

The Development of Postverbal Negation in Korean in a Korean-English Bilingual Child*

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This study investigates the developmental process of Korean postverbal negation in a Korean-English bilingual child. The purposes of this study are firstly to find both common and divergent paths in the development of Korean postverbal negation in terms of both syntactic development and pragmatic uses of postverbal negation; and secondly to investigate explanations for the special pattern of development observed. The data were collected from one bilingual child (R) who is simultaneously acquiring two languages, Korean and English over two years between the ages of 5;00 and 7;00 (years; months). The data collection was carried out in four periods in two different environments: Periods I and III in Australia, Periods II and IV in Korea. The development of postverbal negation showed that when R was in Australia, she employed both L1 and L2 learning mechanisms, while when she was in Korea, she employed L1 learning mechanisms. The results reveal that L1 and L2 mechanisms are not basically different because R shows both forward and backward developmental features in conjunction with the two different language environments: Korea and Australia.

Key words : *bilingual acquisition, postverbal negation, simultaneous bilingual child, learning mechanism, L1, L2*

* I wish to thank the anonymous reviewers of *The Korean Society for Cognitive Science* for their invaluable comments, suggestions and criticisms. Of course, any remaining errors are mine.

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Introduction

This study investigates the developmental process of Korean postverbal negation in one bilingual child (R) who has grown up with experience of two different language environments: Korea and Australia. In this study my goal is to find both common and divergent paths in the monolingual and bilingual development of Korean postverbal negation, in relation to syntactic development and pragmatic uses of negation.

This investigation will contribute to our understanding of developmental features of minority language in a bilingual child who is acquiring two languages simultaneously. Furthermore it will also contribute to our understanding of developmental features of English in a Korean child who is learning it as a foreign language by finding answers to the following questions:

Does the nature of the input and experience that the child has had lead to any differences between her postverbal negation development features and the postverbal negation development features of monolingual Korean children?

i) Is that feature different from that of Korean monolingual children?

And if so:

ii) How can the differences between her feature of postverbal development and the feature of postverbal development of Korean monolingual children be explained?

Methodology

For the present study longitudinal observation was conducted in order to study specifically the pattern of a language development in conjunction with different environments. The longitudinal observation was conducted on one bilingual child (R) who was simultaneously acquiring two languages, Korean and English. I

observed R's speech in Korean in two completely different language environments, Australia and Korea, over two years. The data were gathered from her spontaneous speech using two different methods, diary-taking and audio-taped recordings. They were gathered in four periods in two different environments: Periods I and III in Australia, Periods II and IV in Korea as shown in Table 1.

In the analysis of the data, I used semi-quantitative and 'rich interpretation' methods (Bloom 1970: 219) in order to research the developmental features of postverbal negation in R's Korean during a long period of two years. The development of postverbal negation has been researched in terms of two categories: syntax and semantics/pragmatics.

<Table 1> Data Collection

Period	Age	Date	Country
1	5:00 - 5:08	Jan 01, 2001 - Sept 30, 2001	Australia
2	5:09 - 5:11	Oct 01, 2001 - Jan 02, 2002	Korea
3	6:00 - 6:09	Jan 03, 2002 - Sept 02, 2002	Australia
4	6:10 - 7:00	Sept 03, 2002 - Jan 03, 2003	Korea

Participant

The participant of this study, Rose (hereafter 'R') was born of native Korean parents who were living in Australia, an English dominant society, as overseas students at that time. She had one sister who was four years and three months older than her. She was exposed to two languages regularly until she was 9 months old: at home she heard Korean from the family members (mother, father) and visitors who were native Korean speakers, and English on TV and in the outside environment (shopping centre, neighbours, etc.). R's older sister was the source of both languages from birth to 9 months since she used both Korean and

English.

When R was nine months old, the family moved to Korea for approximately two years. In this context, R lived with her family in a Korean monolingual environment until she was two years and nine months old. During this period she had few opportunities to have contact with an English environment or listen to English.

In 1998, before she reached three years old she moved back to Australia with her mother and her sister. R went to a child-care centre located on a university campus for about 15 hours a week over one year (March 1999–December 1999). Later she went to kindergarten for 15 hours a week (February 2000–March 2000). During this period, at the child-care centre and the kindergarten, English was the only language used for communication and instruction. At home, the Korean language was still the main language for communication, except for the times her older sister needed help from me with her homework.

In 2000, R stayed in Korea for three months (1 April 2000–30 June 2000) and she went to a Korean kindergarten five days a week, five hours a day. At the kindergarten in Korea, the formal language for communication was the Korean language. She could not hear or use English anywhere, except when with her sister who occasionally used English when she talked to R or me. After staying in Korea for three months, she was slow to resume her use of English.

In July 2000, she came back to Australia and attended an Australian kindergarten for 15 hours a week until the end of the year. In February 2001, she (5;0) started primary school in Australia. The research began when she was about five years old (2 Feb, 2001).

From 3 October 2001 to 4 January 2002 (about 5;9–6;00), she stayed in Korea for three months and she went to a Korean kindergarten five days a week, four hours a day.

From 5 January 2002 to 21 October 2002 (about 6;00–6;9), she lived in

Australia and went to primary school in Grade 1.

From October 2002 to January 2003 (6:10-7:0), she stayed in Korea and attended a kindergarten five days a week, for four hours a day. The data collection finished at the end of this period, in January 2003.

This history demonstrates that she was exposed to two totally different environments interchangeably, simultaneously acquiring two languages: Korean and English. At home, she was supposed to use Korean all the time, except when we had visitors who could not understand the Korean language. However, R used English predominantly when playing by herself, with her sister (four years and three months older than her) or with other Korean children who are bilinguals in Korean and English. She seemed to use Korean while she was playing by herself if I was near her. My presence seemed to influence her choice of language.

This set of experiences provided opportunities to observe R's speech in a variety of settings in which she had the opportunity to interact with interlocutors ranging from peers to high status adults. The settings include various contexts, such as at home and at Korean friends' homes in Australia, and at home and at her grandparents' place in Korea (Kim, 2006).

Literature Review

Theoretical Framework

This study is designed on the basis of "Operating Principles" (Slobin, 1985) that "children's early language development is led by cognitive strategies which are universal to all children" (Kim, 2006: 4). Slobin (1982: 128) argues that children's language acquisition related to "the contexts of biology, cognition, and social interaction". Slobin's Operating Principles will enable me to study how the two

different environments, Australia and Korea, affect R's postverbal negation development.

Furthermore, Operating Principles is one of the ideal theories which can be tested by investigating the processing features of negation in Korean in a Korean and English bilingual. According to Slobin and Bates & MacWhinney (1989), one of the good ways to examine Operating Principles is to investigate the processing features that the children show with acquiring a grammatical notion which is present universally but which is conveyed in the various surface structures. Children apply similar Operating Principles to acquiring languages and differences originate from language-specific linguistic complexity (Slobin, 1982). These differences between individual languages are undoubtedly a topic of interest to linguists. However, the various developing patterns that individuals showed in a sociocultural setting, or the ways that language are used in contexts of semantic and pragmatic communication rarely have been studied. In this research, therefore, I focus on some of these differences by studying R's specific context for acquiring Korean.

For analysis of the data, I used Bloom's (1970, 1991) "rich interpretation"¹⁾. The patterns of ms of negation development have been studied in relation to two categories: syntax and semantics/pragmatics.

Many academics studied the acquisition procedures of syntactic rules and most of them (Wode, 1977; Slobin, 1985) support Bellugi's claim that at the starting stages of language acquisition, children locate the negator outside the sentence. However, Bellugi's study overlooked the semantic features of the form of negation (Bloom, 1970, 1991). Studies of semantic development of negation focus on the order and the pace of the development of grammatical morphemes of negation and the development of the relationship between form (e.g. the location of the negator

1) In order to have a clear understanding of children's utterances, not only their actual output but also the circumstances, prior discourse, and the interlocutor's utterances should be considered carefully (Bloom, 1970).

in sentences) and meaning (e.g. McNeill & McNeill, 1973; Ito, 1981; Clancy, 1985).

Studies of pragmatic development have researched the relationship between the syntax and semantics of negation by investigating the linguistic and non-linguistic contexts in order to figure out the meaning of what children try to express (i.e., Bloom, 1991; McNeill & McNeill, 1973; Ito, 1981; Pea, 1980; Hahn, 1981; Choi, 1986). This way of research was characterized as rich interpretation by Bloom (1970, 1991).

The Features of Second Language Development

The developing procedures of second language show some distinct features, for example, “transfer” “staged development”, “systematicity”, “variability”, and “incompleteness” (Towell & Hawkins, 1994) in comparison with those in the L1 learning process.

Transfer could take place in all linguistic areas: phonetics/phonology, syntax, morphology, lexicon, and discourse (White, 1989; Odlin, 1989, 2003). Interlanguage grammar is an interim process of transfer and it is governed by UG, so transfer could be the indication of parameter resetting. "Systematicity" is also a characteristic of the acquisition of L2 as the target language develops (Towell & Hawkins, 1994). Learners of different L1 backgrounds learning an L2 in various environments (e.g. naturalistic versus classroom) undergo similar stages of development (Cho & O'Grady, 2005; Dulay, Burt & Krashen, 1982). “Variability” is another of the distinctive phenomena of L2 development. The psychological grammars of L2 learners at certain periods of development appear to have more than one structural variant although there is only one structure of target language available (Ellis, 1992; Larsen-Freeman & Long, 1991; Towell & Hawkins, 1994). The occurrence of “Incompleteness” and “Fossilization” in L2 learning reveals that

the UG is not available to them. More over L2 learners are not able to transfer a superset parameter setting from their L1 to L2. If it is not those cases L2 learners should be able to reach the level of native speaker of target language through parameter resetting (Johnson & Newport, 1989; Selinker, 1972, 1992; Towell & Hawkins, 1994).

All things considered, first language learners can access to UG but not second language learners. This could describe the reason why the second language learners seem to go through different processes compared to the L1 learners. This raises the issue of whether R's development in Korean shows L1-like or L2-like features.

Analysis and Discussion

Analysis of Postverbal Negation Development

As will be argued in this study, the postverbal negation processing of a Korean-English bilingual's (hereafter referred to as R) over the two year period progressed toward adult-like forms. The universal pattern {NEG + X} which occurs at an early stage of negation development in all monolingual children also occurred in the development of R's postverbal negation. The data also revealed that R's postverbal negation progressed from a narrow to a wide scope and also from cognitively less to more complex forms. I will also argue that the processing patterns changed in relation to each language environment. In Korea, the postverbal negation processing reflects L1 development strategies only, while in Australia it reflects L2 development strategies as well; these patterns vary as R moves backward and forward between the two countries. This pattern suggests that R seems to access both L1 and L2 learning mechanisms, and these mechanisms appear to be differently supported within the two different environments.

In postverbal negation utterances the negative morphemes *an* or *mos* follow the main verb (which needs the suffix *-ci*) and are in turn followed by the dummy verb *ha* 'do' (Verb stem or Adjective + *ci an* dummy verb *ha (do)* + DC; V stem + *ci mos* dummy verb *ha (do)* + DC). In contrast, in preverbal negation utterances, the same negative morphemes *an* or *mos* occur before a main verb or an adjective (*an* + Verbs or Adjectives and *mos* + V stem).

R's inappropriate postverbal negation forms can be categorized into three groups:

- i) Substitution of postverbal negation counterparts for postverbal negation utterances: inappropriate pragmatic uses;
- ii) Missing of the verbal suffix *-ci* and
- iii) Attachment of an inappropriate verbal suffix *-ci* instead of verbal suffix *-ci*.

The first occurrence of a postverbal negation utterance was observed at 5:01,5, but it is not clear if this was the very first postverbal negation utterance for R because she was already 5:00 when this present study commenced. Several linguists (Choi & Zubin, 1985; Han & Park, 1995; Kim, 1997) have claimed that monolingual Korean children generally start to produce postverbal negation utterances from around age 3;5. The fact that R appeared to consciously prepare her early postverbal NEG utterances suggests that she had had some previous exposure to and experience of postverbal NEG. The extent of this cannot be precisely documented, but clearly it had not been sufficient for R to master the adult-like grammar.

The data analysis for this study reveals that producing appropriate postverbal negation requires a more complex processing strategy than producing a preverbal negation form. With the same expression, in order to produce an appropriate postverbal negation R went through several interim stages. Producing postverbal negation in appropriate forms involved engaging with the greater complexity of the postverbal negation forms regardless of the environment that she was in. In order

to produce an appropriate postverbal negation form, R appeared to go through three steps, as illustrated in the following Examples (1), (2), and (3) in turn: i) first, the step of inappropriate preverbal negation; ii) second, the step of appropriate preverbal negation; and iii) third, the step of appropriate postverbal negation.

i) The first step: inappropriate preverbal negation

An example of the first step occurred during Period I while R was in Australia as shown in Example (1).

Example (1)

Situation: We had just woken up and were talking in bed. R did not know if it was a school day or not because she did not realize that it was a Sunday.

R: 엄마, 나 오늘 학교 가?

Emma, na onul hakkyo ka

Mum I today school go-Q

'Mum, today am I going to school?'

M: 오늘은 일요일이라 학교 안 가.

Onul-un ilyoil-i-la hakkyo an ka

Today-TP Sunday-be-thus school NEG go-DC

'Today is a Sunday thus you are not going to school.'

R: *안 학교 가?

An hakkyo ka

NEG school go-Q

'Am I not going to school?'

5:04,10

In R's final turn in Example (1), R misplaced the NEG in front of the noun (*hakkyo* 'school') which functioned as an object in the utterance, even though there was an alternative model immediately available. I had told her that 학교 **안** 가 *hakkyo an ka* 'school NEG go-DC' ((you) are not going to school). However, R questioned me with an utterance which contained *an* in front of *hakkyo* 'school' and removed from the verb *kata* 'go', resulting in the inappropriate postverbal negation form: **an hakkyo ka?* 'NEG school go?' (Am (I) not going to school?).

ii) The second step: appropriate preverbal negation

The second step one month later but still in Australia follows the first step. During the second step R produced appropriate postverbal negation forms with the utterances that contained the word *hakkyo* 'school' and a version of the verb *ka-ta* 'go'.

Example (2).

Situation: R had been sick for a couple of days. She was feeling a bit better,
but she did not want to go to school.

R: 나 학교 **안** 갈래.
Na hakkyo an ka-llay
I school NEG go-want-DC
'I don't want to go to school.'

5:05,13

Example (2) shows that the inappropriate postverbal negation with the verb *kata* 'go' in Example (1) became appropriate one month later even though R was still in Australia. In this second example, when R was about 5:05,13, she placed *an* in the correct position, producing an appropriate preverbal negation utterance as

shown in the Example (2) where she said 나 학교 안 갈래 *na hakkyo an ka-llay* ‘I school NEG go-want-DC’ (I don’t want to go to school). R produced this appropriate postverbal negation utterance without an immediate model available in the context or help from her interlocutor. This phenomenon shows that R was capable of producing preverbal negation forms in connection with the verb 가다 *ka-ta* ‘go’.

iii) The third step: appropriate postverbal negation

In the third step, postverbal negation appeared in the adult-like form. The following Example (3) shows the last step that the postverbal negation processing went through to reach the adult-like form.

Example (3)

Situation: In Korea, the weather was very cold during December and the temperature was usually below zero. Despite the cold weather, the kindergarten still gave swimming lessons in an indoor swimming pool. R did not enjoy the swimming lessons since it was too cold, so she did not want to go to kindergarten.

R: 오늘 Kindergarten 가?

Onul Kindergarten ka

Today Kindergarten go-Q

‘Today, do I go to kindergarten?’

M: 응.

Ung.

Yes.

R: 나, 오늘 Kindergarten 가지 않을래.

Na onul Kindergarten ka-ci anh-ullay

I today Kindergarten go-suffix-*ci* NEG-want-DC
'Today, I don't want to go to kindergarten.'

안 갈래.

An ka-llay

NEG go-want-DC

'(I) don't want to go.'

수영 안 할래.

Swuyeng an hall-ay

Swimming NEG do-want-DC

'(I) don't want to go swimming.'

5:10,15

At about 5:10,15, in her second turn in this exchange R finally produced the postverbal negation utterance (Example (3)) *Na onul Kindergarten ka-ci anh-ullay* 'I today Kindergarten go-suffix-*ci* NEG-want-DC' (Today, I don't want to go to kindergarten.) with the same verb '*kata*' (go) as in Examples (1) and (2). As will be explored in greater depth later, the utterance in Example (3) also reveals that the postverbal negation form in R's Korean occurred in a situation that was potentially unfavorable for her.

R employed the postverbal not preverbal negation form for her expression, *Na onul kindergarten kaci anh-ullay* 'I, today kindergarten go-*ci* NEG-want-DC' ((I) am not going to kindergarten today) as shown in the Example (3), when she was still negotiating whether she had to go to kindergarten. If R really did not want to go to kindergarten she should have said *Na onul kindergarten an ka-llay* 'I, today kindergarten NEG go-want-DC' ((I) am not going to kindergarten today) in a preverbal negation form. Presumably, in this context R had chosen the postverbal

negation form in order to convey meanings other than just that she was not going to kindergarten, for which simpler preverbal negation forms are available. R did not use these until later in the exchange when she had moved from negotiating to refusing.

Examples (1) and (2) show the two steps which R had to go through before producing the appropriate postverbal negation form in Example (3). In Korea, R went to a kindergarten where she could have input from teachers and her peer groups which was not available in Australia. Example (3) indicates that the language learning environment in Korea reinforced the viability of the postverbal negation option for R, since one of the postverbal negation expressions finally reached the appropriate adult-like form. The three related Examples (1), (2), and (3) clearly show that progress toward adult-like postverbal negation processing consists of three steps as explained above.

R's use of postverbal negation reflects a quite sophisticated understanding of the pragmatics of this form. Whenever she makes use of postverbal negation, she appears to be in a position of attempting to negotiate the less preferred of two options. This shows that the use of postverbal negation provides space for the issue to be further negotiated. In adult uses, postverbal negation is generally preferred because it is a less face-threatening way of negotiating a proposition. In R's Korean, postverbal negation is used when R is negotiating, and not used when she is either making a simple declarative statement or denying something appropriately in her control. In a really interesting manner in Example (3), as she moves from negotiation to a stronger level of refusal, she changes her negation from postverbal to preverbal. This indicates that despite the variability in the level of input across the different linguistic environments, R had a complex understanding of the pragmatics of negation, regardless of what environment she was in. The late emergence of postverbal negation is in line with one of the cognitive principles suggested by Slobin (1992), namely that the development of children's language

proceeds cognitively from less to more complex understanding.

R broadly recognized the differences between the pragmatic uses of preverbal and postverbal negation. In terms of pragmatic association with Korean negation, R used Korean with the two different functions, but that is interesting is that R re-interpreted the pragmatic uses of Korean negation. Unlike Korean monolingual children, she knew as a result of her Australian-based experiences that she did not have to exist in a hierarchical relationship with her older sister. Consequently, she exploited a pragmatic potential of Korean within that relationship. In other words, she could use preverbal negation to confront her older sister in ways that a monolingual Korean child could not. Although this could be seen as underdeveloped postverbal negation, it is for more likely to be a sophisticated exploiting of the pragmatic potential of her bilingual world. Throughout all four periods, the frequency of occurrence of postverbal negation is quite low compared with that of preverbal negation forms (For details, see Kim, 2007). From both data collection methods, the diary-taking and audio-tape recording, 19 examples in total were collected as follows: Period I (10 examples), Period II (2 examples), Period III (6 examples), and Period IV (1 example). Some of them (10 examples) were in mixed languages containing both Korean and English. It may be possible to argue that the utterances in mixed languages are not examples of proper postverbal negation utterances because the elements of the utterances are in English. However, I categorized them as postverbal negation form because the negative morphemes *an* and *mos* occurred with dummy verb *ha* (do) which is one of the characteristic structures of postverbal negation form, and there are earlier examples of the same items with preverbal negation. Compared to the total of 274 examples for preverbal negation reported in Appendix, the data in Table 2 show the frequency of postverbal negation utterances during four different periods over the two years: 36.8% (7 out of 19) were in appropriate forms, compared with 63.2% (12 out of 19) in inappropriate forms. As time went on, the proportion of occurrences of

postverbal negation utterances in appropriate forms increased: 25%, 50%, 50%, and 100% in terms of the four periods.

<Table 2> The Frequency of Postverbal Negation Forms

Period	Appropriate	Inappropriate	Total (diary + Tape recording)
Period I	2 (20%)	8 (80%)	10
Period II	1 (50%)	1 (50%)	2
Period III	3 (50%)	3 (50%)	6
Period IV	1 (100%)	0	1
Total	7 (36.8%)	12 (63.2%)	19

As will be discussed below, five aspects featured in the process of postverbal negation in R's Korean. These aspects will be discussed in turn and are: i) appropriate postverbal negation; ii) substitution of preverbal negation for postverbal negation; iii) the interim stages of postverbal negation; iv) postverbal negation in mixed languages; and v) the contexts of postverbal negation.

Discussion

R's postverbal negation emerged later than the preverbal negation. Its processing shows various patterns according to the two learning environments, Australia and Korea. I will discuss the five features observed in the postverbal negation processing: i) appropriate postverbal negation; ii) substitution of preverbal negation counterparts for postverbal negation; iii) the interim stages of postverbal negation; iv) postverbal negation in mixed languages; and v) the contexts of postverbal negation.

Appropriate postverbal negation

The frequency of appropriate postverbal negation forms increased as time went by, as shown in Table 2. The percentages of appropriate negation utterance in each period may not be meaningful since their number was not large enough to produce a significant figure. To produce a more meaningful interpretation, I considered not only the structures of the appropriate postverbal negation utterances but also their pragmatic functions.

The data analysis reveals that features of postverbal negation in Periods I and III in Australia were further from adult norms than in Periods II and IV in Korea. This strongly suggests that R's postverbal negation was influenced by the two different language learning environments.

During Period I, the postverbal negation processing appeared to retreat from earlier adult-like forms since the frequency of appropriate postverbal negation utterances was significantly lower compared to Period II when R was in Korea. The processing of postverbal negation during Period III while R was staying in Australia appeared to remain dormant, since there were no changes in frequency of occurrence of appropriate postverbal negation utterances in comparison to Period II. Moreover, one of the appropriate postverbal negation forms produced during Period III was a repetition from the interlocutor's utterances, but this was not an ideal form for the context either., as shown in Example (4).

However, the postverbal negation processing during Period IV clearly moved toward the adult-like forms. During Period IV there was only one appropriate postverbal negation form but it was appropriate both syntactically and pragmatically.

The first appropriate postverbal negation utterance was observed when R was 5;01,15 as shown below.

Example (4)

Situation: It was time to go for the children to bed. I asked R to take a reader upstairs since everyday she brought a book home from school. But she said she had not brought any book home that day. I was wondering if R had forgotten to bring it even though her teacher had handed them out. R was talking very slowly when she produced this first postverbal negation utterance.

M: 책 가지고 올라 가라.

Chayk kaci-ko ol-la ka-la

Book take-and climb go-DC

‘Take your book upstairs.’

R: Reader?

M: 응.

ung.

Yes.

‘Yes.’

R: **안** 가지고 왔어.

An *kaci-ko woa-ss-e*

NEG bring come-PST-DC

‘(I) didn’t bring it.’

M: 선생님이 주셨어? **안** 주셨어?

Sensayngnim-i cwu-sy-ess-e? an cwu-sy-ess-e?

Teacher-NM give-POL-PST-Q NEG give-POL-PST-Q

‘Did your teacher give them out or not?’

R: 주...지 아—ㄴ—았어.
Cwu ci an ass-e.
Give-suffix-ci NEG -PST-DC
'(She) didn't give them out.'

5:01,15

It is not certain if this utterance was the very first postverbal negation utterance that R produced because for monolingual Korean children, postverbal negation forms emerge around age 3;5 (Choi & Zubin, 1985; Han & Park, 1995; Kim, 1997; Hagstrom, 2002). It is possible that R produced examples of postverbal negation that were not recorded in this research. Nevertheless, postverbal negation forms were observed later than preverbal negation forms.

The substitution of preverbal negation form for postverbal negation form.

R sometimes substituted preverbal negation counterparts for postverbal negation forms resulting in pragmatic meanings that could be viewed as errors from a monolingual perspective, but at least sometimes seem to reflect a creative re-interpretation of the possibilities within the Korean meaning space that R exploited to her own advantage. At the same time, R produced syntactically and pragmatically appropriate postverbal negation forms. These kinds of pragmatic errors were observed throughout all four periods. They indicate that overall, R's postverbal negation processing was similar to and also different from that in monolingual Korean acquisition. The substitutions of preverbal negation counterparts for postverbal negation forms in R's Korean could be a positive or negative sign.

The characteristics of the substitution of preverbal negation counterparts for postverbal negation forms in Periods I and III are different in comparison with those in Periods II and IV. During Periods I and III, the postverbal negation

processing appeared to regress. During Period I, R substituted preverbal negation counterparts for postverbal negation forms even though there was an immediate postverbal negation model available, as illustrated in Example (5); and during Period III, R substituted preverbal negation counterparts for postverbal negation forms in the contexts which required R to employ the postverbal negation forms in order to express her feelings accurately. On the other hand, during Periods II and IV, R only substituted the preverbal negation forms for the postverbal negation forms when she was talking about her sister or with her sister.

Example (5)

Situation: At night, R wanted to go to downstairs to drink water.

M: 무섭지 **않**을까?

Mwusep-ci anh-ulkka?

scary-suffix-ci NEG-may-Q

'Aren't you going to be scared?'

R: **안** 무서워.

An mwuse-we.

NEG scare-DC

'(I) am not scared'

5:05,13

The substitution of preverbal negation counterparts for the postverbal negation forms also occurs in monolingual Korean acquisition. Kim (1997), Cho & Hong (1988) and Hahn (1981) claimed that monolingual Korean children who were younger than three years old substituted the preverbal counterparts for the postverbal negation utterances before they acquired postverbal negation. The semantic/pragmatic ambiguity between preverbal and postverbal negation appears to bring about the substitution of preverbal negation forms for postverbal negation

forms.

Cho & Hong (1988) also found from their repetition study that the three two-year-old children were not capable of reproducing postverbal negation, even though they could all understand the negative meaning in a postverbal negation utterance. They substituted preverbal counterparts for the postverbal negation utterances. The three-year-old child, however, was ready to produce postverbal negation. In comparison with these previous studies, the data from this study show that the pattern of substitution of preverbal negation forms for postverbal negation forms in R is not deviant at all, except for the age gap between R (5;00-7;00) and other monolingual Korean children (2;00-3;00). In other words, the development of Korean negation forms in R (5;00-7;00) showed the same processing patterns produced by monolingual children aged between 2;00 and 3;00.

The interim stages of producing an appropriate postverbal negation form

Periods I and III had various interim stages or intermediate forms of appropriate postverbal negation forms while Periods II and IV did not. This is evidence that the postverbal negation processing in Periods I and III slowed down while that in Periods II and IV proceeded more directly toward the adult-like forms. These slowed-down processings produced special patterns as shown in Examples (6) and (7), which I have not been able to find in studies of monolingual Korean acquisition.

Example (6), which occurred during Period I, shows the procedures of movement of the NEG *an*. Example (7), which occurred during Period III, also shows a specific interim form between inappropriate postverbal negation forms and appropriate postverbal negation forms. However, the postverbal negation processing during Periods II and IV do not display any similar patterns.

Example (6) shows that R was conscious of the position of the NEGs *an* or *mos*

in the postverbal negation form, but she was not sure where to place the NEG *an* in utterances which contained two predicates. In Example (6), the postverbal negation utterances are in both Korean and English. They clearly show the features of how the NEG moves within the utterance.

Example (6)

Situation: We were talking about a chocolate Easter egg. R kept the egg in a refrigerator so that it wouldn't melt. The egg was a little bit cracked when she took it out from the refrigerator. I asked why she had put the egg into the refrigerator. She told me that she had not wanted it to melt.

R: i) Melt down **안** **해**고,
Melt down **an** **ha-y-ko**
 NEG do-DC
'(It) does not melt down.'

ii) melt **안** down **했**고.
Melt **an** down **ha-yss-ko**
 NEG do-PST-DC
'(It) did not melt down.'

M: 영?
Eng?
What?
'What?'

R: iii) melt **안** **했**고

Melt *an ha-yss-ko*
NEG do-PST-DC
'(It) did not melt.'

5:02,1

Example (7)

Situation: R didn't want to eat the peas which were a part of her dinner. She
knew that I wouldn't be very pleased with her.

R: *나, 이거 먹어 안 할래.
Na ike mek-e an ha-llay
I this eat-particle NEG do-VOL
'I won't eat this.'
(cf. 먹지 않을래 *mek-ci anhullay*)

6:00,18

These complex processing features indicate that while R was staying in Australia, she had to use L2 learning mechanisms which may employ distinct learning strategies (i.e., general cognitive strategies) in comparison with L1 learning mechanisms. The learning environments in Australia support the postverbal negation processing in R's Korean in different ways in comparison with those in Korea where R had to use the Korean language for more than 12 hours a day. In other words, she had plenty of opportunities for input and output in various contexts. There were also many new opportunities to have comprehensible input and to have output through negotiation with native Koreans in various contexts, talking to peers, kindergarten teachers, relatives, people at restaurants or people in the subway train. In Australia, there were very limited opportunities to have comprehensible input and output through negotiation with native Koreans; they

occurred mostly with me as her mother and her sister and occasionally with visitors who were native Korean speakers. These limited opportunities appeared to contribute to the complex processing features of postverbal negation.

Postverbal negation in mixed Korean and English

The postverbal negation utterances were more frequent in R's mixed utterances, which contain both Korean and English, than in her pure Korean utterances, even though they were not in appropriate postverbal negation forms, since they did not contain the obligatory suffix *ci-* as shown in the following example (8).

Example (8)

Situation: R was telling her sister that “Harry’s Practice” was on TV, and that if A (R’s sister) didn’t believe R and come and watch it, A would be in trouble.

R: 언니, Harry’s practice 해. 진짜다.
Enni *hay.* *cincca-ta*
Sister do-DC true-DC
‘Sister, Harry’s Practice is on TV. (It) is true.’

*나 trust 안 하면 죽어.
Na trust an ha-myen cwuk-e
Me trust NEG do-if die-DC
‘If you don’t trust me, (I) will kill you.’
(cf. 믿지 않으면 죽어 *mit-ci anh-u-myen cwuk-e*)

6:00,15

The postverbal negation in mixed English and Korean was observed only during Periods I and III (in Australia). In postverbal negation utterances in mixed Korean and English, she produced bare forms of the English lexical verb rather than adding the required *-ci* suffix. This suggests that although R retained the system of postverbal negation during Periods I and III, in mixed language environments she reduced the elaboration of the required morphology. These specific processing patterns imply that R had to use different learning mechanisms in Periods I and III while analysing postverbal negation, since the learning environments in English-dominant Australia support the postverbal negation processing in R's Korean in a different way compared to the language learning environments in Korea. In Australia, which is a multicultural but an English dominant society, R had opportunities to have input in mixed English and other minority languages (e.g., Korean, Chinese, and Italian). In particular, there were opportunities to have input in mixed Korean and English when we had Korean visitors who came to Australia to learn English. However, in Korea she hardly ever had opportunities to hear people's talking in mixed Korean and other languages except when R talked to her bilingual older sister. The learning environments in Australia appeared to contribute to R's mixed utterances when she was in Australia.

Another aspect could be a dominance of English over R's Korean in Australia. During Period III, when R was aged around 6;00-6;09, the development of postverbal negation in R's Korean seemed to have deteriorated or slowed down compared to Period II. At this stage, the gap between the development of propositional negation in R's Korean and that of monolingual Korean children became bigger. The slowing process in R's negation development in Australia, compared to the faster process when she was in Korea, exemplifies how greatly the social environment affects language acquisition.

On the other hand, R's English had intensive input from the time she began primary school and formally started to learn how to read and write English. Most

of all, she spent six and a half hours a day and five days a week at school with children speaking only English since there was no Korean speaking child with the exception of her older sister. The rates of development of R's English and Korean may have slowly started to lose balance in Period I after R started Prep in Australia at age 5;00. During Period II in Korea, the development of R's Korean language was able to reduce the gap between the rates of development of English and Korean language to some degree. However, clear signs of imbalance between the development of the two languages could be seen from Period III, when R was aged approximately 6;00-6;09; her cognitive maturation started to affect the development of her Korean. This slowing down in negation development in R's Korean shows that her Korean language may have been slowly becoming the L2 since the development rate of the Korean language is surpassed by her English in Australia.

The findings from this present study are consistent with Schlyter (1990, 1993) who claimed that bilingual children show different developmental patterns depending on the degree of balance between proficiency of their two languages. In relation to the development of the weaker language, the bilingual child who has a small imbalance between two languages seems to learn like monolingual children of that language, whereas the bilingual child who has a large imbalance between the development rates of two languages displays patterns more like those of a second language learner, producing incorrect forms which are typical developmental features for second language learners (Schlyter, 1993).

In other words, Korean became R's weaker language while she stayed in Australia. This claim is consistent with Lanza's (2004) argument which claimed that generally the majority language is the stronger one while the minority language is weaker. This explains why R had to employ L2 learning mechanisms for the postverbal negation processing during Periods I and III while she was in Australia.

The contexts of postverbal negation

The contexts of postverbal negation processing in R's Korean indicate that it was closely related to her pragmatic purposes. Example (4) above and the following Example (9) show the characteristics of the contexts in which R had to express her feelings in ways that required postverbal negation forms.

The examples reveal that R employed the postverbal negation forms when she was in unfavorable positions, such as the utterances which occurred at about 5:01,15 (Example (4) above) and 5:03,18 (Example (9) below). With the utterance at about 5:01,15, R was not sure why she had not brought her book from school. She might have forgotten to bring the book home or the teacher might have forgotten to give her the book to take home. She had to think about the answer. Example (9) below is similar.

Example (9)

Situation: I was checking R's school bag to see if she had put everything into the bag for the next day. There was a picture that was supposed to be colored in. She had not colored it in and said that there was a choice not to do it every day. However, she knew that it was not ideal not to color in the picture.

M: 야, 야! 너 그거 **안** 가져 왔니?

*Ya, ya! ne kuke **an** kacy-e wa-ss-ni?*

hey, hey! you that NEG bring come-PST-Q

'Hey, hey! Didn't you bring that thing home?'

이렇게 끊어 가지고 그림 그리는 거.

Ilehkey kkunh-e kaci-ko kulim kuli-nun ke

Like cut-and with picture drawing stuff
'The thing that you cut and then color in.'

아래 있잖아. 있어야 하는데.
Alay iss-canh-a. iss-eya ha-nun-tey
below exist-DC Exist-must do-DC
'(It) is downstairs.' '(It) should be there.'

R: 맨날 해지 않을 수 있는데.
Maynnal hay-ci anh-ul swu iss-nun-tey.
Everyday do-suffix-ci NEG way exist-DC
'(There) is a way not to do (that) everyday.'

5:03,18

In this example, which occurred at about 5:03,18, she did not want to do the religious activities that she was supposed to do every day. She claimed that there was a choice of not doing them every day, even though that was not ideal. She also knew that I would not be very happy when she said that. R appeared to use postverbal negation forms when she felt some need to mitigate her expression.

Examples (4) and (9) show that the postverbal negation processing in R's Korean was closely related to contexts. In these unfavourable contexts, she could have used a preverbal negation form such as 매일 안 해도 돼. *mayil an hayto tway* 'every day NEG do-although become-DC' ((It) is alright even though (I) don't do that everyday.'). However, this preverbal form conveys a different meaning compared with the postverbal negation. In preverbal negation, the meaning would have been that she was not going to colour in the picture that night since it was not necessary. In contrast, the postverbal negation utterance in Example (7-8) conveyed that R would colour in the picture if I wanted her to do

so, even though it was all right if she did not colour in it.

These appropriate postverbal negation utterances (Examples (4) and (7-8)) occurred when R was aged 5:01,15 and 5:03,18 respectively. After that, there were no more examples of appropriate postverbal negation form except for the postverbal negation forms in mixed Korean and English that did not have suffix *-ci* a characteristic element of postverbal negation. This indicates that she might have forgotten to add the suffix *-ci* to the main verbs of postverbal negation forms as time went on in an English dominant environment due to thin input for R's negation processing. She might have found a new way of producing postverbal negation in mixed Korean and English. These phenomena show that R's negation processing did not get ideal support from the learning environment in Australia. In consequence, during Period I while R was in Australia, her postverbal negation processing retreated from the full adult-like forms that she was initially capable of producing.

The postverbal negation processing appeared to be deeply involved in the characteristics of the contexts. Whenever R produced appropriate postverbal negation forms, she appeared to be conscious of the characteristics of the contexts. In relation to the contexts of postverbal negation, the data analysis for this study reveals that R's postverbal negation processing constantly proceeded towards the adult-like grammar regardless of the language learning environments. In relation to the contexts in which postverbal negation occurred, there was no indication that R differentiated her pragmatic behavior in relation to the two different language learning environments.

In relation to the contexts of postverbal negation, the processing of the pragmatics of R's postverbal negation appears to be well developed, even though the postverbal negation form has a more complicated syntactic structure compared with preverbal negation. Sociopragmatic influence seems to play a strong role in the development of R's postverbal negation

When Australian adults talk to children, they usually give the children more choices or spaces than Korean adults do. For example, one of my Australian friend's daughters (Z), had a flute and my daughter (A) wanted to try it. So A asked my friend if she was allowed to play it. My friend said that it was not her flute but Z's, then asked Z if she was happy to let A play it. A and Z were about eight years old at that time. My friend gave permission to A after she had gained Z's permission. However, next time we were together, Z wanted to play A's violin. They asked me if Z could play it. I said "of course, you can play that." without asking A's permission because I thought A was too young to make such a decision.

Furthermore, in my experience Koreans usually give orders to their children, not choices, such as, 'Give that to your friends!', and 'Share the toy with your friends!', and children are expected to obey. Australians often make suggestions to their children, for example: 'Why don't you give that to your friends?', and 'Why don't you share your toy with your friends?'. Most Koreans think children are not mature enough to make a decision in such cases, so there is not much room for negotiation between Korean parents and their children, but Australian parents are often ready for negotiation with their children and give such signals to them. These kinds of sociopragmatic cultural behaviors seem to have influenced the development of negation in R's Korean. It is possible, then, that R could express negotiation and possibility through postverbal negation. This might be more frequent in R compared with monolingual Korean children. Pragmatic development of the postverbal negation in R's Korean might have been influenced by the Australian environments where she mainly lived. In relation to the contexts of postverbal negation, R's bilingualism appeared to make a contribution to the fast processing of her postverbal negation.

Conclusion

In this study, I have analyzed the data related to the postverbal negation processing in terms of the four different periods focusing on the five aspects over the two years. In general, the postverbal processing patterns and the frequency accounts from the data of Periods I, II, III, and IV show changeable features according to each language environment, Australia and Korea. In Australia, the processing features of postverbal negation in R's Korean, as with preverbal negation, reflect those of L2 development as well as those of L1 development, while in Korea they resemble those of L1 acquisition.

Four conclusions can be drawn from the data analysis. First, the postverbal negation processing in Periods I and III while R was in Australia produced more non-monolingual features than that in Periods II and IV while R was in Korea. Second, the characteristics of the substitution of preverbal negation counterparts for postverbal negation forms in Periods I and III are different in comparison with those in Periods II and IV. Third, the interim stages of producing an appropriate postverbal negation form occurring over the four periods show that during Periods I and III, R produced more varied and more complex interim stages than during Periods II and IV. These varied and complex interim stages indicate that R was employing both L1 and L2 learning mechanisms whereas during Periods II and IV, she was employing only the L1 learning mechanisms.

Fourth, the addition of L2 learning mechanisms during Periods I and III extended to mixed language utterances (and may have been reinforced by R's use of such utterances). This is supported by the dominance of R's English over her Korean in Australia. However, R's understanding of the meaning potential within postverbal negation did not appear to have been inhibited by the two different language learning environments, since she exploited that meaning potential creatively to her own advantage.

Taken all together, the results from my analysis of the processing patterns of R's postverbal negation lead to an interesting conclusion, namely, that when in Korea, R employed an L1 learning mechanism, while when in Australia, she was able to employ an L2 learning mechanism in addition to the L1.

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1 차원고접수 : 2009. 9. 13
2 차원고접수 : 2009. 12. 17
최종게재승인 : 2009. 12. 17

(요 약)

한국어와 영어 두 언어를 동시에 습득하는 한국어련이의 한국어 후치부정어 습득에 대한 연구

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본 연구의 목적은 첫째, 태어나면서부터 영어와 한국어를 동시에 습득하는 한 한국어련이 (R)의 한국어 후치부정어 발달과정을 살펴보는 것이고, 둘째, 후치부정어의 발달과정과 실제 사용상의 발달적인 측면에서 한국어만 습득하는 어린이들과 비교하여 비슷한 발달 모습과 다른 모습을 분석하는 것이다. 세 번째는 R의 한국어 부정어 습득 과정뿐만 아니라 관찰되는 특별한 형태의 원인을 규명하고자 하는 것이다. 본 연구의 대상은 한국어와 영어를 동시에 습득하는 어린이이며, 연구방법은 종단연구를 사용하였으며, 한국어의 후치부정어 발달을 5세에서 7세 사이의 2년에 걸쳐 연구하였다. 전체적으로 R의 후치부정어의 습득은 습득 환경의 영향으로 속도에 차이가 있으며 한국어만 습득하는 어린이와 비슷한 발달모습을 보이지만 다른 발달모습도 나타내는 것으로 나타났다. 이 연구 결과는 R이 호주에 살고 있는 동안에는 모국어와 제2언어 학습메커니즘 두 기능 모두를 사용한다는 것을 보여 주고, 그 반면에 한국에 살고 있는 동안에는 모국어 학습메커니즘 만을 사용한다는 것을 보여 주고 있다. 이러한 결과는 모국어와 제2언어 학습메커니즘이 기본적으로는 서로 다르지 않다는 것을 보여 주고 있다. 왜냐하면 한 어린이가 서로 다른 두 언어 환경에 따라 발달 과정이 퇴보하였다 진보하였다 하는 특성을 보여 주기 때문이다.

주제어 : 이중언어 습득, 후치부정어, 사회문화적 환경, 학습메커니즘, 제 1 언어, 제 2 언어

<Table 1> Frequency of inappropriate Type (1) and Type (2) preverbal negation forms from the diary taking

Periods	Type (1)	Type (2)	WPN in Postverbal N	Inappropriate Utterances in Total	Utterances in Total
I	40 (66.7%)	8 (13.3%)	12 (20%)	60 (21.6%)	278
II	23 (57.5%)	11 (27.5%)	6 (15%)	40 (22.5%)	178
III	88 (67.7%)	22 (16.9%)	20 (15.4%)	130 (41.7%)	312
IV	33 (64.7%)	9 (17.6%)	9 (17.6%)	51 (50%)	102

WPN stands for 'negators which are placed in a Wrong Position in a Negative sentence'