand and anticipate other people’s needs and conduct them before they verbally communicate each other. Thus, Japanese adults’ speech is characterized as indirect both in form and content. In contrast, American speech style is to make his/her message clear to the listener. They believe that it is one of a speaker’s responsibilities. Thus, English speakers express their wishes or needs more directly than Japanese speakers (Clancy, 1986; Morikawa et al., 1988).

In order to find out whether the indirect speech style in Japanese reflects Japanese maternal speech, and whether it is different from American maternal speech, Morikawa et al. (1988) investigated the relationships between the functions and the linguistic forms in maternal speech. The functions were eliciting and prohibiting infant activity, and seeking information. The linguistic forms were interrogatives, imperatives, and declaratives. They observed that Japanese mothers used many diverse linguistic forms to control infant actions. They used forms that did not directly match the function. For example, in order to elicit actions, Japanese mothers used statement forms and they used question forms to prohibit activity. In contrast, American mothers used forms with matched functions. For example, American mothers used imperative forms to prohibit child’s action. Moreover, Morikawa et al. observed that Japanese mothers used non-linguistic utterances to prohibit action (usually infants’ crying and fretting), and to elicit
infants' vocalizations. They claim that the Japanese mothers' use of multiple syntactic forms to elicit or prohibit infant action reflects indirect speech style.

Fernald and Morikawa (1993) reported that American mothers were more likely to attract infants' attention and to teach them words than Japanese mothers. They concluded that Japanese mothers were less interested in fostering their linguistic competence, and more interested in establishing affective communication, accommodating their speech to the their infants' immature productions.

2.4.3 Emotionally and socially oriented speech

According to Clancy (1985, 1986), the indirect communicative style in Japanese is based on their cultural values that emphasize "empathy" because the indirect communicative style is possible when people understand other people's thoughts and feelings. Thus, Japanese mothers focus on this cultural value when they communicate to their infants. They strongly tend to emphasize sensitivity to the needs, wishes, and feelings of others. Moreover, Japanese mothers focus on the infants' role as a member of the social group. By continuously articulating the thoughts and feelings of other people to the infant, and by encouraging empathy, Japanese mothers frequently engage their infants in social routines and teach their infants social values of the communities.

Fernald and Morikawa (1993) observed the differences in social routines with respect to exchange, empathy, and greeting between Japanese and American mothers. They found that Japanese mothers engaged their infants in social routines twice as often as American mothers. According to Fernald and Morikawa, when playing with toys with their infants, American mothers tend to teach or to call their infants' attention to objects' names, while Japanese mothers used the toys more often to engage their infants.
in social routines. For example, a typical sentence of utterances related to a target object in American maternal speech was: *That’s a car. See the car? You like it? It’s got nice wheels.* In contrast, Japanese mothers tend to focus on a polite exchange of the object in the ritual of give and take: *Hai doozo. ‘I give it to you.’ Choodai. ‘Give me.’ Hai arigatoo ‘Yes! Thank you.’*

2.4.4 Usage of nouns and verbs

Fernald and Morikawa (1993) studied 30 American and 30 Japanese mothers and their infants. The mothers’ utterances to their infants with two pairs of toys for 5 minutes were analyzed with respect to the mean number of noun labels, the mean number of action verbs, and the usage of noun labels. They found that American mothers used noun labels and action verbs significantly more often than Japanese mothers. Japanese mothers labeled objects as often as they labeled action verbs. Japanese mothers like to use baby talk or onomatopoeic words and switched the noun label types more often than American mothers. For example, after Japanese mothers labeled a dog toy as ‘dog’, they labeled it as ‘doggy’ or ‘bowwow’ while American mothers kept labeling it as ‘doggy’ consistently. In addition, Japanese mothers used question form less often than American mothers.

Gopnik and Choi’s claim (1990) that Korean and Japanese mothers would emphasize verbs while American mothers would emphasize nouns because the structural differences between languages could constrain the form of mothers’ speech input. Fernald and Morikawa (1993) argue that the American mothers’ great emphasis on object nouns is only partially due to the differences of sentence structures between two languages. Instead, different cultural aspects such as interactional styles and beliefs strongly
influence the form and content of maternal speech to their infants. According to them, unlike Korean and Japanese, deleted subjects in tensed clauses and unpronounced objects in both tensed and untensed clauses are not grammatical options in English. However, nouns in English narratives can be replaced with pronouns after the nouns become old information. When English-speaking mothers talk to their infants, they show different usage of nouns compared with those in the adult conversation. English-speaking mothers use the same nouns repeatedly rather than replacing them with pronouns or omitting them. Fernald and Morikawa propose that if American mothers replaced nouns with pronouns or omit nouns as often as they did in their conversations with other adults, both American and Japanese mothers would have shown the similar number of nouns. In other words, because American mothers keep producing noun labels without replacing them with pronouns when they talk to their infants, more noun labels appear in their speech. Therefore, the form and content of maternal speech to infants were determined by a complex interaction of linguistic and cultural factors.

2.5 Cultural characteristics of maternal speech in Korean

Only a few studies have investigated cultural aspects of maternal speech in Korean. In Choi and Gopnik (1994, 1995), 20 American mothers and 11 Korean mothers were participated in their study with their 18-month-old-infants. A large complex doll house with typical furniture and family figures was provided and both mothers and infants talked for 5 minutes. Choi and Gopnik found that with imperative and declarative forms, Korean mothers directed their infants to engage in activities significantly more often than they labeled objects. They directed their infants to engage in activities
significantly more often than American mothers. For example, Korean mothers said *nehe pwa* ‘put [it] in’ or *nwule pwa* ‘push [it]’ as directives, and *mokyok haney* ‘[the doll] is taking a bath’ or *kule ka* ‘[the car] is rolling’ to describe what the objects were doing. These types of activity-oriented utterances were observed 45% of the maternal speech. However, naming-oriented speech such as labeling or asking names of the objects i.e., *chimtayya* ‘[it’s a] bed’ or *ike mweya* ‘what is it’ were only 9% of their speech. In contrast, English-speaking mothers labeled objects (21%) as often as they directed activities (25%) and they produced naming-oriented utterances significantly more often than Korean mothers. Choi and Gopnik (1995) conclude that Korean maternal speech style is action-oriented speech while that of American mothers is naming-oriented speech.

2.6 Summary of characteristics of Korean and Japanese maternal speech

Based on the above studies, one can make the following points regarding Korean and Japanese maternal speech. Korean mothers used fewer object nouns, more action and non-action verbs, and more various types of verbs than American mothers. Korean mothers also provided more action-oriented utterances than noun-oriented utterances. The frequency of action-oriented utterances in Korean was higher than in American. Korean mothers frequently used imperative and declarative forms. Japanese mothers used fewer object labels than American mothers. Japanese mothers used more onomatopoeic words. They used noun labels less consistently with fewer questions and simple sentences. Japanese mothers did not show any preference of types of verbs. Japanese mothers engaged their infants in social routines more often than American mothers. They often used indirect speech style.
In terms of the number of noun labels, both languages showed similar characteristics. However, the details about use of the noun labels in Korean currently unknown. For example, it is not known whether Korean mothers use onomatopoetic words as often as Japanese mothers. Moreover, it is also unknown how consistently Korean mothers use the noun labels or how often Korean mothers use question forms. With respect to the number of verbs, Korean mothers used more action verbs than American mothers while Japanese mothers used fewer action verbs than American mothers. No researchers have suggested why Korean and Japanese maternal speech might show such differences. While several researchers have studied social routines in Japanese, there are few studies that investigate social routines in Korean. Finally, Korean mothers often used direct speech style such as imperative and declarative while Japanese mothers used indirect speech style such as multiple syntactic forms.

Maternal speech has been considered similar since Korean and Japanese languages have the similar sentence structures (Choi and Gopnik, 1990). However, most characteristics of maternal speech between the two languages are not investigated directly. Thus, a direct investigation between Korean and Japanese maternal speech is needed.

2.7 Limitations of the previous studies

The previous studies provided valuable information on maternal speech. However, they have some limitations. Choi and Gopnik (1995) tried to find out pragmatic differences of maternal speech between Korean and American, e.g., action-oriented vs. naming-oriented speech styles. However, their criteria did not comprehensively include
cultural characteristics of maternal speech. For example, they did not investigate how often Korean mothers provide social routines to their infants. Since cultural values largely influence maternal speech, cultural aspects of Korean maternal speech should be investigated. Furthermore, their finding that Korean mothers used fewer nouns than American mothers should be re-examined in terms of the types of noun labels. If Korean mothers use onomatopoetic words to refer to noun labels more often than American mothers, Korean mother might provide fewer adult-form nouns than American mothers. Since Choi and Gopnik did not investigate the number of onomatopoeic words, it might be difficult to argue that fewer noun labels in Korean maternal speech are only attributed to the different sentence structures between Korean and English. Therefore, more comprehensive study on object labels is needed in Korean.

Gopnik and Choi’s (1990) claim that Korean and Japanese mothers would show the same characteristics of maternal speech should be also examined. According to Shantz (1991), since Korean is a language that shares many structural similarities with Japanese, one might expect that the Koreans would perform like the Japanese. However, Korean and Japanese speakers do not always show the same speech characteristics because of cultural differences between Korean and Japanese. In fact, the differences between Korean and Japanese maternal speech were found in the previous studies (Fernald and Morikawa, 1993; Choi & Gopnik, 1995). With respect to the number of action verbs, the results between the two languages were different. While Korean mothers used much more action verbs than American mothers, Japanese mothers did not show any preference toward action verbs. Thus far no researchers have directly addressed the
question whether the discrepancy is contributed to cultural differences between the two languages.

Fernald and Morikawa (1993) tried to determine whether cultural variances influenced maternal speech more than the sentence structure by comparing American and Japanese maternal speech. English and Japanese languages are different in terms of their sentence structures and interactional styles. For example, English has the Subject-Verb-Object word order while Japanese has the Subject-Object-Verb word order. American mothers often use the direct speech style while Japanese mothers use the indirect speech style. When the Japanese language is compared with English, it might be difficult to argue that the differences of maternal speech between the two languages are attributed not to their sentence structures but to cultural variances such as their interactional styles. Because language and culture are closely interrelated, the cultural characteristics of languages could be invoked by comparing different cultures in which the same linguistic form is spoken (Bornstein et al., 1992). As Bornstein et al. argue, in order to identify cultural versus linguistic influences on maternal speech, it might be reasonable to compare maternal speech of Korean to that of Japanese because both languages have the similar sentence structures. If differences are found in maternal speech, these differences would be attributed to the cultural differences between the languages assuming that language reflects the social and cultural values. Most research studies that investigated cultural differences on maternal speech have been conducted in the languages that have both different sentence structures and interactional styles. Thus, a comparison between Korean and Japanese maternal speech will be ideal to provide evidence that cultural aspects influence maternal speech.
2.8 The purposes of this study

While a number of research studies on maternal speech have been conducted, few studies investigate cultural aspects of maternal speech in Korean. Thus, this study first aims to comprehensively investigate the cultural characteristics of Korean maternal speech. Second, in order to argue that maternal speech are influenced not only by the sentence structure but also by cultural aspects, this study compare the maternal speech of Korean and Japanese which have the similar sentence structures. The results of this goal could provide evidence of cultural influences in maternal speech. Third, in order to find out the cultural differences of maternal speech between Eastern cultures and Western cultures, most studies have been conducted between Japanese and other Western languages, e.g., Japanese and English or Japanese and French. It is not persuasive if the results of Japanese maternal speech are generalized to any other languages in Eastern cultures since each language could possess different cultural aspects. Particularly, since Korean has the same word order as Japanese, it has been regarded as having the characteristics of maternal speech similar to those of Japanese. Therefore, it would be important to investigate whether or not there are similar cultural characteristics of maternal speech between the two languages.

In order to find out whether or not there are cultural differences in Korean and Japanese maternal speech, cultural characteristics of maternal speech in Korean were examined based on the criteria in Fernald and Morikawa (1993). Therefore, the findings in Korean maternal speech could be compared with those of the Japanese maternal
speech observed in Fernald and Morikawa (1993). The following three major research questions will be asked in this study.

1. What are the cultural characteristics of maternal speech in Korean in terms of use of nouns, and how are they different from those of Japanese?

2. What are the cultural characteristics of maternal speech in Korean in terms of verbs, and how are they different from those of Japanese?

3. What are the cultural characteristics of maternal speech in Korean in terms of social routines, and how are they different from those of Japanese?

Findings of this study would provide basic information on Korean maternal speech, and the differences between Korean and Japanese maternal speech.
CHAPTER 3

EXPERIMENTAL METHOD

This study adopts Fernald and Morikawa’s (1993) methodology so that the results of this study can be compared with their results in Japanese. Although several research studies investigated maternal speech, their study was adopted for the following three reasons: (1) the stimuli of their study are regarded as appropriate for different countries. That is, they can be also used for Korean infants; (2) the classification of their study such as the number of nouns and verbs, the types of the noun labels, the usage of noun labels, and social routines can provide detailed information on Korean maternal speech; (3) the Korean data in this study can be directly compared with their Japanese data.

3.1 Subjects

Eighteen Korean mothers and their infants participated in this study during August 10th to September 12th, 1997. All subjects were living in Seoul metropolitan area. All infants were reported by their mothers to be healthy and developing normally and had no reported hearing or visual impairments. The infants were in the same range of age groups as Fernald and Morikawa (1993). There were six infants from 5 months 15 days
(5; 15) to 6; 08 (mean age (M) = 5; 28), six infants from 11; 09 to 13; 27 (M = 12; 15),
and six infants from 17; 29 to 22; 15 (M = 19; 12). Each group was composed of the
same number of male and female infants (three males and three females). All of the
mothers lived in a middle class family. Fifteen of eighteen mothers had four years of
college education, two of them had two years of college education, and the other one had
high school education.

3.2 Procedure

3.2.1 Stimuli

The overall procedure was similar to that of Fernald and Morikawa (1993). The
similar kinds of toys to those used in their study were adopted in this study. They were a
pair of stuffed animals, a dog and a pig, and a pair of vehicles, a car and a truck. Fernald
and Morikawa mentioned that these toys were regarded as appropriate toys for different
countries and suitable for all three age groups that participated in their study (pp. 641).

3.2.2 Observation procedure

The mother-infant interactions were observed at their homes. Before conducting
the observation procedure, 15-30 minutes of the introductory session was provided to
explain the experimental procedure and to make the mothers and infants be acquainted
with the experimenter. When the mothers asked the purpose of the experiment, the
experimenter did not specifically mention that this study was concerned with the maternal
speech. All their interactions were audio-tape recorded. Recordings were made on Sony
cassette recorder (TMC-80) using its built-in microphone. First, the mother and the infant
were asked to play for approximately 10 minutes with their own toys. Their interactions
were audio-taped in order to make them familiar to the presence of recording equipment. Then, two sets of the standardized toys were introduced after their toys were removed. The mother and the infant played the first pair of toys, a pair of stuffed animal, for 3-5 minutes. Then, the second pair of toys, a pair of vehicle, was presented for another 3-5 minutes. The experiment for each subject pair was conducted within one day.

As in Fernald and Morikawa (1993), the recordings for the first 2.5 minutes for each pair of toys (total 5 minutes) were analyzed for each subject pair. The tape-recorded speech was segmented into utterances on the basis of pauses and syntactic and prosodic information. Then, each utterance was analyzed based on the classification discussed below.

3.3 Classification

Several researchers have developed functional taxonomies of maternal speech (Della et al., 1983; Penman et al., 1983; Rondal, 1985; Toda et al., 1988; Morikawa et al., 1988; Fernald & Morikawa, 1993). However, this study adopts Fernald and Morikawa’s classification for the data analysis because (1) their classification was made to investigate more detailed information about maternal speech although taxonomies of the previous studies contained similar aspects and (2) the Korean data in this study could be directly compared with Fernald and Morikawa’s Japanese data.

The following classification was used in the study.

A) Noun label type

The nouns in the utterances were classified into three categories: (1) nouns whose phonological forms were the same as those uttered by adults (adult-forms), e.g., kae
‘dog’, (2) nouns in diminutive forms, e.g., kangachi ‘puppy’, twaechi-achumma ‘aunt pig’, and (3) onomatopoeic names, e.g., mung-mung ‘bowwow’ for a dog. As in Fernald and Morikawa (1993), onomatopoeic names followed by achumma ‘aunt’ were classified as onomatopoeic labels, e.g., kkulkkul achumma ‘aunt oink onik’.

B) Consistency of lexical usage in object labeling

Mothers’ lexical consistency when mothers labeled a particular toys tells us how repeatedly mothers provide the same noun labels. Labeling consistency was calculated as the number of times in which a mother labeled a target object using the same lexical item as she had used in the immediately previous time over the total number of times in which she labeled the target objects.

C) Questions in relation to noun labels

Questions related to noun labels were classified as Wh-question or Yes-No question. For example, a Wh-question is like ike mweya? “What is it?” , and a Yes-No question is like ike kaeya? “Is this a dog?”.

D) Linguistic complexity

Utterances that contained only target label were called as simple utterances. As in Fernald and Morikawa, utterances with a noun plus a particle were called simple utterances. For example,

(1) Mungmung- I

Bowwow subject particle

Utterances with one or more nouns, verbs, and/or adjectives were called as complex sentences. An example is as follows:
(2) Mungmung -ika ka-ne

Bowwow subject particle go declarative suffix

The doggy is going.

E) Object sounds

Nonsense sounds that were attributed to the target objects and were not classified as object labels were labeled in this category. Examples are, kkulkkul for ‘oink-oink’ and boong-boong for ‘vroom-vroom’. Object sounds or onomatopoeic words were determined by the context in which the utterances occurred. For example, when nonsense sounds were followed by subject particles, and they occurred with or without subject particles after questions like ike mweya? ‘what is this?’, they were regarded as the onomatopoeic words. Moreover, when Korean mothers made nonsense sounds, they usually repeated the sounds over two times such as mung-mung-mung-mung while they produced it only twice when they labeled such as mung-mung-i. These continuously repeated sounds were classified as object sounds.

F) Action verbs

Utterances containing action verbs such as, talita “run”, ppoppohata “kiss” were classified in this category. In Korean, light verb hata (do) is often attached to nonsense sound and creates a verb in baby talks. An example is below.

(3) Mungmung – hane

Bowwow - hata +declaration suffix

[the doggy] is barking.

These baby talk verbs were counted as action verbs. Non-action verbs included attention-getting verbs like pwa ‘look/watch’, visual and auditory verbs like pota ‘see’ and teutta
'hear', stative verbs such as choahata ‘like’ and neukita ‘feel’, and mental verbs like sangkakhata ‘think’ and alta ‘know’.

G) Content words in isolation

Content words in isolation were classified in three categories: (1) nouns; (2) verbs; (3) adjectives and adverbs. Like Japanese, Korean nouns following suffix were considered as isolated noun words e.g., example (1) above. The isolated verbal noun ppoppo from the verb ppoppo hae ‘do kiss’ was considered as an isolated verb. (e.g., dakko ‘holding’ without suru ‘do’ as in dakko suru ‘do a hug’ was also regarded as a verb in Japanese in Fernald and Morikawa’s study).

H) Repetitions

Utterances, which were repeated partially or completely, were labeled in this category. As in Fernald and Morikawa, exact repetitions were utterances that were exactly repeated within three utterances from the original, excluding repetitions of the infants’ name, exclamations, and interjections, and short responses such as eung ‘yeah’ and anya ‘no’. Partial repetitions were utterances in which a single content word was removed, substituted, or added like Fernald and Morikawa. An example of the removal of a single content word is provided below. In example (4b), noun subject kangachi is removed from utterance (4a):

(4) a. Kangachi -ka insaha + ne.

Puppy + subject particle bow + declarative suffix

Puppy bows

b. Insaha + e

bow + declarative suffix
I) Social routines

Utterances were analyzed in terms of three kind of social routines: (1) greeting routines, such as annyung ‘Hello’; (2) exchange routines, such as chuseyo ‘give [it to me]’ and komawa ‘thank you’; (3) empathy routines, such as yeppta yeppta hae ‘do pretty pretty’. (e.g., in Japanese, kawaii kawaii shi-te age-te ‘do cute cute’ glossed as give it a love was considered as empathy routines in Fernald and Morikawa’s study).

The classification scheme described above can tell us the number of noun labels, the types of the noun labels, the usage of the noun labels, the number of action verbs and social routines.

3.4 Data analysis

The analysis of variance (ANOVA) was performed to see whether there were significant differences across three age groups on each category. Then the t-test was conducted between the present Korean data and Fernald and Morikawa’s Japanese data in order to find out whether there were any cultural differences in maternal speech between the two languages.

According to Hays (1994), any hypothesis about a difference of means can be tested using the t distribution, regardless of sample size (in which $N_1, N_2 \geq 2$), given the assumption that both population sampled have normal distributions and homogeneity of variance. If there are two groups ($N_1, M_1, s_1$) and ($N_2, M_2, s_2$) sampled from two populations, where $N$ is sample size, $M$ is group mean, and $s$ is group standard error, then the null test will be, $H_0: \mu_1 - \mu_1 = k$; the test is $t = (\bar{\mu}_1 - \bar{\mu}_1 - k)/\text{est.} \sigma_{\text{diff}}$. The degree of
freedom for the test is \( N_1 + N_2 - 2 \). The pooled estimate \( \text{est.} \sigma_{\text{diff}} \) can be calculated with the following formula,

\[
\text{est.} \sigma_{\text{diff}} = \sqrt{\frac{(N_1 - 1)s_1^2 + (N_2 - 1)s_2^2}{N_1 + N_2 - 2} \left( \frac{N_1 + N_2}{N_1 N_2} \right)}
\]

The assumption of homogeneity of variance is more important. For samples of equal or nearly equal size, or relatively large sample size, the population variance difference has smaller consequences for the conclusions derived from a \( t \) test. In this study, the sample size for Korean is 18 and that for Japanese is 30. They are not extremely small. The differences between estimated variances for Korean and Japanese were in the reasonable range on most measurements.
CHAPTER 4

RESULTS

This study has two major goals. One goal is primarily descriptive: To provide detailed information about Korean maternal speech that has not been studied extensively so far. The second goal is to find out whether or not there is cultural difference of maternal speech between Korean and Japanese. For this goal, the Japanese data from Fernald and Morikawa’s study are adopted and the t-test is conducted with the Korean data in this study. In this chapter, the results of the comparison between Korean and Japanese maternal speech are only provided. The other findings of the characteristics of Korean maternal speech are discussed in Chapter 5.

One way ANOVA indicated that there were no significant differences across the three age groups in all measurements. Korean mothers spoke to their infants in similar ways even though their infants were in different age level. Thus, the data on each category were collapsed across age groups. The summary of the results is shown in Table 4.1.

The average of total number of utterances in the 5 minutes of Korean maternal speech was 126. In order to find out whether the average of the total numbers of utterances between Korean and Japanese mothers were different, the mean number of
<table>
<thead>
<tr>
<th>Measurement</th>
<th>Korean</th>
<th>SD</th>
<th>Japanese</th>
<th>M</th>
<th>SD</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of utterances</td>
<td>126</td>
<td>19.4</td>
<td>124.4</td>
<td>14.9</td>
<td></td>
<td>.233</td>
</tr>
<tr>
<td>Total number of noun labels</td>
<td>24.3</td>
<td>13.9</td>
<td>20.9</td>
<td>13.9</td>
<td></td>
<td>.82</td>
</tr>
<tr>
<td>Adult forms</td>
<td>8.6</td>
<td>6.8</td>
<td>5.9</td>
<td>4.3</td>
<td></td>
<td>1.63</td>
</tr>
<tr>
<td>Diminutive forms</td>
<td>3.5</td>
<td>4.4</td>
<td>5.7</td>
<td>4.3</td>
<td></td>
<td>1.70</td>
</tr>
<tr>
<td>Onomatopoeic words</td>
<td>12.3</td>
<td>9.9</td>
<td>11.7</td>
<td>2.6</td>
<td></td>
<td>.33</td>
</tr>
<tr>
<td>Consistency of target label</td>
<td>.30</td>
<td>.15</td>
<td>.66</td>
<td>.25</td>
<td></td>
<td>5.50**</td>
</tr>
<tr>
<td>Questions</td>
<td>4.52</td>
<td>2.6</td>
<td>3.78</td>
<td>2.1</td>
<td></td>
<td>1.02</td>
</tr>
<tr>
<td>Linguistic complexity</td>
<td>5.81</td>
<td>3.45</td>
<td>11.0</td>
<td>7.1</td>
<td></td>
<td>2.91*</td>
</tr>
<tr>
<td>Object sounds</td>
<td>16.44</td>
<td>6.99</td>
<td>18.7</td>
<td>12.4</td>
<td></td>
<td>.708</td>
</tr>
<tr>
<td>Action verbs</td>
<td>39.9</td>
<td>10.1</td>
<td>18.4</td>
<td>12.7</td>
<td></td>
<td>6.13**</td>
</tr>
<tr>
<td>Isolated words</td>
<td>26.1</td>
<td>10.2</td>
<td>13.0</td>
<td>9.00</td>
<td></td>
<td>4.64**</td>
</tr>
<tr>
<td>Repetition</td>
<td>33.7</td>
<td>11.9</td>
<td>12.0</td>
<td>7.60</td>
<td></td>
<td>7.75**</td>
</tr>
<tr>
<td>Social routines</td>
<td>2.50</td>
<td>2.25</td>
<td>10.7</td>
<td>8.2</td>
<td></td>
<td>4.14**</td>
</tr>
</tbody>
</table>

Table 4.1: Summary of the t-test result for each measurement between Korean and Japanese maternal speech. M = mean, SD = standard deviation. (** p < .001  * p <.005) These alpha levels guarantee a family-wise alpha of .05.
utterances of Japanese that was provided by Fernald and Morikawa (1993) was compared with the mean number of utterances of Korean using the t-test. Table 4.1 shows the mean number of utterance (M) and Standard Deviation (SD) in Korean and Japanese maternal speech. There was no significant difference between the two groups (t (dF = 46) = 0.233, p > .8).

4.1 The noun labels

The mean of the total number of the noun labels for the target objects in Korean maternal speech was 24.3 (SD = 13.9). The mean of the total number of the noun labels for target objects in Japanese maternal speech was 20.9 (SD = 13.8). Table 4.1 shows that there was no significant difference in the mean of the total number of the noun labels for target objects between the two languages (t (dF = 46) = .82, p > .5).

Like Japanese mothers, Korean mothers used a variety of noun label types when referring to the target object; they produced the adult form of the words, the diminutive words, and the onomatopoeic words. The summary of the mean (M) and standard deviation (SD) of the three types of noun label in Korean and Japanese maternal speech is also provided in Table 4.1. Table 4.2 shows the summary of the noun labels used by Korean and Japanese mothers to refer to the target objects.

First, the mean number of the adult form words in Korean maternal speech was 8.6 (SD = 6.8) while the mean number of the adult form words in Japanese maternal speech was 5.9 (SD = 4.3). There was no significant difference in the adult form words between two languages (t (dF = 46) = 1.63, p > .1). In terms of the diminutive forms, the mean number of the forms in the Korean maternal speech was 3.5 (SD = 4.4). The mean number of the form in the Japanese maternal speech was 5.7 (SD = 4.3). There was no
<table>
<thead>
<tr>
<th>Target Object</th>
<th>Language</th>
<th>Adult Forms</th>
<th>Diminutive Forms</th>
<th>Onomatopoeic Words</th>
</tr>
</thead>
</table>
| Dog           | Korean   | Francis Kae (a type of dog) | Kangachi (puppy) | Mung-mung, (bow-wow)  
Mung-mung Kangachi (bow-wow puppy) |
|               | Japanese | Inu (dog)   | Koinu-chan (puppy-Dim) | Wan-wan (bow-wow)  
Wan-san (bowwow-Hon)  
Wan-chan (bowwow-Dim) |
| Pig           | Korean   | Twaechi (pig) | Twaechi achumma (aunt pig) | Kkul-kkul (oink-onik)  
Kkul-kkul achumma (aunt oink-onik) |
|               | Japanese | Buta (pig)  | Buta-san (pig-Hon)  
Buta-chan (pig-Dim) | Buu-buu (oink-onik)  
Buu-san (oink-Hon)  
Buu-chan (oink-Dim)  
Buu-buu buta-san (oink-oink pig-Hon) |
| Car           | Korean   | Cha (automobile)  
Jadongcha (car)  
Sengyongcha (sedan) | Appacha (daddy-car) | Tii-tti ppang-ppang  
Ppang-ppang  
Boong-boong  
Boong (vroom-vroom) |
|               | Japanese | Kaa/ka (car)  
Jidoosha (automobile)  
Kuruma (car-wheel)  
Omocha (toy) | | Buu-buu  
Buu (vroom-vroom)  
Buu-buu-tan (vroom-vroom-Dim) |
| Truck         | Korean   | Truk (truck)  
Cha (car)  
Bongo (a car brand)  
Changnam kam (toy) | | Tii-tti ppang-ppang  
Ppang-ppang  
Boong-boong  
Boong (vroom-vroom) |
|               | Japanese | Torakku (truck)  
Kaa (car) | | Buu-buu (vroom-vroom) |

Table 4.2: Summary of the noun labels in Korean and Japanese maternal speech.  
Japanese nouns were adopted from Fernald and Morikawa (1993).  
Note: Dim = diminutive suffix; Hon = honorific suffix.
significant difference between the two languages (t (dF = 46) = 1.70, p > .1). The onomatopoeic words in the Korean maternal speech were composed of 45% of the target nouns while 52% of the target nouns were the onomatopoeic words in Japanese. The mean number of the onomatopoeic words in the Korean maternal speech was 12.3 (SD = 9.9) while the mean number of the onomatopoeic words in the Japanese maternal speech was 11.7 (SD = 2.6). No significant difference was found between Korean and Japanese maternal speech (t (dF = 46) = .33 p > .8).

4.2 Consistency of lexical usage in object labeling

When labeling a toy repeatedly, Korean mothers were less likely to be consistent than Japanese mothers in using the same lexical item for a particular target object. In other words, Korean mothers switched twaechi ‘pig’ to kkulkkul ‘oink-oink’ more frequently than Japanese mothers. The average lexical consistency score for the Korean maternal speech was .30 (SD = .15) while the mean score was .66 (SD = .25) in Japanese. There is a significant difference in the consistency score between Korean and Japanese maternal speech (t (dF = 46) = 5.5, p < .001). Korean mothers used the same lexical item for a target object less often than Japanese mothers.

4.3 Questions related to the noun labels

In terms of questions related to the noun labels, the mean number of questions in the Korean maternal speech was 4.52 (SD = 2.6) while the mean was 3.78 (SD = 2.1) in Japanese maternal speech. Table 4.1 shows no significant difference in the mean number of questions related to target objects between Korean and Japanese maternal speech (t (dF = 46) = 1.02, p > .5). In both Korean and Japanese, mothers used more yes/no questions
<table>
<thead>
<tr>
<th>Activity action verbs</th>
<th>Action verbs related to senses</th>
<th>Onomatopoeic words with hata (do)</th>
<th>Greeting &amp; Empathy action verbs</th>
<th>Request action verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hata (do)</td>
<td>Manchita (touch)</td>
<td>Mungmung hata (do woofwoof)</td>
<td>Insahata (bow)</td>
<td>Cwuta (give) Pota (try)</td>
</tr>
<tr>
<td>Mekta (eat)</td>
<td>Ppalta (suck)</td>
<td>Kkulkkulhata (do oinkoink)</td>
<td>Aksuhata (shake hands)</td>
<td></td>
</tr>
<tr>
<td>Chata (sleep)</td>
<td>Chapta (grasp)</td>
<td>Ppangppanghata (honk)</td>
<td>Ppaippaihata (wave)</td>
<td></td>
</tr>
<tr>
<td>Yelta (open)</td>
<td></td>
<td>Chachang-chachanghata (pet)</td>
<td>Pppopphata (kiss)</td>
<td></td>
</tr>
<tr>
<td>Patta (receive)</td>
<td></td>
<td></td>
<td>Saranghata (love)</td>
<td></td>
</tr>
<tr>
<td>Kkita (put in to tight space)</td>
<td></td>
<td></td>
<td>Anta (hug)</td>
<td></td>
</tr>
<tr>
<td>Nutta, tamta (put in)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ssutta (put out)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kata (go)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ota (come)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ilena (stand up)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aanta (sit down)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pikita (move over)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ttelecita (fall)</td>
<td></td>
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</tr>
<tr>
<td>Tteletrita (drop)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Thata (ride)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nolta (play)</td>
<td></td>
<td></td>
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<tr>
<td>Ilhata (work)</td>
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<td>Milta (push)</td>
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<td>Kulita (roll)</td>
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<td>Kkulta (drag)</td>
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<td>Sitta (load)</td>
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<td>Puditita (hit)</td>
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<td>Unta (put on top)</td>
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<td>Duncita (throw)</td>
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<td>Chinagata (pass by)</td>
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<td>Nuruta (press)</td>
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<td>Unchuhata (drive)</td>
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<td>Chitta (built)</td>
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<td>Tolita (turn)</td>
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<td>Ttaragata (follow)</td>
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<td>Domanggata (run)</td>
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<td>Cchutchagata (chase)</td>
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<td>Soomta (hide)</td>
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<td>Kacyuota (bring)</td>
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<td>Tuchiphita (turn over)</td>
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<td>Kuhata (rescue)</td>
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<td>Uhta (cry)</td>
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<td>Multa (bite)</td>
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<td>Macita (drink)</td>
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<td>Omcitita (move)</td>
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Table 4.3 Summary of the action verbs used in Korean maternal speech.

38
than wh-questions. Yes-no questions comprised 61% in Korean maternal speech while 57% in Japanese maternal speech.

4.4 Linguistic complexity

The mean of the number of the simple sentences used by Korean mothers was 5.81 (SD = 3.45) while the mean of the simple sentences used by Japanese mothers was 11.0 (SD = 7.1). There was a significant difference between the two groups. Korean mothers used significantly fewer simple sentences to refer to the target nouns than did Japanese mothers (t (dF = 46) = 2.91, p < .005).

4.5 Object sounds

It was found that both Korean and Japanese mothers used the similar number of onomatopoeic words. The Korean mothers also made the similar number of object sounds as did Japanese mothers. The mean number of utterances containing object sounds made by Korean mothers was 16.4 (SD = 6.99) whereas the mean number of utterances containing object sounds made by Japanese mothers was 18.7 (SD = 12.4). There was no significant difference in the mean number of utterances containing object sounds between Korean and Japanese (t (dF = 46) = .708, p > .1).

4.6 Action verbs spoken by Korean mothers

A significant difference was found in terms of the number of utterances containing action verbs. Korean mothers used utterances with action verbs almost twice as often as did Japanese mothers. The verbs used by Korean mothers in this study are provided in Table 4.3. The mean number of utterance containing action verbs in Korean maternal speech was 39.9 (SD = 10.1). Thirty-nine percent of utterances in Korean maternal speech contained action verbs. The mean of utterances containing action verb in
Japanese maternal speech was 18.4 (SD = 12.7), and eighteen percent of utterances contained action verbs. Korean mothers used more utterances with action verbs than Japanese mothers (t (dF = 46) = 6.13, p < .001).

4.7 Content words in isolation

The mean number of the total isolated words in Korean maternal speech was 26.1 (SD = 10.2) whereas the mean number of the total isolated words in Japanese maternal speech was 13.0 (SD = 9). There was a significant difference in terms of the mean number of the total isolated words between the two languages. Korean mothers used more single word utterances consisting of isolated content words than Japanese mothers (t (dF = 46) = 4.64, p < .001). The distribution of the content words occurring in isolation is summarized in Figure 4.1. Verbs were composed of the largest percentage of the isolated words in Korean (54%) while nouns were composed of the largest percentage of the isolated words in Japanese (51%).

4.8 Repetition

The mean number of repetition in the Korean maternal speech was 33.7(SD = 11.9) while the mean number of repetition in the Japanese maternal speech was 12.0 (SD = 7.6). The difference was significant (t (dF = 46) = 7.75, p < .001). Korean mothers repeated their utterances significantly more often than Japanese mothers.

4.9 Social routines

The other significant difference between Korean and Japanese maternal speech was found in social routines (t (dF = 46) = 4.14, p < .001). Table 4.1 shows that Japanese mothers engaged their infants in social routines three times as often (M = 10.7, SD = 8.2) as Korean mothers (M = 2.5, SD = 2.25).
Figure 4.1: Percentage of the isolated verbs, the nouns, and the adverbs-adjectives in Korean and Japanese maternal speech. Note: Percentage for Japanese maternal speech was adopted from Fernald and Morikawa (1993).
CHAPTER 5

DISCUSSION

The present study provides the cultural characteristics of Korean maternal speech. It also presents the differences between Korean and Japanese maternal speech in terms of the use of nouns, verbs, and social routines. In this Chapter, we discuss the questions raised in Chapter 2 section 2.8

5.1 What are the characteristics of the noun usage of the Korean maternal speech and how different are they from those of the Japanese maternal speech?

Korean mothers used diminutive words and onomatopoeic words when they labeled a toy “dog”. No Korean mothers produced the adult-from word kae ‘dog’. Instead, two Korean mothers labeled it Frandas kae ‘Francis dog’. The Frandas kae is a famous cartoon character in Korea. This character is very popular to Korean infants and adults. Because the word kae is used in a number of Korean abusive languages, mothers seem to avoid using it. If it is correct, this observation indicates that Korean maternal speech reflects cultural values such as prohibited words in Korean society.
The variation of diminutive words used by the Korean mothers was minor. The word *kangachi* ‘puppy’ was used most frequently among the diminutive words (82%). Korean does not have a diminutive word for a pig. Fernald and Morikawa (1993) report that Japanese mothers often attached *san* ‘Mr.’ to the adult-forms to label the target objects (e.g., *buta-san* ‘Mr. pig’), and American mothers also attached *Mr.* to the adult-forms (e.g., *Mr. pig*). Instead of using *Mr.*, the Korean mothers attached *achetsi* ‘uncle’ or *achumma* ‘aunt’ to the adult-forms in the present study. In Korean society, it is very popular to call senior people *achutsi* ‘uncle’ or *achumma* ‘aunt’ with or without their names, but it is unusual for younger people to call senior people using *Mr.* Therefore, the social custom in the Korean society could be reflected in their maternal speech.

There were no differences between Korean and Japanese maternal speech in terms of the nouns: The total number of the noun labels (t (dF = 46) = .87, p > .5) and the three types of the noun labels, such as the adult-form nouns (t (dF = 46) = 1.63, p > .2), the diminutive words (t (dF = 46) = 1.71, p > .1), and the onomatopoeic words (t (dF = 46) = .76, p > .5). Fernald and Morikawa (1993) reported that the Japanese mothers in their study used fewer overall noun labels, adult-form nouns, and diminutive words than American mothers whereas they used more onomatopoeic words and nonsense sounds than American mothers. Consequently, it can be concluded that Korean mothers might use fewer overall noun labels, adult-form nouns, and diminutive words but more onomatopoeic words than American mothers.

Korean mothers in the present study used nouns less consistently than Japanese mothers (t (dF = 46) = 5.5, p < .001), They switched noun labels more frequently than the Japanese. In addition, they used question forms as often as the Japanese (t (dF = 46) =
1.02, p > .5). Fernald and Morikawa (1993) reported that American mothers provided the
same nouns more often and more questions than Japanese. Thus, it can be also concluded
that Korean mothers would use the same noun labels less often and provide fewer
questions than American mothers.

The above results except for the lexical consistency measure support Gopnik and
Choi’s claim (1990) that Korean and Japanese maternal speech are similar, and they
would emphasize less nouns than American mothers. However, the findings on the use of
nouns would also support Fernald and Morikawa’s argument (1993) that the reason why
American mothers produce more nouns is their interactional style. In other words, the
more number of noun labels in American maternal speech than in Korean maternal
speech is not only due to the different sentence structures between Korean and English,
but also due to their different interactional styles between Korean and American mothers.
As in Fernald and Morikawa, American mothers in Choi and Gopnik (1995) use more
nouns than Korean mothers because the American mothers keep labeling the objects’
nouns without replacing them with pronouns and because they use more questions than
Korean mothers. Thus, the sentence structures and interactional styles between languages
should be considered together to study maternal speech.

It was observed that Korean mothers used onomatopoecic words as often as
Japanese mothers. The frequency of object sounds between Korean and Japanese
maternal speech was not significantly different either (t (dF = 46) = .7, p > .5). Morikawa
et al. (1988) states that Japanese mothers are more favorable towards the use of baby talk
because they consider infants’ roles as different from adults’ social roles. Fisher (1970)
argues that the frequent use of baby talk in Japanese maternal speech is attributed to the
fact that Japanese mothers treat their infants as dependent, and different from adults. Korean mothers might also consider their infants’ roles or status as different from that of adults, and regard their infants as dependent as Japanese mothers would. If this is correct, Korean and Japanese mothers seem to share common characteristics and this seems to appear as the frequent usage of onomatopoetic words and object sounds.

In summary, Korean maternal speech reflects social values in Korean society. Korean and Japanese mothers have the similar use for noun labels except lexical consistency. The findings of this study support Choi and Gopnik (1990) and Fernald and Morikawa (1993). Thus, maternal speech should be understood in terms of the interactions between the sentence structure and the cultural variations across languages.

5.2 What are the characteristics of the verb usage of Korean maternal speech and how are they different from those of Japanese maternal speech?

In general, the Korean mothers in this study used various types of action verbs. Table 4.3 provides the list of action verbs used by the Korean mothers. Action verbs in Korean maternal speech can be divided into several categories: activity action verbs, action verbs related to sense, onomatopoetic words with hata (do), greeting and empathy action verbs, and request action verbs. Korean mothers often produced action verbs related to sense. They requested their infants to manchita ‘touch’, ppalta ‘suck’, and chapta ‘grasp’ toys. For example, manche pwa ‘touch [it]’, ppala pwa ‘suck [it]’ were used. However, they rarely tried to describe these toys (e.g., the doggy is soft, hard, tasty, etc.). The period from the birth to two years is called the sensory-motor period, and
infants learn the world through their sense and motor activities (Berk, 1997). Thus, it can be interpreted that Korean mothers try to provide adequate stimulation for their infants’ development.

Korean mothers often used verbs with imperative and declarative forms. On average, declarative forms comprised 31% of their speech, imperative forms were composed of 19%, and interrogative forms were 11%. With these structural forms, Korean mothers would like to order their infants to do something or to describe the objects’ action, e.g., mile pwa ‘push [it]’ or kule ka ‘[the car] is rolling’. Choi and Gopnik (1994, 1995) reported that the imperative and declarative forms were the popular structural forms in Korean maternal speech. The observation in this study was consistent with theirs. Bornstein et al. (1992) reported that Argentine mothers displayed high frequency of direct statement using imperative form and tended to direct their infants to act very often. The parenting of the Argentine mothers reflects traditional child-rearing orientation in Argentine: authoritative. Like the Argentine mothers, Korean mothers might try to be authoritative to their infants when they interact with them.

Another characteristic of the verb uses in Korean is that Korean mothers attached light verb hata ‘do’ to nonsense sounds. Examples are listed below.

(5a) Ppang-ppang hae.

Vroomvroom do + declarative form

[the car] is honking.

(5b) Mungmung haepwa.

Bowwow do + imperative from
[You] make doggy sounds.

The same characteristic of maternal speech could be found in Japanese (e.g. *buubuu suru* ‘do oink onik = [the pig] makes sound.’). As mentioned earlier, Korean mothers favored onomatopoeic words and object sounds as much as Japanese mothers. The use of onomatopoeic words plus *hata* also seems to be the common characteristic in the maternal speech between the two languages.

Even though there is the similar structural characteristic in the verb use between Korean and Japanese maternal speech, the mean number of action verbs in maternal speech between two languages differed. Korean mothers used significantly more action verbs than Japanese mothers ($t (dF = 46) = 6.13, p < .001$). Why do Korean mothers use more verbs than Japanese mothers? The answer could be driven by the different cultural aspects between the two languages. Bornstein et al. (1992) reported that Japanese maternal speech contained more affect-oriented speech than information-oriented speech. If utterances classified as affect-oriented speech appear more often in maternal speech, the probability of providing verbs would be smaller because natural characteristic of the affect-oriented speech does not produce many verbs. In other words, Bornstein et al. classified greeting, onomatopoeic words, song, and endearments in the affect-oriented speech. The utterances in this category do not contain many verbs. Therefore, as Gopnik and Choi argue (1990), even though Japanese language has the sentence structure similar to Korean, it also emphasizes verbs as in Korean, it appears that Japanese mothers do not have a lot of opportunities to speak using verbs to their infants.

In contrast, it was found that Korean mothers often used imperative and declarative forms to describe an action or to order their infants to act. This study
observed that Korean mothers provided utterances classified as information-oriented (61%) speech almost twice more than those of affect-oriented (29%) speech. The information-oriented utterances such as imperative, declarative, and interrogative sentences can produce more verbs than the affect-oriented utterances. Even though Korean mothers use onomatopoeic words and question forms as often as Japanese mothers, Korean mothers use more imperative and declarative forms than Japanese mothers. Consequently, they produce more verbs than Japanese mothers. Thus, it can be concluded that Korean maternal speech is information-oriented while Japanese maternal speech is affect-oriented. These differences of speech orientation in maternal speech between the two languages could lead to the different number of action verbs in the two languages.

Information-oriented vs. affect-oriented speech can not determine West vs. East maternal speech. Bornstein et al. (1992) claim that the mothers in Western culture such as English, Argentine, and French favored information-oriented speech than those in Eastern culture although their representative group in Eastern culture was only Japanese. However, since Korean mothers who are also in Eastern culture used imperative and declarative forms very frequently, their claim does not hold. Cultural characteristics in maternal speech should be understood based on each culture. Even Bornstein et al. themselves find a variety among the three languages they studied in Western culture. For example, Argentine mothers are authoritative to their infants using imperative forms, while American mothers focus on providing information using interrogative forms. Therefore, one cannot make a claim appealing to the West vs. East dichotomy without studying individual language differences within “West” or “East”.
Korean mothers used more complex sentences than Japanese mothers \( t (dF = 46) = 2.91, p < .005 \). In other words, the Korean mothers do not use nouns alone as often as Japanese mothers. Korean mothers repeated utterances more frequently than the Japanese \( t (dF = 46) = 7.75, p < .001 \), and used more content words in isolation \( t (dF = 46) = 2.28, p < .001 \). These results may be related to the frequent uses of verbs in Korean. This study observed that when Korean mothers provided nouns to their infants, they usually used verbs together with the nouns. The percentage of the nouns in isolated words in Korean maternal speech was only 6% of the total utterances. Moreover, Korean mothers tended to repeat the same verbs very often. Among the isolated words, the mean number of verbs used in Korean mothers itself was higher than the mean number of the total isolated words in Japanese maternal speech. Thus, by often attaching verbs with nouns, by repeating the same verbs, and by frequently using verbs in isolated form, Korean mothers seem to provide more verbs. These observations might be another evidence that Korean mothers emphasize verbs (Gopnik & Choi, 1990).

So far, several characteristics of verb usage in Korean maternal speech have been described. These characteristics were presented based on only Korean maternal speech because Fernald and Morikawa (1993) did not intensively investigate the verb usage of Japanese maternal speech. Thus, more detailed classifications for verb usage are needed in order to find out the differences between Korean and Japanese maternal speech.

In summary, this study found the difference in the number of action verbs between Korean and Japanese maternal speech. The finding that Korean mothers preferred action verbs was consistent with Choi and Gopnik’s (1995) finding. However, this study does not support Gopnik and Choi’s claim that Korean and Japanese mothers
have the similar characteristics. This study provided the answer to the difference between Korean and Japanese maternal speech. This difference could reflect cultural difference between Korean and Japanese maternal speech: information-oriented vs. affect-oriented. This finding also indicates that it is not persuasive to label all Eastern maternal speech as affect-oriented. Maternal speech in each culture must be studied extensively.

5.3 What are the characteristics of social routines in Korean maternal speech and how are they different from those of Japanese?

The mean number of social routines in Korean maternal speech was much fewer than those of Japanese (t (dF = 46) = 3.56, p < .001). Even though Korean and Japanese have the similar linguistic expression for empathy (e.g., yeppa yeppa hae ‘do pretty pretty’ in Korean, kawaii kawaii shi-te age-te ‘do cute cute’ in Japanese), Korean mothers, in general, did not engage their infants to social routines as often as Japanese mothers. Among social routines, empathy routine such as yeppa hae ‘do pretty’ was composed of .2% of the total utterances. Instead, Korean mothers focus on action more than feeling. Mostly Korean mothers said ppoppo hae ‘kiss [the doggy]’ or ana chu ‘hug [the doggy]’ using action-verbs more often than yeppa yeppa hae for empathy. As for greeting, Korean mothers used more verbs such as insahae ‘bow’ or aksoohae ‘shake hands’.

Now, our question is: Why did Korean mothers provide fewer social routines than Japanese mothers? Unfortunately, there are little research studies of social values of Korean maternal speech. For example, how much Korean mothers emphasize greeting
and empathy in their speech to infants is unknown. However, it might not be persuasive to argue that Korean mothers do not engage their infants in social routines based on the results of this study because the results might be due to the biased classification in Fernald and Morikawa’s (1993) study. As mentioned earlier, Korean mothers used more action verbs to engage their infants in social routines. They focused on actions rather than feelings. Fernald and Morikawa did not include the action verbs that contain greeting and empathy functions such as insahata ‘bow’ or ppoppohata ‘kiss’ in their category of social routines. Thus, the differences of social routines between Korean and Japanese maternal speech might be due to their classification that determines social routines based on forms rather than meanings.

In summary, the Korean mothers in this study did not show the same characteristics in social routines as Japanese mothers in the Fernald and Morikawa's study. However, these results might be attributed to the biased classification. Therefore, more detailed classification is needed in order to obtain precise and comprehensive information on Korean and Japanese maternal speech.
CHAPTER 6

CONCLUSIONS AND FURTHER RESEARCH

This study questioned Gopnik and Choi’s (1990) hypothesis that Korean and Japanese has the similar characteristics of maternal speech because both languages have the same word order and noun deletion phenomenon. Even though Korean and Japanese maternal speech showed the similar characteristics in terms of nominal usage, they were different in the number of verbs and social routines. These differences were attributed to the cultural difference between the two languages: information-oriented speech vs. affect-oriented speech. Thus, these results indicate that maternal speech of the two languages that have similar sentence structure could show the different cultural aspects, and studies on maternal speech should comprehensively consider cultural variations among languages.

This study also partially questioned Fernald and Morikawa’s claim (1993) that maternal speech is influenced more by cultural aspects than by the sentence structure. Even though Choi and Gopnik’s study did not consider cultural differences between Korean and American maternal speech, there was no evidence that the differences of sentence structures can not influence maternal speech. As Bornstein et al. (1992) mentioned, language and culture are meaningfully interacted. They should be considered
at the same time. Neither the sentence structures nor cultural variations alone could affect mothers’ speech. Therefore, three questions listed below should be answered from the viewpoint of both sentence structure and cultural variations:

a) Why did Korean mothers use more verbs and fewer nouns than did American mothers?

b) Why did Japanese mothers use fewer nouns than did American mothers?

c) Why were Korean and Japanese maternal speech different?

This study also has some limitations. While a number of researchers have long speculated the influence of infants’ age and developmental level on maternal speech, this study did not find any differences in Korean maternal speech across ages. Further research studies are expected to investigate the influence of child’s development on maternal speech in order to obtain more comprehensive results of the Korean maternal speech.

This study did not inclusively investigate the differences between Korean and Japanese maternal speech. Fernald and Morikawa’s (1993) classifications that this study adopted were not precise and comprehensive enough to find out the differences between Korean and Japanese maternal speech. Their classifications intended to investigate the differences between American and Japanese maternal speech so that they focused on the nominal usage. Major differences between Korean and Japanese maternal speech was in the verbal usage. Thus, more detailed classification should be made on verbal usages and social routines.

The possible classifications that might be added in order to investigate the differences between Korean and Japanese maternal speech are 1) verb consistency that is, how often mothers repeatedly use the same verbs; 2) the percentages of imperative and
declarative forms in utterances; 3) the percentages of action and non-action verbs; 4) the percentages of intransitive and transitive verbs. In terms of social routines, action verbs that contain greeting and empathy functions should be included. Future investigators should use a developed classification scheme in order to obtain more detailed information on the differences between Korean and Japanese maternal speech.
BIBLIOGRAPHY


