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The Acquisition of English Aspects in Achievement Verbs by Japanese Learners of English

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日本語母語話者における英語達成動詞の習得

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Abstract

The purpose of the study is to investigate the acquisition of English aspect in ACH (ievement) verbs with *be+ing* in comparison with the acquisition of STA (tive) verbs with *be+ing*. The researchers obtained the data from 111 JLEs to investigate whether the correct interpretation of the five STA verbs with *be+ing* and the five ACH verbs with *be+ing* were equally difficult for JLEs. The results have shown that the correct interpretation of ACH verb forms with *be+ing* are more difficult than that of STA verbs with *be+ing*. However, there existed significant differences of difficulties even among the same verb categories. In STA verbs, *have* and *live* are easier than *keep*, *belong* and *stand*. In ACH verbs, *fall* and *die* are easier than *arrive*, *reach* and *stop*. *Stop* is the most difficult verb among the five ACH verbs we examined in this study. We propose what teachers should know when teaching English as a foreign language. First, they should know that generally speaking, ACH verbs are more difficult than STA verbs for at least JLEs to understand their aspectual forms. Second, they should know that there are significant difficulty orders even among the same verb categories.

Keywords: second language acquisition, grammatical aspect, lexical aspect, achievement verbs

1. INTRODUCTION

The purpose of the study is to investigate the acquisition of English aspect by Japanese learners of English (JLEs). In particular, the study will focus on the acquisition of aspect in achievement (ACH) verbs with *be+ing* in comparison with the acquisition of stative (STA) verbs with *be+ing*. Both Japanese and English have an aspectual marker that denotes imperfective. In Japanese, it is *V-te-i-ru* (*V*: a verbal stem, *te*: the conjunctive morpheme, *i*: an existential verbal stem, *ru*: the tense morpheme. See also Harasawa, 1994), and in English, it is *be+ing* (*be*: a form of the auxiliary, *ing*: the present participle. See also Payne, 2011). *Aspect* expresses how an event unfolds in time, focusing on the internal properties of an event, such as whether an event is going. *Tense* places an event on a timeline, relevant to the time of speech (Comrie, 1976; Gabriele, 2005, 2009).

It is observed that many JLEs are convinced that the form, *be+ing* in English behaves exactly the same as *V-te-i-*

ru in Japanese (Gabriele, 2005, 2009; Gabriele & Martohardjono, 2005; Gabriele, Maekawa & Aleman-Banon, 2009; Gabriele, Martohardjono & McClure, 2003, 2005). For instance, without any doubt, quite a few JLEs, in particular JLEs with a low English proficiency or high school students, will consider a meaning of *be stopping* (e.g., *The bus is stopping*.) as equal to *tomat-te-i-ru* (e.g., *Basu-ga tomat-te-i-ru*.) in Japanese. If every interpretation of *be+ing* is compatible with that of *V-te-i-ru*, JLEs have little difficulty using and acquiring the English *be+ing* usages. However, there are some cases in which these two linguistic forms do not have this one-to-one semantic mapping. In this paper, we will examine to what extent Japanese university students with low-intermediate English proficiency levels understand these aspectual differences between the two languages.

2. BACKGROUND

2.1 Aspects in Japanese and English

As mentioned above, for instance, *be arriving* (e.g., *The plane is arriving at the airport*.) is not equivalent to *tsui-te-i-ru* in Japanese (e.g., *Hikooki-ga kuukoo-ni tsui-te-i-ru*.) Rather, *tsui-te-i-ru* in this context of Japanese could carry a meaning of present perfect when it is interpreted in English, and thus can be compatible with *have arrived* (e.g., *The plane has arrived at the airport*.) Or you could just say by using a simple present form and changing the syntactic structures, *The plane is at the airport*. Thus, when we attempt to translate the English sentence, *The plane is arriving at the airport* into Japanese, we would say

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something like, *Hikooki-ga kuukoo-ni toochaku-shisoo-da*, *Hikooki-ga kuukoo-ni (moojiki) toochaku-suru*, or *Hikooki-ga kuukoo-ni chakuriku-suru tokoro-da*.

As a matter of fact, at junior high school in Japan, the form, *be+ing*, is usually taught with the Japanese translation *V-te-i-ru*. Although, in most cases, this Japanese translation is all right as mentioned above, it sometimes leads JLEs to be confused when the form is used with such verbs as *fall*, *die*, *reach*, *stop* or *arrive*. These verbs belong to the group of ACH verbs. Thus, it has been claimed that aspectual differences between *te-i-ru* and *be+ing* used with ACH verbs have difficulty for JLEs interpreting the meaning of the sentence correctly. When an English ACH verb is used with a *be+ing* form (e.g., *be dying*), it denotes a process leading up to the endpoint. On the other hand, when a Japanese ACH verb is used with a *V-te-i-ru* form (e.g., *shin-de-i-ru*), it shows resultative state (Shirai, 2000). We will detail this issue later again.

2.2 Lexical aspects

Vendler (1957) divided verbs into four categories: Stative (STA) verbs, Activity (ACT) verbs, Accomplishment (ACC) verbs and Achievement (ACH) verbs according to their semantic connotations. They are called lexical aspects. Based on lexical aspect classification, every verb has three semantic features: *dynamicity* ([±DYNAMIC]), *telicity* ([±TELIC]) and *punctuality* ([±PUNCTUAL]) (Andersen & Shirai, 1994; Gabriele, et al., 2009; Ishida, 2004; Shirai, 2000, 2013; Shirai & Andersen, 1995).

According to Shirai and Andersen (1995), [+DYNAMIC] shows that energy is required for the situation to exist or continue, [+TELIC] shows having an inherent endpoint, and [+PUNCTUAL] shows having no duration. See Table 1.

Verbs such as *see* and *love* are called STA verbs, and they have [-DYNAMIC], [-TELIC] and [-PUNCTUAL] semantic features (e.g., *John loves ice cream*). Basically, STA verbs are not used with *be+ing*. Thus, it is a rare case when we say, for example, *Taro is knowing my phone number*. We usually say *Taro knows my phone number* because the situations denoted with STA verbs always express unvaried state.

However, there are some special cases. In these exceptional cases, STA verbs are used with *be+ing*. Then, in this situation, you need an operation of changing a [-DYNAMIC] feature to a [+DYNAMIC] feature. Examples are the followings: *I am temporarily living in Tokyo now* / *Kota is resembling his father more and more*. Sometimes the sentence requires an adverbial phrase such as *temporarily* or *more and more* to match the compatibility with *be+ing*. In that case, the interpretation becomes 'vividness' or 'temporariness'. However, this is an exceptional case, and indeed teachers do not normally focus on this kind of special usage at school in Japan.

ACT verbs such as *walk*, *play*, *run* have features of

[+DYNAMIC], [-TELIC] and [-PUNCTUAL] (e.g., *John runs very fast*). These verbs can prototypically be used with *be+ing* such as *Koki is playing baseball now* (Gabriele, et al., 2009; Shirai & Andersen, 1995).

Table 1.
Semantic features of four lexical aspects and their examples

Lexical aspect	Semantic features	examples of verbs
STA verbs	[-DYNAMIC] [-TELIC] [-PUNCTUAL]	live, know, belong, have
ACT verbs	[+DYNAMIC] [-TELIC] [-PUNCTUAL]	work, write, teach, rain
SEM verbs	[+DYNAMIC] [-TELIC] [+PUNCTUAL]	knock, wink, cough, nod
ACH verbs	[+DYNAMIC] [+TELIC] [+PUNCTUAL]	stop, reach, die, fall

ACC verbs such as *walk a mile*, *make a chair*, *build a house* have [+DYNAMIC], [+TELIC] and [-PUNCTUAL] features. Although ACC verbs and ACT verbs are different according to the feature [+/-TELIC], the verbs belonging to these two categories are the same, and have almost the same interpretation when they are used with *be+ing*: Both can denote 'action in progress' (Shirai, 2000). Therefore, the researchers have decided to integrate the ACC verbs and ACT verbs into the category ACT verbs (Leech, 2004).

Instead of ACC verbs, the current study has adopted semelfactive (SEM) verbs (Smith, 1997) although some linguists do not distinguish SEM verbs from ACH verbs. The term 'semelfactive' comes from the Latin *semel* (once), which is used in Slavic linguistics to refer to a suffix which indicates a single event. Thus, verbs such as *knock*, *hit*, *wink*, *cough*, and *jump* belong to this category. SEM verbs have [+DYNAMIC], [-TELIC] and [-PUNCTUAL] semantic features. When these verbs are used with the form of *be+ing*, they denote iterative action in progress, and the action can be repeated intermittently, which is different from the behaviors of the other verb categories. See same examples in (1). Therefore, the researchers have decided to distinguish SEM verbs from other verb types.

- (1) SEM verbs: iterative action in progress
- a. Ken jumped.
 - b. Kumi knocked at the door.
 - c. Ken is jumping.
 - d. Kumi was knocking at the door.

The most important lexical aspect in the present study is ACH verbs such as *die* and *arrive*. These verbs have [-DYNAMIC], [+TELIC] and [+PUNCTUAL] semantic

features. Thus, they have no process or duration because they have a [+PUNCTUAL] feature. When these verbs are used with a *be+ing* form, they show a process moving forward to the end point (Gabriele, 2005). It is illustrated in Figure 1 below.

2.3 *Be+ing* in English textbooks in Japan

The English imperfective marker *be+ing* is generally introduced in the first year English textbooks in Japan. Junior high school students usually learn from their teachers that *be+ing* is equivalent to *V-te-i-ru* as has mentioned before. Thus a majority of adult JLEs think that *be+ing* is equal to *V-te-i-ru*. Certainly, the way of grasping the meaning through the one-to-one morphosyntactic-semantic mapping may often give an advantage to JLEs to interpret *be+ing* correctly. However, the interpretation of *be+ing* is not always the same as that of *V-te-i-ru*. For instance, one of the interpretations of the present perfect (*have+en*) which represents 'past-time-related-to-present-time' (Leech, 2004) can in some cases be equal to *V-te-i-ru*. In fact, for instance, a sentence *I have lived in Chiba for five years* can be translated into 'Boku-wa Chiba-ni gonenkan sun-de-i-ru.' See (2).

- (2) a. I have lived in Chiba for five years.
 b. Boku-wa Chiba-ni go-nenkan sun-de-i-ru
 I-TOP Chiba-in for five years live-TE-ASP

'Habitual event' or 'simple state' denoted with the simple present in English can also be expressed by using *V-te-i-ru* in Japanese. See (3).

- (3) a. I live in Shizuoka.
 b. Boku-wa Shizuoka-ni sun-de-i-ru
 I-TOP Shizuoka-in live-TE-ASP

In sum, *V-te-i-ru* in Japanese covers three linguistic forms of English (simple form, progressive form and perfect form) as shown in Table 2. It is probable that for JLEs, this one-to-three mapping can cause difficulty in interpreting the meanings expressed with *be+ing* (Fujimori, et al., 2013).

Table 2.
Form-meaning mappings between Japanese and English

Semantic Reading	Japanese (L1)	English (L2)
Habitual or simple state		v
Present perfect	<i>V-te-i-ru</i>	<i>have+en</i>
Present progressive		<i>be+ing</i>

(Based on Fujimori et al., 2013)

Kuno and Takami (2013) compare *V-te-i-ru* with *be+ing*, and suggest that *V-te-i-ru* has largely two denotations: *continuum of an event/action* and *resultative state*. On the other hand, *be+ing* has only one denotation, *continuum of an event/action*. Thus, *Arisa is playing the piano* can be equivalent to *Arisa-ga piano-o hii-te-i-ru*, while *The bus is stopping* cannot be equivalent to *Basu-ga tomat-te-i-ru*. See (4) and (5).

- (4) a. Arisa is playing the piano.
 (ACT verb: continuum of an event/action)
 b. Arisa-ga piano-o hii-te-i-ru.
 Arisa-NOM piano-ACC play-TE-ASP
 'Arisa is playing the piano.'
 (ACT verb: continuum of an event/action)
 (5) a. The bus is stopping.
 (ACH verb: continuum of an event/action)
 b. Basu-ga tomat-te-i-ru.
 Bus-NOM stop-TE-ASP
 'The bus has stopped.'
 (ACH verb: resultative state)

As shown in (5), *Basu-ga teiryujo-ni tomat-te-i-ru* can be expressed in English with several different ways by changing the syntactic structures and tense depending on the contexts with *be+ing*. *The bus is stopping* in English, however, cannot express 'the state after the bus stops.' If you would like to express 'the state after the bus stops,' like the example in (5), you have to use the form, *have+en*.

An important question here is, why *tomat-te-i-ru* is not compatible with *be stopping*, though *hii-te-i-ru* is compatible with *be playing*. Why can Japanese *mat-te-i-ru* and *suwat-te-i-ru* be used as the same interpretation as English *be waiting* and *be sitting* respectively while *tomat-te-i-ru* in Japanese cannot be equal to *be stopping* in English? The important point to answer this question is closely related to the semantic features each verb has with *be+ing*. Thus, semantic features of *play*, *wait* and *sit* are different from those of *stop*, *die* and *arrive* when they are used with *be+ing*. In other words, semantic features which *be playing*, *be waiting* and *be sitting* have are distinct from those of *be stopping*, *be dying*, and *be arriving*. These differences will be discussed from the linguistic point of view in the next section.

2.4 Grammatical aspect and lexical aspect

The imperfect aspect (or progressive aspect) can be divided into two subgroups. One is grammatical aspect (e.g., *V-te-i-ru* and *be+ing*) and the other is lexical aspect (e.g., Stative, Achievement, etc.). Gabriele, et al. (2009) explain that grammatical aspect is encoded via inflectional morphology in English. *Be+ing* is one of grammatical aspects and always denotes ongoing (Gabriele, et al., 2003), or indicates a happening 'in progress' (Leech, 2004).

The most important lexical aspect in the present study is ACH verbs such as *die*, *stop* and *arrive*. They have all

[+DYNAMIC], [+TELIC] and [+PUNCTUAL] features as shown at Table 1 above. Therefore, they have no process or duration because of the [+PUNCTUAL] feature unlike the other three lexical aspects (STAs, ACTs and ACCs). Thus, they were originally considered that they could not be used with *be+ing* because of this feature (Gabriele, 2005).

Although it is certainly true that some ACH verbs, such as *find* and *recognize*, are not normally used with *be+ing*, other verbs can indeed be used with *be+ing* in such a situation as *The train is arriving*. The ACH verbs which can be naturally used with *be+ing* denote 'process leading up to the endpoint' (Shirai, 2000; Gabriele, 2005). Therefore, the ACH verbs can be said to have a 'preliminary stage.' For instance, *The sparrow is dying* contains a process that 'the sparrow will die before long.' See Figure 1. The pre-stage enables the ACH verbs to be used with *be+ing*. In addition, Shirai (2000) shows that some of the ACH verbs denote 'iterative (action in progress)'.

When compared ACH verbs in English with those in Japanese, we will understand the difference between the two categories: 'process leading up to the endpoint' in English and 'resultative state' in Japanese. This is an important difference on which the present study will focus. It could be possible to guess that JLEs have difficulty in ACHs verbs with *be+ing* if they simply regard it as an equivalent to the Japanese *V-te-i-ru*.

It can be assumed that the incompatibility between *be+ing* and *V-te-i-ru* in the ACH verbs might negatively influence the acquisition of *be+ing* for JLEs if they simply regard *be+ing* as *V-te-i-ru*.

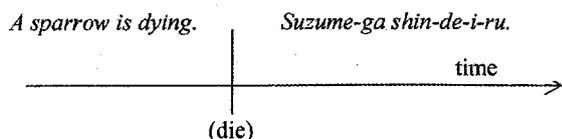


Figure 1. The difference between *be dying* and *shin-de-i-ru* (based on Shirai & Kurono, 1998, p. 253)

2.5 Previous studies

Let us briefly review a couple of previous studies closely related to the present study. Gabriele (2009) examined whether properties of JLEs' first language (L1), that is Japanese, played a role for the JLEs' aspectual interpretation of *be+ing* by using the Story Compatibility Task. She investigated two lexical aspect, ACC verbs (e.g., *make a cake*, *build a sandcastle*, etc.) and ACH verbs (e.g., *arrive*, *die*, *come*, etc.). In addition, Gabriele compared two contexts; preemption (completed) and addition (incomplete). The JLEs were asked to respond acceptability of the English sentences based on the context given with pictures on Scale 1, which corresponded to the statement: *I definitely cannot say this sentence in the context of the story*, to Scale 5, which corresponded to the statement: *I definitely can say this sentence in the context of the story*.

Her assumption on the L1 transfer was that it would create a mismatch of the acceptability between the JLEs and the native speakers of English only in terms of the judgement of the ACH verb usages. The results indicate that the JLEs with low and intermediate English proficiency had difficulty with the aspectual interpretation of the ACH verb usages.

In Gabriele, Maekawa and Aleman-Banon (2009), they examined to verify two accounts: the Prototype Hypothesis (Shirai & Andersen, 1995) and Full Transfer/Full Access Model (Schwartz and Sprouse, 1996). Subjects of the study were 19 native speakers of Mandarin Chinese and 19 native speakers of Korean. Although Mandarin Chinese has the imperfective marker *zai*, it is not compatible with the usages of English ACH verbs. In contrast, in Korean, a marker *ko iss* encodes progressive aspect with both ACC verbs and ACH verbs as equal as *be+ing*. The Prototype Hypothesis claims that L2 learners acquire a linguistic category starting with the prototype of the category and later expand its application to less prototypical cases and the prototype of *be+ing* is the lexical aspect which is [-TELIC] and [+DURATIVE] (= [-PUNCTUAL]) (Shirai & Andersen, 1995). Thus, ACT verbs have the prototypical lexical aspect of *be+ing*.

According to this hypothesis, it is predicted that both Chinese and Korean learners should face similar difficulty with ACH verbs with *be+ing* regardless of the properties of the native language because the ACH verbs are not the prototype and need to expand an application of ACT verbs. Full Transfer/Full Access Model, on the other hand, predicts that the Korean learners would outperform the Chinese learners because Korean has the same aspectual properties as *be+ing*. The task was almost the same as the one used in Gabriele (2009). The results showed that the Korean learners of English outperformed the Chinese learners of English in terms of the ACH verbs with *be+ing* although both learner groups had no difficulty in the ACC verbs with *be+ing*. That is, the L1 transfer account was in line with the results. However, it is interesting that the Korean learners had more difficulty with the ACH verbs than with the ACC verbs. It suggests that the aspectual interpretation of ACH verbs with *be+ing* shows universally much difficulty for any L2 learners of English.

Mochizuki (2015) conducted an experiment, which was designed to ask JLEs grammaticality of English sentences tested. That is, the examiner investigated whether or not JLEs were able to distinguish the usages of *be+ing* from those of *V-te-i-ru*. The lexical aspect was used based on the Vendlerian four categories. That is, the task targeted STA verbs, ACT verbs, ACC verbs and ACH verbs with *be+ing*. There were sixty JLEs as participants, who were university students in Japan. They were asked to answer forty questions. The initial sentence of each question was written in Japanese with the expression of *V-te-i-ru*. The second sentence was written in English and it was closely related to the initial Japanese sentence. The participants were

asked to change the verb form in the second sentence into the most appropriate form to match the meaning of the initial sentence.

One of the findings was that the JLEs in the experiment did not simply regard *V-te-i-ru* as equal to *be+ing*: They chose their answers depending on the category of lexical aspect. The difficulty of the aspectual interpretation of ACH verbs must be due not only to the L1 transfer but also to the semantic feature [+PUNCTUAL] the ACH verbs have. Thus, Mochizuki (2015) claims that the difficulty of correct interpretation in the usages of ACH verbs with *be+ing* relies heavily on the semantic feature [+PUNCTUAL]. When JLEs interpret the sentence meaning of ACH verbs with *be+ing*, they must change the semantic feature the ACH verbs have from [+PUNCTUAL] to [-PUNCTUAL] to meet the requirement of the *be+ing* form. JLEs need a certain amount of time when they accomplish this feature change.

3. EXPERIMENT

3.1 Purpose of the research

The purpose of the study is to investigate the acquisition of English aspect in ACH verbs with *be+ing* in comparison with the acquisition of STA verbs with *be+ing*. Thus, the study will examine whether the five STA verbs with *be+ing* (i.e., *be having*, *be living*, *be keeping*, *be belonging*, and *be standing*) and the five ACH verbs with *be+ing* (i.e., *be falling*, *be arriving*, *be dying*, *be reaching* and *be stopping*) are equally difficult for JLEs to interpret their sentential meanings.

In the questions of STA verbs with *be+ing*, JLEs must choose the choice *WRONG*, and then they must select a verb simple present form in order to get a correct answer. In ACH verbs with *be+ing*, JLEs must choose the choice, *WRONG*, then they will choose either a present perfective or a simple past form to reach the correct judgement.

3.2 Participants

One hundred and eleven university students in Japan whose native language is Japanese participated in this experiment. They were freshmen, sophomores and a few juniors when this experiment was conducted. Their majors are either international relations, economics or science.

A grammaticality judgement task (GJT) was administered for these 110 JLEs. Before the GJT, to grasp their proficiency levels, the authors used Oxford Quick Placement Test (OQPT). The result is shown in Table 3. The maximum score of OQPT is 60. The mean score of the test was 28.03, and the *Standard Deviation* (SD) was 5.9. Thus, the participants can be said to be in the lower-intermediate English proficiency level.

Table 3.
Results of OQPT (n=111)

Mean	SD	Median	Minimum	Maximum
28.03	5.9	29	14	42

3.3 Designs and Procedures

Five STA verbs and five ACH verbs were selected and tested. They are shown in (6).

- (6) STAs: *have*, *live*, *keep*, *belong*, *stand*
ACHs: *fall*, *arrive*, *die*, *reach*, *stop*

The JLEs in this study were asked to judge whether the underlined part of the English stimulus sentences on the test sheet grammatically expressed the same meanings as the Japanese sentence written above each English sentence. The test method adopted in this experiment is similar to that of Mochizuki (2015). There were 10 target question-sentences and 30 fillers including the question sentences of ACT and Semelfactive (SEM) verb usages because in addition to STA and ACH verbs, we originally examined ACT and SEM verb usages in the same experiment. However, the researchers will not discuss the results of these two verb categories in this paper.

The participants were required to read a short passage written in Japanese which described a situation of the context, and to judge whether the situation written in Japanese and the English sentence grammatically matched or not. Then, they were expected to choose *Right* or *Wrong*. We will call this task First Choice. When the participant chooses *Right*, he/she will go to the next test sentence. When he/she chooses *WRONG*, then he/she must select what he/she thinks to be the most appropriate grammatical form from the five alternatives written right below the target English sentence. We will call this task Second Choice. All ten test questions are given in (7) and (8).

(7) STA verbs

a. *Keep*

Situation: 修平の家には犬が 3 匹いる。学校から帰ると、彼はいつも一緒に散歩する。

Sentence: Shuhei's family is keeping three dogs.

Judgement: *WRONG*

1. will keep 2. keeps 3. has kept
4. kept 5. was keeping

b. *Belong*

Situation: 三郎は野球部である。日焼けして真っ黒だ。

Sentence: Saburo is belonging to the baseball club.

Judgement: *WRONG*

1. will belong 2. belongs 3. has belonged
4. belonged 5. was belonging

c. *Live*

Situation: 健也は静岡在住だ。

Sentence: Kenya is living in Shizuoka.

Judgement: WRONG

1. will live 2. lives 3. has lived
4. lived 5. was living

d. Stand

Situation: この村には古い教会がある。それは遠く離れたむこうの丘の上にある。

Sentence: The old church is standing on the hill.

Judgement: WRONG

1. will stand 2. stands 3. has stood
4. stood 5. was standing

e. Have

Situation: ナンシーの目は青くて澄んでいる。

Sentence: Nancy is having blue eyes.

Judgement: WRONG

1. will have 2. has 3. has had
4. had 5. was having

(8) ACH verbs

a. Fall

Situation: 昨日は一日中、台風の影響で強い風が吹いた。そのせいで、ここの道路には落ち葉がたくさんある。

Sentence: A lot of leaves are falling on this street.

Judgement: WRONG

1. will fall 2. fall 3. have fallen
4. fell 5. were falling

b. Die

Situation: 昨日から、その木の下には一匹の猫が見える。しかし、全く動かず、息づかいもない。

Sentence: A cat is dying under the tree.

Judgement: WRONG

1. will die 2. dies 3. has died
4. died 5. was dying

c. Reach

Situation: 純と豊は今、富士山の頂上にいる。

Sentence: Jun and Yutaka are reaching the top of Mt. Fuji.

Judgement: WRONG

1. will reach 2. reaches 3. has reached
4. reached 5. was reaching

d. Stop

Situation: あそこのバス停に清水駅行きのバスが見える。そのバス停には乗客がいる。

Sentence: The bus to Shimizu Station is stopping at the bus stop.

Judgement: WRONG

1. will stop 2. stops 3. has stopped
4. stopped 5. was stopping

e. Arrive

Situation: 私は浜松に用事があり、熱海から浜松行きの東海道線に乗った。そして私は今、静岡駅にいる。

Sentence: The train to Hamamatsu Station is

arriving at Shizuoka Station.

Judgement: WRONG

1. will arrive 2. arrives 3. has arrived
4. arrived 5. was arriving

In (7a-e) for STA verbs, the participants are expected to choose *WRONG*. Then, instead of *be+ing*, they will choose the most appropriate form out of the five choices, which the researchers believe that the simple present form is the most appropriate form. They do not believe that the other choices are grammatical for this context.

In (8a-e), from the context written in Japanese, the researchers also expect the participants to choose *WRONG*. Then, the participants will choose an alternative. The researchers believe that there are two possible answers for these five situations. They are a present progressive form or a simple past form. Thus, when the participants chose either of the two choices, they chose a correct answer for the question.

4. RESULTS AND DISCUSSION

4.1 Overall results of First and Second Choices

We show the test results of First Choice at Table 4. It indicates how many answers are RIGHT or WRONG. In the case of STA verbs, 482 answers out of 576 were correct responses (88.8% correct), and 94 answers were wrong answers (11.2%). On the other hand, in the results of ACH verbs, 375 out of 586 answers were correct answers (62.0%), and 211 answers were wrong answers (38.0%). A one-way ANOVA revealed a significant effect for lexical aspect: $F(3, 440) = 13.9540, p < .001$. Multiple comparison tests by Bonferroni's Method found that a significant difference was found between the STA verbs and the ACH verbs ($p < .001$). Thus, generally speaking, as a group, the ACH verb group is more difficult than the STA verb group for the JLEs.

Table 4.
Results of First Choice

	Correct answer: <i>WRONG</i>	Wrong answer: * <i>RIGHT</i> (* <i>be+ing</i>)
STA verbs (576)	482 (88.8%)	94 (11.2%)
ACH verbs (586)	375 (62.0%)	211 (38.0%)

Table 5 shows the results of Second Choice. As we have discussed earlier, in STA verbs, 482 out of 576 answers were correct responses, *WRONG*, while in ACH verbs, 375 out of 586 were *WRONG*. Thus, Table 5 lists the breakdown results of those shown in Table 4. For STA verbs, the most appropriate answer is *V*, which means a simple present form. Four hundred and eleven answers were *V* (74.1%), which could be said to be a real percentage of the correct answers for STA verbs. We found

a small percentage rate of the other choices except *have+en* (9.6%).

On the other hand, for ACH verbs, the most suitable choice can be either *have+en* or *-ed* in the current experiment. One hundred thirteen (20.4%) were *have+en* answers, and 112 (20.2%) were *-ed* answers. In total, 225 (40.6%) were correct answers. What is interesting here is that there was the same numbers of responses for the choice, *V* (20.9%) though it is not a correct choice. The statistics show that there is a significant difference between the correct numbers of answer for STA verbs and those for the ACH verbs ($p < .001$). To sum up these results, we can say that, again in general, ACH verbs are more difficult than STA verbs.

Now, let us look at the interrelationships among the five STA verbs and among the five ACH verbs. The point here is to examine whether there is any significant difference in acquisition among the same categorical verbs. There may be a possibility that some verbs are more difficult for JLEs to interpret correctly than others even in the same categorical verbs.

Let us first look at the results of the five STA verbs first. See Table 6, Figure 2 and Figure 3. First of all, let us look at the internal relationship among the five STAs and the percentages of their correct forms, *V*. The results shown at Table 6 and Figure 2 reveal a significant difference among some verbs: between *have* and *keep* ($p < .001$), *have* and *belong* ($p < .001$) and *have* and *stand* ($p < .001$) as well as

live and *keep* ($p = .002$) and *live* and *stand* ($p = .046$). The participants significantly performed *have* and *live* better than the other three, which indicates that the JLEs do not often use a *be+ing* form when the verbs are *have* and *live*. Thus, although STA verbs are usually said to be easy for JLEs to interpret correctly, all the STA verbs are not necessarily equally easy for JLEs.

Let us look at the numbers and percentages of JLEs' selection of *be+ing* in the STA verbs, which is shown in Table 6 and Figure 3. Multiple comparison tests by Bonferroni's Method show that there are significant differences between *have* and *keep* ($p = .016$), *have* and *stand* ($p < .001$), *have* and *belong* ($p = .005$), and *live* and *stand* ($p = .044$). These results could indicate that in the case of STA verbs, JLEs are most likely to select the *be+ing* form when the verb is *stand*. The authors assume that this may be due to the linguistic properties of the verb, *stand*. We can use *stand* with *be+ing* when the object can be moved. *My sister is standing under the big tree* or *The bookcase was standing in the middles of the room yesterday* are examples of this case. JLEs in this study may be influenced of this usage.

Table 5.
Percentages of verb forms the participants chose

	Answer: Wrong	will+V	V	have+en	-ed	was/were+ing
STAs	482 (88.8%)	2 (0.4%)	411 (74.1%)	53 (9.6%)	6 (1.1%)	10 (1.8%)
ACHs	375 (62.0%)	13 (2.3%)	116 (20.9%)	113 (20.4%)	112 (20.2%)	21 (3.2%)

Note. The total percentages of both items are not 100% because the participants were allowed to select more than one verb form as well as some of the participants did not choose any alternative.

Table 6.
Results of STA verbs with *be+ing*

STAs	* <i>be+ing</i>	*will + verb	<i>V</i>	* <i>have+en</i>	* <i>-ed</i>	* <i>was+ing</i>
<i>have</i>	3 (2.7%)	0 (0.0%)	101 (91.0%)	7 (6.3%)	1 (0.9%)	0 (0.0%)
<i>live</i>	17 (15.3%)	0 (0.0%)	91 (82.0%)	7 (6.3%)	1 (0.9%)	0 (0.0%)
<i>belong</i>	22 (19.8%)	0 (0.0%)	77 (69.4%)	13 (11.7%)	1 (0.9%)	3 (2.7%)
<i>stand</i>	32 (28.8%)	1 (0.9%)	74 (66.7%)	5 (4.5%)	2 (1.8%)	2 (1.8%)
<i>keep</i>	20 (18.0%)	1 (0.9%)	68 (61.3%)	21 (18.9%)	1 (0.9%)	5 (4.5%)

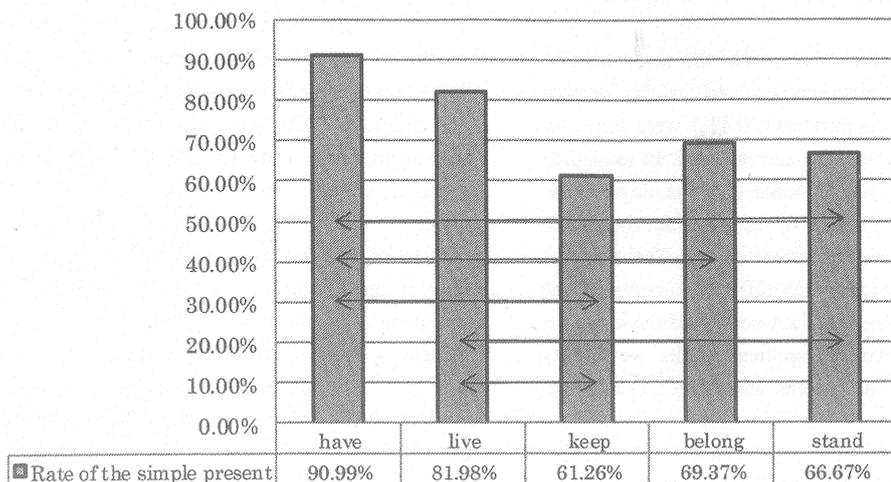


Figure 2. Percentages of *V* selection (correct answer) in the five STA verbs

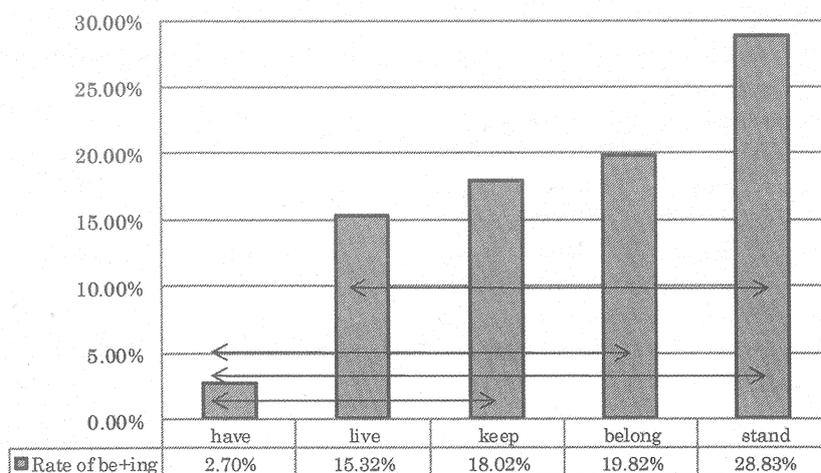


Figure 3. Results of **be+ing* selection in the five STA verbs

4.2 Results of ACH verbs with *be-ing*

Now let us look at the internal relationship among the five ACH verbs. As shown in Table 7 and Figure 4, the JLEs selected various kinds of verb forms as their answers. A two-way ANOVA indicate a significant difference between the five verbs and the six forms except for *V*. It shows that there are differences between the verbs and *be+ing* ($F(4, 550) = 14.2686, p < .001$), *will + verb* ($F(4, 550) = 5.6056, p < .001$), *have+en* ($F(4, 550) = 7.5692, p < .001$), *-ed* ($F(4, 550) = 8.1801, p < .001$), and *was+ing* ($F(4, 550) = 6.4706, p < .001$). On the other hand, no difference was found between the five verbs and *V*: $F(4, 550) = 1.3194, p = 0.262$.

Let us examine the internal relationship between the five ACH verbs and *be+ing*. The tests show a significant difference between *fall* and *reach* ($p < .001$), and *fall* and *stop* ($p < .001$), as well as *arrive* and *reach* ($p = .024$), *arrive* and *stop* ($p < .001$), and *die* and *stop* ($p < .001$).

Thus, it could be said that *fall* and *arrive* are relatively easy and *reach* and *stop* are relatively difficult for the JLEs. It was also found that JLEs are likely to use *be+ing* when the verbs are *stop* and *reach*. Moreover, it was found that they often tend to select a simple verb form when they judge that the form *be+ing* is ungrammatical.

5. CONCLUSION

The purpose of the study was to investigate the acquisition of English aspect by adult JLEs (university students in Japan). In particular, the study has focused on the acquisition of aspect in ACH verbs with *be+ing* in comparison with the acquisition of STA verbs with *be+ing*. We obtained the data from 111 JLEs to investigate whether the correct interpretation of the five STA verbs with *be+ing* (*be having*, *be living*, *be keeping*, *be belonging*, and *be standing*) and the five ACH verbs with *be+ing* (*be falling*, *be arriving*, *be dying*, *be reaching* and *be stopping*) were

Table 7.
Results of ACH verbs

ACHs	1: *be+ing	2: *will + verb	3: *V	4: have+en	5: -ed	Correct (4 + 5)	6: *was+ing
fall	22 (19.8%)	0 (0.0%)	19 (17.1%)	39 (35.1%)	27 (24.3%)	66 (59.4%)	13 (11.7%)
die	36 (32.4%)	0 (0.0%)	21 (18.9%)	27 (24.3%)	37 (33.3%)	64 (57.6%)	3 (2.7%)
arrive	32 (28.8%)	5 (4.5%)	31 (27.9%)	19 (17.1%)	26 (23.4%)	45 (40.5%)	3 (2.7%)
reach	52 (46.9%)	0 (0.0%)	25 (22.5%)	20 (18.0%)	16 (14.4%)	36 (32.4%)	1 (0.9%)
stop	69 (62.2%)	8 (7.2%)	20 (18.0%)	8 (7.2%)	6 (5.4%)	14 (12.6%)	1 (0.9%)

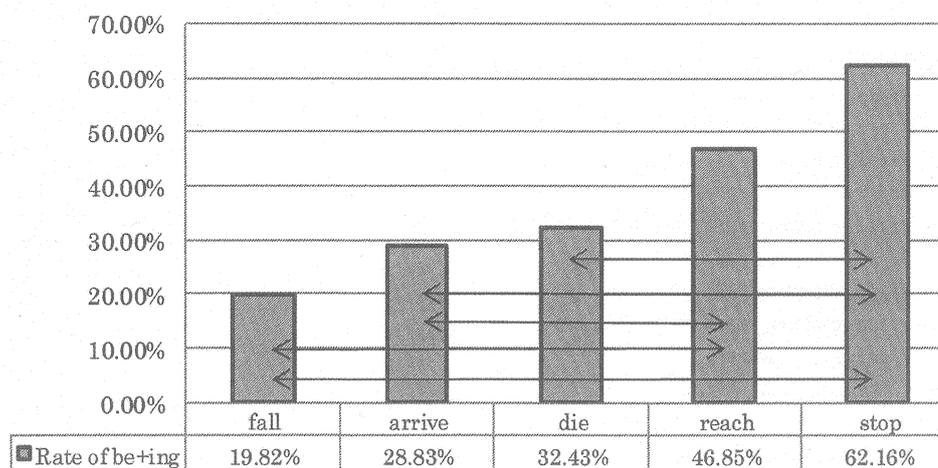


Figure 4. Comparison of error percentages of the five ACHs with be+ing

equally difficult for JLEs to judge their semantic meanings. The results have shown that the correct interpretation of ACH verb forms with *be+ing* are more difficult than that of STA verbs with *be+ing*. However, there exist significant differences of difficulties even among the same verb categories. In STA verbs, *have* and *live* are easier than *keep*, *belong* and *stand*. In ACH verbs, *fall* and *die* are easier than *arrive*, *reach* and *stop*. *Stop* is the most difficult verb among the five ACH verbs we examined in this study.

Based on these research results, we will propose what teachers should know when they teach English as a foreign language. First, they should know that generally speaking, ACH verbs are more difficult than STA verbs for at least JLEs to understand their linguistic forms. Second, they should know that there are significant difficulty orders even among the same verb categories. In our future study, we are going to explicitly teach JLEs grammatical and semantic functions of the ACH verb usage with *be+ing*, and then examine the effect of explicit instructions on this issue.

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References

- Andersen, R. W., & Shirai, Y. (1994). Discourse motivations for some cognitive acquisition principles. *Studies in Second Language Acquisition*, 16, 133-156.
- Comrie, B. (1976). *Aspect: An introduction to the Study of Verbal Aspect and Related Problems* (Vol.2). Cambridge University Press.
- Fujimori, A., Yoshimura, N., Nakayama, M., Sawasaki, K., & Takeda, S. (2013). Acquisition of English perfectives by Japanese adult learners. *Ars Linguistica*, 20, 62-72.
- Gabriele, A. (2005). *The Acquisition of Aspect in a Second Language: A Bidirectional Study of Learners of English and Japanese* (Unpublished doctoral dissertation), New York: City University of New York.
- Gabriele, A. (2009). Transfer and transition in the SLA of aspect. *Studies in Second Language Acquisition*, 31,

- 371-402.
- Gabriele, A., & Martohardjono, G. (2005). Investigating the role of transfer in the L2 acquisition of aspect. *Proceedings of GASLA*, 7, 96-110.
- Gabriele, A., Maekawa, J., & Aleman-Banon, J. (2009). Can we predict when dying will be difficult: Progressive achievements in L2 English. In J. Chandlee, M. Franchini, S. Lord, & G. M. Rheiner (Eds.), *Proceedings of the 33rd Annual Boston University Conference on Language Development* (pp. 175-186). Somerville, MA: Cascadilla Press.
- Gabriele, A., Martohardjono, G., & McClure, W. (2003). Why swimming is just as difficult as dying for Japanese learners of English. *ZAS Papers in Linguistics*, 29, 85-103.
- Gabriele, A., Martohardjono, G., & McClure, W. (2005). Evaluating the Role of the L1 in the L2 Acquisition of Aspect: A Study of Japanese Learners of English. In *Proceedings of the 4th International Symposium on Bilingualism* (pp. 808-826).
- Harasawa, I. (1994). A pragmatic view of V-te-i-ru and V-te-ar-u. *Journal of Pragmatics*, 22, 169-197.
- Ishida, M. (2004). Effects of recasts on the acquisition of the aspectual form -te i-(ru) by learners of Japanese as a foreign language. *Language Learning*, 54, 311-394.
- Kuno, S. & Takami, K. (2013). *Nazotoki-no Eibunpoo: Toki-no Hyoogen* [Eng: Solution of a Mystery of English Grammar: Expressions of Time]. Tokyo: Kuroshio shuppan. (written in Japanese)
- Leech, G. N. (2004). *Meaning and the English Verb*. Pearson Education.
- Mochizuki, K. (2015). The acquisition of 'be+ing' by Japanese learners of English. Presented at *2015 J-SLA Summer Seminar*. Daigaku Seminar House in Hachioji. August 18, 2015.
- Payne, T. E. (2011). *Understanding English Grammar: a Linguistic Introduction*. Cambridge University Press.
- Schwartz, B. D., & Sprouse, R. A. (1996). L2 cognitive states and the full transfer/full access model. *Second Language Research*, 12, 40-72.
- Shirai, Y. (2000). The semantics of the Japanese imperfective-teiru: An integrative approach. *Journal of Pragmatics*, 32, 327-361.
- Shirai, Y. (2013). Lexical aspect. In Salaberry, M. R., & Comajoan, L. (Eds.). *Research Design and Methodology in Studies on L2 Tense and Aspect* (Vol. 2). Walter de Gruyter.
- Shirai, Y. & Andersen, R. (1995) The acquisition of tense-aspect morphology: a prototype account. *Language*, 71, 743-762.
- Shirai, Y. & Kurono, A. (1998). The acquisition of tense-aspect marking in Japanese as a second language. *Language Learning*, 48, 245-279.
- Smith, C. S. (1997). *The Parameter of Aspect*. Dordrecht: Kluwer.
- Vendler, Z. (1957). Verbs and times. *The philosophical review*, 66, 143-160.