

# Investigating the Role of Transfer in the L2 Acquisition of Aspect

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## 1. Introduction

The present study focuses on how aspectual knowledge is acquired by second language (L2) learners. Because aspect is encoded in different ways crosslinguistically, the learning task of the L2 learner is significantly complicated by language specific properties. The acquisition of aspect thus presents a very rich area for L2 research. This study is a continuation of an ongoing project on the acquisition of English aspectual morphology by learners of Japanese. We focus on aspectual differences between Japanese and English, investigating to what extent properties of the native language aids or impedes acquisition. The details of the differences between Japanese and English will be reviewed in Section 3. We will first review some of the basic terminology that we will use in this paper.

While tense places an event in time, aspect refers to *how* an event unfolds in time, such as whether an event is ongoing or whether it has already been completed (Chung and Timberlake, 1985; Comrie, 1976; Smith, 1997). The aspectual interpretation of a sentence is co-determined by various grammatical sources including: the lexical semantics of the verb, verbal morphology such as progressive *be+ing*, and other predicates in the verb phrase such as the particle *up* in *eat the pizza up*. Lexical aspect usually refers to Vendler's (1967) well-established four-way classification of verb phrases. This classification distinguishes stative verbs such as *know*, activity verbs which are ongoing in time such as *paint*, accomplishment verbs which are also ongoing in time but specify an inherent endpoint such as *run a mile* and achievement verbs which are said to happen instantaneously such as *die*.

Aspect can also be encoded in verbal inflectional morphology, for example by perfective and imperfective grammatical morphemes. This is usually referred to as grammatical or viewpoint aspect (Smith, 1997). The past tense in English encodes perfective aspect as in *Alex ran a mile*. This sentence is usually interpreted to mean that Alex ran the entire mile. Perfective aspect looks at the event as a whole, disregarding the internal structure of the event. In contrast, English employs the progressive to encode imperfective aspect as in *Alex was running a mile*. This sentence is usually interpreted to mean that Alex was in the process of running a mile at some past time; we do not know if in fact he ever finished running the mile. Imperfective aspect does not specify either the beginning or the endpoint of an event.

In many languages, lexical aspect interacts with grammatical aspect in interesting ways. For example, it is generally accepted that in English, as well as Spanish and Japanese, stative verbs are usually incompatible with progressive morphology. The sentence *\*Ingrid is knowing how to read Chinese* is considered ungrammatical on the interpretation that Ingrid is able to read Chinese. The interaction of lexical and grammatical aspect will be relevant to the present study; details are provided in Section 3.

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The paper will be organized as follows: Section 2 briefly reviews the theoretical framework we adopt and some of the literature on the L2 acquisition of aspect. Section 3 outlines the linguistic background of our study. Section 4 summarizes a previous study that we conducted on the L2 acquisition of English aspect by Japanese learners. Section 5 presents the details of the present study. Section 6 concludes the paper.

## 2. Background

### 2.1 Theoretical framework

We adopt De Swart's (1998) general framework, which presents a compositional analysis of lexical and grammatical aspect. This model is suitable for the present study as it is especially concerned with the meaning effects that particular combinations of verbal classes and grammatical forms give rise to. De Swart's framework assumes the syntactic structure in (1).

(1) [Tense [Aspect\* [eventuality description]]]

The lowest layer corresponds to the eventuality description which is the level at which lexical aspectual class is determined, or the VP. Aspectual class is determined compositionally by the verb and its arguments (Verkuyl, 1972, 1993). The second layer corresponds to the level at which aspectual operators act on the eventuality description. Aspectual operators, such as the Progressive (PROG), take the eventuality description as input and produce as output an eventuality description, which may be the same or potentially a different type. The Kleene star at this level indicates that there may be zero, one or more operations at this level. At the outermost layer, the Tense Operator maps the event onto a time axis with respect to speech time.

### 2.2 L2 acquisition of aspect

A large body of research has examined the second language acquisition of aspect from varying theoretical perspectives (Andersen and Shirai, 1994; Bardovi-Harlig, 1992; 1995; Dietrich, Klein and Noyau, 1995; Klein, 1994; Li and Shirai, 2000; among others). Researchers working under the Discourse Hypothesis have argued that narrative structure influences learners in their use of tense and aspect morphology (Bardovi-Harlig, 1995, 2000, 2002). A very large body of research has investigated the acquisition of aspect markers within the framework of the Primacy of Aspect (POA) Hypothesis (Andersen and Shirai, 1994; Salaberry, 1997; Li and Shirai, 2000 among others). Proponents of the POA model argue that the semantics of verbs themselves influence language learners in their use of morphology.

Although this research has amassed a large body of data, the field is still far from an explanatory theory of *why* L2 learners have apparent difficulty acquiring aspectual notions in a second language. Slabakova (2002) outlines some of the gaps in this body of research: First, many studies have failed to take the L2 learners' native language into account. However, we can formulate much more precise research questions if we consider properties of the first language and investigate properties that differ in first and second language. Secondly, researchers have collected a wide body of mostly production data. While this data is informative, it has been observed that learners who are able to produce aspectual morphology may still not have acquired the subtle semantics of the morphology; in other words, it has been suggested that learners acquire the *form* before the *meaning* (cf. Bardovi-Harlig, 1992, 1995; Montrul and Slabakova, 2002). Therefore, more researchers need to investigate how learners *interpret* forms that encode aspect (cf. Montrul and Slabakova, 2002, 2003; Slabakova 1997, 2001). The present study addresses both of these issues.

### 3. Linguistic Background

#### 3.1 *The progressive in English and Japanese*

While both Japanese and English have a grammatical form denoting the progressive, the two forms (*be+ing* and *te-iru*) interact differently with the lexical semantics of the verb to which they attach. In English, activity, accomplishment and achievement verbs behave similarly under the progressive form (Vendler, 1967; Dowty, 1979; Landman, 1992). In all cases, the verb phrases denote ongoing interpretations as can be seen in (2), (3) and (4).

(2) Sara is running.

(3) Sara is reading a book.

(4) The plane is arriving at the airport.

This is not the case in Japanese. The Japanese form *te-iru* allows both progressive and perfective interpretations depending on the lexical semantics of the verb (Kindaichi, 1950; Fujii, 1966; Okuda, 1978; Jacobsen, 1992; McClure, 1995; Uesaka, 1995; Ogihara, 1998, 1999; Shirai, 2000). Activity verbs under *te-iru* as in (5) denote progressive readings. Accomplishment verbs under *te-iru* as in (6) also denote progressive readings. However, given the appropriate the context, a perfective reading is also available. Finally, achievement verbs under *te-iru*, as in (7), are always perfective. The example in (7) literally means that *the plane arrived* or *the plane is at the airport*. Importantly, (7) does not allow the reading *the plane is arriving at the airport*.

(5) Tarō-ga hasit-te-iru.

Tarō-NOM run-te-iru PRES

Tarō is running.

(6) Tarō-ga hon-o yonde-iru

Tarō-NOM book-ACC-te-iru PRES

Tarō is reading a book. (Taro has read a book.)

(7) Hikōki-ga kūkō -ni tuite-iru.

plane-NOM airport at arrive te-iru PRES

The plane (arrived and) is at the airport. (from Hirakawa, 2001)

In summary, English *be+ing* always denotes a progressive reading regardless of the verb stem while Japanese *te-iru* allows both progressive and perfective interpretations depending on the lexical semantics of the verb. In English, achievement verbs in the progressive, as in (4), can focus on the process leading up to the change of state, while achievement verbs under Japanese *te-iru*, as in (7), must focus on the resulting state.

In the literature, there are at least two competing accounts of this difference between Japanese and English. Kageyama (1996) and Ogihara (1998, 1999) have argued that the difference lies in the lexical semantics of achievement verbs in Japanese and English. On this account, the English verb *die* has different lexical semantics than its nearest equivalent in Japanese *shinu*; activity and accomplishment verbs on the other hand, have the same lexical semantics in both languages. In contrast, McClure (1995) has argued that the verbs *die* and *shinu* are equivalent. Under his account, the differences in the interpretation of the English and Japanese progressive lie in the formal semantics of the aspectual

operator PROG, which is lexicalized as *be+ing* and *te-iru*<sup>1</sup>. In other words, while the verbs themselves are equivalent, *be+ing* is not equivalent to *te-iru*.

### 3.2 The simple past in English and Japanese

While the forms that denote the progressive behave differently in Japanese and English, the forms that denote the simple past, *-ed* in English and *-ta* in Japanese, basically denote equivalent interpretations regardless of the lexical semantics of the verb stem (Ogihara, 1998). This is shown in (8) and (9).

(8) Adrian studieded English.

(9) Akiko-wa eigo-o benkyō-shita.  
Akiko- TOP English-ACC study- PAST.  
Akiko studied English.

## 4. Previous Study: Gabriele, Martohardjono and McClure, 2003

Gabriele, Martohardjono and McClure (2003) tested Japanese learners' interpretation of the English past progressive and the simple past with both accomplishment and achievement verbs. The goal of the study was to evaluate the competing accounts summarized in Section 3.1. Kageyama's (1996) and Ogihara's (1998, 1999) accounts place the locus of the difference outlined in Section 3.1 in the lexical semantics of achievement verbs in the two languages. If we relate their theory to L2 acquisition, then their proposal predicts difficulty with achievement verbs; L2 learners may transfer the lexical semantics of the L1 verbs onto their nearest equivalents in the L2. McClure's (1995) account on the other hand, places the locus of the difference in the semantics of the progressive operator. His theory thus predicts difficulty with the progressive in general.

We found that Japanese learners had difficulty correctly interpreting the English past progressive with *both* verb classes. In this study learners were asked to judge items such as the pairs in (10) and (11) and to determine whether or not the second sentence presents a possible continuation of the first sentence. The Japanese learners often incorrectly rejected sentence pairs with accomplishment verbs as in (10) as well as sentence pairs with achievement verbs as in (11).

(10) Accomplishment: The father *was washing* all the dishes from the party.  
He didn't have enough water to finish the job. (L1√/L2√)

(11) Achievement: The plane *was arriving* in Osaka at 3:00.  
The plane exploded in midair. (\*L1/L2√)

Based on these results, we argued that transfer does not proceed by verb class, but rather by the semantics of grammatical forms. The Japanese learners seemed to have difficulty with the progressive form in general. We argued that the learners overgeneralized the perfective interpretation of the L1 form *te-iru* onto its nearest equivalent in the L2, English *be+ing*. Under this account, Japanese learners allow a *perfective* interpretation for the English progressive regardless of the lexical semantics of the verb and even in cases where the dominant L1 interpretation is progressive, as in the example in (10). These results lend support to analyses of *be+ing* and *te-iru* that place the interpretive differences in the formal semantics of the *forms* themselves, such as McClure (1995).

Note in this study that learners were tested only on the simple past and past progressive. However, if the proposal is correct, then Japanese learners should also have difficulty with the *present* progressive. In summary, Gabriele, Martohardjono and McClure (2003) argued that the learners' difficulty with the past progressive was due to difficulty with the semantics of the progressive form in

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<sup>1</sup> Due to space limitations we cannot outline McClure's account in detail. For further details see McClure (1995) or Gabriele et al. (2003).

general. We predicted that performance on the present progressive should not be significantly different from performance on the past progressive. The present study was conducted in order to evaluate this prediction. We present the details in the next section.

## 5. The present study

The main goal of this study was to test the prediction set forth in Gabriele et al. (2003). We wanted to evaluate the prediction that Japanese learners' difficulty with the *past progressive* in English was due to difficulty with the semantics of the English progressive form in general. We argued that Japanese learners transferred the semantics of the L1 form *te-iru* onto the semantics of L2 form *be+ing*. In order to evaluate this prediction, we needed to extend the experimental task and include sentences in the present progressive.

Secondly, we wanted to expand the study to address one of the most interesting questions that has arisen in the literature on the L2 acquisition of aspect. Bardovi-Harlig (1992, 1995) and Montrul and Slabakova (2002) have suggested that L2 learners can *use* aspectual morphology appropriately before they have acquired the subtle semantics associated with these forms; this is the *form before meaning* hypothesis. In order to address this question, we included an additional task that required learners to choose the correct morphological form in a given context. Based on previous studies we predicted that learners would perform better on the morphology preference task than on the morphology interpretation task.

### 5.1 Participants

Participants were nineteen Japanese learners of English who were studying at universities in New York and New Jersey and nine native speakers of English who were graduate students in New York specializing in fields other than linguistics and philosophy. The average age of the English learners was 27. All learners began to learn English at the age of 12 or 13 in junior high school in Japan. Learners were divided into two groups, Short Length of Stay (Short LOS) and Long Length of Stay (Long LOS), based on the amount of time they had lived in the U.S. The learners in the Short LOS group (n=14) had lived in the U.S. for less than two years with an average length of stay of 13 months. Learners in the Short LOS group were predominantly freshmen and sophomores at universities in New Jersey and New York. The learners in the Long LOS group (n=5) had lived in the U.S. for more than three years, with an average length of stay of four years. Learners in this group were predominantly graduate students in New York. Both groups of learners were given the grammar section of the Michigan Test of English Proficiency. The Short LOS group had a mean score of 25 out of 40 on the Michigan grammar subtest, while the Long LOS group had a mean score of 30 out of 40.

### 5.2 Experimental tasks

The first task used in this study was an interpretation task, presented in the same format as the test items given in (10) and (11). In this task, learners were tested on their interpretation of the simple past, present progressive and past progressive with three different verb classes: two classes of accomplishment verbs and one group of achievement verbs. The verbs that were included are provided in (12). The verbs in the first class, the Accomplishment-Progressive verbs presented in (12a), are strongly progressive under Japanese *te-iru*. The verbs in this group behave similarly under *be+ing* and *te-iru*. On the other hand, the verbs in the Accomplishment-Perfective and the Achievement classes, presented in (12b) and (12c), behave differently in Japanese and English. While these verbs denote a progressive reading under English *be+ing*, these verbs denote a perfective interpretation under Japanese *te-iru*. Accomplishment verbs in both groups were always presented in transitive contexts while the achievement verbs were presented in intransitive contexts.

(12a) Accomplishment-Progressive: strongly progressive interpretation under *te-iru*  
*wash, make, sing, write* (presented in transitive contexts)

(12b) Accomplishment-Perfective: strongly perfective interpretation under *te-iru*  
*borrow, lend, buy, open* (presented in transitive contexts)

(12c) Achievement: unambiguously perfective interpretation under *te-iru*  
*die, arrive, come, go* (presented in intransitive contexts)

Learners evaluated 72 sentence pairs: 36 sentence pairs were test items while an additional 36 sentence pairs were filler items<sup>2</sup>. Out of the 36 test items, 12 items tested the simple past, 12 items tested the present progressive and 12 items tested the past progressive. Within each group of 12 items, four items represented each verb class (four Accomplishment-Progressive verbs, four Accomplishment-Perfective verbs, four Achievement verbs). Learners were presented with a test booklet with one sentence pair printed on each page. They were given ten seconds to respond to each item. Samples of the test items are given in (13), (14) and (15).

(13) Simple Past

My father made the table for the new kitchen.

He got tired and never finished the table. X

(14) Present Progressive

The child is making a sandcastle on the beach.

The wind is really strong and she doesn't finish the castle. ✓

(15) Past Progressive

My father was making the table for the new kitchen.

He got tired and never finished the table. ✓

The second task used in this study was a morphology preference task. Learners were presented with a sentence with the verb form left out. They were provided with four choices and were asked to indicate which of the four choices were possible given the context. They were told that sometimes more than one choice was correct. The four choices were always verb forms in the simple present, the present progressive, the simple past and the past progressive. Learners were presented with 36 sentences: 30 test items and 6 filler items. The 30 test items were divided into five categories: 6 sentences presented events in the past; 6 sentences presented events that were ongoing in the past; 6 sentences presented future events; 6 sentences presented events in the present; 6 sentences presented habitual events. The target readings were reinforced by adverbials or subordinate clauses. Out of the 30 test items, 15 sentences used accomplishment verbs while 15 sentences used achievement verbs. In the 6 fillers, the missing item was either a determiner or an adjective. Sample test items are provided in (16) and (17). In (16) and (17) both the simple past and past progressive forms are possible though there is a preference in (17) for the past progressive due to the presence of the *when* clause.

(16) Past Event

Yesterday Sara \_\_\_\_\_ a pizza for lunch.

- (a) is eating
- (b) ate
- (c) eats
- (d) was eating

<sup>2</sup> Learners were given a vocabulary list to study prior to the day that they took the experimental task. On the testing day the researcher spot-checked the learners' knowledge of the vocabulary by asking the learner to use a given word in a sentence. The experimenter always tested the learners' knowledge of all of the verbs on the task.

## (17) Ongoing Past Event

Taro \_\_\_\_\_ a letter when the phone rang.

- (e) is writing
- (f) wrote
- (g) writes
- (h) was writing

### 5.3 Group results: interpretation task

First we turn to the overall results of the interpretation task. Analysis of variance (General Linear Model, repeated measures) was performed on the data with tense/aspect (past, present progressive, past progressive) and verb (Accomplishment-Progressive, Accomplishment-Perfective, Achievement) as within-subjects factors and group (Short length of stay, Long length of stay, Native speaker) as the between-subjects factor. Main effects and interactions are provided in Table 1 below.

Table 1: Overall results: interpretation task

Source	df	F	p-value
<u>Between</u>			
Group	2	48.769	.000*
<u>Within</u>			
Tense/Aspect	2	9.629	.000*
Verb	2	2.036	.141
Tense/Aspect * Verb	4	1.028	.397
Tense/Aspect * Group	4	3.889	.008*
Verb * Group	4	2.301	.071
Tense/Aspect * Verb * Group	8	1.046	.407

Overall results revealed significant main effects for group and for tense/aspect, but no effect for type of verb. The results of pairwise comparisons indicated that the Short LOS group differed in accuracy from both the Long LOS group ( $p < .01$ ) and the native speakers ( $p < .01$ ). The Long LOS group did not differ from the native speakers.

These results suggest that the learners treated all three classes of verbs in the same way. However, as is shown by the significant main effect for tense/aspect, there were differences depending on whether the verb appeared in the simple past, present progressive or past progressive. The tense/aspect\* group interaction was also significant. We will outline those results in detail next.

Table 2: Results: tense/aspect overall

	Past	Past Progressive	Present Progressive
Short Length of Stay	61	66	91
Long Length of Stay	87	82	95
Native Speaker	94	94	97

Table 2 reports the results for the past, past progressive and present progressive overall, not differentiated by verb type. The results of pairwise comparisons showed that performance on the

present progressive was significantly better than performance on the past ( $p < .01$ ) and past progressive ( $p < .01$ ). However, the difference between the past and past progressive was not significant. These results indicate that both groups of learners have mastered the present progressive. However, the Short LOS group appears to have difficulty with both the past and past progressive. Results show that the prediction put forth by Gabriele et al. (2003) may have been too strong. Difficulty with the past progressive seems unrelated to performance on the progressive *in general* because both groups of learners show target-like performance on the present progressive. Next we present results for the past and past progressive differentiated by verb type.

Table 3: Results: simple past by verb class

	Accomplishment- Progressive	Accomplishment- Perfective	Achievement
Short Length of Stay	48	54	82
Long Length of Stay	90	85	97
Native Speaker	92	92	97

Table 3 reports the results for the simple past differentiated by the three verb classes that were tested. Results indicate that the Short LOS learners had great difficulty in the simple past with both groups of accomplishment verbs. The Long LOS learners, on the other hand, look very similar to the native speakers. An additional ANOVA (GLM, repeated measures) was conducted with data from the Short LOS learners with verb as the within-subjects factor. Results indicated that performance on the two groups of transitive accomplishments in the past differed from performance on the intransitive achievements in the past ( $p < .01$ ). Next we turn to the detailed results for the past progressive.

Table 4: Results: past progressive by verb class

	Accomplishment- Progressive	Accomplishment- Perfective	Achievement
Short Length of Stay	68	61	70
Long Length of Stay	83	83	80
Native Speaker	93	91	97

Table 3 reports the results for the simple past differentiated by the three verb classes that were tested. These results show that for the Short LOS learners, difficulty with the past progressive was balanced across the three verb classes.

In summary, the overall results indicate the Short LOS learners had difficulty with both the past and progressive. In the past, the difficulty seems to be isolated to the transitive accomplishments. On the other hand, both groups of learners showed nearly target-like performance on the present progressive. We will return to these results in detail in Section 6. First we present individual results for the interpretation task in Section 5.4 and then group results for the morphology preference task in Section 5.5.

#### 5.4 Interpretation task: individual results for the past and past progressive

In this section we report individual results for the Short LOS learners on the past and progressive. Overall group results indicated that Short LOS learners had equivalent difficulty with both the past and past progressive. However, group results are often misleading in cases where the group mean is low because it may be the case that half of the learners performed at very high levels of accuracy while the other half performed at very low levels of accuracy. For that reason, we looked at each Short LOS learner individually and compared mean performance on the past and progressive.

Table 5: Individual results: Short LOS learners' performance on the past and past progressive

Participant	Simple Past	Past Progressive
1	33	70
2	50	80
3	42	80
4	75	60
5	83	70
6	83	50
7	75	60
8	45	92
9	55	58
10	64	83
11	64	58
12	64	42
13	82	50
14	36	75

The results presented in Table 5 indicate that, for the most part, it is not the case that individual learners have difficulty with *both* the simple past and past progressive. There are two different patterns that emerge. There are learners (such as participants 1, 2, 3, 8, and 14) who perform very poorly on the past and yet perform much better on the past progressive. On the other hand, there are learners (such as participants 5,6 and 13) who perform well on the simple past yet have more difficulty with the past progressive. A correlation revealed a significant *negative* relationship between performance on the simple past and performance on the past progressive,  $r = -.547$ ,  $n = 14$ ,  $p < .05$ .

In summary, group results indicate that our initial prediction was too strong. We predicted, based on a transfer hypothesis, that learners would have equivalent difficulty with the present and past progressive. However, results indicate that learners perform well on the present progressive and yet have difficulty with the past and past progressive. Learners' difficulty with the simple past was also unexpected as the forms are considered to be equivalent in the two languages. We will return to this result in the Discussion section. Finally, results of individual subject analyses for the Short LOS learners showed an interesting relationship between the past and past progressive: as learners perform better on the simple past, they seem to have more difficulty with the past progressive.

### 5.5 Group results: morphology preference task

In this section we report the results of the morphology preference task. We focus only on the results for the test items that target verb forms in the past and past progressive (cf. examples 16 and 17). There were six test items that described events in the past using an adverbial (as in ex. 16). Table 6 displays the average selection of each verb form (present, present progressive, past, past progressive) by group for those six items. Recall that participants were allowed to select more than one verb form for each test item.

Table 6: Average selection of verb form by group for 6 past test items

	Short LOS	Long LOS	Native Speaker
<u>Verb Form</u>			
Simple Present	0	0	.2
Present Progressive	0	0	0
Simple Past	6	6	6
Past Progressive	3.4	4	5

The results in Table 6 show that for the six test items targeting events in the past with adverbials as in (16), native speakers consistently selected the simple past as the appropriate verb form; they also accepted the past progressive on average for five out of the six test items. The two learner groups perform very similarly. They correctly select the simple past in all cases. They do not select the past progressive in these contexts as often as native speakers do, but nevertheless they provide evidence that they are aware the past progressive is acceptable in contexts such as (16).

Next we turn to the results of the test items that presented events that were ongoing in the past as in example (17). All six test items in this category targeted this particular reading with a subordinate *when* clause. The results are reported in Table 7.

Table 7: Average selection of verb form by group for 6 ongoing past test items

Verb Form	Short LOS	Long LOS	Native Speaker
Simple Present	.1	0	.1
Present Progressive	.1	.2	.2
Simple Past	3.0	2.0	3.9
Past Progressive	5.2	5.6	5.9

The results in Table 7 show that both groups of learners were highly accurate with test items that presented events that were ongoing in the past. The learners are aware that in these contexts the past progressive is the most natural verb form. They accept the simple past in these contexts at about the same rate as native speakers.

In summary, results of the morphology preference task indicate that when learners are provided with a specific context, they can use past aspectual morphology in a target-like manner. Results confirm our prediction that performance on the morphology preference task would be more accurate than performance on the interpretation task.

## 6. Discussion

The main goal of this study was to evaluate the prediction put forth in Gabriele et al. (2003) that Japanese learners' difficulty with the English past progressive was due to difficulty with the semantics of the progressive in general. We formulated this prediction based on a formal account of *be+ing* and *te-iru* that places their interpretive differences in the formal semantics of the progressive operator in English and Japanese. We predicted that learners would transfer the semantics of the L1 form *te-iru* onto the semantics of the L2 form *be+ing* in both the present and past progressive. However, the learners in the present study were too advanced to show evidence of transfer in the present progressive. In fact, the L2 learners performed at the level of native speakers in this category. Due to the fact that the learners in this study were immersed in the L2 environment, studying at American universities, this result is not surprising. Previous studies in the L2 literature, such as Bailey (1987) have shown us that the present progressive is easier for learners than the past progressive. It remains an empirical question whether *early* Japanese learners show evidence of semantic transfer in the acquisition of the English present progressive. We hope to address this question in a future study (Gabriele, in progress).

We turn now to explaining the main findings of the study. There are three main issues that we will address: learners' difficulty with the past, the negative correlation between the past and the past progressive and learners' performance on the morphology preference task. First we address the learners' surprising difficulty with the simple past. This result was unexpected as the forms, *-ed* in English and *-ta* in Japanese, are usually considered to denote equivalent, perfective interpretations.

There are many proposals in the L2 literature as to why the past is difficult for L2 learners (Hawkins and Liska, 2003; Hawkins et al. 2003; Lardiere, 1998, 2003, among others). Lardiere (2003) outlines how the acquisition of the past involves the acquisition of a complex array of

morphosyntactic, semantic and pragmatic features. Our discussion will focus on the aspectual properties of interpreting a verb phrase that is in the past. We argue that the Short LOS learners had difficulty interpreting the transitive accomplishment verb phrases in the past because they are still working out how telicity is assigned in English. We will also propose that the learners' difficulty with assigning telicity in these past contexts is related to their performance on the past progressive.

First we turn to telicity assignment. Telic events are events that have an inherent endpoint. For example, in the sentence *John ate the apple*, the endpoint of the event is the point at which the apple has been completely eaten. In many languages, properties of the verb along with properties of the direct object together determine whether an event is telic or atelic (Krifka, 1992, 1998; Verkuyl, 1972, 1993). For example, the sentence *John ate apples* is atelic because the direct object *apples* cannot be counted or measured out (Tenny, 1994). In her dissertation, Slabakova (1997, 2001) reported that Bulgarian learners have difficulty acquiring telicity in English and she argued that this result was due to L1 transfer. Similarly, we would like to argue that properties of the L1, Japanese, can explain the difficulty of the learners in our study.

It is clear from the examples we gave above that, in English, the cardinality of the direct object plays an important role in determining the telicity of an event. With the bare plural direct object *apples*, the event is atelic. However, if the definite article is present, as in *the apple*, the event is telic. Japanese, on the other hand, does not have articles. The examples in (18)-(20) below show how telicity is marked in the Japanese VP. In Japanese, an accomplishment verb phrase with a bare noun such as *eat cake* in (18) can receive either a telic or atelic interpretation. The default interpretation is telic but it has been argued that completion of the event may not be entailed. In (19) we have an example of an accomplishment verb with a quantized direct object, *two cakes*. The quantized direct object seems to sway the interpretation towards a telic interpretation; the default interpretation is that the two cakes have been completely eaten. The example in (20) is unambiguously telic; the verbal morphology *te-shimatta* ensures that reading is telic.

(18) Tarō-ga keeki-o tabeta.

Taro-NOM cake ACC ate-PAST

Taro ate cake.

(19) Tarō-ga keeki-o futatsu tabeta.

Taro-NOM two cake-ACC ate-PAST

Taro ate two cakes.

(20) Tarō-ga keeki-o tabete-shimatta.

Taro NOM cake ACC ate-finish-PAST

Taro ate the cake up.

In summary, the differences between Japanese and English are relatively subtle. Japanese does not have articles, but the language is still able to mark telicity in the VP as in (19). However, it may be the case that Japanese relies more on overt morphology as in (20) or on verbal compounds to *unambiguously* mark telicity. We turn now to a phenomenon in Japanese that provides evidence that these overt markers are important factors in aspectual interpretation.

Japanese is often considered to be an event cancellation language (Ikegami, 1985; Kageyama, 1996; Singh, 1998; Tsujimura, 2003). In event cancellation languages, the achievement of an intended goal can be canceled even after it is apparently asserted (Tsujimura, 2003). These facts have been discussed in a wide array of languages and from many different theoretical perspectives (Pederson, 1995; Singh, 1998; Tai, 1984, Travis, 2003). The example in (21) shows that in Japanese it is acceptable to say *I ate the cake but there's still some cake left*. In this example the direct object *cake* is not specified for number and the event that is asserted in the first sentence can be cancelled.

(21) Watashi-wa keeki-o tabeta. Dakedo keeki-wa mada nokotte-iru.

I- NOM cake-ACC ate-PERF but cake-NOM still remains

I ate the cake but some of the cake still remains. example from Singh (1998)

Interestingly, it seems that for some speakers, you can still cancel the event even when the direct object is specified for number, as in (22). Therefore, while a quantized direct object does influence the telicity of the verb phrase, it may not be the case that completion of the event is actually entailed.

- (22) <sup>2</sup>Watashi-wa keeki-o futatsu tabeta kedo keeki-wa mada nokotte-iru.  
 I- NOM cake-ACC ate-PERF two but cake-NOM still remains  
 I ate two cakes but some of the cake still remains.

However, event cancellation is completely ruled out if there is an overt marker of telicity, such as the overt verbal morphology *te-shimatta* in (23).

- (23)\*Watashi-wa keeki-o tabete-shimatta. Dakedo keeki-wa mada nokotte-iru.  
 I- NOM cake ACC ate ate-finish PERF but cake-NOM still remains  
 I ate the cake but some of it still remains. example from Singh (1998)

The phenomenon in Japanese seems to be much stronger with certain verbs. Tsujimura (2003) argues that event cancellation is most prominent with verbs that participate in the causative-inchoative alternation such as *break*, *open*, *melt*. Tsujimura also writes that it is much easier to derive the event cancellation reading if a reason or context is specified for the cancellation. Under Tsujimura's account, the phenomenon of event cancellation in Japanese is pragmatic. Following a proposal put forth in Hay, Kennedy and Levin (1999), Tsujimura argues that in sentences where telicity is licensed by implicature as in (21), the event can be cancelled.

It is possible that the Japanese facts that we've just outlined can account for the difficulty that the L2 learners had in assigning a telic reading to English accomplishment verbs in the past. Though the differences between Japanese and English are subtle, it seems that the learners are still figuring out the aspectual contribution of elements in the direct object VP such as articles. It is important to note that the Short LOS learners did not have difficulty with the intransitive achievement verbs in the past. It is also possible that the learners are looking for overt markers on the verb (such as morphology, or verbal compounds) to unambiguously mark telicity in the L2. Given that these grammatical distinctions do not seem to be firmly in place, it is possible that the L2 learners then allow the pragmatics of the L1 to play a role in their interpretation of the L2. The phenomenon of event cancellation is stronger in Japanese than in English and the effect is even stronger when a context or reason is provided for the cancellation. Recall that when the learners had difficulty with the simple past, it means they incorrectly accepted items such as (13), repeated below in (24). Our test items in the simple past basically present the learners with event cancellation contexts, with a reason for the cancellation specified.

- (24) My father made the table for the new kitchen.  
 He got tired and never finished the table. X

Our prediction is that as L2 learners work out the aspectual contribution of grammatical elements in the VP, they will resort less to the pragmatics of the L1. This seems to be the case for the Long LOS learners who perform considerably better in the simple past.

We have argued that learners' difficulty with the simple past may be due to difficulty with the assignment of telicity. Next we present arguments for why the learners' difficulty with assigning telicity may be related to their performance on the past progressive. When we looked at the Short LOS learners' individual results on the past and past progressive, two main patterns emerged (cf. Table 5). There were learners who performed well on the simple past and yet poorly on the past progressive. There was also a group of learners who performed very poorly on the simple past and yet very well on the past progressive.

First we look at the learners who performed well on the simple past, but poorly on the past progressive. In order for these learners to perform well on the simple past, they must be aware that a transitive VP in the past often denotes a telic interpretation. However, in De Swart's framework, the PAST itself is actually aspectually neutral. The telicity is contributed, not by the past tense, but by a

combination of the properties of the verb and its arguments. Assuming De Swart's framework, a schematic for the past and past progressive is provided in (25) and (26):

(25) Past Progressive: [PAST [ PROG [ VP]]]

(26) Past : [PAST [ VP]] (aspectually neutral)

If the learners in this group were to interpret the past progressive appropriately, the PAST should not effect the aspectual interpretation. The aspect in the schematic in (25) is contributed by the atelic PROG. The PAST should simply place the event in time. However it is possible that these learners incorrectly assign telicity to the PAST and therefore interpret the *past progressive* incorrectly. A conflict may arise when the learner tries to interpret the combination of the telic PAST and the atelic PROG. In summary, if the learner incorrectly assigns telicity to the PAST, then they will perform well on items testing the simple past but there will be a conflict when the learner is faced with the past progressive. They may incorrectly interpret the past progressive as telic as well.

Next we turn to the learners who performed poorly on the simple past but very well on the past progressive. For this group of learners, the interpretation of PAST [VP] is *not* telic. If they do not allow a telic interpretation for the PAST then the combination of the PAST and the atelic PROG will not present a conflict. They will correctly assign an atelic representation to the past progressive.

In summary we've argued that learners are still figuring out how telicity is marked in the English VP. We have proposed that Japanese learners who have not deciphered these grammatical properties may allow a stronger recourse to L1 pragmatics when assigning aspectual interpretations in the L2. We have also argued that difficulty with telicity marking may be related to learners' performance on the past progressive.

Finally we will briefly address the learners' performance on the morphology preference task. Though learners showed a great deal of difficulty with the past and past progressive on the interpretation task, they performed at the level of native speakers on the preference task. These results provide further support for the hypothesis that L2 learners can show target-like use of grammatical forms before they have acquired the full range of the semantics associated with the form (Bardovi-Harlig, 1992, 1995; Montrul and Slabakova, 2002). These results argue for testing interpretation as well as production when investigating the acquisition of aspectual morphology. Explaining *why* the acquisition of form precedes the acquisition of meaning in a second language is a very interesting question for future research.

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