

A Case Study of a Bilingual Child with SLI : The Role of Speech–Language Pathologist in Assessment and Treatment of Bilingual Children

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ABSTRACT

This case study investigated the assessment and treatment of bilingual children using a 4.5 year old bilingual child. We also compared treatment methods for bilingual children in the U.S. and in Korea, respectively. Given the lack of unbiased assessment tools, it was difficult to evaluate the child properly. In addition, the study of the linguistic characteristics of bilingual children have not been researched extensively in Korea. As a result, there were limitations in assessing the child. However, once all requisite information had been gathered, he was assessed as a bilingual child with specific language impairment (SLI) and his skill in both languages was considered equivalent. During treatment sessions, the child exhibited diverse linguistic characteristics and interesting error patterns which were not evident in monolingual SLI. However, it was difficult to assess whether the error patterns exhibited by the subject were attributable to his own bilingual characteristics or not. This was further complicated by the lack of previous research on the bilingual child's linguistic characteristics. His progress differed from one area to another. Furthermore, we illustrated some of the limitations in assessing bilingual children and proposed several considerations that should be met before treatment is initiated.

Keywords: bilingualism(Korean–English), SLI(specific language impairment), assessment, treatment, linguistic characteristics

1. Introduction

In recent years, a great number of people have had the opportunity to learn and experience various languages and cultures. Their experiences have resulted in the emergence of a bilingual population. Some children from culturally different backgrounds have language disorders. When they do, the speech–language pathologist's job is to provide remediation in a culturally sensitive way. However, many children from culturally different backgrounds who are referred for language assessment do not have disorders, but only language differences. One of the primary jobs of the speech–language pathologist in dealing with children from culturally different backgrounds is to accurately diagnose language disorders and

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distinguish them from language differences.

We should focus here for a moment on the distinction between a language difference and a language disorder. A *language disorder* is a significant discrepancy in language skills from what would be expected for a child's age or developmental level. A *language difference*, on the other hand, is a rule-governed language style that deviates in some way from the standard usage of the mainstream culture.

Before considering a special education assessment, it is important to deal with language proficiency issues. There are several steps involved in determining language proficiency and dominance. The first step is to determine the child's primary language. The second step is to determine language dominance. The third step is to determine the child's proficiency level of the first language. The fourth step is to determine her or his proficiency level of other language. A child's primary language is defined as the language the child learned first in the home. Dominant language is defined as the language in which the child is most comfortable and which the child speaks the best at the time a language dominance test is administered. Language proficiency involves the child's fluency skill and competence in using in a particular language, regardless of how that language was learned (Burt & Dulay, 1978).

To evaluate the above there are several ways : Using standardized test, criterion-referenced test, taking spontaneous speech sampling or gathering case history information. The primary purpose of administering a standardized test is to find out whether a child is significantly different from other children in the area assessed by the test. For many bilingual children, though, standardized tests including two or more languages are not available. In this situation we have some alternatives. An obvious alternative is to have an interpreter translate a standardized test into the child's home language. Cheng (1993), however, cautioned against this practice. Words and concepts common in mainstream culture may be familiar to the bilingual child, so failure to use or recognize them in the home language would not necessarily indicate a deficit. Translating also invalidates the standardization of the test, defeating the purpose of using it in the first place.

Another alternative for assessing a bilingual child's language proficiency is to develop local norms for standardized tests. This option only makes sense when a large number of bilingual children from similar background reside in a speech-language pathologist's district. Kayser (1989) warned that developing local norms is not as easy as it sounds. Groups of bilingual individuals are heterogeneous in terms of socioeconomic status, length of time in this country, and degree of acculturation. All of these differences can affect their performance on a test. An additional alternative use for standardized tests with bilingual children was suggested by Terrell, Arensberg, and Rosa (1992). They proposed Parent-Child Comparative Analysis (PCCA) as a method of assessing children who come from a cultural group too small for development of local norms. An identical battery of

tests is given to both parent and child. The child's performance is compared not to test norms but to the parents' responses. Any patterns that match patterns produced by the parent are considered dialectical variations rather than an error. However, the child's performance cannot be compared to that of the peer group.

The criterion-referenced assessments are then used to establish baseline function, identify goals for intervention, and document progress in the remedial program. Lahey (1992) has suggested some methods that may be appropriate for distinguishing between language difference and disorder in the a bilingual child. As one approach, she advocated Roseberry and Connell's (1991) method of trial teaching aspects of an artificial language. This approach is especially promising because it can be used no matter what first language the client speaks and regardless of the clinician's familiarity with or access to normative developmental data regarding the first language. A second approach proposed by Lahey is to look at children's ability to repeat phonologically complex nonwords. This skill has been found to be related to both language disorder (Gathercole and Baddeley, 1990; Kamhi, Catts, Mauer, Apel, and Gentry, 1988) and vocabulary acquisition (Gathercole and Baddeley, 1989). Of course, these methods will only help to decide that a bilingual child really has a language problem, which is the screening aspect of the assessment.

Language samples can be used for a variety of purposes. In addition to analyzing them for syntactic forms, we can look at semantic usage, phonological patterns, and pragmatic appropriateness. Cheng (1987) suggests collecting language samples from several tasks to look at pragmatic skills in a language sample from a bilingual child. These tasks included relating a past experience, describing an object, and describing a picture. Bernstein (1989) found this approach particularly helpful in getting a broad picture of the communicative skills of bilingual children from a variety of backgrounds. However, the linguistic development of every bilingual child varies. We have to understand about a bilingual child's normal linguistic characteristics or error patterns. There are normal second-language learning processes like interference, fossilization, interlanguage, codeswitching, silent period, and language loss and so on.

We have discussed various ways of evaluating bilingual children. In doing so, a 4,5 year old bilingual child served as a subject in the present study. We tried to figure out how this child was assessed in the United States and in Korea. Additionally, we attempted interpretations of his assessment and treatment results for him.

2. A Case Study of CH

2.1 Background Information (CH: Male, 4 years 5 months at evaluation)

CH was born in Korea and is the only child of well-educated Korean parents. He

moved to the U.S. with his parents when his father went to study there. His parents reported that he was unable to talk by the time when he was 1-year-old but they did not find any remarkable delay in his development when they moved. The home language was Korean and he attended an American nursery school. Before coming back to Korea, they felt that CH's language ability was delayed as he behaved differently from his peers and they asked to test CH's general development.

The psychological report undertaken just before their return indicated that although he had been affected by his bilingual environment, his cognitive development seemed to be within a normal range. However, his communicative ability was found to be slightly delayed (2;2-3;2) for a child of his age (4;3). A speech-language evaluation was also undertaken in the U.S. According to the result of his PLS (Preschool Language Scale), receptive language was in the 4th percentile and expressive language was in the 5th percentile, and both scores were in the vicinity of that expected for 3 year old children. It was also reported that he exhibited moderate ADHD (Attention Deficit Hyperactivity Disorder). He was also observed to have mild articulation disorders and his speech intelligibility became very low when he spoke quickly in conversation.

2.2 Assessment Results

CH was assessed at 4 years and 5 months old at the speech-language clinic and was found to exhibit delayed language development as well as mild articulation developmental delay. His PPVT-R score, used to assess his receptive vocabulary ability, was equivalent to a child of 2 years 5 months old. The Token test for children was used to assess his comprehension of syntactic and linguistic terms with stimuli given in English as his responses were better in English than in Korean. His score was between *negative 2* and *3* with a standard deviation of *1*. His ability to create a story and to communicate verbally was below his peers. He was able to connect only three to four words and make short sentences. He tended to produce only one word using his familiar vocabulary. Common errors included the use of inappropriate vocabulary and grammatical structures and morphemes. CH demonstrated difficulty using grammatical morphemes such as 'eul' (object marker), and 'i' (subject marker), 'ekai' (adverb marker). In both a one-word articulation test and in conversation he exhibited mild articulation delay. He often distorted /s/ and /s'/ and omitted or glided /l/.

There were limitations in evaluating him both in the States and Korea. The psychologist in the U.S. reported that there may not have been enough validity and reliability because in the study the translator selected inappropriate vocabulary when the child took the psychological tests. When his language was assessed in the U.S., only English was used and it was not possible to assess his entire language ability.

In Korea, we tried to assess his language abilities using both languages. He was more

comfortable in his responses to the vocabulary test when using Korean, but his responses to the Token test for children were better in English when English was used. However, it was not possible to use the *norm or procedures for bilingual children*, and interpretations of the results were, therefore, limited.

Despite these limitations, CH seemed to exhibit similar abilities in both languages. His Korean seemed to be almost equivalent to his English, but his receptive and expressive language abilities in the two languages were both below that expected for his age level. His parents concurred these findings. He was diagnosed SLI with mild articulation problems. As CH's family decided to stay in Korea and his first tongue was Korean, it was decided that he be given Korean language therapy. It was felt that exposure to Korean culture and language with his peers should be maximized as it would be beneficial in improving his overall speech-language abilities.

2.3 Therapy Goals and Progress

CH was a 4.5 year old cute boy at the time of assessment. He wore glasses. In short, he was an adorable boy. He seemed very creative when playing with blocks and drawing pictures. He was exposed to a bilingual environment and he exhibited specific language impairment. It was recommended that he be placed in an enriched Korean language environment and receive speech-language therapy with emphasis on one language, Korean. It was also recommended that his familiar English vocabulary and colloquial expressions be accepted in his daily activities and in the therapy setting. In the therapy room, English explanations were considered useful as a means of facilitating comprehension of Korean words even though his main language was Korean (for example, 'it's your turn' and 'take a break'). His main vocabulary was Korean for teaching colors, size or body parts, but his replies were accepted when he insisted on using his English vocabulary (e.g., flush, bathtub). Long-term therapy goals were planned concentrating on semantics, morpho-syntax, pragmatics, and phonology. The assessment findings, and his progress in these areas, were explained in the results. It was found that his progress was noticeable in the acquisition of concept vocabulary such as colors, position and size and in following instructions. After 6 months of intervention, CH had expanded his receptive and expressive language skills in Korean although he still exhibited some delays in most of the linguistic categories for his age. Many errors were checked and comparatively slow progress was reported in morpho-syntactic development (Appendix 1). It was often difficult to distinguish several speech errors from other linguistic areas. His error patterns were not entirely typical for children with monolingual SLI. However, given that we do not have enough information on bilingual children with SLI, the comparison of the two are bound to be difficult.

3. Results

In the semantic area, the long term goal of receptive language was to understand vocabularies which have to be acquired at ages through 3 to 4. The PPVT-R (Korean version) was administered during the first evaluation on January, 24, 2000, as a measure of the child's receptive vocabulary based on a picture-pointing task. CH achieved an extremely low score; the standard score was 52 (raw score was 14). The second evaluation was conducted on June, 16, 2000. His PPVT-R standard score was 55 (raw score was 20). He still achieved an extremely low score but his raw score and standard score improved. The child's comprehension of syntactic and linguistic terms were assessed using the Token Test. The child was required to carry out the commands of varying linguistic complexity. The Korean version was administered during the first evaluation and the English version was administered on February, 23, 2000. The child's performance was far below his age level. He failed to do the task in Korean so we assessed his ability in English later. The result in Part I fell 3 standard deviations, and in Part III fell 2 standard deviations below the mean when compared to normative data. During the second evaluation, the CH's performance in the Token Test was average in both English and Korean. The long term goal of expressive language was to use vocabularies he had learned in spontaneous speech. During the first evaluation, he had a very limited vocabulary and he could not properly use words he knew. After treatment and during the second evaluation, he used words related to colors, places, body parts, tenses, interrogatives and so on. The acquired vocabulary was properly used but he still needed various nouns and verbs.

In the morpho-syntactic area, the long term goal was to use proper auxiliaries in a sentence. During the first evaluation he expressed sentences combined with three or four words without auxiliaries. He used only present-tense verbs but not the past, future tense and formal language. After treatment, he used three to four word combined sentences with proper auxiliary. However, he expressed only the subjective and objective auxiliaries properly. The auxiliary adverb was not yet acquired. He also showed improvement in tense and formal language.

In the pragmatic area, the long-term goal was to maintain topics, reduce the frequency of refusal, and lead to request through questions. When he was first assessed he showed unexpected reactions and expressed inappropriate sentences. He frequently said " I don't know." " I don't like it." Additionally, he was unable to ask questions and he had no initiative requests. During the treatment sessions, he gradually became able to talk with the speech-language pathologist within one field. He could maintain a topic and he tried to explain his experience related to the topic. He no longer refused but still responded " I don't like it." to a lot of questions. He asked questions for his inquiry and he asked to do somethings together with the therapist.

4. Discussion

In Korea, more and more people experience other cultures and learn other languages. As a result, there are many children who become bilingual and, thus, the population visiting speech-language pathologists is increasing. As we have discussed above, accurate assessment is the first goal of all concerned. But unbiased assessment tools and other information of bilingual children are in short supply. Therefore, it is difficult to evaluate bilingual children with precision. In order to perform an accurate assessment, the following three tasks need to be done: First, we have to research bilingual linguistic characteristics. Second, based on the information, we have to make an unbiased assessment tool. Finally, speech-language pathologists have to be prepared for these children. To discuss this case, CH was assessed as having SLI but at the same time he was bilingual. Because of these two factors, there remains several limitations in ways of evaluation. In the United States, the speech-language pathologists who assessed CH admitted that validity and reliability were in question, for they translated standardized tools by an interpreter to evaluate Korean. In Korea, there was no standard data for the bilingual child, so the child was assessed using monolingual data. Additionally, the child showed interesting error patterns which were different from SLI in monolingual children. It was difficult to accurately distinguish the difference between the two because there were not enough research findings about error patterns of bilingual children. On the other hand, we discovered his language disorder. This fact could be precisely evaluated when we assessed both languages to which the child was exposed. Our experience suggests the importance of assessment in both languages.

For treatment, we needed to know the child's dominant language. We found out that the child's level in both languages was almost equally balanced but delayed. Hence, we could not decide his dominant language so we considered his linguistic environment. His parents spoke their native language, Korean, and they were not fluent in English, they were at ease to give language input in Korean. In addition, the parents were planning to live in Korea for a long time, maybe for the rest of their lives, so they wanted his son to speak Korean fluently. Therefore, we decided to treat CH in Korean. First, we allowed him to use both English and Korean when he tried to use common expressions and vocabularies. Second, we rapidly offered him morphological and syntactic aspects as word order, grammatical structure in Korean. This treatment was changed from basic structure to modified structure, and then to complex structure. Third, we categorized language skills in semantic, morpho-syntactic, and pragmatic to help him systematically. CH easily progressed in conceptual vocabulary and carrying out the commands. Concrete materials were helpful because his cognitive ability was normal and systematic. His next remarkable progress was in general vocabulary acquisition. The main errors were found in morpho-syntax. We reason

that in a semantic aspect, the child could acquire one concept in one language first and then change the acquired concept in another language after. Therefore, the semantic acquisition could be done by a one-to-one method. On the other hand, in morpho-syntactic aspect, especially in morphemes, there were many different and unfamiliar markers in Korean compared to English to which he was much more and earlier exposed. Consequently, we have to further investigate whether the linguistic acquisition in the bilingual child of which the two linguistic systems are similar is easier than that of different linguistic system.

In this case study, not only CH's language difference but also language disorder were found. This could be made because of considerate assessment in both languages, regardless of limitations in assessment tools. Parents accepted the child's situation and the direct treatment was performed. This resulted in his rapid progress, but his social adaptation and awareness, especially in his peer group, remains an unresolved problem. This problem also was reported in the United States and in Korea at the time of evaluation. We need more data for this cultural and social adaptation because it is difficult to demarcate whether this unresolved problem is due to the child's own problem so that we had to focus on this subject or that the problem is caused by the cultural difference.

Language intervention with children from linguistically and culturally diverse populations is a challenge to many speech-language pathologists (Kayser, 1995). There is a population growth of bilingual children and adults in Korea. The goal of language intervention program is to meet the specific language needs of the child. In order to fulfill this goal, a speech-language pathologist should assess the individual child's language and cultural background. For a further research, empirical investigation is needed to add the data to the clinical institutions, and individual differences of children should always be considered to meet the best of intervention for the bilingual children.

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Appendix

Linguistic categories	Examples (errors/target response)
Semantics	seke-pake tahaca 세 개밖에 다하자 chinku-hante cwətsə/patassə 친구한테 줬어/받았어 pizza-ka/reul yorihago itsə 피자가/를 요리하고 있어
Phonology	wangkwan-euro səbəryətsəyo 왕관으로 서버렸어요 nun-ika/nun-i upne 눈이가 없네
Morpho-syntactic	choroksek aiki ipko itsə /aiki-ka choroksek pacireul ipko itsə 초록색 애기 입고 있어/애기가 초록색 바지를 입고 있어 nun-e/nun-i kancirəwa 눈에/눈이 간지러와 sənsengnim-ito/sənsengnim-to kkyətne 선생님도/선생님도 껴네? ori-taka/ori-to muresarayo 오리다가/오리도 물에 살아요 ai-ka kore-ro/kore keurim-eul itsə/pokoitsə 아이가 고래로/고래그림을 있어/보고 있어 korilla-ka mul-i/mul-eul haitə/ppuryətsə 고릴라가 물이/물을 했어/뿌렸어 cənyək-hesə/cənyək-e nu-ka irənamyən antwaici 저녁해서/저녁에 누가 일어나면 안되지 kom-etaka/kom-hante ttang/ttanghako keukəl təcətsə 곰에다가/곰한테 땅/땅하고 그걸 던졌어 kapang kheun ssə/kheun kapang ssə 가방 큰 씨/큰 가방 씨
Mixture of the two languages	me-ka/ne-ka me가/내가 Blue(paran) yangmal ipko/sinko itsə 파란양말 입고/신고 있어 Drink(eumryosu) masilkə itsə? 음료수 마실 거 있어? Beaver(tutəci)-ka teurə-ka 두더지가 들어가 Flush hai/mulnairyə 물 내려 əmma, na coin/tongcən chwo 엄마, 나 coin/동전 쥐
Multiple errors	Na, pihengki yəng, yəngə-esə/mikukesə thatsətsə cako cako wasə yəngə-esə/mikuk-esə hankukmal-ro/hankuk-euro kasə watsətsə/watsə 나, 비행기 영, 영어에서/미국에서 탔었어, 자고, 자고 와서 영어에서/ 미국에서 한국말로/한국으로 가서 왔었어/왔어 cong-a/cong-i pureuko itsə/ulliko itsə 종아/종이 부르고 있어/울리고 있어 kolla hako/masiko itsə 콜라하고/마시고 있어 kheunkə-ro moca ipə/kheun moca ssə 큰 거로 모자 입어/큰 모자 씨 cokeumakhe kapang-ka/cokeuman kapang katko itsə 조그맣게 가방가/조그만 가방 갖고 있어 nun poko itsə/chek-eul nun-euro poko itsə 눈 보고 있어/책을 눈으로 보고 있어 Ani nuku-hanthe chinku-hanthe(nappeun il-i)ilənamyən kyəngchal acəci-hanthe kalle 아니, 누구한테 친구한테(나쁜 일이) 일어나면 경 찰아저씨한테 갈래

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