

Acquisition of English Verb Aspect by Korean Speakers: A Longitudinal Analysis*

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The Aspect Hypothesis asserts that verb inflections in the early interlanguage stage function primarily as markers of lexical aspect. Past tense will first be marked on accomplishment and achievement verbs, progressive will be marked first on activity verbs, and there is no overgeneralization of progressive to state verbs. Ample evidence supporting this hypothesis has been gathered in both first and second language acquisition research (cf. Andersen, 1991; Antinucci & Miller, 1976; Bardovi-Harlig & Reynolds, 1995; Bronckart & Sinclair, 1973; Robison, 1990). The studies conducted so far, however, have focused on only a few source and target languages, and few studies have tested the Hypothesis using a longitudinal approach. Furthermore, no studies have tested the Hypothesis using SLA data of Korean speakers. For a more thorough understanding of the SLA process, we need to investigate the Hypothesis with different types of language development.

This study longitudinally investigated the development of English interlanguages by two Korean speakers. Audiotaped spontaneous conversation and elicited speech collected over thirteen months were analyzed to test the Hypothesis. The results supported two claims of the Hypothesis. The learners marked past tense first on achievement and accomplishment verbs, and progressive marking first on activity verbs. However, contrary to the Hypothesis, learners used progressive marking on state verbs. The predicted extension of past tense marking, from achievement and accomplishment to activity and state, and of progressive marking from activity to accomplishment was not observed.

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1. Introduction

During the last twenty years the concept of temporality has gained significant research attention in the field of both first and second language acquisition (cf., Antinucci & Miller, 1976; Bronckart & Sinclair, 1973; Brown, 1973, for L1 studies, and Kumpf, 1983; Sato, 1990, for L2 studies). The studies on the concept of temporality in SLA, however, are still in embryonic stages although many interesting findings have been reported in the literature. Most of the SLA studies devoted to this area, for instance, have been done on the acquisition of Indo-European languages by Indo-European speakers. For a more thorough understanding of this area, it is necessary to conduct research on different source and target languages. In addition, not only is the sum of the studies devoted to this area still very few but the studies conducted so far also provide the description of the product of language acquisition rather than the explanation of the process of language acquisition. Therefore, more studies adopting a longitudinal method which can provide a dynamic explanation of language acquisition are needed.

Research on the development of aspect by first and second language learners of a variety of different languages has great potential for helping to explain the process of language acquisition, adding a basis for cross linguistic comparisons, and thus finding universality of language acquisition. As a continuation of this line of research, the present study longitudinally observes the acquisition of aspect by two Korean speakers of English, and reports the developmental patterns on the acquisition of aspect.

2. Review of Literature

The present study focuses on temporal reference, especially on aspect because of the following reasons. First, the expression of temporality not only is a fundamental category of human experience and cognition, but plays an important role in communication as well (Dietrich, Klein, & Noyau, 1995). Next, more broadly, examining and explaining the process of creating an interlanguage (IL) system will help us in expanding and furthering our knowledge about language learning and acquisition. Last of all, from a pedagogical point of view, since acquisition of aspect is considered one of the

most important and difficult parts of the language learning, observation, description, and explanation of the aspect acquisition processes adopted by language learners would play a part in facilitating to create optimal approaches and techniques for second language teaching.

2.1. Definition of Aspect

Aspect is defined as “the general name given to verb forms used to signify certain ways in which an event is viewed or experienced” (Jacobs, 1995, p. 199). Unlike tense, aspect does not relate the situation to any other particular time span but is confined to refer to the temporal structure of one situation (Chung & Timberlake, 1985; Comrie, 1976). There are two types of aspect, grammatical and inherent lexical aspect. Grammatical aspect refers to aspectual distinctions that are marked explicitly by linguistic devices as in (1).

- (1) I slept. (simple past)
I was sleeping. (past progressive)

A single verb may show contrasting grammatical aspect as in (1) but its inherent lexical aspect does not change. Inherent lexical aspect refers to the characteristic of what is inherent in the lexical items that describe the situation. In these sentences, “sleep” has intrinsic duration whether in simple past or past progressive. These distinctions are noted by the Vendler (1967)’s framework of lexical aspects which consists of states, activities, accomplishments, and achievements (see, cf. Morelato, 1981; Smith, 1983, for other works following Vendler’s model). These four lexical classes can be distinguished by three features—dynamicity, telicity, and punctuality (Andersen, 1991; Bardovi-Harlig & Reynolds, 1995; Chung & Timberlake, 1985; Comrie, 1976). Dynamicity distinguishes dynamic events from states. States exhibit little or no change over time, while a process which changes is called dynamic event. Telicity refers to whether an action has a naturally defined end-point such that once that end point is reached, the action is completed and cannot continue. Telic predicates exhibit a process with an inherent limit, whereas atelic predicates, a process without limit. Punctuality distinguishes durative from punctual predicates. Durative events take place in a certain period of time, while punctual events take

place instantaneously.

States are non-dynamic and persist over time without change. Verbal expressions that designate states are “seem, have, believe, think, know, understand, need, want, contain, see, love, hate, be (sick, surprised, sad, tall, happy, rich), etc.”¹ Activity predicates are atelic and thus do not assume a natural (or inherent) end-point. They have inherent duration in that they involve a span of time. Examples of activity verbs include “rain, write, read, swim, walk, talk, run, sing, play, dance, etc.” Achievement predicates are telic punctual, and capture the beginning or the end of an action. Examples of these predicates include “arrive, leave, notice, recognize, fall asleep, die, reach the summit, win a race, catch a dog, sit down, get surprised, get sad, realized, etc.” Accomplishment predicates are telic non-punctual, and thus have some duration, but have a single clear inherent end point. Verbal expressions that designate actions involved in accomplishment situations are “run a mile, make a chair, build a house, read a book, write a letter, paint a painting, etc.” The four types of situations classified here can be summarized in the following examples (2)~(5).

- | | |
|----------------------|-------------------|
| (2) States: | I was sick. |
| (3) Activities: | I sang. |
| (4) Accomplishments: | I wrote a letter. |
| (5) Achievements: | I woke up. |

2.2. Research on Acquisition of Aspect

A number of studies in first and second language acquisition have accumulated evidence that verbal morphology initially develops to encode aspect rather than tense (e.g., Antinucci & Miller, 1976; Bloom, Lifter, & Hafitz, 1980; Bronckart & Sinclair, 1973, for FLA, Bickerton, 1981 for Creole studies, Andersen, 1991; Bardovi-Harlig, 1992; Bardovi-Harlig & Reynolds, 1995; Kumpf, 1983, Robison, 1990, 1995 for SLA; see Andersen & Shirai, 1996 for comprehensive review of research on aspect).

The claim that verbal morphemes initially mark lexical aspect in language acquisition has been referred to as the Aspect Hypothesis (cf.

¹ The examples of lexical aspects are from Bardovi-Harlig & Reynolds (1995), Chung and Timberlake (1985), Comrie (1976), Mourelatos (1981), and Smith (1983).

Robison, 1995), the Defective Tense Hypothesis (cf. Andersen, 1991; Weist, Wysocka, Witdowska-Stadnick, Buczowska, & Konieczna, 1984), or the Primacy of Aspect Hypothesis (cf. Andersen & Shirai, 1996). It asserts that "as inflections emerge in IL, they are not evenly distributed across all verbs, but redundantly mark inherent—or lexical—aspect, the temporal features resident in the lexical meaning of the predicate" (Robison, 1995, p. 344). The Aspect Hypothesis is composed of four elements (Andersen & Shirai, 1996). First of all, learners first use past or perfective marking on achievement and accomplishment verbs and later gradually extend the marking to activity and stative verbs. Secondly, in languages with an imperfective marker (e.g. Russian or other Slavic languages), imperfective past appears later than perfective past and then is initially restricted to states and activity verbs, then extended to accomplishments, and finally to achievements. Thirdly, progressive marking is initially restricted to activity verbs and extended to accomplishments and achievements. Lastly, progressive marking is not incorrectly overextended to states.

In support of the hypothesis, ample evidence has been gathered. The research on first language (L1) and Creoles, for example, has accumulated the evidence that verbal aspect is primary relative to tense, and as a result, aspect morphology tends to develop before tense morphology (Meisel, 1987; Robison, 1990). The primacy of aspectual value of tenses over their temporal value was tested by Bronckart and Sinclair (1973, acquisition of French) and Antinucci and Miller (1976, acquisition of Italian) in L1 literature. They asserted that children first express aspectual rather than temporal notions. Studies on Creole also affirmed the hypothesis that in Creole, a fairly complicated aspectual system may be developed before temporal notions are coded in the developing system and the expressive devices are usually verbal elements, never adverbials.

Not only has this pattern been observed in first language acquisition but it has also been reported in L2 development research, such as Andersen (1991) and Robison (1990). These studies suggest that lexical aspect determines the distribution of verbal morphology in low proficiency adult untutored learners. Bardovi-Harlig and Reynolds (1995) also confirmed the hypothesis, reporting that lexical aspect influences acquisition even in classroom language learners.

A body of research has reported findings that support the Aspect Hypothesis but it is still needed to be tested in various perspectives. The claim that no overgeneralization of progressive on stative verbs in the acquisition of English as a L1 has never been challenged seriously. Research by Shirai (1994) and Aitchison (1983), however, reported that overgeneralization of progressive inflections to stative verbs does occur in the acquisition of English as a L1. Furthermore, even though abundant research on the use and appearance of tense and aspect has been conducted, the question of "aspect before tense" has different interpretations in the literature. For example, in contrast to other studies, Meisel (1987) found evidence that unlike L1 acquirers, adult L2 acquirers develop temporal systems, both formal devices and functional notions, before they develop the aspectual systems.

The difference between FLA and SLA may be because adults use different conversational strategies or because children make use of innate knowledge which make aspectual distinctions more easily accessible to them than a temporal organization (Meisel, 1987). SLA by children, who already use and comprehend tense and aspect system, would provide answers to these questions. In other words, we may expect to find that children differ markedly from our adult L2 acquirers with respect to the functions expressed as well as to the formal devices used. In order to answer the question of "what are the differences among different types of language development?" we need to know whether children first refer to aspectual distinctions.

2.3. Purpose of the Study

The study examines the acquisition of aspect of English. Especially, it tests the Aspect Hypothesis (Anderson, 1986, 1991; Robison, 1990, 1995) which asserts that verb inflections in early IL systems function primarily as markers of lexical aspect. Further, it investigates what general development patterns could be found in the process of aspect acquisition. The study collected data from two Korean children acquiring English who were in the early stage of language acquisition. No longitudinal study on temporality in SLA appears to have been done so far on Korean speakers acquiring English.

Specifically, the study will address the following questions:

1. On which lexical aspects do the learners first encode past tense marking?
2. On which lexical aspects do the learners first encode progressive marking?
3. What are the developmental changes in the production of aspect?
4. Is progressive marking overextended to stative verbs?

3. Method

3.1. Participants²

The informants of this study were siblings, Sun and Young, whose family arrived in the United States in late August, 1995. Sun and Young's selection as informants for this study was motivated by the following reasons. First of all, since they had recently arrived in the target country, it was thought to be ideal to study SLA from almost the beginning of the language development as well as to observe developmental changes in a short period. Next, they were available for observation over a fairly long period of time because their father was a visiting scholar from Korea. Third, no studies have tested the Hypothesis using SLA data of children. For a more thorough understanding of the SLA process, we need to investigate the Hypothesis with different types of language development. Last but not least, their first language, Korean, had not been the focus of any previous SLA studies.

The data collection started after five months of their family's arrival to Hawaii and four months of schooling in the American education system. Sun was fourteen years and seven months old and Young was ten years and nine months old at the time of the first data collection.³ Sun is an excellent Korean dancer and Young is skilled in Taekwondo and a good soc-

² To protect the anonymity of the participants, pseudonyms were used in this study.

³ At the beginning of the study, the informant selection criteria were extensively discussed with the researcher's advisors. Since one year of English education through the grammar-translation method was not thought to significantly affect the acquisition process, Sun's as well as Young's second language development were observed for the present study. Furthermore, the present study investigated the language development of the two informants separately.

cer player. Both of them were enrolled in a local public school during the data collection period. Young was in the fourth grade and Sun was in the eighth grade.

Sun had one year of formal English instruction in middle school in Korea, whereas Young did not have any formal or informal English instruction before leaving Korea. Neither of them had ever visited or lived in English-speaking countries. By the end of the study, it was apparent that they were adjusting satisfactorily to the American educational system and daily life. They got along well with their new friends as well as the native speaker (NS) interlocutors of this study.

One of the researchers' friends, Brian was a main NS interlocutor. Two others, Michael and Charlie, also participated in the study in case Brian was not available. All of them were students at U.H. in their late twenties to early thirties.

3.2. Procedure

The data for this study were collected through bi- or tri-weekly audiotaping of visits at the informants' home. Since the data were collected in the context of their home, the taping of data was done in relative peace. The data collection sessions were recorded on a tape recorder which was placed on the table between the informants and the interlocutor.⁴ The informants seemed to feel comfortable with the tape-recorder. During the recording period, the researcher made detailed notes to describe the situation as much as possible.

The participants were given something in return on a regular basis. The researcher sometimes helped the informants with their homework even though private tutoring of English was not provided. For the English-speaking interlocutors, the researcher treated them to authentic Korean food in return.

3.2.1. Tasks

As Pollio (1990) asserted, it is difficult to determine a non-native speaker's intention regarding aspect. In order to avoid these difficulties and to in-

⁴The most ideal way to collect natural language data is to record informants' speech without their knowledge of the tape recorder. However, since it is ethically questionable, the tape recording was conducted within children's knowledge.

interpret and control the data more precisely, data elicitation was employed in addition to interviews. Furthermore, performance of the same tasks in their first language was elicited for a more accurate interpretation of verb aspect. In the spontaneous conversation task, it was believed that the more accurate interpretation of the meaning of the informants' IL is possible if researchers have more background knowledge of them. Therefore, the researcher tried to share as much time as possible with them by accompanying them on field trips and to restaurants, movies, and concerts. Owing to this, it was also possible to create and keep a friendly and informal atmosphere for every interview. Furthermore, these activities helped retain the informants for as long as thirteen months of regular meetings, which is often a problem in longitudinal studies.

The data collection schedule for the five different tasks is provided in Table 1. As is shown in Table 1, the two sessions are composed of one set of five different tasks. A total of twenty sessions, ten time intervals of data, was collected for about thirteen months. Given approximately one hour of recording per session, the data of ten hours for each informant was reviewed for analysis. The total number of words in corpus was 38,408, i.e., 18,134 for Sun's and 20,274 for Young's data.

Table 1. Data Collection Session and Tasks

Session 1	Session 2
1. spontaneous conversation	1. spontaneous conversation
2. story narration task without pictures (Bicycle Story)	2. story translation (Frog and Toad Are Friends)
3. picture description task (Traffic Accident)	3. story narration task with picture (Frog Story)

For spontaneous conversation, there was no set topic, but the starting question would normally refer to the informants' daily activities from the previous meeting to the current day. The major topics of the conversation were their school activities, their friends, or church activities. One of the most interesting topics to Young was new video games such as DonkyKong, X-man, and SuperMario; to Sun, it was shopping at Ala Moana and her Korean dance performance.

For the story narration tasks, the Bicycle Story and the Frog Story were used. In the Bicycle Story task, the informants were given pictures to look at for two to three minutes, after which the NS interlocutor took away the pictures from the informants and asked them to tell the story in detail. In the Frog Story task, the informants were allowed to keep the pictures while they retold the story. In the picture description task, the informants were given a picture and then were asked to describe it in detail. For the story translation task, the informants were given a Korean story accompanied by pictures and were asked to read the story until they felt ready to tell it in English. After the Korean reading was taken away from them, they retold the story while looking at the pictures.

3.2.2. Transcription

The process of transcribing the collection of tape-recorded speech was painstaking. After each tape had been recorded, the informants' speech was transcribed using English orthography supplemented by symbols of IPA (International Phonetic Alphabet) in the case of severe mispronunciations.⁵ The NS interlocutors' speech was transcribed using standard English orthography. For the systematicity and the future use of the corpus, the CHAT (Codes of the Human Analysis of Transcripts, cf. MacWhinney, 1995) format was used in the transcription.

3.3. Analyses

The Aspect Hypothesis was tested by the following steps. First of all, among all of the verb tokens the learners used, different verb types accompanied by VP complements were identified. Second, the lexical aspect of each verb type was determined by means of operational tests (cf. Dowty, 1979; Vendler, 1967). The sentences in (5) to (7) illustrate the application of the test to verb phrases that provide examples of the four lexical categories.

⁵ Even though IPA transcription is a useful, valuable, and necessary tool of investigation for the analysis of everyday communication, an IPA transcript contains too much information. Furthermore, since the use of only standard orthography can lead to considerable loss of information that may be important for later analysis, standard orthography supplemented by IPA was used to solve this problem. (cf. Ehlich, 1993).

- (6) Stative/Non-stative
1. Only non-statives occur in the progressive:
 - a. *Jane is knowing the answer.⁶
 - b. Jane is playing basketball.
 2. Only non-statives appear in Pseudo-cleft constructions:
 - a. What Jane did was play basketball.
 - b. *What Jane did was know the answer.
 3. Only non-statives have habitual interpretation in simple present tense:
 - a. Jane knows the answer. (non-habitual implies state)
 - b. Jane runs. (habitual implies non-state)
- (7) Activities and Accomplishments
1. Accomplishments allow the two phrases, *for two minutes, (hours, days, etc)* and *in two minutes, (hours, days, etc)*:
 - a. Jane made rice for an hour.
 - b. Jane made rice in an hour.
 2. Activities allow only the phrase *for two minutes (hours, days, etc)*:
 - a. Jane walked for two hours.
 - b. *Jane walked in two hours.
 3. Accomplishments allow both *spend two minutes, (hours, days, etc) -ing* and *take two minutes, (hours, days, etc) to V*:
 - a. Jane spent an hour making rice.
 - b. It took Jane an hour to make rice.
 4. Activities allow only *spend two minutes, (hours, days, etc) -ing* phrase:
 - a. Jane spent two hours walking.
 - b. *It took Jane two hours to walk.
- (8) Achievements and Accomplishments
1. Achievements are generally quite strange with the phrase *for two minutes, (hours, days, etc) spend two minutes (hours, days, etc.)*:
 - a. *Jane died for two days.
 - b. Jane died in two days.

⁶ An asterisk means unacceptable sentences.

2. Unlike accomplishment verbs, achievements are generally unacceptable as complements of *finish*:
 - a. *Jane finished dying.
 - b. Jane finished making rice.
3. Unlike accomplishment and activity verbs, achievements are generally unacceptable as complements of *stop*:
 - a. *Jane stopped dying.
 - b. Jane finished making rice.

These criteria for classifying four lexical categories are summarized in Table 2.

Table 2. Lexical Aspect and its Criteria

Criteria	STV	ACTV	ACPL	ACHV
1. progressive	no	yes	yes	?
2. pseudo-cleft	no	yes	yes	?
3. habitual interpretation	no	yes	yes	yes
4. for-phrase, spend an hour <i>Ving</i>	yes	yes	yes	no
5. in-phrase, take an hour to V	no	no	yes	yes
6. complement of <i>finish</i>	no	no	yes	no
7. complement of <i>stop</i>	yes	yes	yes	no

After the classification of verbs according to four lexical aspects, every token of the verbs of each category was counted. When two predicates had the same main verb but differed in lexical aspect by the test, they were treated as distinct types. And then, in the four lexical categories, the verbs with past marking and progressive marking were identified and tallied respectively. Finally, the percent use of the verb according to four different lexical categories in the past and progressive marking was calculated and compared at the ten time intervals.

4. Results

In total 1,612 tokens of verbs, one hundred and thirty four different types of verbs were identified from both Sun's and Young's data. Through the operational test, these verb types were categorized into four lexical as-

Table 3. Lexical Aspect of Verb Types

	State	Activity	Accomplishment	Achievement
Verbs	feel	bother	check	ask
	hate	break	draw a picture	buy
	have	carry	eat (lunch)	change
	hear	dance	fall	catch
	know	do my homework	fix	choose
	lie down	drive	grow up	come
	like	fight	introduce	cross
	look like	fly	learn	die
	mean	go (slowly)	leave	end
	miss sb.	go shopping	leave Hawaii	find
	need	hit	make sth.	finish
	see	hold	memorize	forget
	sit	interest	order sth.	get (sick)
	stay	laugh	paint a picture	get off
	think so	laugh at sb.	pass (by NP)	get up
	take	live	pay (for NP)	give
	want	look sth.	pitch the ball	go to beach
	try	meet	plant	grow sth.
		open	pour water	happen
		play	pray	hurry
		point at	read	lose sth.
		practice	ring	move
		push	sell	miss sth.
		put	type	remember
		rain	walk to NP	see
		ride	wipe	sign
		run	write a letter	start
		run (for sth.)		stop
		say		stop -ing
		seek		wake
		shout		turn the corner
		sing		
		sing a song		
		sit at a desk		
		sleep		
		smile		
		snow		
		stand up		
		study		
		swim		
		take sth. from sb.		
		talk		
		teach		
		tell		
		think		
		throw		
		try to do sth.		
		try one's best		
		wait		
		walk		
		watch		
		water		
		wear		
		work		
		write		
		yell		

pects as is illustrated in Table 3. Based on this taxonomy, the lexical aspect of each token of the verbs was identified and then grouped into categories according to verbal morphology: past, which included regular and irregular past tense forms; nonpast, which included simple present or uninflected base forms; and progressive, which included -ing, present progressive and past progressive forms.

4. 1. Past Marking

The distribution of the past marking by four lexical aspects in the ten time intervals is provided in Tables 4 and 5. The percentage figures in each table represent the distribution of past marking within each lexical aspect, i.e., each percentage represents the portion of tokens in the given aspectual classification that have the past marking. As is illustrated in Figures 1 and 2, concerning the first claim of the hypothesis, the results reinforce the earlier findings. In other words, both of the learners applied past markers to accomplishment and achievement verbs more than state or activity verbs. As is shown in Figures 1 and 2, the increase rate of marking past tense on accomplishment and achievement verbs is higher than that of state and activity verbs.

Table 4. Past Marking on Four Lexical Aspects (Sun)

		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Stv	Total	5	8	10	9	9	13	16	18	15	10
	Past		2		2			2	5	5	3
Act	Total	12	28	36	34	30	22	27	19	23	30
	Past			2		2	4	6	7	6	9
Acp	Total	9	12	6	13	8	10	14	5	7	12
	Past		3	2	4	2	1	4	2	4	3
Ach	Total	7	15	15	10	20	18	11	15	27	18
	Past	3	2	5	2	8	12	5	9	20	11
%											
Stv/Act		0	6	4	5	5	11	19	32	29	30
Acp/Ach		19	19	33	26	36	46	36	55	71	47

Table 5. Past Marking on Four Lexical Aspects (Young)

		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Stv	Total	2	3	6	10	9	17	10	9	7	13
	Past						1	3	2		8
Act	Total	4	12	30	32	33	52	48	48	42	51
	Past		1	2	2	3	2	3	10	9	9
Acp	Total	2	2	4	2	12	9	3	7	7	7
	Past			1		4	2		2	2	3
Ach	Total	4	5	9	9	9	13	26	22	22	35
	Past			2	2	1	4	10	10	13	26
% Stv/Act		0	7	6	5	7	4	10	21	18	27
% Acp/Ach		0	0	23	18	24	27	34	41	52	69

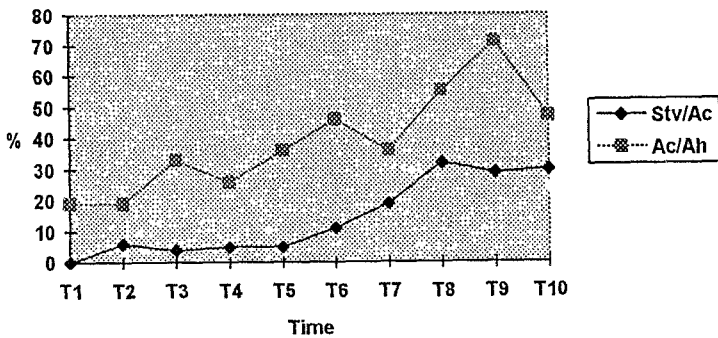


Fig. 1. Percentage of Past Marking by Lexical Categories (Sun)

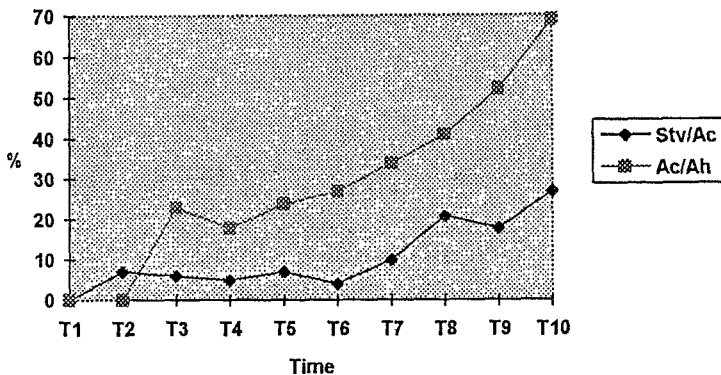


Fig. 2. Percentage of Past Marking by Lexical Categories (Young)

4.2. Progressive Marking

Tables 6 and 7 illustrate the distribution of progressive marking on four lexical aspects. The results supported the claim that progressive marking is first encoded in activity verbs, but the spread of progressive marking to accomplishment and achievement verbs was not observed (see Figures 3 and 4). Furthermore, the claim that children never make errors of attaching

Table 6. Progressive Marking on Four Lexical Aspects (Sun)

		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Stv	Total	5	8	10	9	9	13	16	18	15	10
	-ing				1			2			
Act	Total	12	28	36	34	30	22	27	19	23	30
	-ing	2	1	5	5	4	2	4	2	4	7
Acp	Total	9	12	6	13	8	10	14	5	7	12
	-ing		1	1		1	2	1			2
Ach	Total	7	15	15	10	20	18	11	15	27	18
	-ing					2					
%											
Act		17	4	14	15	14	9	15	11	17	23
Acp/Ach		0	4	5	0	11	7	4	0	0	7

Table 7. Progressive Marking on Four Lexical Aspects (Young)

		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Stv	Total	2	3	6	10	9	17	10	9	7	13
	-ing										
Act	Total	4	12	30	32	33	52	48	48	42	51
	-ing			3	5	5	8	5	2	10	14
Acp	Total	2	2	4	2	12	9	3	7	7	7
	-ing	1			2					1	1
Ach	Total	4	5	9	9	9	13	26	22	22	35
	-ing			1		1	1	2		1	1
%											
Act		0	0	10	16	15	15	11	4	24	27
Acp/Ach		17	0	8	17	5	5	7	0	7	5

-ing to state verbs was not supported. Unlike the claim of the Hypothesis, the results from Sun's data did show that the learner produced overgeneralized progressive inflections to a stative verb such as *thinking*, e.g., *I thinking so*. In Young's data, however, no overgeneralization of the progressive inflections to stative verbs was observed.

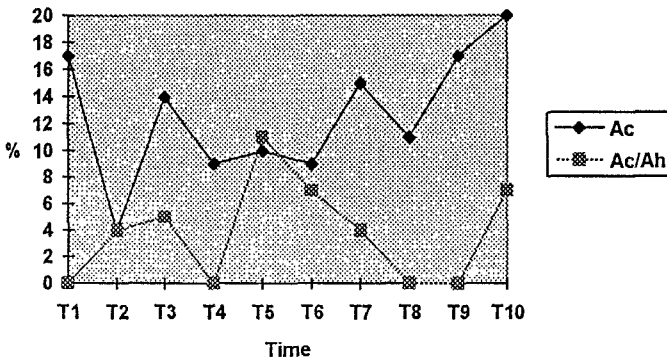


Fig. 3. Percentage of Progressive Marking by Lexical Categories (Sun)

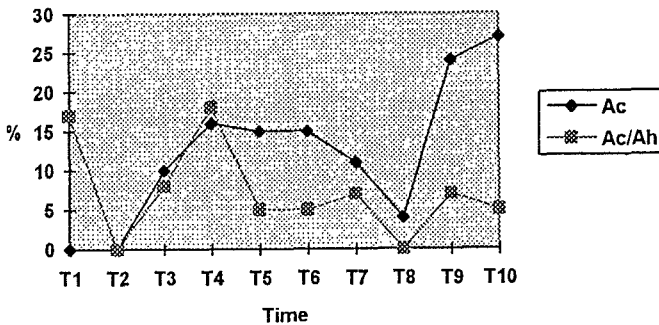


Fig. 4. Percentage of Progressive Marking by Lexical Categories (Young)

5. Discussion

The claim of the Aspect Hypothesis that learners mark past tense first on achievement and accomplishment verbs was supported. The second claim of the Hypothesis—progressive is first marked in activity verbs—was also supported. However, the development of lexical aspect marking, i.e.,

from achievement and accomplishment to activity and state in past marking and from activity to accomplishment and achievement in progressive marking, was not observed, perhaps because of the limited number of tokens and the short observation period. In particular, the number of tokens for the progressive marking was very limited because the learners started developing the target language morphology of adding *-ing* to verb forms at the end of the data collection. Data with more tokens and more linguistically developed IL data can provide a clearer view of the use of progressive as well as past markings and the developmental patterns of the linguistic features.

The third claim—there is no overgeneralization of the progressive to state verbs—was not supported in the present study. Not only the present study but also other studies (cf. Shirai, 1994; Aitchison, 1983, for L1 studies) reported the same results. The use of the progressive with state verbs might be because of the influence of input. For example, even though the verb *think* is generally categorized as states, it can be categorized as an activity verb and thus can be used with progressive form in such cases as *I have been thinking about it* or *What are you thinking about?*. In addition, as Smith (1983) pointed out, although stative progressive is considered ungrammatical, adult NSs use stative progressives in speech. However, in order to challenge this claim of the Hypothesis, more quantification studies should be conducted. Furthermore, the study of overgeneralization of the progressive to state verbs should address other questions such as the reason for the overgeneralization.

5. 1. Implications for the Second Language Instruction

Second language acquisition data can contribute to an understanding of acquisition process. If a common sequence for the acquisition structures in a second language can be identified, the next step might be to incorporate into the design of a syllabus the presentation and practice of these structures in the order in which they are acquired. However, understanding the conditions under which learning occurs does not directly pinpoint how to reproduce these conditions in an instructed SLA environment. Furthermore, as Long (1985) pointed out, it is not practical to group students according to acquisition stage. Even if students are at the same acquisition stage for

one structure, it cannot be guaranteed that they are at the same stage for other structures.

The current research findings, however, may have some implications for the second language instruction. For example, the results of this study have shown that the learners communicated successfully using limited vocabulary. In case of verbs, for example, they used one hundred and thirty four types throughout the study. The list of the vocabulary employed by the learners from the longitudinal studies might be used effectively as a basic guideline for selecting the vocabulary list for instructional purposes. The vocabulary lists for the EFL textbooks have been mainly decided by frequency counts of vocabulary, such as provided in *COBUILD English Dictionary* (1995) or *Frequency Analysis of English Vocabulary and Grammar* (Johanson, 1989). This frequency information, however, is based on the vocabulary of the NSs rather than that of the second language learners. The list based on the second language learners' actual use and needs of the language may provide more accurate information about which words will be most useful for learners of English and the list would also follow the acquisition stage of language development.

Implications of research in second language acquisition for classroom instruction must be approached with caution. However, if the language teachers and program developers understand the acquisition processes in SLA more, the classroom instruction and materials offered by them would be more insightful.

6. Conclusion

The present study is characterized by a number of features shared by only a few others: (1) the longitudinal study of Korean learners acquiring English as a second language; (2) the use of natural conversational data as well as controlled data; (3) two informants who are older rather than younger children; (4) the attempt to test the Aspect Hypothesis using longitudinal data.

As a counterpoint to these features, it is important to note the study's limitations. One limitation is that the period of data collection, thirteen months, was not long enough to examine some important developmental patterns adequately. For instance, since the learners started to use progres-

sive marking towards end of the study, the overall pattern of the development of the progressive marking was not observed. Data collection for at least two or even three years seems necessary. Fortunately, follow-up data collection will be possible because the informants' family is going to stay in the States for at least another two years.

Based on the results and the limitations of the study, suggestions for future studies in this line of research can be made: (1) There is a need for longitudinal studies into long-term development which can answer the question of a more full view of IL development; (2) Further research is required to determine the influence of lexical aspect is realized in different target languages; (3) The present study focused on very limited number of linguistic or non-linguistic features. A study focused on more features will provide an explanation of the interplay of the various features as well as a fuller picture of the second language acquisition process.

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