

An Overview of Bilingual Children's Code-switching Studies

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I. Introduction

As bilingualism gained status as an independent discipline in the 20th century, research has been carried on to investigate the diverse aspects of the phenomenon. Code-switching is a sub-field of bilingualism which has attracted linguists due to its intriguing nature. Code-switching is

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generally defined as the alternate use of two or more languages within or across sentence boundary within the same speech event (Poplack 1980, Park 1990). Since the 1970s, when the studies of bilingualism were in full bloom, multitude of studies were reported on code-switching in bilingual communities. However, the bulk of the studies of code-switching have focused on adult bilinguals, and studies on bilingual children have been rather scanty. In this paper, I am going to examine several studies of bilingual children's code-switching. Especially, the focus will be given to the syntactic and functional aspects of code-switching by the bilingual children.

II. Studies of Bilingual Children's Code-switching

2.1. McClure's study (1981)

McClure (1981) investigated the code-switching of two different groups of Mexican/American bilingual children: one group consisted of eight, 3 and 4-year-olds enrolled in a headstart program. The other group consisted of 39 children enrolled in kindergarten through fourth grade.

As for syntactic acquisition of code-switching, of the total of over 500 code-switches, only 30 cases involved smaller constituents than a sentence, of which 19 switches were noun phrases. Based on this, she claims that the ability to use intrasentential code-switching productively is acquired relatively late by the Spanish/English bilingual children. No cases of words containing morphemes of both languages were found in the children's speech. She noted some developmental pattern in the acquisition of syntactic aspects of CS. Children who were not balanced bilinguals tended to switch at the word level, whereas fluent bilingual

children switched predominantly at the higher constituent levels.

Concerning situational factors affecting Spanish/English bilingual's code-switching, McClure suggests that the earliest systematic code-switching is a function of participant variable. She divides participant variable into three: language proficiency, language preference, and social identity. Younger children relied heavily on binary judgment of linguistic proficiency in determining the language when communicating with the interlocutor. In contrast, the older children (five or older) made finer discrimination in choosing a language when conversing with his/her interlocutor. The older children also seemed to consider both the absolute degree of the listener's proficiency of the two languages and the relative language proficiency differences between the speaker and the listener. As for social identity variable, child-parent interactions in most families and also interactions between children and adults in the Mexican/American community were conducted in Spanish. Ethnic identity affected the language choice in child-child interactions as well as child-adult interactions. McClure found that both peer and sibling interactions are carried on by means of CS. She further noticed that interactions that involve caretaker-child relationships are almost always done in Spanish. She supported the general belief that the use of code-switching to mark a shift in identity relationship increases in proportion to age based on her finding that, as children become older, and their English proficiency increases, so does the number of English-associated identity relationships accessible to them, which in turn increases the use of English. Discourse topics did not influence the choice of language greatly. The topics that related to the family-child care, kinship, and food preparation were mostly discussed in Spanish, and English was the language of sports, school activities, and holidays such as Halloween and Thanksgiving. Discourse types also affected language choice. Code-

switching was the most frequent means of communication in free conversations, but code-switching seldom occurred in interrogation and narration. Communication setting was another situational factor in code-switching among Spanish/English bilingual children.

Regarding the stylistic functions of code-switching, McClure elicited several functions that bilingual children frequently utilize: emphasis, focus, elaboration, clarification, attention attraction or retention, mode-shift, topic shift, and addressee shift. Several developmental patterns were extracted from the bilingual children. Younger children seldom used emphatic code-switching, which McClure attributed to the fact that emphatic code-switching involves commands. No cases of elaborative code-switching were observed among children under the age of 7. Code-switching for clarification and for attention attraction was acquired quite young, i.e. from 3 years old. Code-switching for mode-shift was not observed until the children were 5 years old. Code-switching for topic marking and addressee shifting were observed when the children were at least six years or older. These differential developmental patterns suggest that cognitive maturity or meta-linguistic knowledge is necessary to perform some level of sociolinguistic function with code-switching.

2.2. Genish's study (1981)

Genishi (1981) attempted to answer the following questions using four 6-year-old Spanish/English bilingual children:

1. Which of the following social and linguistic variables affect the children's choice between languages?
 - a. Physical setting (classroom vs. playground)
 - b. Activity (free play vs. teacher-structured task)
 - c. Features of the addressee (age, ethnicity, linguistic ability)

- d. Topic of conversation (television show, family dog, etc.)
 - e. Linguistic intention (requesting, help, arguing, etc.)
2. Are the children's rules situational or conversational?
 3. How do these six-year-olds' rules of code-switching differ from adults' rules?

Of the five variables in question 1, Genish found that neither the physical setting nor the child's activity were relevant to the choice of language. Regarding the three features of addressee variable, i. e. age, ethnicity, linguistic ability, only the listener's linguistic ability had a clear effect on the choice of language, but the other two seldom affected the language choice. The children generally chose the listener's dominant language as the medium of communication. The major finding of the study was that the four children were able to choose and maintain the language that their listeners spoke best in both instructional and non-instructional settings. From this, she elicited a rule that 'Speak the language your listener speaks best/most'. As for the topic variable, family life, television show or characters, girlfriend/boyfriend, food, and Mexican holidays were the main topics of discourse that employed frequent use of code-switching. Concerning the linguistic intention variable, intentions such as informing, refusing, agreeing, etc. seemed not to be associated with one particular language.

Next, in answer to the question 2 above, i.e. 'Are the children's rule situational or conversational?', Genishi argues that children's code-switching is situational rather than conversational. Especially, listener's linguistic ability was found to determine the children's language choice. The lack of conversational switches was the major difference between children's and adults' rules. The four children were competent in two areas of interpretation: first, recognizing the language or phonological

form of utterance, which enabled them to detect the dominant language of the speaker, and second, making inferences about the content of utterance. With this ability, children carried out their conversation successfully.

2.3. Zentella's study (1981)

Zentella (1981) studied two groups of Spanish/English bilingual students, one third grades and the other six grades, in the classroom environment. Her study shows that the language choice of the teacher was the major determinant on the language choice of the children in most situations. Based on the analysis of the data, she came up with the following language choice patterns in bilingual classroom setting.

pattern of language choice	teacher	student	teacher
	initiation language	reply language	evaluation language
1. T and S: "Speak what you are spoken to" or "Follow the leader"	English Spanish	English Spanish	English Spanish
2. Teacher: "Follow the child."	English Spanish	Spanish English	Spanish English
3. Teacher: "Include the child's	English Spanish	Spanish English	CS CS

choice and yours.”

2.4. Redlinger and Park's study (1980)

Redlinger and Park (1980) conducted an analysis of linguistic aspects code-switching of four children of German-speaking fathers and non-German-speaking mothers. The age of the children ranged from 1 year and 11 months to 2 year and 8 months at the beginning their study. They observed the subjects over periods varying from 5 to 9 months. They found that the more proficient children produced fewer mixed utterances at the early stages of development, suggesting that the amount of switching and language development are reversely related. They also found that the lack of separate use of the two languages by the parents resulted in the children's high rate of switching. The bilingual children began to recognize the existence of two separate language systems at around the age of 3. Code-switching rate of the four subjects decreased as their linguistic competence increased. Code-switching rates were lower at the ealier stages than at the later stages, implying that the subjects were undergoing the gradual process of language differentiation. They took this as the evidence for supporting one system approach, instead of two system, in bilingual acquisition.

Regarding the syntactic aspects of code-switching, noun was the most frequently switched linguistic element. Of contentives, verb was the most frequently substituted element. Of functors, adverb was the most frequently switched one. Words were switched in the order of noun, adverb, article, pronoun, verb, adjective, preposition, and conjunction. Phrasal switches constituted only a small portion of the total switches, of which the majority occurred at phrasal boundaries.

2.5 Lindholm and Padilla's study (1977)

Lindholm and Padilla (1977) investigated code-switches of five Spanish/English bilingual children between the ages of 2;10 and 6;2. Of the total of 5,177 utterances, only 110 cases (2%) contained code-switching. They found that switching occurred predominantly at the lexical level. Among those lexical switching, the insertion of English nouns into Spanish utterances accounted for the majority of code-switching. The children's choice of number agreement in Spanish noun phrases was always correct, but the gender of the functors was not always consistent with the gender of the noun. They adduced two possible reasons for this phenomenon. First, the children did not know the corresponding Spanish noun, assigning the functor's grammatical gender according to their interpretation of the noun's natural gender. The second reason might be the switched word was more salient to the children due to its frequent use in the children's environment. A very small portion of switches were observed at the lexical level when Spanish items were inserted into English utterances. In those cases, the majority of the inserted Spanish items were nouns. Like Ledlinger and Park's finding, they also found that the phrasal substitutions occurred most frequently at phrase boundaries. In the case of lexical and phrasal level switching, structural consistency of the utterances was maintained by the children. This was taken as evidence for their claim that bilingual children are able, from early childhood, to differentiate their two linguistic systems.

2.6. Garcia, Maez, and Gonzales's study (1980)

Garcia et al. (1980) investigated the code-switching behavior of Spanish/English bilingual children, aged four to six, in terms of grade levels (i.e. pre-kindergarten, kindergarten, and 1st grade), urban/rural status, and regional differences (i.e. West, Southwest, Texas, Midwest, East, and South). Analysis of the data led them to the following conclusions. First, regarding the grade levels of the subjects, the rate of language switching decreased as the grade level of the students increased. However, they noticed some opposing behavioral tendency between the subjects tested by Spanish and the subjects tested by English. For Spanish-tested subjects the switching from Spanish to English remained almost constant across grade levels regardless of regions, whereas for English-tested subjects the occurrence of language switching declined sharply as the grade increased. They suggested that amalgamation of English into Spanish discourse occurs regardless of grade level, whereas separation of English from Spanish during English discourse increases as children grow up. Another major finding was that all the children who were asked to speak Spanish in various test settings rarely switched into English, whereas pre-kindergarteners who were asked to speak English in those environments switched to Spanish quite often. They suggested that English utterances of pre-kindergarteners incorporate few Spanish elements, whereas the Spanish utterances of bilingual children incorporate considerable English elements both at early (pre-kindergarten) and later periods (kindergarten and first grade).

Second, as for the regional differences in code-switching behavior, children in Texas and Southwest produced a greater (3 to 4 times as much) percentage of language switching than other regional peers. It was reasoned that these differences reflect language variations of Spanish dialects which have incorporated English lexicon and grammar.

Third, urban/rural variable did not make any significant difference in

code-switching of the children. Garcia et al. concluded that Spanish/English bilingual in the U.S. might weld languages together into a different interlanguage in English speaking context, whereas in Spanish speaking contexts, intrasentential code-switching was consistent across levels, regions, and urban/rural status.

2.7. Fantini's study (1978)

Fantini (1978) conducted a longitudinal study on bilingual behavior using her two children, Mario and Carla, from their birth to the ages of 5 (Carla) and 9 (Mario). Her research questions were the following:

1. How early can code-switching occur in young children?
2. What are the social factors which facilitate the differentiation of two systems and guide children in the use of each?
3. Do these factors follow a developmental sequence and/or hierarchical system of importance?
4. If so, what evidence confirms the validity of such a system?

Her son, Mario, showed first signs of switching within a few days of his first utterances in English, at the age of 2:6. Since then the language switch lasted only two months, and as he progressed linguistically switching diminished. His sister Carolina was able to separate the two languages as early as 2:5. From 3:0 on, both children were able to consistently separate the two languages. Before the age of three, setting and interlocutor were the major social factors affecting language choice by the children. By 5:0, two more factors, i.e. physical characteristics and language proficiency were added as variables affecting the language choice. Even by this age, topic still did not affect the children's selection of a language. Fantini listed variables that affected the children's code-

switching: participant, setting, function, and the form. Of these variables the varying roles of interlocutors made no difference in language choice. As for setting, speech event in a Spanish-speaking setting were always conducted in Spanish, and in English-speaking environment, English was also the choice outside home.

In sum, code-switching began as early as 2;5 despite delayed exposure to English. Within a few months, switching was fairly well established and executed. By the third year, the children were capable of appropriate language use, switching rapidly and naturally. By five, both behaved like normal children (as perceived by others) - in either of two languages - with the appropriate people, and in the right time and place.

2.8. Oh's study (1988)

Oh (1988) also carried out a longitudinal study on linguistic and sociolinguistic acquisition of code-switching by her two Korean/English bilingual children and two more other children over a period of 2;2 years. The children's ages ranged between 1;3 and 5;9 at the beginning of her investigation. She analyzed the children's data in terms of intra- and inter-sentential code-switching, and also in terms of the direction of code-switching (i.e. from Korean to English, or from English to Korean).

Her analysis of intersentential code-switching shows that, of the switches from Korean to English direction, single word or routine was the most frequently switched constituent, and sentence was the next. Of single word or routine, the commonest category of code-switching from Korean to English direction was negative or affirmative particle, followed by noun, routine, exclamation, and verb. Of single words in the children's code-switching from English to Korean direction, the most frequently switched ones were also negative and affirmative particles,

followed by nouns, and verbs. Exclamations, adjectives, and interrogatives were rarely found, and routines, numbers, adverbs were not found in the children's intersentential code-switching from English to Korean direction. In the case of phrasal switching, more noun phrases were found in switches from Korean to English direction than in those from of the opposite direction.

Second, as for intrasentential code-switching, the most commonly switches constituent was single word, followed by phrase, bound morpheme, and clause. For code-switching in Korean structure, noun was the most common English constituent, followed by verb, adjective, routine, and number. Negative or affirmative particle, adverb, exclamation, and conjunction were rarely inserted in Korean structures. For code-switching in English structures, noun was also the most frequent Korean constituent, followed by verb and exclamation.

Next, with regard to the sociolinguistic aspects of code-switching, Oh found that speaker's language dominance was the most important situational factor that influenced the children's code-switching, followed by addressee's language dominance, imitation, response in the same language, language preference, role-play and game, songs and stories, and directed to switch. There were no significant differences in terms of the orders of these factors between intra- and intersentential code-switching. Also no difference was found between Korean to English code-switching and English to Korean code-switching in the order of these factors. Lastly, regarding stylistic function of code-switching clarification was the most prevalent, followed by emphasis, and teasing or joking. Social functions such as attention/attraction, clarification, interjection, focus, quotation, and elaboration were rarely found across the four children's code-switching.

III. Summary and Conclusion

So far, I have examined several studies on code-switching by young children. The common finding of these studies is that code-switching is a very productive means of communication from early childhood in bilingual communities. Also the findings show us that bilingual children are able to perform various social functions using code-switching as adults do, even though there are some differences in developmental stages at which those functions are realized. Most of the studies reviewed in this paper dealt with subjects from Spanish/English bilingual children. That may be because Spanish/English bilingual communities constitute the majority of the bilingual society in the U.S. Nevertheless, in order to bolster the claims on the universal sociolinguistic nature of code-switching, data from diverse ethnic backgrounds should be incorporated. Oh's (1988) and Park's (1993) studies of Korean/English bilingual children generally confirm the findings of earlier code-switching studies. Only by incorporating many other data from different language sources into the corpus can we have a clearer picture of how code-switching is acquired and utilized in bilingual communities.

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국문초록

이중언어 사용 아동들의 언어교체 사용연구 개관

본 논문에서는 이중언어 사용 사회에서의 언어 혼용 (code-switching)에 관한 연구들, 특히 아동들의 언어 혼용 사용에 관한 연구들을 개관하였다. 이중언어 사용 아동들의 언어 혼용 연구는 크게 통사, 구문적 연구와 사회언어학적 연구로 대별되는데 통사적 연구들은 혼용되는 언어요소의 분석에 초점을 맞추고, 사회언어학적 연구는 언어의 혼용 사용의 의사소통상의 기능적 역할에 초점을 맞추고 있다. 영어/스페인어를 사용하는 이중언어 아동들의 경우 자신들의 효과적인 의사소통을 위해 두 언어를 적절히 혼용하고 있어 언어혼용이 중요한 의사소통 전략임을 알수 있다. 이러한 현상은 언어적배경이 다른 타 이중언어 사회의 아동들에게서도 발견되어, 이중언어의 혼용 사용이 성인뿐 아니라 아동들에게도 보편적인 의사소통 전략임을 증명한다.