

# The Effects of L1 Transfers on L2 English Intransitive Errors by Japanese Learners

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## ABSTRACT

Second language (L2) learners of various native languages frequently overpassivize one type of intransitive verbs, namely, unaccusatives (e.g., *disappeared*, *arrivedn*). Previous studies have attempted to address the culprit of this issue without reaching a general consensus on the cause of such errors. This study investigates whether first language (L1) plays a role in L2 English overpassivization errors with intransitive verbs by Japanese-speaking learners. It utilizes the framework of the Unaccusative Trap Hypothesis (UTH, Oshita, 2001) and hypothesizes that learners ungrammatically passivize unaccusative verbs due to L1 lexicon and morphology. It also predicts that learners generate passive errors with unergatives (e.g., *cry*, *smile*) in the same manner as passive unaccusatives. The study examined three types of intransitives: English non-alternating/Japanese alternating unaccusatives (e.g., *happen* in English and *okiru/okosu* in Japanese); English/Japanese non-alternating unaccusatives (e.g., *arrive* in English and *tuku* in Japanese); unergatives. The study analyzed a Japanese learners' corpus (JEFLL Corpus), consisting of approximately 70,000 words from Japanese junior high and high school students. The findings in this study are that Japanese EFL learners tend to passivize more English non-alternating/Japanese alternating unaccusatives and unergatives than English/Japanese non-alternating unaccusatives. Given the result, it can be suggested that Japanese learners passivize unaccusatives owing to the influence of their L1 lexicon and morphology.

## Introduction

Overgeneralization of certain grammar constructions is a common phenomenon in second language (L2) learning. In L2 English, one of the phenomena many researchers have studied is overpassivization of a specific type of intransitive verb, namely, unaccusative verbs:

- (1) a. \**Miki was fallen from high stairs.*
- b. \**This girl is died at ending.* (Okada, 2022, p. 179)
- c. \**Two or three days ago, the important trouble was happened.* (Oshita, 2000, p. 312)

L2 learners of English from different first languages (L1) frequently produce and accept these ungrammatical sentences (Dehghan & Rezvani, 2016; Ju, 2000; Matsunaga, 2005; Oshita, 2000; Shin, 2011; Yip, 1994, 1995). Such errors, as illustrated in (1), are called passive unaccusatives.

The present study investigates English unaccusative and unergative knowledge of L2 learners of English, focusing on Japanese learners of English. Additionally, postulating multiple factors are involved in the overpassivization phenomenon, this study examines the influence of two types of L1 transfer: L1 Japanese lexical items of unaccusatives and L1 Japanese morphology with unaccusatives. The study hypothesizes that both of the transfers serve as a consecutive cause of passive unaccusatives, and that L2 Japanese learners of English generate more

errors with unaccusatives without English/with Japanese transitive counterparts and unergatives than unaccusatives without transitive alternations. The hypothesis, furthermore, predicts that English non-alternating unaccusatives and unergatives are lexically causativized based on L1 and produce unaccusative and unergative verbs as causative verbs. It is concluded in this study that L1 transfers of Japanese lexicon and morphology are likely to be the main reason that causes overpassivization errors on unaccusatives.

This study deals with L2 English errors of passive unaccusatives by Japanese speakers based on the Unaccusative Trap Hypothesis (UTH) (Oshita, 2001), incorporating with the UTH the influences of L1 morphological and lexical transfers as a single cause of overpassivization. By investing L2 errors with unaccusatives from these perspectives, I believe that the current study will provide second language acquisition (SLA) researchers with new insights in regard to the L2 acquisition of intransitive verbs.

## Literature Review

### Japanese Morphology with Transitive/Intransitive Verbs

Japanese is a morphologically rich language. Japanese use bound morphemes to indicate if causative alternation verbs are used as transitive or intransitive verbs. The morphemes, moreover, have a variety of forms as seen in Table 1, in which morphological groups of transitive/intransitive pairs are listed.

**Table 1.** Japanese Morphology (Transitive/Intransitive Pair) (Shibatani, 1990, p. 236)

	Intransitive		Transitive	
Group a	-ar		-e	
	<i>atum-ar-u</i>	“gather”	<i>atum-e-ru</i>	“gather”
	<i>tam-ar-u</i>	“accumulate”	<i>tam-e-ru</i>	“accumulate”
Group b	-∅		-e	
	<i>ak-u</i>	“open”	<i>ak-e-ru</i>	“open”
	<i>ukab-u</i>	“float”	<i>ukab-e-ru</i>	“float”
Group c	-e		-as	
	<i>ar-e-ru</i>	“be ruined”	<i>ar-as-u</i>	“ruin”
	<i>okur-e-ru</i>	“be late”	<i>okur-as-u</i>	“postpone”
Group d	-∅		-as	
	<i>nak-u</i>	“cry”	<i>nak-as-u</i>	“make cry”
	<i>wak-u</i>	“boil”	<i>wak-as-u</i>	“boil”
Group e	-e		-∅	
	<i>or-e-ru</i>	“be broken”	<i>or-u</i>	“break”
	<i>sak-e-ru</i>	“split”	<i>sak-u</i>	“split”

In spite of the five types of morphologies for transitive and intransitive verbs in Japanese, the verb root is the same. *atum-ar-u* and *atum-e-ru*, for instance, share the same root *atum*, and an inflectional morpheme (either *-ar* or *-e*) is attached in accordance with verb types (transitive or intransitive). The enormous difference between Japanese and English causative alternation verbs in terms of these forms is that in Japanese, affixes are used to indicate if a causative alternation verb is an intransitive or transitive use whereas in English, there are no changes in the word form between intransitive and transitive usage of causative alternation verbs (e.g., transitive *break*/intransitive *break*).

An example (2) is a Japanese causative alternation verb. Interestingly, some verbs which are intransitives without transitive counterparts in English are causative alternation verbs in Japanese, such as *cry* and *happen*, as seen in (2b).

- (2) a. *Kodomo ga nak-u.*  
 Kid NOM cry-PRES  
 “A kid cries.”
- b. *Masatoshi ga kodomo o naka-se-ta.*  
 NOM kid ACC cry-CAUS-PAST  
 “Masatoshi made a kid cry.”

Additionally, Japanese does not have a syntactic indicator of causatives with intransitive verbs without transitive alternation, in English case, make, as in (3) and (4), but instead, suffixes *-(sa)se* are used when Japanese forms causatives as in (5) (Shibatani, 1990). Remarkably, Japanese uses *-(sa)se* to form the causativize even if the intransitive has transitive counterparts with a causative meaning like (5b) (Shibatani, 1990).

- (3) Unaccusative with a causer in English  
*I make the turtle disappear.*
- (4) Unergative with a causer in English  
*The teacher makes Midori smile.*
- (5) a. *Miki ga kodono o eki ni toutyaku-sase-ta.*  
 NOM kid ACC station LOC arrived-CAUS-PAST  
 “Miki made the kid arrive at the station.”
- b. *Sensei ga hana o migotoni saka-se-ta.*  
 teacher NOM flower ACC beautifully bloom-CAUS-PAST  
 “The teacher made the flowers bloom beautifully.”

The differences between intransitive verbs with corresponding transitive verbs and those without are scarce due to the lack of syntactical differences and the small differences regarding morphology.

### Three Types of Unaccusative

Unaccusatives are one type of intransitive verbs, according to the unaccusative hypothesis (Perlmutter, 1978; Burzio, 1986, as cited in Levin & Rappaport Hovav, 1995). Intransitive verbs consist of two classes: unaccusative verbs (e.g., *arrive, happen*) and unergative verbs (e.g., *smile, laugh*). Both unaccusative and unergative verbs canonically appear in the NP-V structure. Nevertheless, while the NP in the subject position with an unaccusative verb behaves like the object of a causative verb, the characteristics of the NP with an unergative verb are the same as the subject of a causative verb. In other words, the subject NP of unergatives is an external argument; in contrast, that of unaccusatives is a direct internal argument. The distinction between the two classes of intransitive verbs is clearly illustrated at the argument-structure level as in (6).

- (6) Argument structure
- a. Causative: (x <y>)
  - b. Unergative: (x)
  - c. Unaccusative: <y>

In (6), (x) stands for the external arguments, and <y> for the direct internal arguments. The distinction between the unaccusative and unergative is not so noticeable since with the syntactic movement, the internal argument of unaccusatives is seemingly the same surface subject role as the external argument of unergatives (Oshita, 2000). Examples

(7a) and (7b) illustrate their difference.

- (7) a. Miki [<sub>VP</sub> smiled] (unergative)  
 b. John<sub>i</sub> [<sub>VP</sub> falls *t<sub>i</sub>*] (unaccusative)

While *Miki* in (7a) does not change the position through the syntactic derivation, *John* in (7b) moves from the initial postverbal position to the subject position.

Besides the two different intransitive verbs, there is a further distinction in unaccusatives, which is alternating unaccusatives, or ergatives (e.g., *break, sink*) and non-alternating unaccusatives (e.g., *occur, fall*) (Levin and Rappaport Hovav, 1995). Whereas non-alternating unaccusatives do not have transitive counterparts, alternating unaccusatives have transitive counterparts, that is, alternating, causative alternation verbs, are used as either transitives or intransitives. When it is used as a transitive verb, it must take the external and internal argument, and when used as an intransitive verb, it must take the only internal argument. In short, an intransitive verb is divided into three categories: unergative, alternating unaccusative, and non-alternating unaccusative.

### The Unaccusative Trap Hypothesis (UTH)

The Unaccusative Trap Hypothesis (UTH) (Oshita, 2001) is probably the only hypothesis that has attempted to address the whole story of L2 development path of unaccusative in English. The hypothesis predicts that L2 learners undergo three stages: semantic misanalysis, syntactic misrepresentation, and full acquisition. The foundation of this hypothesis lies in the linking rules that Levin and Rappaport Hovav (1995) posited. The linking rules map semantic characteristics of intransitive verbs, described in Lexco-Semantic Representation (LSR), to their Argument Structure Representation (ASR). Oshita (1997) argues that Levin and Rappaport Hovav’s linking rules do not fully apply to L2 acquisition of English and do not account for L2 learners’ passive unaccusatives (as cited in Mo, 2020). To address the issue, he proposed the Single-Argument Linking Rule.

- (8) Single-Argument Linking Rule: The single obligatory nominal argument of a verb is its external argument. (Oshita, 2001, p. 287)

According to the Single-Argument Linking Rule, unergatives and unaccusatives are the same structure at the S-structure and D-structure representation since at the S-structure representation to which learners may be exposed frequently, unergatives and unaccusatives both possess only one obligatory argument. The verb in (9a) is unergative; the subject *Miki* is an external argument. In contrast, the verb *fall* is unaccusative, which indicates that *John* is an internal argument. The single obligatory nominal argument is an external argument of the verb, in accordance with the Single-Argument Linking Rule; thus, both sentences (9a) and (9b) are the same structure at DS and SS in L2 learners’ minds.

- (9) Single-Argument Linking Rule
- |    |                              |               |
|----|------------------------------|---------------|
| a. | <i>Miki smiled.</i>          | (S-structure) |
|    | Argument structure: (x)      |               |
|    | Miki [ <sub>VP</sub> smiled] | (D-structure) |
| b. | <i>John falls.</i>           | (S-structure) |
|    | Argument structure: *(y)     |               |
|    | John [ <sub>VP</sub> falls]  | (D-structure) |

At the first stage of the UTH, the Single-Argument Linking Rule influences interlanguage (IL) grammar of L2 learners of English and they assume that unaccusatives and unergatives are the same structure at DS as illustrated

in (9). Intriguingly, according to the UTH, despite the misunderstanding, learners at this stage produce grammatically correct sentences with unergatives and unaccusatives. In a sentence with an unaccusative, they ungrammatically project the verb's object as its subject at DS. With regard to the Single-Argument Linking Rule, this stage has been supported by Deguchi and Oshita's (2004) study, whose results showed that Japanese learners of English in the elementary level did not differentiate unaccusatives from unergatives.

At the second stage, L2 learners of English are aware of the correct linking rules and the correct argument position at DS, yet struggle to produce the correct unaccusative structure at SS. Take (10) as an example. Learners at this stage understand that *Miki* in (10a) is an external argument and *John* in (10b) is an internal argument. Although the difference between unergatives and unaccusatives becomes clear in this phase, realizing the correct position at DS poses a new syntactic challenge to learners. The problem is as to how to fill the subject position in the sentence with an NP in the object position at DS. To move the object at DS to the subject position at SS, passive morphosyntax *be + en* can be overgeneralized (Oshita, 2000, 2001), which makes unaccusatives wrong forms.

(10) Target-like Linking Rule

- |    |   |               |
|----|---|---------------|
| a. | <i>Miki smiled.</i>   | (S-structure) |
|    | Argument structure: (x)                                       |               |
|    | Miki [ <sub>VP</sub> smiled]                                  | (D-structure) |
| b. | <i>John falls.</i>  | (S-structure) |
|    | Argument structure: <y>                                       |               |
|    | *John <sub>i</sub> [ <sub>VP</sub> be fallen t <sub>i</sub> ] | (D-structure) |

While some studies provide support for the second stage in the UTH, others did not. For instance, Kondo's (2005) study with L1 Japanese learners of lower-intermediate to very advanced English level obtained positive results from a forced-choice task, suggesting that Japanese learners of English understood the unaccusative and unergative differences at DSS, but they passivize unaccusatives due to their struggle with SSR. On the other hand, the results of Deguchi and Oshita's (2004) study with grammatical judgment tests, including intermediate Japanese learners of English, did not espouse the prediction at all since the subjects did not make the distinction between unaccusatives and unergatives clearly enough. Deguchi and Oshita, however, have implied that the result may render support to the UTH by assuming the intermediate Japanese learners used in their study as those in the middle of a transition from the first stage to the second stage so that they still struggled to make the distinction.

At the final stage, learners reach full acquisition of unaccusatives, realizing how to move a D-structure object of an unaccusative verb to an S-structure subject position. Through the three-stage process, the UTH predicts a U-shape pattern. Although the UTH attempted to address the whole acquisition process of unaccusatives, many studies on unaccusatives have failed to find the U-shape development (Deguchi & Oshita, 2004; Kondo, 2005; Okada, 2021; Yamakawa et al., 2003).

Despite some results of studies contradicting the UTH, some points the UTH predicts have been supported, as mentioned in this section. For example, Japanese learners in the beginner levels are not able to differentiate unaccusatives from unergatives at the first stage (Deguchi & Oshita, 2004), and that Japanese-speaking acquirers have problems in producing an appropriate form of unaccusatives at SS even though they know the structure of them at DS (Kondo, 2005). Given these results, the original UTH may not be flawlessly correct but requires to be revised. My contention is that the errors with passive unaccusatives are caused by a combination of L1 morphological property and L1 lexical causative verbs at the first stage, and that such errors are induced by nonce transitive alternations at the second stage. Thus, a U-shape curb has been seldom observed. We will go into detail on this assumption in a later section.

## L1 Overgeneralization of Morphological Property

Some researchers have claimed that L1 morphology plays an influential role in overpassivized unaccusatives in L2 English (Chung, 2014, 2015; Dehghan & Rezvani, 2016; Hubbard and Hix, 1988; Kondo, 2005; Matsunaga, 2005). Some previous studies have attempted to address passive errors in L2 English from morphological perspectives of different L1s: Japanese (Kondo, 2005; Matsunaga, 2005), Spanish (Kondo, 2005; Matsunaga, 2005), Chinese (Chung, 2014) and Korean (Chung, 2014, 2015). Such studies paid attention to a morphological property with unaccusatives and transitive alternation since, in some languages such as Japanese and Korean, overt morphology is attached to alternating unaccusative verbs and transitive counterparts whereas, in other languages like Chinese, there is no such overt morphology. Japanese learners of L2 English, for instance, show a tendency to judge unergatives and non-alternating unaccusatives correctly but to be less accurate on alternating unaccusatives (Hirakawa, 2000), potentially because of differences between Japanese and English morphology.

Chinese and English are similar in that neither of them attaches any morphological properties to unaccusatives and transitive alternation. In contrast, causative morphemes (e.g., *-ki*, *-li*) and unaccusative morphemes (e.g., *-i*, *-ci*) must appear with root morpheme in Korea. Due to these differences, in Chung's (2014) study with a forced-choice elicitation task, even more alternating unaccusatives were passivized by Korean subjects than Chinese ones.

Differing from Chung's (2014) study focusing on different L1—Chinese and Korean—, some researchers (Kondo, 2005; Matsunaga, 2005) studied unaccusative errors in L2 English, comparing English morphology with Spanish and Japanese morphology. Spanish and English share common features from a morphological point whereas Japanese completely differs from English (Matsunaga, 2005). Spanish requires preceding reflexive clitic *se* with alternating unaccusatives but does not with their transitive counterparts. The reflexive clitic *se* is optional with non-alternating unaccusatives and unergatives though it makes a little change in the meaning of the sentence. Moreover, as with English, when Spanish non-alternating unaccusatives and unergatives are used as causatives, a causative verb *hacer* is needed, which are similar to English where no morphology is required with alternating unaccusatives, and the causative verb *make* is required with non-alternating unaccusatives and unergatives to indicate a causer of the event as in (11) and (12).

- (11) Unaccusative with a causer in English  
*Midori makes the turtle disappear.*
- (12) Unergative with a causer in English  
*The teacher made students smile.*

Unlike Chinese and Spanish, on the other hand, Japanese is a morphologically rich language (See Table 1 in 2.1). In Japanese, inflectional morphemes are attached to root verbs of alternating unaccusatives to indicate if the causative alternation verbs are used as causatives or intransitives. Hence, Japanese and English are remarkably different in that Japanese involves morphology with intransitive verbs with the causer, yet English requires the causative marker, *make*.

These morphological influences from L1 afflict L2 learners of English from producing and accepting correct unaccusative use. Due to the morphological transfer, Spanish speakers tend to accept overpassivized unaccusatives with transitive alternation (e.g., *close*, *freeze*, *dry*) but fewer of these without (e.g., *die*, *appear*) (Kondo, 2005), and Japanese-speaking learners also seem to judge and accept alternating unaccusatives but fewer errors with non-alternating unaccusatives (Hirakawa, 2000; Okada, 2022). In Kondo's (2005) study, Japanese learners judged both alternating and non-alternating unaccusatives in ungrammatical passive structure as correct forms. Kondo (2005) accounted for the errors with not only alternating unaccusatives but non-alternating unaccusatives by claiming that Japanese uses affixes attached to verb roots regardless of whether unaccusatives with transitive counterparts or these without.

Given these studies mentioned above, the possibility is that Japanese learners of English compare English non-alternating unaccusatives with alternating unaccusatives, say, *break/break*, and that based on L1 Japanese counterparts

*or-e-rul/or-u*, they apply L1 morphological properties to the English unaccusative verbs. Consequently, they use *be + Ven* or *be + V* structure with unaccusatives. Although some studies have shown the propensity that passive unaccusative errors are found in more alternating unaccusatives in L2 English by learners whose L1 language involves morphology with unaccusatives with transitive alternation, the reason for passive unaccusatives without transitive counterparts has been still controversial. The phenomena of non-alternating unaccusatives in the passive structure, however, are explainable by combining lexical causativization based on L1 with the morphological analysis (See Section 2.6).

## L1 Overgeneralization of Lexical Causatives

Another analysis of passive unaccusatives is an analysis of passive unaccusatives, non-target lexical causativization (Bagherian Poor et al., 2015; Balcom, 1997; Choi, 2019; Ju, 2000; Yip, 1994, 1995), and L1 influence on overgeneralized lexical causative verbs (Matsunaga, 2005).

The explanation of non-target lexical causativization claims that overpassivization of intransitive verbs occurs when L2 learners create non-existing transitive counterparts and passivize the nonce causative verb with the suppression of the external argument (Balcom, 1997). Such a phenomenon happens especially when L2 learners of English are not familiar with the intransitive verb (Choi, 2019).

According to the account of L1 lexical transfer, on the other hand, L2 learners of English apply L1 knowledge on alternating unaccusatives to L2 non-alternating unaccusatives in English, and consequently, produce nonce transitive counterparts of non-alternating unaccusatives. For example, in Owada's (1999, 2017) and Hirakawa's (2000) studies, lexical causativization from L1 influence was seen. Owada's (1999, 2017) study suggested that English non-alternating/Japanese alternating unaccusatives (*fall*) in the ungrammatical transitive and passive structure were accepted by Japanese EFL learners as in (13).

- (13) a. \* I just fell them. (Owada, 1999, p. 328)  
 b. \**the man fell her down all the way to the bottom.*  
 c. \**she was fallen down all the way to the bottom.* (b-c from Owada, 2017, p. 64)

The result of Hirakawa's study showed that Japanese-speaking learners of English generated incorrect usage of transitive verbs *build* and *cut* in the intransitive constructions as in (14).

- (14) a. \**A high-rise apartment built.*  
 b. \**The bridge built between the two islands.* (Hirakawa, 2000, p. 134, p. 142-143, respectively)

Such errors may be explainable by L1 overgeneralization of lexical causative due to the fact that *build* and *cut* can be either transitive or intransitive verbs in Japanese (Hirakawa, 2000). Although the non-target lexical causativization seemingly well explains the passivizing phenomenon, Oshita (2000) has criticized it. This is because his study with a learner's corpus which contains Spanish, Italian, Korean, and Japanese learners' data showed that unaccusatives in NP-V-NP order were even fewer than passive unaccusatives, and that all of the tokens except for one token from Spanish learner's data were short passive without *by* phrase. If nonce causative verbs are the culprit of passive errors, Oshita (2000) states, "the relatively low frequency of the surface causative usage is rather puzzling" (p. 313). Furthermore, what is challenging to this account for the non-target lexical causativization is that some unaccusatives were used to describe a situation which is out of control for anyone as follows:

- (15) a. \* *...the word, 'the role of women', is appeared just several years ago.*  
 b. \* *...to find out what would be happened in the next stories...*  
 c. \* *He is also appeared on the list of investigations of gold smuggling.*  
 (a-c from Oshita, 2000, p. 314)

Also, the subject of some sentences with passive unaccusatives was a causer of the event itself as in (16).

(16) \**After that we were arrive at the station.*

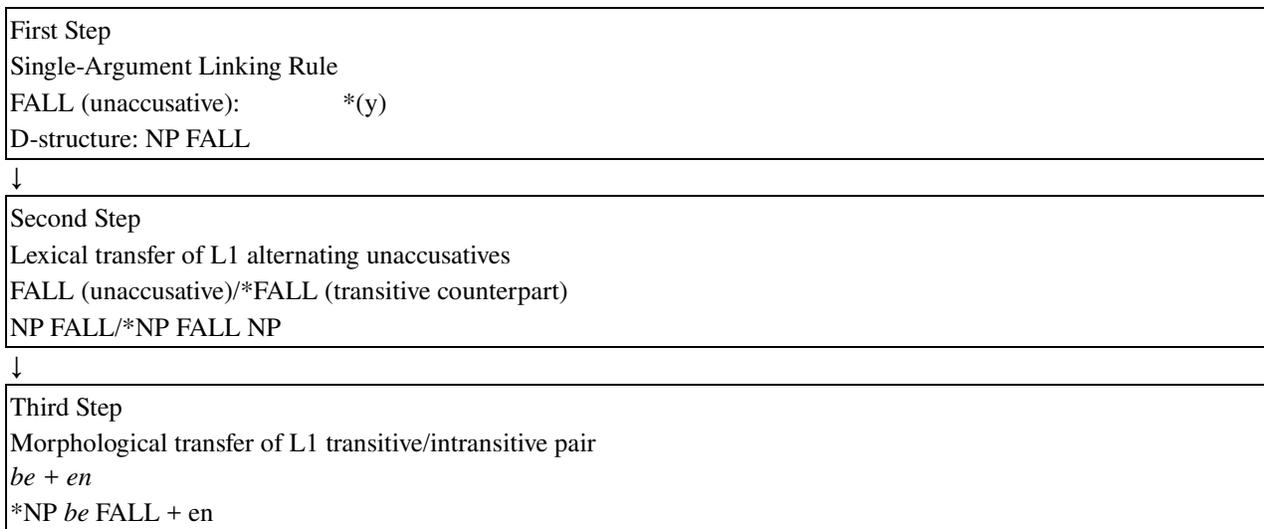
(Oshita, 2000, p.314)

### L1 Morphological and Lexical Effects on Unaccusatives in L2 English

The Unaccusative Trap Hypothesis, L1 morphological analysis, and L1 lexical causatives do not seem to explain the reason for passive unaccusatives without any critiques. In order to deal with these arguments, I partially alter the UTH, incorporating L1 morphological and lexical analysis.

Let us turn to the Unaccusative Trap Hypothesis (UTH) again to revise. First of all, we begin with the first stage in which L2 acquirers of English are not yet aware of the structure with unaccusatives at DS, and in which they produce the correct version of unaccusatives (Oshita, 2001). Although Kondo’s (2005) study has supported L2 learners’ misanalysis of an unaccusative structure at DS, error-free with unaccusatives at the first stage has not been espoused by many researchers (e.g., Deguchi & Oshita, 2004; Dehghan & Rezvani, 2016; Kondo, 2005; Okada, 2021; Yamakawa et al., 2003), whose studies suggest that errors with passive unaccusatives are found in lower proficiency learners.

The revised UTH predicts that they passivize unaccusatives due to L1 transfer in terms of L1 lexicon and L1 morphological properties. The new UTH also predicts that causative usage of non-alternating unaccusatives in English would be found. Nonetheless, such errors would be less than passive unaccusatives (Oshita, 2000) due to the fact that morphological transfer prevents learners from producing causative use (NP V NP). In addition, with an effect of alternating unaccusatives in L1 Japanese on non-alternating unaccusatives in L2 English, non-alternating unaccusatives in both of the languages are influenced, such as *arrive* and *appear*. These unaccusatives would be also less passivized than English non-alternating/Japanese alternating unaccusatives. The whole process of the first stage is schematized in Figure 1.

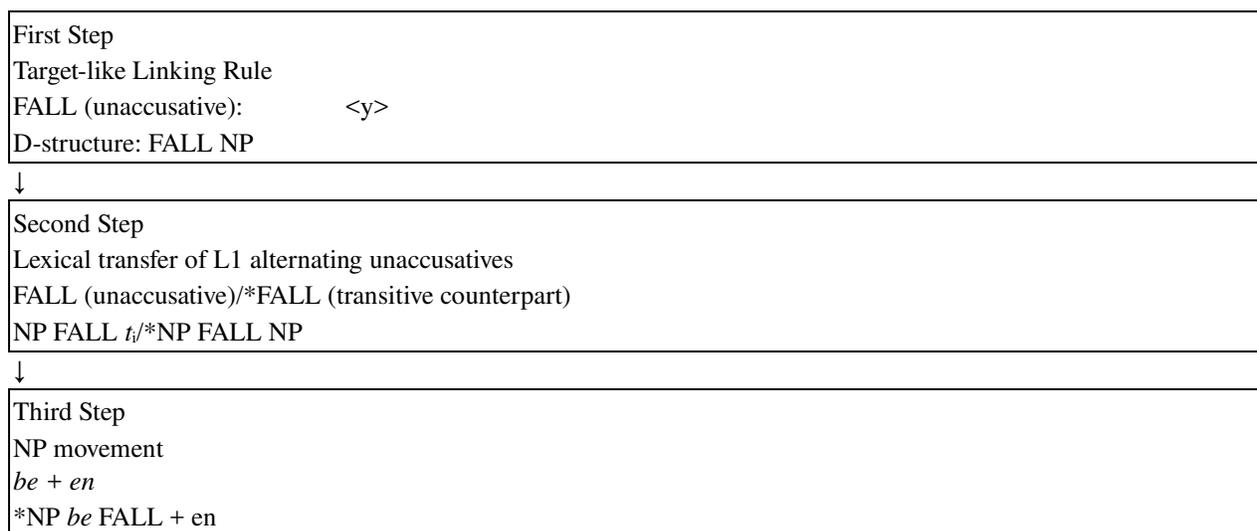


**Figure 1.** Passive Unaccusative in L2 English in Japanese case at the First Stage

For instance, an English non-alternating unaccusative *fall* is an alternating unaccusative in Japanese; as a result, they assume *fall* can be either a transitive or intransitive verb in English. Since in Japanese, alternating unaccusatives require morphological property, Japanese learners of L2 English use *be + en* or *be + V*, comparing English non-alternating unaccusatives with Japanese alternating unaccusatives. Consequently, they generate passive unaccusatives without a causer of the event, namely, short passive. To summarize, first, English non-alternating unaccusative is

causativized based on L1 knowledge. Then L2 learners of English apply L1 morphology and finally produce ungrammatical passive unaccusatives without an external force.

At the second stage of the UTH, L2 learners notice differences in the structures between unaccusatives and unergatives at DS, but they struggle to move an underlying object to a surface subject position (Kondo, 2005; Oshita, 2001). Consequently, the revised UTH anticipates that Japanese learners of English passivize the unaccusative verb, say, *occur*, based on their L1 Japanese lexicon. In other words, even though they know that unaccusatives do not possess an external argument, they assume that the subject of unaccusative verbs moves from the object position through passivization (Oshita, 2000, 2001), and they generate passive unaccusatives without any causers of the event, or any external arguments. The revamped UTH predicts that some learners would be likely to passivize English non-alternating unaccusatives with a causer or *by* phrase or to use these as causatives. The process of the second stage is illustrated in Figure 2.



**Figure 2.** Passive Unaccusative in L2 English in Japanese case at the Second Stage

At this stage, the chief problem learners have is the manner of NP movement, which does not have to do with L1 morphology, that is, the L1 morphological properties no longer exert any influence on unaccusative errors. Through this stage, errors with non-alternating unaccusatives in both English and L1 would diminish as their proficiency level increases because the influence of L1 alternating unaccusatives becomes weaker. The positive evidence of non-alternating unaccusatives is less, compared with alternating unaccusatives (Oshita, 2001); therefore, the errors with non-alternating unaccusatives in English and L1 do not disappear all at once.

The revised UTH at the final stage does not alter. Like the original UTH, at this stage, learners fully recover from overpassivization with unaccusatives. Given these phases, the revamped UTH does not predict a U-shaped development pattern. The developmental path is in line with some studies that suggest that errors with passive unaccusatives disappear as English proficiency level of L2 learners increases (e.g., Deguchi & Oshita, 2004; Dehghan & Rezvani, 2016; Kondo, 2005; Okada, 2021; Yamakawa et al., 2003).

When these accounts for overpassivization with unaccusatives are taken into consideration, the result of Kondo's (2005) study, showing that L2 Japanese learners of English tend to accept non-alternating unaccusatives as well as alternating unaccusatives, is more understandable than her claim (discussed in Section 2.3). L1 morphological transfer occurs when L2 learners of English compare an unaccusative form in English to its transitive counterpart in English, which allows them to place morphosyntax *be + en* or *be + V*. Without transitive counterparts in English, however, non-alternating unaccusatives may not be passivized. On the other hand, considering the L1 influence in

terms of morphology and lexical items, chances are learners can compare a non-alternating unaccusative verb in English with its nonce transitive counterpart that exists in L1 and that they apply *be + en* or *be + V* to English non-alternating unaccusatives.

If the assumption turned out to be positive, most of the issues, Oshita (2000) mentions (See section 2.5), would be solved. The first problem for causativized analysis, which is that errors of passive unaccusatives were found far more than errors of nonce causative unaccusatives is addressed by L1 morphological transfer since L2 learners create a nonce transitive verb of an accusative verb in English based on L1 knowledge and passivize the unaccusative verb because of L1 morphology. These transfer analyses solve the second question that most passive unaccusatives in the result of Oshita's (2000) study. Passive unaccusatives in short passive were produced not because learners tried passivizing nonce transitives, but because they were urged to use passive morphosyntax *be + Ven* due to L1 morphology. If the analysis is positive, short passives with unaccusatives without the causer are unquestionable. If the explanation is on the right track, the reason why the subject itself is the causer may be simply because learners are influenced by overpassivized unaccusatives caused by the L1 transfers.

With the lexical and morphological transfer, it can be acceptable that fewer errors were produced by Japanese subjects with non-alternating unaccusatives than alternating unaccusatives (Hirakawa, 2000; Okada, 2022). This is because most alternating unaccusatives in the studies were also alternating ones in Japanese, yet approximately half of the target unaccusatives without transitive alternation were non-alternating unaccusatives in Japanese as well. Therefore, the possibility is that alternating unaccusatives are more ungrammatically passivized than non-alternating unaccusatives.

Supposing the accounts for passive unaccusatives is positive, morphological explanations, as discussed in the previous section, might not be the main cause of the phenomenon but it might be the second step to passivize unaccusatives.<sup>1</sup>

As with unaccusatives, it is also predictable that unergatives would be equally overpassivized and used as causatives among L2 Japanese learners of English. Some unergatives, for instance, have transitive counterparts in Japanese, such as *cry* in English: *naku* (unergative)/*nakasu* (transitive). The phenomenon has been observed in the corpus study with Japanese students (Okada, 2022), and ungrammatical passive unergatives were accepted by Japanese learners in Matsumoto's (2005) study. In the unergative case, nevertheless, learners do not undergo the second stage of the UTH since the structure is understood at DS and SS at the first stage. Therefore, L2 Japanese learners of English ungrammatically passivize unergatives in a similar manner as those who passivize unaccusatives at the first stage of the UTH.

To sum up, as with the original Unaccusative Trap Hypothesis, the revised UTH predicts three stages, but the cause of the passive unaccusatives at the first and second stages is largely added. Unlike the original UTH, errors with causativized unaccusatives as well as passive unaccusatives would be found at the first and second stages. However, since learners of L2 English at the second phase are aware of the difference between unaccusatives and unergatives at DS, which is the same as the original UTH predicts, L1 morphological transfer becomes weaker or completely diminishes. Moreover, the effect of the causative phenomenon on non-alternating unaccusatives in English gradually disappears. The final stage is the same as the original UTH: learners realize the structure of unaccusatives at DS and SS and fully acquire the usage of unaccusatives. Moreover, overpassivized unergatives would be found among L2 Japanese learners of English due to the existence of Japanese unaccusatives with transitive alternation in Japanese.

<sup>1</sup> L1 transfer of lexicon and morphology to L1 English unaccusatives is one of the possibilities to cause ungrammatical passive unaccusatives among learners whose L1 language involves morphology with unaccusatives such as Japanese and Spanish, but not among those whose L1 language does not entail morphology with unaccusatives such as Chinese.

## Hypothesis

The present study attempts to investigate errors with English unaccusatives by L1 Japanese learners of English from two different perspectives: the influence of L1 Japanese morphology with alternating unaccusatives and their transitive counterparts; and the influence of L1 Japanese lexicon with alternating unaccusatives and their transitive counterparts. In order to examine such influences, I use a learners' corpus called JEFLL Corpus (Japanese EFL Learner Corpus), which consists of essays from Japanese junior high school and high school students.

The foundation of this study lies in the Unaccusative Trap Hypothesis (Oshita, 2001), some parts of which have been cast doubt on by the results of some studies (Deguchi & Oshita, 2004; Kondo, 2005; Okada, 2021; Yamakawa et al., 2003). In spite of these results, since the hypothesis has been partially supported by studies (Deguchi & Oshita; 2004; Kondo, 2005), I believed that the basic structure of the UTH is likely to be one of the plausible hypotheses to reveal the mystery of passive unaccusative errors. To revamp the UTH to become a more acceptable hypothesis, I consider two other factors: L1 overgeneralization of morphology and lexical items. The following hypothesis is formulated:

- (17) i. Japanese learners of L2 English in the elementary and intermediate proficiency levels passivize more English non-alternating/Japanese alternating unaccusatives without any causers, or an external argument, than English/Japanese non-alternating unaccusatives due to both L1 Japanese morphology and L1 lexicon of causative alternation verbs.
- ii. Due to L1 lexicon, Japanese learners of L2 English in the elementary and intermediate proficiency levels produce nonce causative verbs of non-alternating unaccusatives in L2, but fewer than passive unaccusatives.
- iii. Japanese learners of English in the elementary and intermediate proficiency levels passivize more unergatives than English/Japanese non-alternating unaccusatives due to both L1 Japanese morphology and L1 lexicon of alternating unaccusative verbs.
- ix. Due to L1 lexicon, Japanese learners of L2 English in the elementary and intermediate proficiency levels produce nonce causative verbs of unergatives in L2, but fewer than ungrammatical passive unergatives.

In the current paper, Japanese students in junior high school and high school are regarded as those in elementary and intermediate proficiency levels respectively, following Deguchi and Oshita's (2004) study with Japanese students; that is to say, both of the groups are at the first stage of the UTH. Moreover, those at the first stage are not yet aware of the correct D-structure with unaccusatives.

Hypothesis (17i) will be observed if the proficiency levels of Japanese learners of English in junior high school and high school are appropriately ranged, since they are at the first stage of the UTH, where learners would be strongly influenced by L1 lexical items and morphology. Furthermore, it will be also expected to see hypothesis (17ii) because L2 learners would first causativize non-alternating unaccusatives based on L1 lexical transfer prior to passivization due to the effect of L1 morphological transfer. If L1 morphology does not exert influence, the possibility is that they use the nonce transitive counterparts without the passive morphosyntax. In the same manner as hypothesis (17i), hypothesis (17ix) will be observed. If hypothesis (17i) turns out to be positive, there will be a high possibility that hypothesis (17iii) will be positive as well.

## Method

### The Learner Corpus: JEFLL Corpus

The present study used a relatively huge corpus data based on the Japanese EFL Learner (JEFLL) Corpus, a corpus of English composition by junior and senior high school students constructed mainly by Yukio Tono. The search tool

used is the JEFLL Corpus web search system (Shogakukan Corpus Network). The JEFLL Corpus was collected from a 20-minute, dictionary-free, English composition conducted in a classroom setting, consisting of six different topics and covering a uniform range of topics.

## The Target Verbs

To clarify whether the hypothesis I posited in this paper is plausible, I categorized intransitive verbs into three categories: English non-alternating/Japanese alternating unaccusatives; English/Japanese non-alternating unaccusatives; and unergatives. From each class, I chose four intransitive verbs, a total of 12 words.

**Table 2.** Classifications of Intransitive Verbs

	Verb category	Target verbs
A	English non-alternating /Japanese alternating unaccusative	disappear, fall, happen, occur
B	English/Japanese non-alternating unaccusative	appear, die, arrive, exist
C	Unergative	laugh, cry, smile, dance

These unaccusative target verbs above were chosen from target verbs used in previous corpus studies (Okada, 2022; Oshita, 2000; Owada, 2013; Shin, 2011) with L2 English unaccusatives.

## Criteria to Extract Target Verbs

Sentences with target verbs were searched with the search tool (Shogakukan Corpus Network). The criteria to extract the target words and to judge these words as overpassivization/correct forms were as follows:

### (18) Criteria to extract from the corpus

- a. Non-finite (such as to-infinitives, gerunds, and participles) and finite verbs were analyzed.  
e.g., *I don't want to die, He made us laugh, etc.*
- b. *be* + past participle and *be* + bare infinitive are classified as passive  
e.g., *The earthquake will be happen, My father is disappeared, etc.*
- c. Target verbs with a lack of prepositions is classified as a correct form.  
e.g., *I fall (to) the river, He appear (in) newspaper and on TV, etc.*
- d. Target verbs following auxiliaries or semi-auxiliaries are analyzed  
e.g., *You must die, I can dance well, etc.*
- e. Errors with forms or spellings are regarded as correct forms.  
e.g., *He id (is) died, We cryed (cried) very hard, etc.*
- d. Errors with derivational suffixes are classified as correct forms.  
e.g., *He appear(s) now, It happen(s) at night, etc.*
- f. Target words used repeatedly in the same clause are counted as one.  
e.g., *He fall and fall, She cry and cry, etc.*

Since high school students in Japan are still learning passive forms, and there is a possibility that they make mistakes with passive forms (Okada, 2022), *be* + base form (18b) is categorized as passive. Target words with a lack of prepositions are categorized as a correct form (18c) because the present study attempts to reveal whether ungrammatically passivized intransitive verbs are involved in causativization influenced by L1 lexicon. Obviously, *fall the river*, and *appear newspaper* are, however, not used as causatives.

The following tokens are excluded from the tally.

(19) Criteria to exclude from the corpus

- a. Rising verbs  
e.g., *We happen to meet many guests, He occurs that he had such a...*, etc.
- b. Target words syntactically used as another part of speech  
e.g., *I feel cry, He became a never die man*, etc.
- c. Undetectable existence of auxiliary *be* of target words  
e.g., *He was sick and die, Never happen*, etc.
- d. Spelling of target words that seems to be a misspelling of non-target words  
e.g., *We were fall (full) of enjoy, I fell (felt) very hot*, etc.

Rising verbs were excluded (19a) because *happen* and *occur*, alternating unaccusative in Japanese does not possess such meaning as rising verbs in English. Target verbs whose auxiliary *be* is undetectable (19c) are also screened out since it is next to impossible to detect whether the target verb is used as intransitive or causative.

## Result

Following the criteria to extract the target words, a total of 1885 token sentences were obtained on the intransitive verbs: 643 for English non-alternating/Japanese alternating unaccusative; 818 for English/Japanese alternating unaccusative; and 424 for English/Japanese non-alternating unaccusative. These words were classified into four: grammatical usage (e.g., *I can arrive at school*); ungrammatical passive (e.g., *The earthquake was happened.*); ungrammatical nonce causative (e.g., *I happen a fire.*); and ungrammatical other structures (e.g., *it be V/Ved, Pro V/Ved NP*).

**Table 3.** Number of Extracted Verbs

Verb class	Target verb	Grammatical	Ungrammatical			Total
			Passive	Causative	Others	
A	disappear	25	9	1	0	35
	fall	77	14	2	0	93
	happen	415	30	9	11	465
	occur	48	1	3	2	54
Total of Verb A		565 (87.3%)	54 (8.3%)	15 (2.0%)	13 (2.3%)	647
B	appear	73	3	2	0	78
	die	568	84	6	1	659
	arrive	75	0	0	0	75
	exist	5	1	0	0	6
Total of Verb B		721 (88.1%)	88 (10.8%)	8 (1.0%)	1 (0.1%)	818
C	laugh	48	6	0	0	54
	cry	221	41	2	0	264
	smile	16	6	0	0	22
	dance	80	4	0	0	84
Total of Verb C		365 (86.1%)	57 (13.4%)	2 (0.5%)	0 (0.0%)	424

*Note.* Verb A = English non-alternating unaccusatives/Japanese alternating unaccusative, Verb B = English/Japanese alternating unaccusative, Verb C = English/Japanese non-alternating unaccusative.

Despite the criteria (19c), some tokens, *die*, *smile*, *laugh* and *cry*, classified as ‘passive,’ seem like the predicative adjective. Adjective-like *die* appeared in *be* + infinitive and *be* + past participle while adjective-like *smile*, *laugh*, and *cry* were found in only *be* + bare infinitive construction. Although syntactically all the words are categorized as ‘passive,’ they are likely to be adjectives for the following reasons. As for *die*, it was passivized due to the fact that subjects might be confused by the differences between *die*, *died*, and *dead*. 41 out of 153 (27%) of the adjective *dead* were used as a verb in the corpus. Given that, it is a plausible explanation for the appearance in the passive structure that they misunderstand part of speech of *die* and *died*. The possible account for the passive construction of *cry*, *laugh*, and *smile* is that learners might assume that these words can be a verb and adjective. The tendency is seen from the use of these words in the past form/past participle. *cry*, *laugh*, and *smile* appeared even less in *be* + past participle than in *be* + bare infinitive or *be* + V. Therefore, in this study, the four words (*die*, *died*, *cry*, *laugh*, and *smile*) were regarded as the adjective among L1 Japanese learners in elementary and intermediate proficiency levels. *die* in both *be* + bare infinitive and *be* + past participle structure and *cry*, *laugh*, and *smile* in only *be* + bare infinitive structure were excluded from the final tally, as seen in Table 4.

**Table 4.** Tally for Verb Categories

Verb class	Grammatical	Ungrammatical			Total
		Passive	Causative	Others	
A	565 (87.3%)	54 (8.3%)	15 (2.0%)	13 (2.3%)	647 (*99.9%)
B	153 (96.2%)	4 (2.5%)	2 (1.3%)	0 (0.0%)	159 (100.0 %)
C	288 (93.2%)	19 (6.1%)	2 (0.6%)	0 (0.0%)	309 (99.9 %)

*Note.* Verb A = English non-alternating unaccusatives/Japanese alternating unaccusative, Verb B = English/Japanese alternating unaccusative, Verb C = English/Japanese non-alternating unaccusative.

\*The total equals less than 100 due to rounding.

## Discussion

In this section, based on the results of the corpus analysis, it will be clarified whether the hypotheses I proposed are likely to be positive. *die*, *died*, *cry*, *laugh*, and *smile* are not analyzed in this section since these words appear to be used as the adjective.

As seen from Table 4, 8.3% of verb type A (English non-alternating/Japanese alternating unaccusative); 2.5% of verb type B (English/Japanese alternating unaccusative), and 6.1% of verb type C (unergative) appeared in the passive construction, and 2.0% of A, 1.3% of B, and 0.6% of C were used as causative verbs.

A significant difference in the rate of overpassivization errors between A and B was found, which clearly suggests that Japanese junior high and high school students—elementary and intermediate proficiency levels—produce more errors with L2 English non-alternating unaccusatives with their L1 Japanese transitive counterparts than non-alternating unaccusatives in both L2 English and L1 Japanese. Moreover, as with the results of Oshita’s (2000) corpus study, passive errors with all of the verb type A were found without a causer, *by* phrase, except for one taken *fallen* (20d).<sup>2</sup>

<sup>2</sup> *die* with *by* phrase is not included.

- (20) a. *If earthquake is happened, I'm sure I will take out my bankbook.*  
 b. *...but it is only true that my father is disappeared from me.*  
 c. *I feel that the rock was fallen on my body.*  
 d. *...but at least I was fallen by him.*

Given these results, L1 transfer concerning lexicon and morphology may be a plausible account for passive unaccusatives, which supports the hypothesis (17i). That is to say, L2 Japanese learners of English probably causativize English non-alternating unaccusatives based on L1 alternating unaccusatives, and then, they may apply morphology to the unaccusatives, comparing the English unaccusatives with the nonce causativized unaccusatives.

Let us now turn to the hypothesis (17ii) and (17ix). The percentage of nonce causative errors of verb type A was 2.0%; that of type B was 1.3%; and that of verb type C was 0.6%. Slightly more causative errors were found in type A, which might indicate that Japanese learners are apt to assume transitive counterparts of unaccusatives in Japanese exist in English non-alternating unaccusatives as well. However, considering that the difference in the rate of type A and B is relatively small, the hypothesis (17ii) could not be strongly supported. Additionally, the percentage of type C in the causative structure is fewer than that of type B, which does not support the hypothesis (17ix) at all. Some examples of nonce causative usage of unaccusatives are the followings:

- (21) a. *So he falled turtle from hill.*  
 b. *...we fall a bread's powder [kona] on the table.<sup>3</sup>*  
 c. *If I happen a fire in my house...*

Given that Japanese learners in elementary and intermediate proficiency levels generate more passive errors with English non-alternating/Japanese alternating unaccusatives than with English/Japanese non-alternating unaccusatives and produce passive unaccusative without a causer, lexical and morphological transfer from L1 is likely to be the cause of the overpassivization phenomenon among Japanese learners. Despite the supporting evidence of L1 transfers, the little difference in the rate of causativized unaccusatives between type A and B, and C and B is still puzzling. More research for that should be needed to clarify whether the reason for the little difference is a strong L1 morphological influence or another influence.

What is intriguing about L1 morphological transfer is that, in addition to the result (Hirakawa, 2000; Okada, 2022) showing that more English alternating unaccusatives were ungrammatically passivized than non-English alternating unaccusatives, the subject in this study made more errors with English non-alternating/Japanese alternating unaccusatives than English/Japanese non-alternating unaccusatives. That could occur due to the fact that Japanese learners assume that Japanese transitive counterparts of unaccusatives exist in English as well.

Another interesting result of this study is that although previous studies (Kondo, 2005; Matsunaga, 2005; Oshita, 2000) with Japanese learners have concluded that unergative verbs are seldom overpassivized, the present study found more passive errors with unergatives than non-alternating unaccusative verbs in English and Japanese, which render support for hypothesis (17iii). A similar result was also found in Okada's (2022) study with Japanese subjects. Some examples of unergative errors from the present study are as follow:

<sup>3</sup> Subjects in the corpus were asked to write a word in Japanese if they did not know it in English. A word [] in (20b) are original word.

- (22) a. *Some students are cried...*  
 b. *But I was laughed eith (with) many girls.*  
 c. *We were dance to awaodori (Japanese traditional dance).*

Although Okada (2022) has maintained that passive errors with unergatives would be because of specific exam instructions in her study, her claim was not supported by this study which had no instructions about passive. The cause of this phenomenon could be L1 lexical transfer since in Japanese, *cry*, *smile*, *dance*, and *laugh* are frequently used as transitive verbs. When the current result and Okada's (2022) result are considered, further investigations on unergatives should be necessary.

Different from Oshita's (2000) corpus study with Japanese, the result of this study found *it/Pro be* + bare infinitive/past participle construction with only two unaccusative verbs, *happen* and *occur*.

- (23) a. *...if will happen disaster [saigai] in my town.*<sup>4</sup>  
 b. *But it happened the same thing.*  
 c. *If it will occur earthquake...*

The reason for these token examples might be that Japanese junior high and high school students are in the middle of the transition from the first stage to the second stage of the UTH, meaning that some of them realize unaccusative structure at DS and use expletive *it* or null subject in an attempt to fill the subject position at SS. What is puzzling, however, is that such errors were found only in *happen* and *occur*.

In summary, Japanese learners of English in junior high and high school produce passive errors with English non-alternating/Japanese alternating unaccusatives and far less with English/Japanese non-alternating unaccusatives. Most of these errors are without a causer of the event. Thus, it can be obvious that L1 Japanese lexicon has an effect on L2 English unaccusatives at the first stage of the UTH; nonetheless, the study did not focus on other stages owing to a limitation of the corpus data. Since from the corpus study, it was impossible to determine whether or not L1 morphology influence L2 English, further studies focusing on L1 morphology should be required. Additionally, passive errors were found with unergatives. Although some tendencies of overpassivization were discovered in the study, each word may need more in-depth study, given varying error patterns (i.e., adjectival passive, expletive subject).

## Conclusion

Several findings can be drawn from this study. First, Japanese learners of English in junior high and high school produce in writing more ungrammatical passive uses of English non-alternating/Japanese alternating unaccusatives and unergatives than English/Japanese alternating unaccusatives. Furthermore, most of the errors were found without a causer of the event, that is, without *by* phrase. That suggests that Japanese learners of English in junior high and high school are possibly influenced by L1 lexical and morphological transfer. Finally, Japanese learners use some intransitive verbs as an adjective, namely, *die*, *cry*, *laugh*, and *smile*. Since they are presumably confused by the difference between *die*, *died*, and *dead*, *die/died* is assumed as an adjective and *dead* is assumed as a verb on many occasions. Because *cry*, *laugh*, and *smile*, on the other hand, appeared in only *be* + bare infinitive formation but not *be* + past participle or *be* + Vs [3PS], the possibility is that they regard these words as an adjective and they thus place copula *be*.

<sup>4</sup> Subjects in the corpus were asked to write a word in Japanese if they did not know it in English. A word [] in (23a) are original word.

This study has some limitations. For one thing, the corpus data used in this study represent junior high and high school students in Japan, not Japanese learners in general. Also, the study did not make comparisons with other language learners' data and native speaker corpora. Involving more statistical analysis would also be useful. Moreover, more research for overpassivization on intransitives should be conducted, taking into account more possible causes of passive unaccusative errors, say, subject animacy and expletive subject, than only two causes, on which the study focus. Finally, since error patterns with intransitives vary, as seen from this study, L2 research for intransitives may need to pay attention to the characteristics of each intransitive verb and the propensity of errors with them.

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