A Corpus Study of Verb Patterns of Unaccusative Verbs 
*Appear, Happen and Occur* in L2 English Written by 
Japanese Learners of English

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There have been many studies on the acquisition of English unaccusative verbs which make use of learner corpora. Most of these studies have so far concluded that even advanced learners of English ungrammatically passivize unaccusative verbs and produce sentences such as *The accident was happened* and *The mobile phone was appeared*. These ungrammatical passives thus produced are referred to as ‘passive unaccusatives’ by many researchers. Oshita (2000) is probably the first to analyze examples of these ungrammatical unaccusative passives in a written learner corpus. He used data from Japanese learners consisting of 1,363 essays from the Longman Learners Corpus (LLC). However, in order to gain a more thorough understanding of Japanese learners of English, a corpus of 6,161 essays written by Japanese learners of English is used in this study. The findings in this study are that (1) Japanese learners of English do in fact produce ungrammatical unaccusative passive uses of *appear, happen, and occur* in writing; (2) they tend to use *appear, happen, and occur* with adverbials; and (3) while they sometimes use *happen and occur* as causative verbs, they do not use *appear* in this way.

Key Words: unaccusative verbs, verb patterns, learner corpora

1 Introduction

In this study I examine the ways in which three unaccusative verbs, i.e., *appear, happen, and occur*, are ungrammatically passivized through a university-level essay corpus called the SILS-JLE Corpus, which is a sub-corpus of the SILS English Learner Corpus, compiled at the School of International Liberal Studies at Waseda University.

First, I briefly discuss what unaccusative verbs and passive unaccusative verbs are. Second, I examine the frequency of verb patterns of three target unaccusative verbs. Finally, I conclude by discussing the results along with several limitations of this study.

2 Research background

2.1 Unaccusative verbs
It has been widely recognized that intransitive verbs are classified into two classes: unergative verbs and unaccusative verbs (e.g., Perlmutter, 1978; Burzio, 1986; Levin and Rappaport Hovav, 1995) as follows:

(1) a. Naomi worked. (unergative, Naomi: agent)
    b. Naomi arrived. (unaccusative, Naomi: theme/patient)

Some linguists make a further distinction between alternating unaccusative verbs and non-alternating unaccusative verbs. Alternating unaccusative verbs such as break and open have transitive counterparts, as in (2) and (3). According to Levin and Rappaport Hovav (1995), the intransitive form of an alternating verb like break (2a) is derived from the causative form (2b). In short the surface subject of unaccusative verbs originates in the object position. On the other hand, non-alternating unaccusative verbs such as fall, arrive, and happen can only occur as unaccusative verbs, as in (4)-(6).

Two types of unaccusative verbs
A. Alternating unaccusatives (unaccusatives with a transitive counterpart)
   (2) a. The window broke.
       b. Ken broke the window.
   (3) a. The door opened.
       b. Ken opened the window.
B. Non-alternating unaccusatives (unaccusatives without a transitive counterpart)
   (4) The leaves fell.
   (5) The guests arrived.
   (6) Something happened.

2.2 Previous research on passive unaccusatives

SLA researchers have conducted extensive research on why L2 learners of English produce passive unaccusatives such as *The accident was happened and *The mobile phone was appeared, even though the learners do not normally encounter such forms in English input. Some researchers have proposed some UG-based accounts for this (e.g., Hirakawa, 1995, 1997, 1993; Oshita, 1997, 2000; Zobl, 1989).

Although most of the previous studies used various tasks, such as grammatical judgment and elicitation tasks, only a small number of them used learner corpora. Among them, Oshita (2000) is one of the pioneering studies using a learner corpus for the analysis of the passive unaccusatives produced by L2 learners of English.

Oshita (2000) categorized the explanations given in previous studies on passive unaccusatives into five types: (1) L1 transfer of a tense/aspect auxiliary verb + a past participle, (2) overgeneralization of the English
adjectival passive formation, (3) non-target lexical causativisation, (4) identification of the lack of a logical subject and the be + en, and (5) non-target overt marking of syntactic NP movement.

To test which account best describes the acquisition of passive unaccusatives, he analyzed the passive unaccusatives using the ten syntactic patterns for classification. The corpus used in his study was the Longman Learners Corpus (Version 1.1., March 1993), which consisted of 3,362 essays written by English learners of four different L1 backgrounds: 684 essays for Italian, 1,079 for Spanish, 236 for Korean and 1,363 for Japanese. The target non-alternating unaccusatives included appear, arise, arrive, die, disappear, exist, fall, happen, occur, and rise. After a thorough investigation, he demonstrated that his fifth account, i.e., non-target overt marking of syntactic NP movement, is the most plausible. His explanation for this was that an overt marker of NP movement is “a type of overgeneralization based on the passive morphosyntax of the target English” (Oshita 2000, p. 320).

Although Oshita (2000) analyzed the data produced by Italian, Spanish, Korean, and Japanese speakers, I restrict myself to his Japanese speakers’ data here. His analysis of the Japanese speakers’ data revealed that out of 304 sentence patterns in which the target ten unaccusatives appeared, 17 (5.6%) were used as passive unaccusatives, although no mention of the breakdown of these verbs was made.

3. This study

3.1 The purpose

The purpose of the present study is two-fold. The first is, following Oshita (2000), to present the frequency of verb patterns of three non-alternating unaccusative verbs: appear, happen, and occur by using a large-scale learner corpus. The second is to examine how frequently Japanese learners of English produce unaccusative verbs and present some analysis of the data.

3.2 Method

3.2.1 The learner corpus: SILS-JLE corpus

Since the Japanese data in Oshita (2000) is rather small, I used a relatively large-scale corpus. In this study I used a corpus called the SILS English Learner Corpus, a corpus compiled at the School of International Liberal Studies at Waseda University (See Muchleisen, 2006, for more detail). It contained more than 13,600 essays written by students at School of International Liberal Studies at Waseda University. In this study 6,161 first-draft essays (body parts only) written by Japanese students, who are considered to be fairly advanced learners in the Japanese university context,
were extracted for the analysis. This sub-corpus called the SILS-JLE corpus contained about 2.87 million words.

3.2.2 The target verbs

Owada et al. (2009) conducted a corpus study on Japanese learners’ acquisition of ten unaccusative verbs, following Oshita (2000). They found that out of the ten verbs (i.e., appear, arise, arrive, die, disappear, exist, fall, happen, occur, and rise), the verbs appear, happen and occur were three most frequently used verbs that were used as passive unaccusatives, making up 71.6% of all the passive unaccusative uses\(^1\). Based on this finding, these three verbs, i.e., appear, happen and occur, were chosen for this study.

3.2.3 Extraction criterion

Out of about 2.87 million words, I extracted 1,353 tokens for appear, 1,095 tokens for happen, and 932 tokens for occur. Out of all the tokens of each verb, I excluded some tokens, according to the criteria below, which are different from Oshita (2000)\(^2\). There are two reasons for not adhering to his criteria. The first is that I wanted to focus on main verb uses for the ease of analysis so that subject-verb agreements in the learner data could be easily determined. Therefore, verb forms such as gerunds and participle constructions were excluded from the analysis. The second is that in order to gain an understanding of an overall acquisition of verb patterns of each verb, I needed to include such patterns as ‘appear (to be) adjective/noun.’

Criteria for the inclusion in this study were as follows: (1) verbs used as finite verbs (e.g., \(X\) appears) and (2) verbs used as infinite verbs (bare infinitive, -ing or -ed form) which follow auxiliaries or semi-auxiliaries in finite verb phrases (e.g., \(X\) can appear / \(X\) is appearing / \(X\) has appeared / \(X\) is appeared / \(X\) is going to appear).

Therefore, unaccusatives used as infinitives (both bare and to-infinitives) except for the above case, gerunds, participle constructions were excluded as well as unclear usages.

Following the criteria above, the original number of tokens was

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1 Out of 169 passive accusative uses, appear was used as unaccusatives for 51 cases; arise for 2 cases; arrive for 0 cases; die for 11 cases; disappear for 17 cases; exist for 17 cases; fall for 1 case; happen for 32 cases; occur for 38 cases; rise for 1 case (Owada et al., 2009).

2 Oshita (2000) excluded three kinds of verbs from the final tally: (1) unaccusative verbs with propositional complements, namely, raising verbs (e.g., appear (to be) happy, happen to be in the room); (2) idioms and metaphorical usage of verbs (e.g., fall in love, fall ill); and (3) nonfinite verbs; e.g., infinitives (with or without to), gerunds, and participle constructions.
reduced to the following: *appear* for 1,126 tokens (from 1,353 tokens), *happen* for 939 tokens (from 1,095 tokens), and *occur* for 803 tokens (from 932 tokens). Verb patterns in this study were adopted from those in Hornby (1975), as explained in the following section.

### 3.3 Results and discussion

In what follows, the results of each verb are discussed with their frequency information and examples.

#### 3.3.1 *Appear*

Verb patterns adopted for *appear* included (1) no adverbials at the end of a clause, (2) adverbials, (3) *appear* (*to be*) adjective/noun, (4) *appear* to VP, (5) *there* + *appear* + NP, (6) *it* + *appear* + [that]…, and (7) *passives*. The frequencies of these verb patterns are shown in Figure 1.

![Figure 1](image)

Figure 1. The frequencies of verb patterns for *appear* (N = 1,126)

The use of adverbials was the most frequent with 66.3% (746 tokens), followed by the use of no adverbials with 11.4% (128 tokens). The use of unaccusative passives accounted for 7.5% (85 tokens) of the total.

Some examples of passive unaccusatives for *appear* are shown below:

(7) We human beings *are appeared* about 4–5 million years ago.  
(8) TV personalities *are appeared* in both TV commercials.  
(9) Furthermore, a lot of Latino directors *are appeared* in Hollywood and it helps to take away stereotypes of Latino.

As shown above, ‘*are appeared*’ in (7) should mean ‘*appeared*,’ while ‘*are
appeared’ in (8) and (9) should be replaced by ‘appear.’

One important point to be noted here is that, unlike happen and occur, there was no causative use of appear. Causatives were defined here as the syntactic patterns of ‘NP1-V-NP2,’ excluding its passive patterns. That is, there was not a single use of ‘NP1-appear-NP2,’ although there was a certain number of its passive use.

### 3.3.2 Happen

Verb patterns adopted for happen included (1) no adverbials at the end of a clause, (2) adverbials (excluding ‘happen to NP’), (3) happen to NP, (4) happen to VP, (5) there + happen + NP, (6) it + happen + [that] …, (7) *causatives, and (8) *passives. The verb pattern ‘happen to NP’ was taken up as a separate pattern here from the use of adverbials because the former was relatively frequent among the latter. Figure 2 presents the frequencies of verb pattern for happen.

![Figure 2. The frequencies of verb patterns for happen (N = 939)](image)

The use of adverbials was the most frequent with 47.6% (447 tokens), followed by the use of no adverbials with 34.2% (321 tokens). Ungrammatical causatives of happen only made up 0.4% (4 tokens), while the ungrammatical unaccusative passives accounted for 6.0% (56 tokens) of the total.

Some examples of unaccusative passives for happen are shown below:

(10) Children in western country think that bullying means strong one offend weak one, on the contrary, children in Japan think that bullying is happened by group and one person.
(11) Others say single-sex education is better than coeducation. This discussion is happened because of some differences between coeducation and single-sex education.

(12) This phenomenon is happened because Arab people do not have much power to change the images in Hollywood compared to other racial minorities like blacks.

(13) The only global language will happen innovation.

In (10) ‘is happened’ may mean ‘is caused’ because of the by-phrase. In both (11) and (12) ‘is happened’ should mean ‘happens.’ In other words, the pattern ‘be happened’ seemed to be used by the learners to convey at least two different meanings. And (13) is an example of causatives.

3.3.3 Occur

Verb patterns adopted for occur included (1) no adverbials at the end of a clause, (2) adverbials (excluding ‘occur to NP’), (3) occur to NP, (4) there + occur + NP, (5) it + occur + [that] …, (6) *causatives, and (7) *passives.’ As in the case of happen, the verb pattern ‘occur to NP’ was taken up as a separate pattern here from the verb pattern ‘adverbials’ because the former was relatively frequent among the latter. Figure 3 shows the frequencies of verb pattern for occur.

![Figure 3. The frequencies of verb patterns for occur (N = 803)](image)

The distribution of occur was quite similar to that of happen. The use of adverbials was the most frequent with 49.7% (399 tokens), followed by the use of no adverbials with 36.9% (296 tokens). Ungrammatical causatives of occur only made up 2.5% (20 tokens), while the ungrammatical unaccusative
passives accounted for 6.4% (51 tokens) of the total. Some examples of unaccusative passives for *occur* are shown below:

(14) In conclusion, bullying is occurred both in Japan and the West but why students carry out bullying is a bit different.
(15) However if Japanese President would speak English by spreading English, meeting could do more smoothly and miscommunication which is occurred by interpreter would be disappeared.
(16) The tragic case is occurred in all over the world.

In both (14) and (15) ‘is occurred’ can be interpreted as ‘is caused,’ while in (16) ‘is occurred’ should mean ‘occurs’ or ‘has occurred.’ As in the case of *happen*, the pattern ‘be occurred’ can convey two different meanings.

One point should be made here regarding the pattern ‘occur to NP.’ All the uses of ‘occur to NP’ in this corpus were similar in meaning to ‘happen to NP.’ Although there is a phrasal use of ‘occur to somebody’ as defined by Hornby (2007) as “(of an idea or a thought) come into your mind,” there was not a single example of this usage. It seems that Japanese learners of English used *occur* and *happen* interchangeably when these verbs were followed by the preposition to. One such example produced by the learners was as follows: “Some animals suffer from Zoochosis, a sickness that occurs to them due to small space.”

### 4 Conclusion

Several findings can be drawn from this study. First, Japanese learners of English do produce ungrammatical unaccusative passive uses of *appear, happen, and occur* in writing. The percentages of unaccusative passives in each verb pattern were for 7.5% for *appear*, 6.0% for *happen*, and 6.4% for *occur*. This indicates that even these Japanese learners of English, who are considered to be fairly advanced learners in the Japanese university context, erroneously passivize these unaccusative verbs and produce passive unaccusatives at an error rate much higher than the ungrammatical causative uses.

Second, as for verb patterns, Japanese learners of English tend to use *appear, happen, and occur* with adverbials (including ‘to NP’): 66.3% for *appear*, 54.5% (47.6% + 6.9%) for *happen* and 51.4% (49.7% + 1.7%) for *occur*. Why this is the case needs to be further investigated through comparisons with other learner corpora and native speaker corpora.

Third, although Japanese learners of English sometimes use causatives of *happen* and *occur*, they do not seem to use causatives of *appear*.

Finally, the learners’ use of ‘be happened’ or ‘be occurred’ allows two
interpretations. One is the meaning of ‘be caused (by something),’ and the other is the unaccusative meaning of ‘happen’ or ‘occur.’

This study has some limitations. First, the corpus used in this study represents not Japanese learners of English in general but fairly advanced Japanese university students. Second, comparisons with other learner corpora and native speaker corpora need to be made in order to validate the use of this corpus, and more in-depth statistical analyses would also be useful. Third, since the patterns ‘be happened’ and ‘be occurred’ can have two meanings, I need to investigate how learners use these patterns by carefully looking at the actual uses. Finally, more detailed research, for example, semantic and structural analyses of passive unaccusatives that appear in this corpus, should be conducted to determine what factors both semantically and syntactically motivate the learners to produce these passive unaccusatives.

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