

Time Talk by Korean Young Learners of English*

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No, GyeongHee. (2008). Time talk by Korean young learners of English. *English Teaching*, 63(2), 95-120.

The present study is designed to test how Korean-speaking young learners of English make the aspectual distinctions and how they talk about the past events. An experiment was conducted on 65 learners of English in grade 3 and 7 returnees, asking them to describe 19 film clips in English and Korean. The results demonstrated that the classroom young learners showed biased distribution in the use of tense and aspect morphology in English: They used the progressive *-ing* predominantly on activity verbs and past forms primarily on achievement verbs. Regarding viewpoint distinctions for the given events, they were guided by inherent lexical aspect of verbs rather than actual situational properties of the events, and failed to distinguish between different viewpoints, apparently not knowing the meaning or function of the progressive *-ing*. A comparison across the Korean task and the English task revealed that the use of tense-aspect morphology is universal in that progressive forms are used mostly for activities and past forms primarily for achievements, but language-dependent in that the same events of accomplishments are described differently in L1 and L2. This is interpreted as evidence that the development of the interlanguage system is autonomous of the mother tongue.

I. INTRODUCTION

Over the last three decades, extensive studies have shown an interesting universal pattern in the acquisition of tense-aspect morphology. Researchers in both L1 and L2 acquisition have consistently observed that the development of tense-aspect morphology is strongly influenced by inherent semantic properties of verbs. Learners in the early stages of language acquisition use past forms primarily for achievements and accomplishments

* An earlier version of this paper was presented March 23, 2007 at The 41st Annual TESOL Convention, Seattle, Washington. I am grateful to Tom Scovel, David Kellogg, Larry Selinker, and Ari Sherris for their insightful comments and support, and to the participating students and teachers for their cooperation.

and progressive forms predominantly for activity verbs. This phenomenon has been confirmed with a wide variety of languages, including English, French, Italian, Spanish, Chinese, and Japanese, and is variously referred to as the Defective Tense Hypothesis (Weist et al., 1984), the Primacy of Aspect Hypothesis (Andersen & Shirai, 1996; Shirai, 1991), the Aspect Hypothesis (Bardovi-Harlig, 2000; Robison, 1995; Rohde, 1996), the Lexical Aspect Hypothesis (Salaberry, 2000), or the Inherent Aspect Hypothesis (Housen, 2002). This study will collectively refer to it as the Primacy of Aspect Hypothesis.

Although previous studies have provided valuable insights into our understanding of how learners acquire tense-aspect morphology, some issues still remain to be solved. First, none of the previous studies, to my knowledge, have addressed the crucial issue of whether the learners are guided by actual aspectual properties of events or by inherent lexical aspect of verbs when they make aspectual distinctions. Second, few studies have directly dealt with the acquisition of function of the progressive *-ing*, providing obligatory contexts for its use. Third, little is known about how a learner describes the same events in two different languages, L1 and L2. It will be interesting to see whether the primacy of aspect is due to a universal cognitive tendency or due to language specific characteristics.

The empirical basis of the Primacy of Aspect Hypothesis for young classroom learners is still narrow. There have been extensive studies which reported on L2 adult learners in classroom contexts (Bardovi-Harlig & Bergstrom, 1996; Bardovi-Harlig & Reynolds, 1995; Shin-Hye Kim, 1999; Robison, 1995) and child learners in naturalistic contexts (Eun-Joo Lee, 2001; Rohde, 1996, 2002). However, few studies have been conducted on L2 child classroom learners. The present study goes beyond mere replication of the issues dealt with in the previous studies and tries to broaden our view on the development of the interlanguage system.

II. THEORETICAL BACKGROUND

1. Tense and Aspect

Tense and aspect are complementary temporal systems. Tense locates an event in time coding the deictic relationships between speech time and event time. Aspect, on the other hand, presents the internal structure of the event, characterizing “different ways of viewing the internal temporal constituency of a situation” (Comrie, 1976, p. 3). The two sentences, *Rosa is dancing* and *Rosa was dancing*, differ in tense, the former being present and the latter past. Conversely, the sentences, *Rosa danced* and *Rosa was dancing* contrast in aspect, the former viewing the situation externally and the latter internally. Temporal information of a sentence is represented by a composite of both tense and aspect.

There are two types of aspect: situation aspect and viewpoint aspect (Smith, 1991, 1997). Situation aspect, which is more often called lexical aspect, is based on inherent temporal properties of verbs or predicates. For example, *love* is inherently stative while *dance* is inherently a process. Vendler (1967) classified situation types of verbs into four categories: state, activity, accomplishment, and achievement. The situation types can be characterized with three semantic distinctions, dynamicity (stative vs. dynamic), durativity (durative vs. punctual), and telicity (telic vs. atelic) (Comrie, 1976). Table 1 shows how the Vendlerian four verb categories interact with these three distinctions. Dynamicity distinguishes state from the other three events (activity, accomplishment, achievement), since this situation type does not have dynamic properties. Telicity differentiates activity from accomplishment and achievement, both of which have natural endpoints. Durativity separates accomplishment from achievement, in so far as accomplishment has a clear endpoint.

TABLE 1
Characteristics of Situation Types

Situations	dynamic	telic	durative
States	–	–	+
Activity	+	–	+
Accomplishment	+	+	+
Achievement	+	+	–

Most of the previous studies on the acquisition of tense and aspect discuss aspectual distinctions focusing on Vendler's four classes. It should be noted that Vendler's four aspectual categories are classified by focusing on verbs, not on verb phrases or predicates, even though aspectual classes of predicates are not determined based on verbs alone. However, arguments and/or adjuncts also play an important role in determining aspectual categories. For example, *walk* denotes an activity whereas *walk to the school* is an accomplishment. Smith (1991, 1997), on the other hand, employed the concept of 'verb constellation' to decide aspectual categories of a sentence. In this paper, I will follow Smith in her theory of aspect, but not including the semelfactives (e.g., *cough*, *jump*) of her fifth category.

Smith (1991, 1997) develops her theory of aspect, assuming that the aspectual categories are not language dependent, but are based in human cognitive abilities. She shows the properties of situation types using temporal schema as in (1). I and F indicate initial and final points of events and the dots represent internal dynamic stages.

(1) Temporal Schema for Situation Types

- States: (I) ____ (F)
- Activities: I F_{Arb}
- Accomplishments: I F_{Nat} (R)
- Achievements: I (R)
F

States are stable situations with no dynamic stages, consisting of a single period represented by a solid line. Typical states include [be happy] and [own a house]. Activities are processes which have successive stages. Activities terminate but do not finish since they have no natural endpoint. Typical activities are [swim] and [dance]. Accomplishments consist of a process and change of state which is the completion of the process, namely the natural endpoint. Typical accomplishments are [build a house] and [paint a picture]. Achievements are instantaneous events, as represented by simultaneous I (initial) and F (final) points, resulting in a change of state. The result of the change of state is symbolized as (R) and the dots represent preliminary and resultant stages. Typical achievements are [win the race] and [break a glass].

Viewpoint aspect, often called grammatical aspect since it is marked by grammatical forms, presents a perspective on situations. For example, perfective viewpoint looks at the situation from outside and imperfective viewpoint from inside. Perfective viewpoints include both endpoints (I and F) of a situation, while imperfective viewpoints focus on internal stages excluding initial and final points. In English, for instance, viewpoint aspect is denoted by the progressive *-ing*: the presence of the form indicates imperfective and its absence, perfective. Smith compares viewpoint aspect to the lens of a camera. Situations are the objects on which viewpoint lenses are trained, and viewpoint aspect determines how much of a situation they make visible.

Aspectual information of a sentence is represented by a composite of situations and viewpoint. To put it differently, situation type interacts with viewpoint, generating various interpretations. If perfective viewpoint is used on accomplishments as in (2a), for instance, it implies that the event is completed. If imperfective viewpoint is used on the same accomplishments, however, the receiver does not know whether the event is completed or not. In (2b), the receiver cannot figure out whether Rosa completed the painting of the house or not since the camera lens does not make the final point visible (The slashes in (2) indicate the part of the situation schema that is focused by the viewpoint).

(2) Temporal Schema of Viewpoint Aspect

a. Perfective: Rosa painted a house.

I FNat

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b. Imperfective: Rosa was painting a house.

I FNat

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The tense systems in English and Korean are similar. Like English, Korean has two tenses: past and nonpast (Chung-Soo Suh, 1996). Past tense is indicated by the morpheme *-ess* attached to any base verbs. Progressive ongoing events are indicated by the morpheme *-ko iss*. The Korean progressive *-ko iss*, however, differs from the English progressive *be+ing* in that it can refer to a resultative state and can be used with some stative verbs (e.g., *know*). In a narrative style, atemporal base verbs are used without specifying any tense.

2. Studies on the Primacy of Aspect Hypothesis

As early as the 1970s, studies in first language acquisition reported that children initially use verb inflections to mark aspectual distinctions such as telic versus atelic rather than tense. For instance, Bronckart and Sinclair (1973) first noticed that French-speaking children predominantly used the past form (*passé composé*) for events with a clear end result, but the present tense (*présent*) for those with no result. With Italian-speaking children, Antinucci and Miller (1976) found a similar tendency to Bronckart and Sinclair. Children before the age of two used past forms exclusively with telic verbs. Bloom et al. (1980) investigated the development of verb morphology by English-speaking children and found that the children used past forms more often on accomplishment or achievement verbs and the progressive *-ing* mainly with activity verbs. Researchers in first language acquisition claimed that children use tense inflections to encode aspectual distinctions, and this has been called the Primacy of Aspect Hypothesis.

Beginning in the 1980s, the Primacy of Aspect Hypothesis has been repeatedly tested in second language acquisition. Shirai (1991) and Anderson and Shirai (1996) summarized the hypothesis as follows.

1. Children first use past marking or perfective marking on achievement and accomplishment verbs, eventually extending its use to activity and stative verbs.
2. In languages that encode the perfective-imperfective distinction, imperfective past appears later than perfective past, and imperfective past marking begins with stative

- verbs and activity verbs, then extending to accomplishment and achievement verbs.
3. In languages that have progressive aspect, progressive marking begins with activity verbs, then extends to accomplishment or achievement verbs.
 4. Progressive markings are not incorrectly overextended to stative verbs.

Extensive studies have been conducted to test the Primacy of Aspect Hypothesis in a wide variety of languages: English (Bardovi-Harlig, 1998; Kumpf, 1984; Robison, 1995), French (Bardovi-Harlig & Bergstrom, 1996), Italian (Giacalone-Ramat, 2002), Spanish (Andersen, 1991), Chinese (Li, 1989), and Japanese (Shirai, 2002; Shirai & Kurono, 1998). Some exceptions were reported regarding the fourth hypothesis of overextension of progressive marking on statives (Eun-Joo Lee, 2001; Robison, 1990; Rohde, 1996, 2002). Nevertheless, most of the researchers came to the conclusion that there is a universal pattern in the acquisition of tense-aspect morphology following the Primacy of Aspect Hypothesis.

To account for this phenomenon, several explanations have been proposed. Bronckart and Sinclair (1973) and Antinucci and Miller (1976), in a cognitive view following a Piagetian framework, attributed the phenomenon to the cognitive inability of the young child to conceive of the notion of pastness, and this was labeled the Defective Tense Hypothesis by Weist et al. (1984). This has been disconfirmed with adult L2 learners as they acquire the tense and aspect morphology moving in the same direction, just as the Primacy of Aspect Hypothesis predicted. Bickerton (1981), on the other hand, tried to account for the phenomenon using his Language Bioprogram Hypothesis, claiming innateness of language acquisition. According to him, children encode punctuality rather than tense with past morphology since they are born with the punctual-nonpunctual distinction.

Speaking from an input-driven point of view, Anderson (1993) proposed the Distributional Bias Hypothesis, which says that there is a distributional bias in the input to learners in that native speakers tend to use past morphology on accomplishment and achievement verbs and the progressive *-ing* primarily on activity verbs. Moving a step further, Shirai and Anderson (1995) and Andersen and Shirai (1996) adopted the prototype model from psychology to explain the reason for the distributional bias. The prototype theory put forward by Rosch (1973) to define category membership contends that there are prototypical members and marginal members in a category. For instance, *swallows* or *robins* are more prototypical members of the category 'bird' than *penguins* or *swans* are. Anderson and Shirai attributed the distributional bias in tense and aspect morphology to prototype effects within categories. They proposed that the prototypical member of past tense is achievements and that of progressive *-ing* is activities, and thus learners start using past inflections predominantly with achievement verbs, and progressive inflections with

activity verbs.

The vast majority of the researchers so far acknowledged that the Primacy of Aspect Hypothesis is a language universal phenomenon in that learners are sensitive to aspectual distinctions from the very early stages of language acquisition. Some crucial questions remain, however. First, it is unknown whether what the learners distinguish is the actual situational properties of events or some inherent lexical aspect of the verbs. A primary reason that this issue was not dealt with in the previous studies is that the researchers could not access actual situational properties of the production data under investigation. To judge the situation types of given expressions, they relied solely on linguistic contexts from narrative tasks such as film retelling, conversational data, or written data. This is very surprising when we admit that extralinguistic contexts such as actual physical properties as well as linguistic contexts are essential to decide the situation types of the events. As Andersen and Shirai (1996) and Housen (2002) rightly pointed out, the same lexical verbs can have different lexical aspects in different contexts. The same token [open the box], for example, can be classified in two different ways. If the box can be opened instantaneously, it is a punctual achievement; If it takes time to open it due to careful wrapping, then it is a durative accomplishment.

Also related with the problem above is a methodological weakness. Many of the previous studies relied on anecdotal naturalistic production data or uncontrolled narrative description, and thus the number of verbs was not balanced across lexical aspectual classes. In this case, repeated use of a few verbs may inflate the token count of specific semantic categories, blurring the aspect effect (In Kumpf (1984), most past-markings were given by *was*). They also lost crucial information on the use of verb inflections by pooling all the occurrences of the verbs.

The second question to be raised concerns the acquisition of meaning or function of tense and aspect morphology. No studies, to my knowledge, have directly addressed the issue of whether learners understand what the form progressive *-ing* stands for. Most previous studies clung to the tendency or preference of learners for tense-aspect morphology, not providing obligatory contexts for the forms. Bardovi-Harlig and Reynolds (1995) and Bardovi-Harlig and Bergstrom (1996) were successful in providing obligatory contexts for the use of the past in cloze-type tests, but this was not attempted for the progressive form in English (cf. Slabakova & Montrul (2002) for Spanish imperfective). It is essential to devise obligatory contexts for the progressive form where researchers can manipulate situational properties such as the duration time of events.

The third question worth bringing up is whether the interlanguage system is autonomous or language dependent in terms of the acquisition of tense and aspect. Smith (1991) assumed that the aspectual categories are not language dependent, but are based in human cognitive abilities. If this is the case, then we may expect that advanced learners or

bilinguals would describe the same events using the same aspectual viewpoint in two different languages, both L1 and L2.

3. Research Questions

The present study addresses the following questions. What is remarkable in the present study is that it focuses on aspectual distinctions including variations of viewpoints as well as situation type differences, providing obligatory contexts for the use of tense and aspect morphology. It also has some significance in that it tests the learners' L1 competence as well as L2 to gain a balanced view on the interlanguage system.

1. Do Korean-speaking young classroom learners follow the Primacy of Aspect Hypothesis?
2. When learners choose tense and aspect morphology, are they guided by actual situational features of the events or by the inherent lexical aspect of verbs? Are they sensitive to the contrast in viewpoint aspect, knowing the meaning or function of progressive *-ing*?
3. Do learners describe aspectual distinctions in the same way in their target language and native language? Is learners' interlanguage system autonomous or influenced by their native language?

III. METHOD

1. Participants

The participants were 80 Korean learners of English in grade three (aged 8 to 9 years old), selected from three different elementary schools located in Seoul. They had received English instruction in school for six to seven months since the beginning of the third grade, which amounts to less than 30 hours of instruction. Notice that in Korea English is taught as a regular subject under the national curriculum, starting from the third grade for an hour a week. This is increased to two hours a week in Grades 5 and 6. In the third grade, only spoken English is taught with a textbook which contains only pictures and some Korean instructions. Even though English instruction is given from the third grade in school, the vast majority of the learners began to learn English earlier than that in private institutions. Out of 80 students, 72 reported that they have been learning English for two to five hours a week outside of the school since between one to three years ago.

Seven returnees who returned from an extended stay in an English speaking country were included as a control group: five from America, one from England, and one from

New Zealand. They were born in Korea but had lived in those countries for three to nine years and came back to Korea less than a year ago. They were attending a returnee's class in grade 4, a sheltered class, in an elementary school in Seoul.

2. Design

The experiment was designed to test how Korean-speaking learners of English describe the aspectual distinctions and how they talk about the past events. Nineteen events were created on film clips to present aspectual distinctions in two dimensions: situation type aspect and viewpoint aspect, as schematized in Table 2. The figures in parentheses show the time in seconds taken for each event in film clips.

TABLE 2
Event Types

Situation Type Viewpoint	Activity	Accomplishment		Achievement
		Completed (perfective)	Terminated (imperfective)	
Event	Swim	draw cup	draw circle	touch nose
	(9)	(17)	(5)	(4)
	sleep	write 'A'	write name	throw ball
	(9)	(11)	(10)	(6)
	read book	color star	color ship	kiss stuffed animal
	(9)	(30)	(8)	(4)
	watch	paint dog	paint house	drop eraser
	(9)	(27)	(8)	(3)
	play violin	close door		open box
	(9)	(10)		(5)

The variable of situation type includes three semantic categories (activities, accomplishments-completed, achievements), each type having five events. Stative, which is not an event, was excluded since it was not easy to create scenes to show stative properties on film clips.

The variable of viewpoint aspect, perfective versus imperfective, was devised to investigate how the learners use the progressive *-ing* in obligatory contexts. The viewpoint variable was nested within the situation type, accomplishment, since the contrast in viewpoint aspect cannot be shown with the other two event types: Activities do not have a natural endpoint and achievements are not durative. Recall that in English the absence of the progressive *-ing* indicates perfective viewpoint and its presence presents imperfective viewpoint. As noted earlier, perfective viewpoint on accomplishments implies that the event is completed. When imperfective viewpoint is used on the same accomplishments, on the other hand, the receiver does not know whether the event is completed or not: The event is simply terminated.

Completed events and terminated events differ in the span of viewpoint. For the completed events, the film clips showed the natural endpoint of the events. For terminated events, only some part of the event was shown to the subject, intentionally excluding the final endpoints. For the event of drawing a circle, for instance, the film clip cut off in the middle of drawing a circle, and the completion of a circle was not shown. If the film clip cuts off in the middle of drawing a circle, the event is simply terminated but not completed since the goal is not reached, and thus the scene should be described with the progressive *-ing*.

Noteworthy is that the actual situational properties of the events as provided in film clips can be different from inherent lexical aspect of the verbs to be expected to use. For instance, [kiss a stuffed animal] can be an activity or an accomplishment, depending on the duration time of the event. In the experiment, a man kissed a stuffed animal instantaneously, and this was classified as achievement. The events, [open the box] and [close the door] can be achievements or accomplishments, depending on the duration time of the events, too. In the film clips, the box was opened instantaneously and the sliding door was closed taking time, and thus the two events were classified into achievement and accomplishment respectively. This was to see whether learners are guided by actual situational properties of the events or by inherent lexical aspect of verbs when they choose tense and aspect morphology.

3. Procedure

The experiment was conducted individually after school in an empty classroom. Nineteen film clips randomly arranged were shown one by one by the researcher to a child through a computer monitor. The film clips lasted from 3 to 30 seconds, depending on event properties and viewpoint types. Each scene included a Korean voice and an actor following the command given by the voice. This was to control the language inventory the learners produce, otherwise they would describe the events from different viewpoints focusing on various aspects of the scenes.

The child was asked to describe each scene orally 10 seconds after the scene was turned off. The interval of 10 seconds between the event and the oral description was to create a situation requiring the use of past forms. A linguistic context as well as a nonlinguistic context was provided to encourage the use of past forms through the instruction (i.e., *Pon kes-ul malhayposey-yo* 'Please describe what you saw') given in Korean.

Each child carried out the task in Korean and in English. The Korean task was administered first so that the children would feel the English task familiar enough to lower their task anxiety in English. English data were collected two weeks later than were Korean data, in order to minimize direct language transfer, if any.

4. Data Analysis

The oral data were analyzed focusing on verb morphology. The English tense and aspect morphology used by the students include base verbs, *Be*+verbs, bare progressives with no auxiliary, present progressives, and pasts, as in (3).

(3) Type of Verb Forms

Base verb: *A girl sleep*

Be+verb: *A girl is sleep*

Bare progressive: *A girl sleeping*

Progressive: *A girl is sleeping*

Past: *A girl slept*

The form *Be*+verb was coded as Base verb, and bare progressives were counted as Progressive. Simple present forms (e.g., sleeps) did not occur in the data. The errors other than verb forms were not considered. Regularized past forms such as *drawed* and *throwed* were coded as past forms. Verb forms in the Korean task included progressive (*ko-iss*), past (*ess*), and atemporal present (*hay-yo*). Even though there are other forms to indicate progressive in Korean such as *hanun chwung* ('is in the middle of'), only the *ko-iss* form appeared in the data.

IV. RESULTS

Only data from 65 students and from the 7 returnees were subjected to analysis. The other 15 students were excluded in the analysis since they failed to describe more than half of the events in the English task or they did not use the tense-aspect morphology even once.

1. English Task

The students did not use verb forms equally with all verbs. Rather, the use of tense and aspect morphology was influenced by aspectual classes. The total of 847 verb tokens were obtained for analysis as some students failed to describe more than one scene. Table 3 displays the distribution of verb forms across the three semantic categories. The figure in each cell indicates the number of the students who produced each verb form among the 65 students.

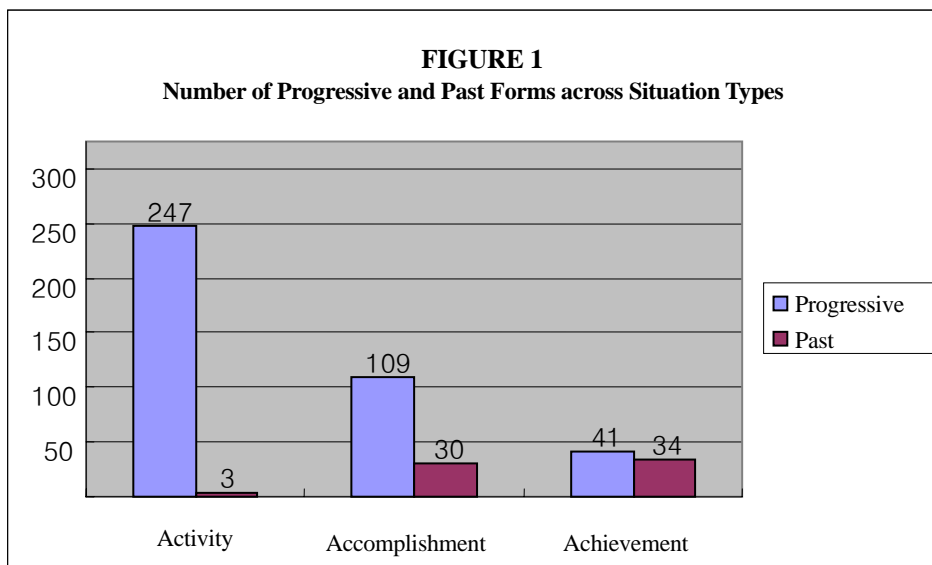
TABLE 3
Distribution of Verb Forms across Situation Types (N=65)

Type	Event	Base	Verb form (Be)-ing	Past	Total
Activity	Swim	2	63	0	65
	Sleep	10	55	0	65
	Read book	13	52	0	65
	Watch TV	15	43	1	59
	Play violin	16	34	2	52
	Total	56(18%)	247(81%)	3(1%)	306
Accomplishment	Draw cup	33	16	4	53
	Write 'A'	36	15	9	60
	Color star	23	35	5	63
	Paint ship	23	36	5	64
	Close door	50	7	7	64
	Total	165(54%)	109(36%)	30(10%)	304
Achievement	Kiss stuffed animal	33	13	7	53
	Touch nose	37	10	7	54
	Throw ball	31	7	8	46
	Open box	39	7	7	53
	Drop eraser	22	4	5	31
	Total	162(68%)	41(17%)	34(14%)	237
Total		383(45%)	397(47%)	67(8%)	847

Overall the students described the film clips mostly using the present progressive *-ing* (47%) and base forms (45%). Only 8% of the responses were produced with past forms. What is peculiar is that none of the students produced the past imperfective, *was+-ing* form. The results will be discussed centering around the research questions.

1) Primacy of Aspect Hypothesis

The first research question was: Do classroom young learners follow what the Primacy of Aspect Hypothesis predicts? Figure 1 shows the results focusing on the use of progressive *-ing* and past forms across situation types. The numbers are from Table 3.



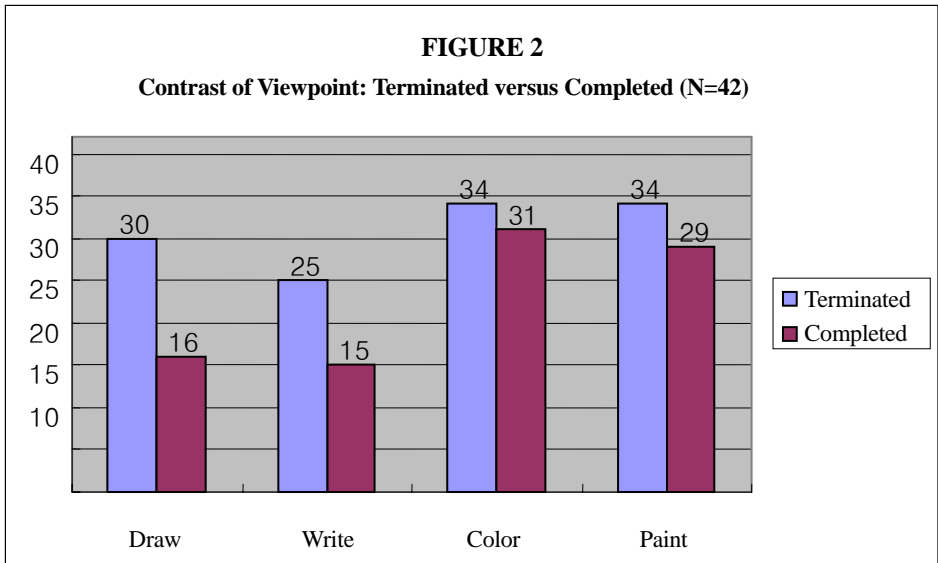
The students used progressive *-ing* most frequently with activities (247 out of 306 responses) and least with achievements (41 out of 237 responses). Their use of the progressive *-ing* is definitely biased in the same direction as the Primacy of Aspect Hypothesis predicted. The use of past forms also supported the hypothesis despite the fact that they rarely used past forms. Overall, Korean young classroom learners conformed to the universal pattern proposed by the Primacy of Aspect Hypothesis.

2) Inherent Lexical Aspect versus Actual Situational Properties

The issue of whether learners are guided by actual situational properties of events or by inherent lexical aspect of verbs to use the progressive *-ing* was tested using viewpoint aspect. If the learners knew the function of the progressive *-ing*, and they rely on actual aspectual situations to use the progressive *-ing*, they would distinguish the viewpoint contrasts provided by terminated and completed events. They should use the progressive *-ing* for terminated events and past forms for completed events. For this research question, the data were analyzed, excluding the low group who used the progressive *-ing* exclusively with some of the activity verbs. Remember that the viewpoint contrast was embedded within accomplishment verbs.

Figure 2 shows the number of the progressive *-ing* used for terminated and completed events by Mid and High group students (N=42). Recall that the progressive form is appropriate for the terminated events but not for the completed events. [Draw] in Figure 2 indicates the pair of

terminated [draw a circle] and completed [draw a cup]. For the others, refer to Table 2.



The students seemed to distinguish the viewpoint difference with the event pairs, [draw] and [write], but not with the pairs, [color] and [paint]. From the graph above, we may infer that 10 to 14 students out of 42 students distinguished the viewpoints with the pairs [write] and [draw]. In interpreting the numbers, however, we need to be very cautious, since those inferred numbers can be merely a result from mixed phenomena: Some might use the imperfective *-ing* both with the terminated and the completed events, when some others might use the perfective forms (i.e., base forms or past forms) both with the two types of the events. Since the graph simply puts all of these judgments together, this may confuse the whole picture. To avoid this pitfall, the students' responses were traced across the two types of the events. Individual analyses show that only 3 out of 42 students distinguished the viewpoints of all the four event pairs, and only 5 students did so with the pairs [draw] and [write]. With the pairs of [color] and [paint], the absolute majority used the progressive *-ing*, irrespective of viewpoint differences. They seemed to regard those verbs to be activities even though they had natural endpoints. All in all, the majority of the students did not distinguish the viewpoint distinctions and thus they did not know the meaning of the progressive *-ing*.

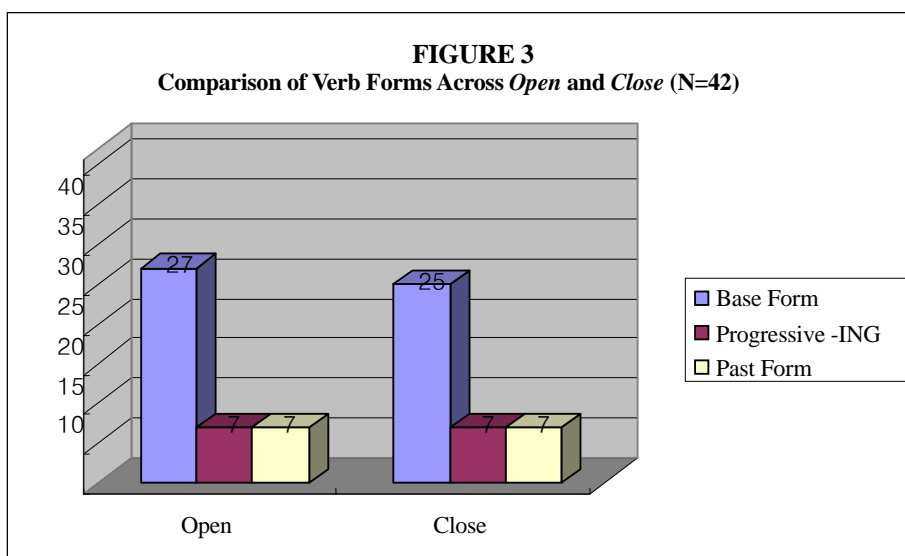
One may suspect that the above results are some effects of duration of the events in film clips. Table 4 contrasts the duration times of the two event types in seconds.

TABLE 4
Duration of Each Scene in Film Clips

	Completed	Terminated
Draw	17	5
Write	11	10
Paint	27	8
Color	30	8

The duration times of terminated events are less than one-third of completed events except for [write]. Considering that most of the students did not distinguish between viewpoints with [paint] and [color], we may conclude that the duration time did not affect the results. Rather, the learners seemed not to be sensitive to actual aspectual properties of the events but are guided by inherent lexical aspect of individual verbs.

One more piece of possible evidence that learners rely on inherent lexical aspects of verbs rather than actual situational properties comes with the events, [open the box] and [close the door]. Figure 3 shows the distribution of verb forms, comparing the two events.



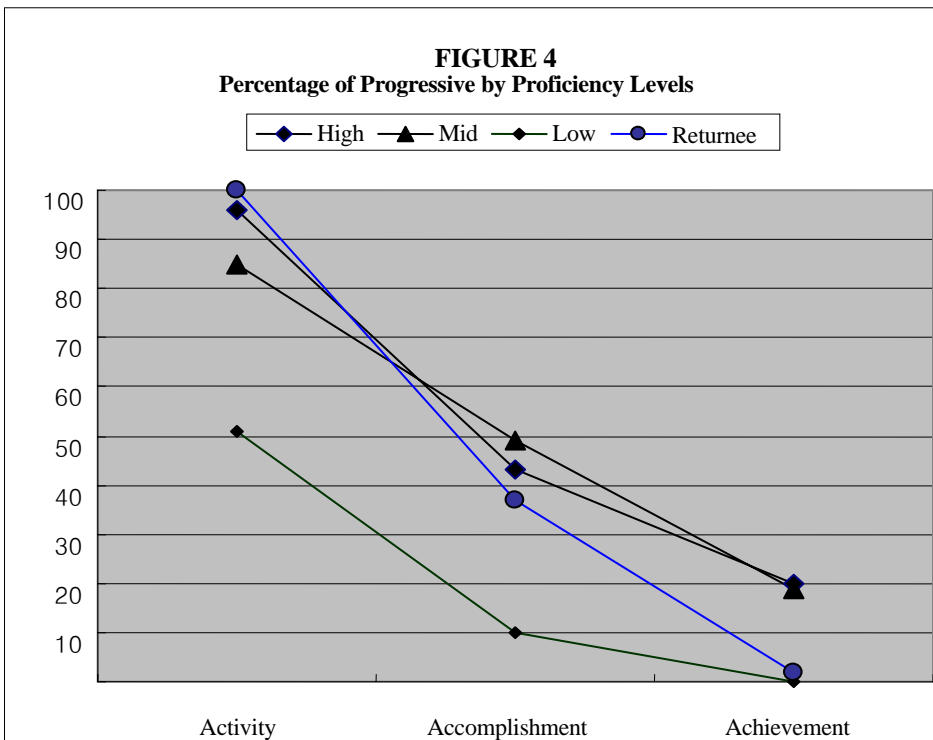
The students exhibited almost the same patterns of distribution of verb forms across the two events, [open the box] and [close the door], even though the actual situation type for the former was achievement, and accomplishment for the latter. Recall that in the film clips the box was opened instantaneously and the door was closed taking time since it was a sliding door. Individual analyses revealed that none of the students used the progressive *-ing* with *open* while using non-progressive with *close*, or vice versa. They were always consistent in using the same verb forms across the pair. This suggests that the students chose verb forms not depending on

the actual aspectual properties, but on the inherent lexical aspect of the verbs.

3) Developmental Patterns of Progressive *-ing*

In order to derive developmental sequences in the acquisition of the progressive *-ing*, the results were analyzed according to the proficiency levels. The students were grouped into three proficiency levels based on the scores from a listening test which was conducted in school for an English contest and their response patterns in the present study. Those who got more than 88 out of a hundred points on the English contest test (16 students) were put in High group. The point of 88 was the cutoff point below which past tense forms were, with very few exceptions, not used. For the remaining students, those who failed to describe more than three scenes were put in Low group consisting of 23 students, while the remaining students were put in Mid group of 26 students.

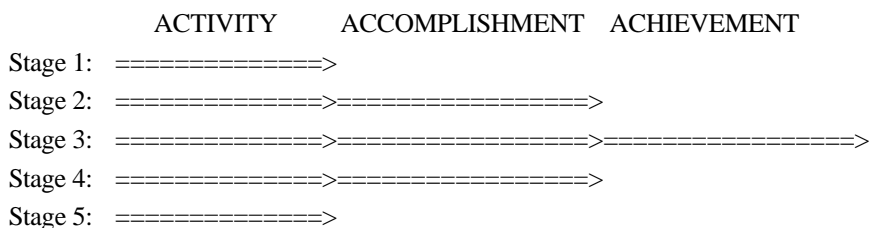
Figure 4 shows the distribution of the progressive form across situation types. Returnee students were included as a control group. The returnee students used the progressive *-ing* in 100% of the activity verbs, decreasing the percentage with the accomplishments and the achievements. It is very interesting to see that they rarely used the progressive form with the achievements. Instead, they used past forms in 80% of the achievement verbs and in 54% of the accomplishment verbs, even though this was not represented in the graph above.



The other three groups, High, Mid, and Low, all showed a similar tendency in the use of the progressive *-ing*. When we see from Low group, the progressive form spreads from activities to accomplishments. Compared to Low group, Mid group and High group showed much higher use of the progressive form with activities and the accomplishments, expanding its use to the achievements. The patterns of High and Mid groups are roughly comparable. What is interesting with the two groups is that High group who used the progressive form with the achievements more often than Mid group showed a slightly lower rate in the use of the progressive form with the accomplishments. The two groups diverge from each other in the use of past forms. High level produced the past forms with the achievements at 41% and accomplishments at 36%, whereas the past forms did not emerge yet in Mid group.

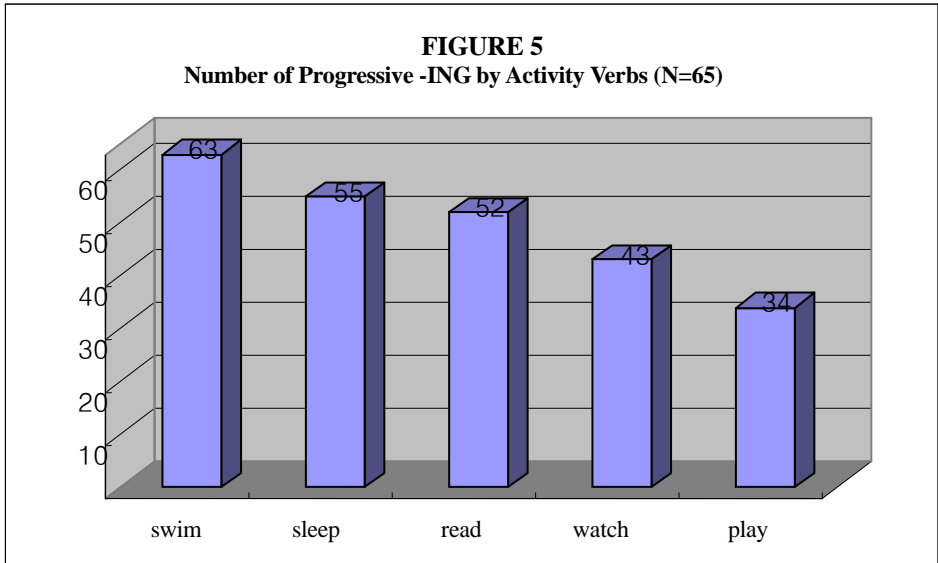
The developmental pattern we can infer from the group analysis above can be schematized as in (4). The learners broadened the use of the progressive form to adjacent categories over the proficiency levels. The progressive form, beginning from activities, spreads through accomplishments to achievements, and then probably dwindles to accomplishments to activities as the past forms emerge from achievements, expanding to accomplishments. The pattern in (4) is symmetrical in that Stages 1 and 2 overlap Stages 4 and 5, but they are unique in that in the former stages base verb forms are used with accomplishments and achievements whereas the past forms occupy the two categories in the latter stages.

(4) Developmental Pattern of Progressive across Situation Types



4) Individual Verb Variation and Prototype

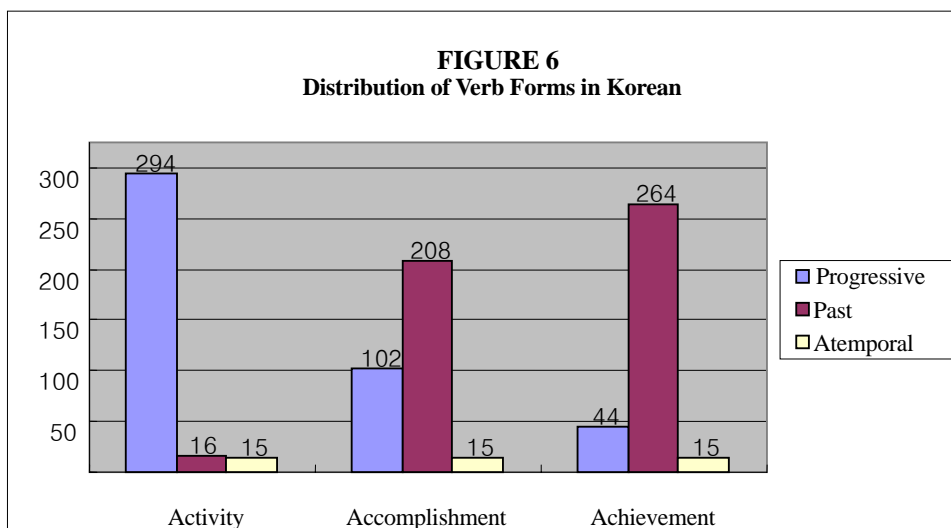
A final analysis was administered on individual verbs to see verb variation within category in terms of the use of the progressive form. There seem to be prototypical members even within the same category, Activity, which attracted the progressive form. Figure 5 shows the number of the students who used the progressive *-ing* on each activity verb.



In Figure 5, it is interesting to see that the verb variation within the same category is remarkable. The frequency of using the *-ing* form varied significantly according to different verbs. An ANOVA analysis within the category, Activity, shows that the learners showed a significant difference in using the progressive form depending on verbs ($F(4,324)=11.96$, $p<.01$). A Tukey HSD post hoc test shows that there are three homogeneous subsets: [swim/sleep/read], [sleep/read/watch], and [watch/play]. From this, we can infer that the students begin to use progressive with *swim* first, then extend its use to *sleep*, *read*, *watch*, and then to *play*. This result will be discussed later in relation to the prototype model by Shirai and Andersen (1995).

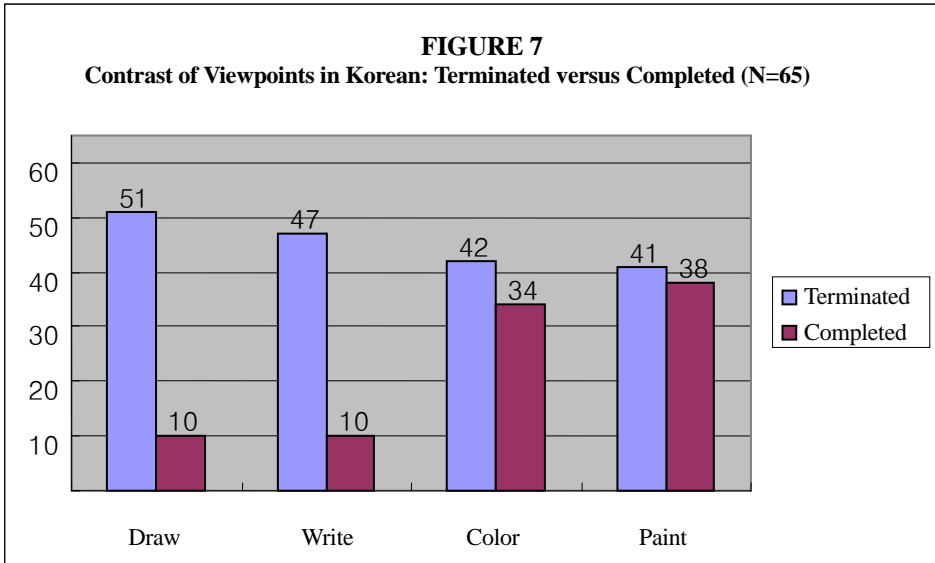
2. Korean Task

A notable difference in Korean task, compared to English task, was that the students provided very detailed descriptions of the film clips. Also noteworthy is that the students rarely used the past progressive *ko iss-ess*. Figure 6 shows the distribution of verb forms in Korean, sorting into progressive, past, and atemporal forms. 325 tokens (65 students x 15 scenes) were collected for each situation type.



As in the English task, the students showed a distributional bias, using the progressive form, *-ko iss*, predominantly with activities and the past form *-ess* mostly with achievements. The Korean results also replicated the pattern of what the Primacy of Aspect Hypothesis predicted. It is very interesting to see that the students did not use the past forms with activities even though the experiment attempted to force the children to use past forms by manipulating both the linguistic contexts and the non-linguistic contexts. The instruction (*Please describe what you saw*) stated that the event occurred in the past, and 10 seconds were given for the interval between the events and their oral productions.

Now consider the contrast of viewpoint. Figure 7 shows the use of the progressive form *-ko iss* in the terminated and the completed events across the four event pairs.



The majority of the students distinguished the viewpoint contrast with the two pairs, [draw] and [write]. With the other two pairs [color] and [paint], they showed a parallel pattern with that in English task, not distinguishing the viewpoint differences. The students seemed to consider the events [color] and [paint] to be activities, regardless of actual situational properties, as in English.

The primary reason for carrying out the Korean task was to contrast with the result of the English task. In order to see how the students described the same events in two different languages, the results of the Korean task compared with English responses are tabulated in Table 5. Notice that the results focus on 16 High group students and 7 Returnees who have acquired past tense forms as well as progressive forms in both languages. The other groups (Mid and Low) have not acquired English past forms yet and thus it is not legitimate to directly compare their descriptions across the two languages. I in the cell indicates imperfective (progressive) and P, perfective (bare forms or past forms). H and R in the first column from the left represent High group students and Returnees, respectively. E and K in the second column are acronyms for English and Korean. A in the row of H7 student represents atemporal form, *hay-yo*. The number in the parenthesis under H shows the number of students who showed the same patterns.

TABLE 5
Distribution of Perfective and Imperfective in English and Korean

	Activity					Accom (Terminated)				Accom (Completed)					Achievement				
	swi	sle	rea	wat	pla	pai	col	dra	wri	pai	col	dra	wri	clo	kis	tou	thr	ope	dro
H1	E	I	I	I	I	I	I	P	P	I	I	P	P	P	P	P	P	P	P
(2)	K	I	I	I	I	I	P	P	P	P	P	P	P	P	P	P	P	P	P
H2	E	I	I	I	I	I	I	I	I	I	I	I	I	I	P	P	P	P	P
(1)	K	I	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P
H3	E	I	I	I	I	I	P	P	I	I	P	P	P	P	P	P	P	P	P
(2)	K	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P	P
H4	E	I	I	I	I	I	I	I	P	P	I	I	P	P	P	P	P	P	P
(1)	K	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P	P
H5	E	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P	P
(1)	K	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P	P
H6	E	I	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P
(2)	K	I	I	I	I	I	P	P	P	P	P	P	P	P	P	P	P	P	P
H7	E	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
(1)	K	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
H8	E	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
(2)	K	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
H9	E	I	I	I	I	I	I	I	I	I	I	P	I	P	P	P	P	P	P
(2)	K	I	I	I	I	I	P	P	P	P	P	P	P	P	P	P	P	P	P
H10	E	I	I	I	I	I	I	I	I	I	I	I	I	P	I	I	P	P	P
(1)	K	I	I	I	I	I	P	P	P	P	P	P	P	P	P	P	P	P	P
H11	E	I	I	I	I	I	P	P	I	I	P	P	I	I	P	P	P	P	P
(1)	K	I	I	I	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P
R1	E	I	I	I	I	I	P	P	I	P	P	P	P	P	P	P	P	P	P
	K	I	I	I	I	P	P	P	P	P	P	P	P	P	P	P	P	P	P
R2	E	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P	P
	K	I	I	I	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
R3	E	I	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P
	K	I	I	I	I	I	P	P	I	I	P	P	P	P	P	P	P	P	P
R4	E	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P	P
	K	I	I	I	I	I	I	I	I	I	P	P	P	P	P	P	P	P	P
R5	E	I	I	I	I	I	I	I	I	I	I	P	P	P	P	I	P	P	P
	K	I	I	I	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
R6	E	I	I	I	I	I	I	I	I	I	I	I	I	I	I	P	P	P	P
	K	I	I	I	I	I	I	I	I	I	I	I	I	I	I	P	P	P	P
R7	E	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
	K	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

Overall, the students showed a strong tendency to use imperfective (progressive forms) with activity verbs and perfective (past or base forms) with achievement verbs in the two languages. A remarkable difference between the two languages comes from the accomplishment verbs. Only 7 out of 23 students maintained the same aspectual forms to describe the same events across Korean and English. Twelve out of 16 High level students and 4 out of 7 Returnees described the events using different aspectual forms across the two languages, indicated by shaded cells. For example, H1 student used the imperfective progressive *-ing* with [color] and [paint] in English, while using perfective (the past form *-ess*) in Korean. For some students (H6, H9, H10, R2, R5), this range became extensive. Going even further, H7 employed two totally different systems to describe the same events. She kept using the progressive form *-ing* in English regardless of the event types, whereas she maintained the atemporal *hay-yo* forms throughout the whole Korean task. This result

will be discussed later in relation to autonomy of the interlanguage system.

V. DISCUSSION

The present study provided obligatory contexts for the use of past and progressive forms. Linguistic contexts through instruction (i.e., *Please describe what you saw*) as well as nonlinguistic contexts (i.e., the interval of 10 seconds between the event time and the speech time) encouraged the children to use past forms. In contrast, the terminated events required the use of the progressive *-ing*. Despite the devices to elicit past forms and progressive forms, the learners followed the universal pattern proposed by the Primacy of Aspect Hypothesis. Their use of tense-aspect morphology was strongly influenced by the Vendlerian aspectual classes. What we could infer from the group analysis was that the progressive form, beginning from activities, spreads through accomplishments to achievements. The past forms, emerging from achievements, expand to accomplishments. The biased distribution of tense and aspect morphology across aspectual classes seems to result from cognitive characteristics common to all human beings where aspectual distinctions are perceived more saliently than are tense distinctions, as Smith (1997) proposes.

Regarding the acquisition of past forms, the previous studies (e.g., Bardovi-Harlig & Bergstrom, 1996) bound accomplishments and achievements into one stage in the development of past tense morphology. Contrary to the claims, the present result shows that the development of past forms is sequential from achievements to accomplishments. From the individual analysis, no such cases were observed where the past forms occurred with accomplishments but not with achievements. The use of the past forms with accomplishments always entailed use with achievements. The opposite cases were observed, however, where the learners use the past forms with achievements but not with accomplishments.

Turning to the issue of viewpoint contrast, it is not easy to present a comprehensive picture. Terminated events were provided to see whether the learners are guided by inherent lexical aspect of verbs or by actual situational properties of the events, to make aspectual choice. The results are mixed in that the learners exhibited different behaviors depending on individual event pairs. With the pairs [write] and [draw], the learners distinguished the viewpoint contrasts in Korean, but not in English. That is, they used the progressive *-ko iss* (imperfective) for terminated accomplishments and the past form *-ess* (perfective) for completed accomplishments in Korean. In English, however, they did not distinguish them, using the same verb forms for both the event pairs. Then we can draw a conclusion that the learners did not acquire the function of the English progressive form

yet. This conclusion is immediately confronted with the counterexamples of [color] and [paint]. With the two event pairs, the children did not distinguish the viewpoint contrasts either in Korean or in English. They maintained the use of the progressive forms both for terminated events and completed events. One possibility is that they might consider the verbs to be activities rather than accomplishments. In order to make aspectual choice, they relied on inherent lexical aspects of the verbs rather than actual situational properties of the events. This speculation is supported by the results of [open the box] and [close the door]. As mentioned earlier, the two events were designed to be classified into two different classes. The event [open the door] was an achievement since the box was opened instantaneously, whereas the event [close the door] was an accomplishment since it took time to close the sliding door. Nevertheless, the learners showed exactly the same patterns for the two events in terms of the use of verb forms. Taking all the results into consideration, it seems not unreasonable to suggest that the learners make aspectual choice based on inherent lexical aspect of verbs.

Now consider the verb variation within a category. Shirai (1991) and Shirai and Andersen (1995) employed the prototype theory to account for the biased distribution of tense-aspect morphology in input. They applied the theory to the aspectual category levels, proposing that learners use the progressive form primarily with activities because the prototypical meaning of the progressive is action-in-progress, and this matches with the core properties of the activity. The present results suggest that the prototype model is also applied to individual verb levels within a category as well as in the category levels. As shown earlier in Figure 5, verb variation within a category is remarkable in terms of the use of the progressive form; *Swim* attracted the progressive form the most and *play* the least. One possibility of this skewed distribution may be that *swim* is a more prototypical activity verb than *play*. If so, it follows that Vendlerian semantic categories should be understood in a continuum rather than in a categorical manner. Alternatively, the verbal variation may simply result from instructional effects. The students might encounter *swimming* first in the textbooks or in the teachers' input. This issue requires future research.

Of utmost interest is the comparison of Korean and English results. What was common in the two languages was that the learners showed the distributional bias following the universal pattern predicted by the Primacy of Aspect Hypothesis. However, they exhibited a remarkable difference with accomplishments across the two languages. The majority of the students described the same events using different aspectual forms across the two languages. For example, some students used the imperfective progressive *-ing* with [color] and [paint] in English, while using perfective (the past form *-ess*) in Korean. If L1 transfer was operative in describing the events, we would expect the children to show some parallels between Korean and English descriptions in terms of the use of tense and aspect. The results appeared to the contrary. Although there might be peripheral L1 influences in

the acquisition of the tense and aspect systems as reported by the previous studies (Shin-Hye Kim, 1999; Shirai, 2002), it appears that in the main the interlanguage system develops autonomously, following its own track.

Finally, some words are needed for pedagogical applications. If there is a universal pattern in the development of tense-aspect morphology, the acquisition of tense and aspect systems may be influenced less by instruction than by verbal semantics. If interlanguage system develops autonomously, keeping its own way, then we need to teach what the learners are ready to learn, as the Teachability Hypothesis (Pienemann, 1985) has proposed. To facilitate the acquisition track, it would be desirable to provide the tense and aspect morphology contextualized in their prototypical situations.

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Applicable levels: elementary education

Key words: the primacy of aspect hypothesis, interlanguage development, tense, aspect, time talk, viewpoint, progressive

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Received in February, 2008

Reviewed in March, 2008

Revised version received in May, 2008