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OVERPASSIVIZATION ERRORS BY SECOND LANGUAGE LEARNERS

The Effect of Conceptualizable Agents in Discourse

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This study investigates whether conceptualizable agents in the discourse play a role in English L2 overpassivization errors (nontargetlike passivization of unaccusative verbs, a subclass of intransitives). It hypothesizes that learners are more likely to make overpassivization errors in externally caused events (in which an agent or cause may form part of the speaker's mental representation) than in internally caused events (in which the cause or causer of the event is not clear). Advanced Chinese learners of English were asked to choose the more grammatical form (active or passive) in target sentences with unaccusative verbs. Each target sentence was embedded in two different contexts expressing external and internal causation. A significant difference in error rates was found between the two different contexts: Learners accepted passivized unaccusative verbs more frequently when an agent or cause was available than when it was not. This finding is taken as an indication that learners transitivize unaccusative verbs before they passivize them and that the degree of transitivization varies depending on the presence of conceptualizable agents in the discourse. Thus this paper argues against a purely syntactic analysis of interlanguage errors such as overpassivization and in favor of an approach that takes cognitive factors into account.

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Linguists as well as ESL teachers have noted that the second language errors in (1) and (2) seem to occur persistently.

(1) **During the early 1900s, a black community was thrived in Los Angeles.*

(2) **During the second world war, many blacks migrated to LA from the south which was suffered industrial devastation.*

These verbs are mostly intransitives and have nonagent subjects, although some verbs such as *increase* and *improve* can be used as transitives depending on the context. As seen in sentences (1) and (2), it has been observed that learners passivize verbs that ought to be in active voice. This is known as overpassivization (see Yip, 1990), a phenomenon defined as nontargetlike or nonnativelike passivization of intransitive verbs by L2 learners.

This phenomenon has interested many SLA researchers (Balcom, 1997; Hirakawa, 1995; Hubbard, 1994; Oshita, 1997; Montrul, 1999; Yip, 1995; and Zobl, 1989). Of particular interest is the fact that these overpassivization errors are not restricted to any particular L1 group, which suggests that the errors are language universal rather than language specific.

To date, two major accounts of the overpassivization phenomenon have been advanced: the transitivization hypothesis (Yip, 1990, 1995) and the postverbal NP movement hypothesis (Balcom, 1997; Oshita, 1997; Zobl, 1989). Both hypotheses view the overpassivization phenomenon as a problem in mapping relations between lexical semantics and syntax. However, neither takes cognitive factors into consideration, thus limiting the potential of these hypotheses to fully account for the phenomenon. This study attempts to fill this gap in the extant research on overpassivization. It broadens the scope of investigation from mapping relations between lexical semantics and syntax to one that includes cognitive factors in language processing. Specifically, the study investigates how the availability of conceptualizable agents in the discourse affects overpassivization.

THEORETICAL OVERVIEW

Characterizing Overpassivization

What Gets Overpassivized? Many researchers (e.g., Balcom, 1997; Hirakawa, 1995; Hubbard, 1994; Montrul, 1997; Oshita, 1997; Yip, 1995; Zobl, 1989) have noted that L2 learners of English appear to overextend passive structures[1] to a class of intransitive verbs known as unaccusative verbs. Perlmutter (1978) proposed an unaccusative hypothesis, which claims that the class of intransitives is not homogeneous but consists of two subclasses—unaccusatives (e.g., *appear*, *fall*, *happen*) and unergatives (e.g., *walk*, *talk*, *sing*). Unaccusatives are characterized as verbs whose subjects undergo a change or lack volition (see, for example, Perlmutter, 1978; Rosen, 1984; and Van Valin, 1990). These verbs have an argument structure in which the verbs

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are subcategorized for a single argument that bears the role of patient or theme (i.e., nonagent), as in examples (3) and (4).

(3) *He grew tall.*

(4) *The accident happened suddenly.*

Notice there are two types of unaccusatives: those with transitive counterparts and those without. The former type of unaccusatives most commonly associated with overpassivization includes *increase*, *decrease*, *improve*, *change*, *grow*, *continue*, and *break*, and the latter type includes *die*, *suffer*, *happen*, *appear*, *disappear*, and *vanish*.[2]

Unergatives, on the other hand, take subjects that bear the role of agent as in (5).

(5) *I ran for an hour.*

As Palmer (1994) noted, the distinction between unaccusatives and unergatives is parallel to that of agentive and patientive (i.e., nonagentive) verbs in English. Verbs such as *die* and *grow* would be patientive, and *run* and *come*, agentive. General diagnostics used for the identification of English unaccusatives stipulate that nonagentive verbs cannot occur (a) in the imperative or (b) with adverbs that denote volition. Consider the ungrammatical examples (6) and (7).

(6) **Grow tall!*

(7) **He grew tall deliberately.*

As Levin and Rappaport Hovav (1995) noted, there are semantic regularities in the composition of the two classes that are also manifested across languages in strikingly similar ways. Some languages differentiate unergatives and unaccusatives through case, morphological tense-aspect markings, or different word order. In Italian, for example, the distinction between the two types of intransitive verbs is marked by different auxiliary verbs (Burzio, 1986). French has a similar distinction, although it is not as strict as in Italian (Sorace, 1993). Languages such as English, however, lack morphosyntactic cues to distinguish unergatives from unaccusatives. Word order does not change for unaccusatives, and there are no morphological markings that distinguish unaccusatives from unergatives.

Who Overpassivizes? Of particular interest in the overpassivization phenomenon is the fact that these errors do not simply stem from a lack of L2 structural knowledge. Advanced L2 learners of English have the ability to use passives correctly most of the time, as illustrated in the data in (8), from an essay written by an advanced Korean learner of English.

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(8) a. *. . . the word "success" is used . . .*
b. *When they are asked . . .*
c. *Newly Industrialized Countries (NICs) are said to . . .*
d. **Newly Industrialized Countries (NICs) are said to have been succeeded . . .*

In a 1½-page long essay, this learner used four passives, all of which were correct with the exception of (8d), which suggests that the learner has command of the passive but has a problem with unaccusatives. Similar results from advanced learners of English were reported by Ju (1997). These results are consistent with Zobl (1989), who noted that even highly advanced learners overpassivize unaccusative verbs, and with Yip (1990, 1995), who reported on Chinese learners of English who, even when advanced, had difficulty in acquiring the correct passive uses of these verbs.

To focus the issue even more precisely, such overpassivization errors do not appear to stem from L1 influence either. This is supported by extant literature, which suggests that the overpassivization phenomenon is universal to all L2 learners of English. Both Zobl (1989) and Yip (1990) noted that these errors are produced by L2 learners from a variety of L1 backgrounds, as shown in (9)–(12).

(9) **My mother was died when I was just a baby.* (Thai; Yip, 1990)

(10) **The eruption of Sakurajima Island was occurred.* (Japanese; Yip, 1990)

(11) **The World War III will be happened in the future.* (Chinese; Yip, 1990)

(12) **The most memorable experience of my life was happened 15 years ago.* (Arabic; Zobl, 1989)

Yip (1990, 1995) showed that Chinese learners often passivize unaccusative verbs despite the fact that the active form is required in equivalent sentences in their L1. Ju (1997) also showed that Korean learners are no exception to errors of this kind. Interestingly, the underlined verbs in (9)–(12) exhibit similar patterns in Korean and English. Although Korean also expresses *The accident happened* in active voice, errors such as those in (13) and (14) are persistently produced by Korean L2 learners of English.

(13) **However, the Watts riots which were happened in 1965 destroyed many Jewish businesses.*

(14) **First, the change of life-style will be happened.*

Based on his analysis of the 1993 version of the Longman Learners' Corpus, Oshita (1997) also reported that similar errors are produced by L2 learners of different L1 backgrounds. He compared samples of passive errors with equivalents in the learners' L1s and concluded that the problem is not direct L1 transfer. Interestingly, Montrul (1999) reported that the same type of error also exists in Spanish L2 interlanguages regardless of the learner's L1. Taking all of this together, there seems to be an underlying problem in these unaccusative verbs that poses a challenge to the learners, regardless of L1 background.

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Current Theories of Overpassivization of English Unaccusatives

Transitivization Hypothesis. Examining overpassivization errors by Chinese learners of English, Yip (1990, p. 53) hypothesized that learners "... somehow interpret ergatives [unaccusatives] as underlyingly transitive (because only transitive verbs allow passivization in English)." This hypothesis seems highly plausible for unaccusatives with transitive counterparts, as in example (15).

(15) a. *The water boiled.*
b. *Mary boiled the water.*

In order to account for the overpassivization of verbs without transitive counterparts, Yip (1995) cited L1 errors from Bowerman (1983) and L2 errors from Rutherford (1987) as evidence for her claim, as in (16)–(18).

(16) **Do you want to see us disappear our heads?* (L1)
(Then, with a friend, she ducks down behind the couch.)

(17) **The shortage of fuels occurred the need for economical engine.* (L2)

(18) **This construction will progress my country.* (L2)

Yip interpreted this as showing that the learners treat unaccusatives as transitives, adding objects to them; hence, unaccusatives can be passivized.

On the basis of the assumption that unaccusatives are underlyingly transitive and bearing in mind the similarities in semantic roles between the subjects of passives and unaccusatives, Yip (1990, p. 55) further claimed that "... it is plausible for learners to adopt the working hypothesis: whenever the object is in subject position, mark the verb with passive morphology." Yip noted that there are inherent similarities between unaccusatives and agentless passives in that (a) both are intransitives on the surface and (b) they have patient-role subjects. The only difference is that passives are morphologically marked whereas unaccusatives are not, resulting in the same structural form as with other intransitives.

As Yip (1995) argued, if learners accept the ungrammatical transitives (*We disappeared our heads*) as grammatical and reject correct unaccusative equivalents (*Our heads disappeared*), then it is likely that these learners consider these verbs to be transitive. In other words, this hypothesis predicts that no learners reject *We disappeared our heads* while accepting *Our heads were disappeared*. If this prediction turns out to be true, it would provide crucial support for the transitivization hypothesis as a viable explanation for overpassivization errors in English interlanguages.

Postverbal NP Movement Hypothesis. Zobl (1989) rejected the view that unaccusatives are underlyingly represented as transitives and thus that the errors are produced by syntactic movement from transitives. Consider the pairs of sentences in (19) and (20), each consisting of a grammatical transitive

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sentence and an ungrammatically intransitivized counterpart, which Zobl claimed was not produced by learners in his data.

(19) a. *The children frazzled her nerves.*
b. ?*Her nerves frazzled.* (cf. *her senses numbed*)

(20) a. *The drought damaged the crops.*
b. **The crops damaged.* (cf. *the crops withered*; Zobl, 1989, p. 217)

Because learners did not move objects in (19a) and (20a) to the subject slot, which resulted in sentences such as (19b) and (20b) not being found, Zobl ruled out the possibility of the transitivization of unaccusatives.[3] Citing Marantz (1984), Zobl argued instead that unaccusatives are not underlyingly transitive but are more likely to be subsumed under passives.

Zobl (1989) assumed that unaccusatives have a single argument structure as in (21).

(21) [[V NP]] (i.e., [_ [sink the ship]])

It is hypothesized that learners acquire a lexical rule by which the postverbal NP is moved to subject position. Once learners acquire the passive rule, the lexical rule is subsumed under the passive rule. This is because the English passive rule is the core rule for marking the movement of the object into subject slot, hence the overpassivization, with unaccusatives acquiring ungrammatical passive morphological markings. Balcom's (1997) views are in line with Zobl's account. For his part, Oshita (1997) reported that some learners tend to hesitate before accepting unaccusatives in NP-V word order as grammatical English, an observation also made by Kellerman (1979). However, instead of postulating a passivization rule as Zobl did, Oshita suggested that learners may strongly associate the subjects of unaccusatives with an internal argument in argument structure, namely a syntactic object, as in (21).

Limitations of Previous Theories

Between-Verb Variation. One limitation of both the transitivization and the NP movement accounts is that they do not address the possibility of individual verbs behaving differently within the same class. After administering grammaticality judgment questionnaires on a variety of unaccusatives, Ju (1997) reported a substantial discrepancy among unaccusatives in terms of accuracy of judgment on ungrammatically passivized unaccusatives. For instance, the study found great disparity in judgment between sentences such as *The car disappeared* (approximately 80% incorrectly rejected) and *The accident happened* (approximately 20% incorrectly rejected). This finding raises an important question: If overpassivization errors are generated purely by syntactic movement, as argued by both the transitivization and NP-movement hypotheses, why are such different rates of error production observed on apparently

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similar unaccusatives? The findings suggest that there may be additional factors underlying overpassivization errors because learners of similar proficiency should exhibit largely identical judgment on similar verbs if ill-formed passivization derives from syntactic movement alone.

The Role of Cognitive Factors in Overpassivization. Clearly, a satisfactory account of the overpassivization phenomenon will have to hinge on syntax. However, the reason why none of the accounts reviewed so far is entirely satisfactory is precisely because these accounts address lexical semantics and syntax while ignoring cognitive factors entirely. As a number of studies attest (e.g., Langacker, 1983; Tomlin, 1983), the same semantically transitive event may be viewed from several discourse-pragmatic perspectives, primarily involving the relative topicality of agent and patient. Hence, it would be odd to assume that the processing of English unaccusatives involves lexical and syntactic mapping relations only, independent of the cognitive factors that influence language processing. Thus, an investigation is needed, not to replace one syntactic model by another, but to factor into purely syntactic models a potentially crucial dimension—that is, the role that discourse pragmatics may play in this L2 interlanguage phenomenon.

Although agentless passives and unaccusatives are similar because they both have nonagentive subjects, the difference is that agents are omitted in agentless passives, whereas agents simply do not exist for unaccusatives. Consider example (22).

(22) a. *The Titanic sank in 1912.*
b. *The Titanic was sunk in 1912.*

Both (22a) and (22b) express an identical event. The difference between the two is that in the passive sentence (22b) the agent is simply omitted, whereas (22a) is inherently agentless. However, although no agent is posited semantically in (22a), real-world knowledge tells us that there must have been an entity that was responsible for the event. The entity (here, an iceberg) that caused the event to occur is a pragmatically conceptualizable agent of the predicate.[4] In sum, despite the similarity between unaccusative and passive sentences in having nonagentive subjects, they differ in whether or not agents are implied semantically. In passives, agents are merely omitted and this is marked by passive morphology (*be* + past participle). In unaccusatives, no agent exists, although it may be conceptualizable through discourse-pragmatic information about the speech events.

Now compare the sentences in (23) with unaccusatives.

(23) a. *The car disappeared.*
b. *The accident happened.*

Unlike passives, neither sentence in (23) has an implied agent. However, the difference between the two sentences is the saliency of the source of cau-

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sation. Example (23a) can have a pragmatically conceptualizable agent in that cars do not move by themselves; people drive cars. A car disappearing is essentially an externally caused event with a conceptualizable cause or causer. In (23b), however, it is not clear what is making the event occur; by itself, the sentence implies no pragmatically conceptualizable agent.

The availability of agents is closely related to the causality of an event. DeLancey (1984, p. 207) claimed that different degrees of agentivity are created by causality: Direct causation is more agentive than less direct causation. Direct causation is "a single cause from which an unbroken chain of control leads to the effect" shown by prototypical transitive events. Less direct causation consists of two types: *nondirect causation*, which occurs when "the chain of causation leading from the act of volition to the effect is broken by the introduction of other causal factors," and *inactive causation*, which occurs when "the chain of causation cannot be traced back to a comprehensible ultimate cause." In directly caused events, agents are readily conceptualizable because the initiator or cause of the event is available through pragmatic knowledge. In nondirect causation, in contrast, events have no clear initiator or cause; hence, agents are not easily conceptualizable.

Noting that unaccusatives involve spontaneous changes of state, Yip (1995, p. 130) hypothesized that L2 learners of English may be "reluctant to believe that any change of state occurs spontaneously, without external causation." However, as illustrated above, pragmatic information allows speakers to interpret the argument structure of some unaccusatives as having external causation depending on speech contexts. Compare, for instance, the two pairs of sentences in (24) and (25).

(24) *A fighter jet shot at the ship.*
The ship sank slowly.

(25) *The rusty old ship started breaking up.*
The ship sank slowly.

Notice that the second sentences of both pairs in (24) and (25) are identical and that the first sentences in each pair provide the contexts for the second sentence, *The ship sank slowly*. In (24), it is easy to infer an agent or a causer of the event (in this case, a fighter jet), as the event is externally caused. By contrast, in the same sentence occurring in other contexts, as in (25), the agent is not as apparent because the event is internally caused.

The same feature can be illustrated in unaccusatives without transitive counterparts, as in (26) and (27).

(26) *A strange man was lurking by the garage.*
Shortly after, the car disappeared.

(27) *A car slid off the road and into the lake.*
Shortly after, the car disappeared.

In (26), pragmatic knowledge enables the hearer to infer that there is an agent that moves the car. In (27), however, the nature of the event is a sponta-

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neous process in which the causer or initiator is much less clearly available in the hearer's pragmatic knowledge. In sentences (24)–(27) with two different unaccusatives (*sink* and *disappear*), the subjects are entities affected semantically and no volition is involved in the events. However, additional pragmatic information differentiates those unaccusatives depending on the availability of pragmatic agents in each speech context.

To state it briefly, some unaccusative sentences have conceptualizable agents whereas others do not. Because passives are devices that suppress or demote agents, one could hypothesize that passivization is more likely to take place when agents are available for a *by*-phrase passive interpretation. For example, learners may favor the wording in (28).

(28) *Tom switched on the fan.*
**Shortly after, the smoke in the room was disappeared by the fan.*

Meanwhile, they may reject a more nativelike wording as in (29).

(29) *Tom switched on the fan.*
Shortly after, the smoke in the room disappeared.

Thus the question arises as to whether differences in terms of availability of agents in the discourse have any effect on the tendency for L2 learners of English to passivize unaccusatives.

HYPOTHESES

This study tests the hypothesis that the availability of conceptualizable agents in the discourse has an effect on the tendency for L2 learners of English to passivize unaccusatives. It is hypothesized that, given variation in the availability of conceptualizable agents evoked by unaccusatives, learners are more likely to passivize unaccusatives in externally caused events than in internally caused events. In other words, the availability of conceptualizable agents might provide further motivation for L2 learners of English to overpassivize unaccusatives apart from those motivations for promoting nonagent subjects. If this prediction is true, the following should occur:

> Hypothesis A: L2 learners of English are more likely to passivize unaccusatives in externally caused events than in internally caused events.

Further, if learners passivize unaccusatives more frequently in externally caused events than in internally caused events, this would strengthen the transitivization hypothesis (Yip, 1995) by demonstrating that a heightened degree of causation increases the likelihood of intransitive verbs being passivized.[5] It would also confirm that cognitive factors play a key role in learners' choice of voice forms for unfamiliar verbs.

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Additionally, because some unaccusatives can have transitive counterparts, this might interfere with intransitive uses of those unaccusatives. This is particularly plausible because the two types of unaccusatives have different argument structures semantically (see Levin & Rappaport Hovav, 1995). If such interference does exist, one could expect the following to be observed:

> Hypothesis B: There is a significant difference in the rate of overpassivization between unaccusatives with transitive counterparts and those without.

METHOD

Subjects

For the experimental group, 35 Chinese learners of English were chosen. This L1 group was selected because, in Chinese, unaccusatives are used similarly to those in English in that only the active voice is permissible, as in example (30).[6]

(30) *giao duàn le.*
bridge break PERF
"The bridge broke."

In contrast, other languages, such as Korean or Japanese, require some unaccusatives to be marked by either passive or stative morphemes. Thus, speakers of these L1s had to be ruled out as potential subjects because this difference in L1 morphosyntax would have created a potential problem in identifying the source of the overpassivization phenomenon in their interlanguage.

The subjects were graduate students at a West Coast university. Their TOEFL scores were in the 550–575 range, and they had all tested into one proficiency level (advanced) on a standardized institutional test measuring speaking, writing, and reading skills. Thus, they were considered homogeneous in terms of their English proficiency. Homogeneity in the learners' proficiency was further ensured by the inclusion of distracter sentences in lieu of a pretest of the subjects' general knowledge of passivization; at the same time, the distracters served their conventional purpose of disguising the target sentences. Additionally, 10 undergraduate native speakers of English acted as a native control group. Their results would provide nativelike uses of the verbs so that the learners' judgments could be scored in terms of deviation from these uses.

Materials and Procedures

A forced-choice task was selected for this study (see Appendix). Learners were asked to read a pair of sentences, the first one (priming sentence) set-

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ting up a context for the event in the second sentence (target sentence). Learners were asked to identify the more grammatical form (either active or passive) for the target sentence, as illustrated in (31).

(31) *A fighter jet shot at the ship.*
The ship (sank/was sunk) slowly.

This task was chosen in preference to grammaticality judgment tests that present discrete sentences with either form of the verb and ask students to judge the grammaticality of the sentences. The rationale is that grammaticality is on a continuum and thus highly context-dependent. That is, different sentences have different levels of acceptability in or out of context. Consider the sentence in (32).

(32) *My life was changed.*

Out of context, this sentence is perfectly acceptable. However, in the context in (33), it becomes infelicitous at best.

(33) ?**After I had a baby, my life was changed radically.*

What is acceptable and what is not can also be determined by the nature of the context. Take example (34).

(34) ?**Water is boiled at 100°C.*

This passivized verb form *is boiled* is infelicitous if it describes the natural process of water boiling. If the context is slightly changed, however, notice that the passive structure becomes acceptable as illustrated in (35).

(35) *The hikers kept climbing so that the water could be boiled at a lower temperature.*

Because the main hypothesis of this study tests whether L2 learners will choose a passive form over an active one in certain speech contexts, this forced-choice task in which students were asked to choose the more grammatical form served the purpose without creating controversies over absolute grammaticality.

Because research (e.g., Croft, 1995) has shown that animacy plays a key role in choosing voice forms, that variable was controlled in this study: Only inanimate subjects were used in the target sentences. Based on the fact that languages (e.g., Indonesian) differentiate mobile subjects from immobile ones in choosing voice forms, all the subjects of the target sentences were uniformly immobile inanimate subjects, that is, the most patientlike entities.

A total of 18 unaccusatives, 13 with transitive counterparts and 5 without, were chosen for the testing. The verbs were chosen from a list of unaccusa-

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Table 1. Organization of sentences in questionnaires

Group	Agent type	Number of sentences
[+transitive]	Externally caused	13
	Internally caused	13
[–transitive]	Externally caused	5
	Internally caused	5
Distracter	—	18

Note. [+transitive] = unaccusatives with transitive counterparts; [–transitive] = unaccusatives without transitive counterparts; Distracters = transitives.

tives that have been associated with overpassivization in the extant research.[7] The unequal number was due to the fact that there are more unaccusatives with transitive counterparts than there are without. Additionally, tight restrictions imposed on the composition of the target sentences (such as inherently immobile inanimate subjects—rocks, car engines, etc.—capable of being embedded in two contexts naturally) reduced the number of usable unaccusatives, especially those without transitive counterparts.[8] Vocabulary and syntax in all sentences were kept as simple as possible. Syntactic structures were kept uniform across all sentences. Table 1 summarizes how sentences were organized. As shown in Table 1, 13 unaccusatives with transitive counterparts were embedded into two different contexts, as in examples (36) and (37).

(36) *Heavy trucks put more and more pressure on the bridge.* (externally caused)
It (broke/was broken) gradually.

(37) *The wooden bridge was very old.* (internally caused)
It (broke/was broken) gradually.

Notice that one context strongly suggests the active role of agent in the process, whereas the other leaves the role of agent much less salient.[9] In order to allow only passive readings, not stative ones, adverbials such as *quickly* and *immediately* were added to the target sentences, as illustrated in (36) and (37). As these adverbials essentially denote action rather than state by supplying aspectual information for the predicate, they eliminate the possibility for the events expressed by the target sentences to be interpreted as states. Likewise, five unaccusatives without transitive counterparts were embedded into two different contexts, as in (38) and (39).

(38) *The police were called in to remove a strange package.* (externally caused)
The package (disappeared/was disappeared) immediately.

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(39) *A car slid off the road and a package fell from the car into the lake.* (internally caused)
The package (disappeared/was disappeared) immediately.

Additionally, 18 distracters with transitives (non-unaccusatives) were included. In order to counterbalance the number of correct sentences in actives (all 36 experimental sentences are correct only in actives), the distracters were correct only in passives, as in (40) and (41).

(40) *Tom finished writing the book.*
It (published/was published) immediately.

(41) *A driver offered the traveler a ride.*
The offer (accepted/was accepted) quickly.

All the distracters in passive voice were agentless in order to resemble ungrammatically passivized unaccusatives. Apart from distracting the subjects' attention from unaccusatives, these sentences acted as a pretest because they showed whether learners knew passive rules. If learners did not have an accurate knowledge of passives, their judgment on unaccusatives would not come from the nature of the verbs in question but from a lack of structural knowledge. Only learners with three errors or less (approximately 20% out of 18) on these passive sentences were included in the analysis.

Sentences were ordered so that similar types did not appear successively. The sequence of the two verb forms in brackets was kept uniform, starting with active followed by passive. Because a single sentence appeared in two contexts, questionnaires were devised so that no identical sentences would appear on one page. Once they finished the first page, learners were not allowed to return to the previous pages to refer back to a sentence with the same verb. Vocabulary support was offered during the testing but this was not requested. No time restriction was imposed. Subjects took 10–15 minutes to complete the task.

RESULTS

Overview

The questionnaires were scored in terms of errors, where *error* is defined as deviation from native speaker responses, which are active in all conditions. The judgments from 10 native speakers converged on virtually all sentences.[10] For all unaccusatives, native speakers chose active voice.

Out of 35 learners, two were eliminated because they did not complete the questionnaire. Another two (with 6 and 8 errors out of 18 on distracter sentences, respectively) were excluded on the grounds that they did not know passive rules well enough. Hence, their judgment on unaccusatives might not necessarily come from the verbs or the contexts in which they were embedded. In the end, 31 learners were included for analysis. The mean number of

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Table 2. Number of learners who made overpassivization errors in [+transitive] group

Verb	External causation	Internal causation
bounce	14	6
break	20	12
change	10	6
close	25	10
decrease	4	2
drop	8	3
dry	16	8
freeze	18	11
grow	4	1
melt	16	4
roll	12	3
sink	6	7
turn	8	1
Total	161	74

Note. Total number of learners = 31.

Table 3. Number of learners who made overpassivization errors in [–transitive] group

Verb	External causation	Internal causation
appear	9	4
die	12	4
disappear	13	7
emerge	15	7
vanish	15	8
Total	64	30

Note. Total number of learners = 31.

errors for those 31 learners on distracter sentences was 0.9 ($SD = 0.9$), which indicates that all learners had a solid knowledge of passivization on transitive verbs.

The mean number of errors made by the learners on the target sentences was 10.6 ($SD = 5.6$), approximately 30%. Tables 2 and 3 summarize the number of learners who made overpassivization errors on each of the 18 verbs. For example, on the target sentence with bounce (*It bounced up and down a few times*), 14 learners out of 31 made an overpassivization error in the externally caused event and 6 learners made an error in the internally caused event. The results from Tables 2 and 3 are also presented in Figure 1.

The results were divided into four groups in terms of causation types (external or internal) and the existence of transitive counterparts. Table 4 shows

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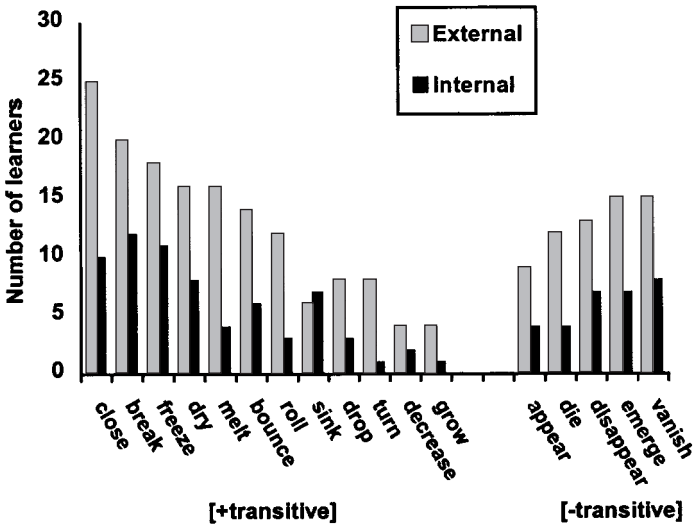


Figure 1. Number of learners who made overpassivization errors.

Table 4. Overpassivization errors in four conditions

Condition	Number of sentences	Mean number of errors per learner	Percentage incorrect	*SD*
+T, E	13	5.19	40%	2.27
+T, I	13	2.39	18%	1.78
–T, E	5	2.06	41%	1.57
–T, I	5	0.97	19%	0.95

Note. +T = with transitive counterparts; –T = without transitive counterparts; E = external causation; I = internal causation.

the mean number of overpassivization errors made by each learner on all 18 verbs. Because the errors were evenly distributed and the hypotheses tested concerned the degree of overpassivization in one context versus another, the data were submitted to a two-way repeated-measures ANOVA on SAS software.

The analysis revealed a significant difference in overpassivization between the external causation group and the internal causation group, $F(1, 60) = 48.21$, $p < .0005$. These results are consistent with hypothesis A: Learners are more likely to overpassivize unaccusatives in externally caused events than in internally caused events. However, no significance was found between unaccusatives with transitive counterparts and those without, $F(1, 60) = .15$, $p = .6987$. This leads to rejection of hypothesis B: There is a significant difference in the rate of overpassivization between unaccusatives with transitive counterparts and those without. Also, no interaction was found between the two variables, causation types and transitive counterparts, $F(3, 120) = .09$, $p = .7707$.

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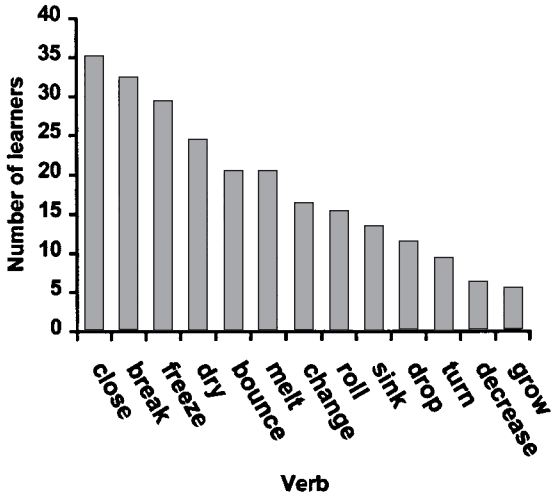


Figure 2. Number of learners who made overpassivization errors on [+transitive] verbs in descending order (combining two causation conditions).

Variation between Verbs

In order to identify any variation in the rate of overpassivization between verbs, the data from [–transitive] verbs were submitted to a one-way ANOVA. No significance was found between these verbs in the percentage of overpassivization. The same analysis was performed on the [+transitive] group. Here, the verbs differed significantly, $F(7, 240) = 6.834$, $p < .0005$. It appears that the unaccusatives with transitive counterparts pose different degrees of difficulty to the learners, whereas the unaccusatives without transitive counterparts are largely equal in terms of difficulty in choosing correct voice forms.[11] Figure 2 illustrates the variation across 13 unaccusative verbs with transitive counterparts in terms of the number of learners who accepted overpassivization. As Figure 2 shows, *break* and *close* were the most difficult verbs and *decrease* and *grow* were the least difficult (see the Discussion section for more on this point).

DISCUSSION

Overpassivization and Causation of Events

The findings of this study suggest that a cognitive factor such as conceptualizable agency plays a role in the overpassivization phenomenon, a factor hitherto neglected in discussions of this issue. The results clearly indicate that learners passivize unaccusatives more frequently in externally caused events

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than in internally caused events. Learners appear to perceive an agent or a direct cause in externally caused speech events, and they seem to feel more willing to passivize unaccusatives in such contexts. It may be that the presence of an agent or cause in externally caused events increases the saliency of the patientlike properties of the subject by making an agent available for a *by*-phrase passive interpretation, as in example (28). This heightened saliency of subject affectedness in the subjects of unaccusatives may motivate L2 learners to passivize unaccusatives to a greater degree in externally caused events than in internally caused ones.

The finding that learners are more likely to passivize unaccusatives when an agent or cause is conceptually available partially supports Yip's (1995) transitivization hypothesis, which holds that L2 learners perceive unaccusatives as underlyingly transitive.[12] However, this study shows that transitivization is not applied to all unaccusatives uniformly as implied by Yip; rather, it is more likely to take place with events in which an agent or cause is clearly specified in the pragmatic domain. This provides compelling justification for factoring discourse pragmatics into accounts of overpassivization.[13]

What is of interest in unaccusatives is that the same unaccusative verb could be perceived as encoding either transitive events or intransitive events depending on context, independent of lexical semantics. Thus unaccusatives lend themselves nicely to the testing of whether speakers perceive the difference in transitivity of the event structures shared by the same unaccusative verb. Unaccusatives are also areas where interesting interplays between linguistic form and function can be observed. Speakers of English are given two voice forms to encode meaning (semantic roles), and native speakers choose actives for unaccusatives with no difficulty. However, for those L2 learners who do not have a solid knowledge of unaccusatives, confusion arises in the choice of voice forms. As the findings of this study suggest, pragmatic knowledge plays a key role in resolving this confusion.

The fact that pragmatics plays a role in overpassivization could successfully account for the observed variation in judgment as well as uses of unaccusatives between or within subjects. Because the construal of speech events is essentially subjective,[14] one could conceptualize the same event as occurring with or without an agent. If the event is perceived as occurring spontaneously without an agent, as the findings of this study show, learners will be less inclined to passivize unaccusatives. Hence, the same unaccusative verb could pose different levels of difficulty in the acquisition of nativelike uses.

In practice, however, no event is ever totally devoid of causality. Thus, even in events perceived as internally caused, an element of causation may be present though it may vary in degree of saliency or directness. For instance, take sentence (42).

(42) *The ice melted.*

One could construe this event in different ways, as illustrated in (43).

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(43) a. *The weather became mild.*
The ice melted.
b. *He moved the ice closer to the heater.*
The ice melted.
c. *He switched off the refrigerator.*
The ice melted.

The construal in (43a) would be an internally caused event. Sentence (43b), on the other hand, would contain an externally caused event expressing an action instigated by someone who probably needs to melt the ice deliberately. In the case of (43c), the source of causation is more obvious than in (43a) but not as obvious as in (43b). Therefore, learners are less likely to be misguided by a *by*-phrase passive interpretation in (43c) than in the externally caused event in (43b). Hence the verb becomes less likely to be passivized. Although contextual information in the discourse is helpful in certain speech situations, it is ultimately the speaker who decides exactly how to construe each event. If speakers somehow construe the agent who switched off the refrigerator as a prominent figure in their semantic representation, then passivization is more likely to occur in (43c). The fact that the degree of saliency or directness of causation varies depending on contexts and on how the contexts are construed in the speaker's semantic representation may explain why overpassivization occurs even in internally caused events.

Transitive Counterparts

I now turn to the second finding of this study—namely, that no difference was found between unaccusatives with transitive counterparts and those without. This finding is somewhat surprising in that it is highly plausible for learners to be confused by the fact that some unaccusatives (the ones with transitive counterparts) can be used in passives grammatically. However, the results run counter to this prediction and thus seem to support Perlmutter's (1978) unaccusative hypothesis that unaccusatives fall within a single category despite a lexicosyntactic difference in whether or not they allow transitive counterparts.[15]

Variation Between Verbs

As Figure 2 illustrates, unaccusatives with transitive counterparts differ significantly from each other in the rate of overpassivization, whereas unaccusatives without transitive counterparts do not.[16] Because no study of the frequency of English unaccusatives was carried out as a part of this research, it is not possible to determine whether the discrepancies between verbs in the rate of overpassivization correlate with frequency of use. Also, because the frequency of unaccusatives in native use may not necessarily coincide with that of L2 learners,[17] word frequency in native usage may not be useful in this particular case.

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However, consider the two most difficult verbs among unaccusatives with transitives (*close* and *break*) and the two least difficult ones (*grow* and *decrease*). Events such as closing or breaking are typically externally caused, whereas events like growing or decreasing are internally caused. For instance, even if someone is making something grow, the causal connection between the motivation for the agent's action and the result brought about by the action is mediated by the largely uncontrollable process of growing. In contrast, the action of breaking something consists of a much more direct and uninterrupted chain of causation. To sum up, different degrees of directness in the causation of events may have played a role in the discrepancy among some unaccusatives in terms of error rates.

Challenges of English Unaccusatives to L2 Learners

The confusion between passives and unaccusatives seems to be due to the two major similarities between the two constructions. First, they are both used to express states or changes of state rather than actions. According to Givón (1983), passivization is a complex phenomenon that serves several functions. One of the functions is stativization or detransitivization—that is, construing the event as the resulting state of an action. Semantically, unaccusatives express spontaneous events or states in which agents are not involved. As Shibatani (1985, p. 827) noted, a variety of passives are used in order to express spontaneous occurrence, "an event that automatically occurs, or a state that spontaneously obtains without the intervention of an agent." Languages have different ways of expressing the same semantic concepts. English has intransitives to express spontaneous events. Other languages use devices such as middle verb markers or reflexive pronouns to express these semantic concepts, as illustrated in (44) and (45).

(44) *La porte s'est ouverte*
the door REFL-AUX opened
"The door opened." (French)

(45) *Kyu chayk-i cal phal-lin-ta.*
the book-NOM well sell-MIDDLE-DECLARATIVE
"This book sells well." (Korean)

Considering the semantic resemblance between unaccusatives and passives, the motivation for overpassivization errors on unaccusatives becomes clearer.

Another similarity between passives and unaccusative constructions is that they both have nonagentive subjects, typically patients. Slobin (1985) showed that children have greater difficulty in processing passive clauses and that they acquire passive clauses later than active clauses. This suggests that active clauses have cognitively less marked (i.e., more natural) status than passive clauses. From a typological point of view, different languages have

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different degrees of tolerance toward nonagent subjects. English is liberal in what it allows in subject position, including patients. Consider examples (46) and (47) from English and French.

(46) *The glass broke.*

(47) *Le verre s'est cassé.*
the glass REFL-AUX broken
"The glass broke." (French)

Sentence (46) is grammatical because English allows nonagent subjects. However, to be grammatical, the French sentence in (47) must have a reflexive pronoun (in addition to the *être* auxiliary). Like French, other Romance languages allow nonagent subjects with basic transitive roots only if they are indicated with reflexives.

Cross-linguistic observations of this type led Givón (1976, p. 152) to propose the notion of case role hierarchy for subjecthood as follows: *agent* > *experiencer* > *dative* > *instrument* > *patient* > *location*. Across languages, the arguments higher on this hierarchy are more likely to be assigned as subjects than those lower on the hierarchy. Animacy also plays a role in subject assignment. Croft (1995) claimed that the animacy of the argument is one of the most important factors in establishing predicate-argument relationships. He proposed an animacy hierarchy such as: *human* > *animate* > *inanimate* > *abstract* entities. The least marked form would be a human agent (syntacticized subject) doing something to or carrying out an action on a patient (syntacticized object). The most marked form would be having patients as subjects, as seen in most unaccusative constructions. As one moves away from the most unmarked format, conceptual difficulties may arise because linguistic structures have moved away from what is most expected. In unaccusative constructions, in which patients are subjects, the mapping relationships no longer mirror the most natural format, hence learners' resistance and a tendency to passivize in order to mark the special status of the subject.

Research findings confirm that L2 learners reject grammatical sentences with unaccusatives in active voice. Kellerman (1979) reported the tendency of Dutch L2 speakers of English to reject grammatical sentences with some English unaccusatives (with transitive counterparts) as in (48).

(48) *The cup broke.*

Instead, the learners favored either causative constructions or agentless passives as in (49) and (50).

(49) *Someone broke the cup.*

(50) *The cup was broken.*

Interestingly, the Dutch equivalents of both (49) and (50) are grammatical. This suggests that L2 learners somehow resist having nonagents as subjects

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for unaccusatives even when their L1 allows it. Similar avoidance of unaccusative constructions by L2 learners was reported by Yip (1995) and Hirakawa (1995). This avoidance of nonagent subjects for unaccusatives seems to be universal in that L2 learners from a variety of L1 backgrounds appear to either overpassivize unaccusatives or reject grammatical unaccusative constructions. The findings of this study confirm this in that Chinese learners show a tendency to passivize unaccusatives despite the fact that their L1 equivalents are used in actives.

This tendency of L2 learners to reject unaccusative constructions as ungrammatical as observed by Kellerman (1979), Yip (1995), and Hirakawa (1995) may account for the fact that learners overpassivize unaccusatives even in internally caused events, albeit to a lesser extent than in externally caused events. It suggests that there are inherent problems lurking in English unaccusatives that cause difficulty in the acquisition of this class of intransitives. To sum up, two factors coalesce here: (a) Nonagent subjects have a marked status and (b) L2 learners tend to resist accepting sentences with nonagent subjects in active voice as grammatical. Thus, this study concludes that the nonagentive, typically patientlike nature of virtually all subjects of unaccusatives may ultimately be responsible for the overpassivization phenomenon.

Finally, if the overpassivization phenomenon is common to all learners of English as argued by both this study and the extant literature on the issue, one could ask if this overpassivization phenomenon is also L2 universal. If so, one would expect to observe the same phenomenon occurring in the reverse direction—namely, in the acquisition of Chinese unaccusatives by English speakers. As unaccusatives are used in both languages in the active form, the claim that the overpassivization phenomenon is L2 universal predicts that L2 learners of both Chinese and English would exhibit the tendency to either resist accepting unaccusatives as grammatical in the active or to overpassivize. Interestingly, Montrul (1997) reported that the transitivization of intransitive verbs is also observed among L2 learners of languages such as Turkish and Spanish, thus adding further support to an L2 universal hypothesis for this phenomenon.

CONCLUSION

The findings of this study show that L2 learners choose passivized unaccusative sentences as more grammatical in externally caused events than in internally caused events. This is taken as an indication that the overpassivization phenomenon in L2 acquisition results from the interplay of cognitive factors that underlie the process of creative construction attempted by L2 learners during the development of their interlanguage.

Results from this study also confirm that the problem of overpassivization does not lie entirely with the lexicosemantics of the verbs. Rather, the results indicate that cognitive factors play a key role in the acquisition of unaccusatives. Passives and unaccusatives share a resemblance in that they have pa-

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tient subjects and both express states or changes of state rather than actions. But the difference between them is that passives remain semantically transitive even after passivization. On the other hand, unaccusatives are semantically intransitive, although they can be pragmatically transitive when conceptualizable agents are available to fill in the subject slot in argument structure. Learners appear to be sensitive to this difference. Thus, they are more likely to passivize a verb with a nonagent subject whose affectedness is heightened by the presence of an agent or cause in the conceptualization of speech events.

This tendency to code the existence of agents may stem from the unmarked cognitive status of subject-agent and object-patient mapping relations. The fact that children acquire these mapping relations earlier constitutes evidence of their unmarked status as does the rejection of nonagent subjects by L2 learners from a variety of L1 backgrounds reported in earlier SLA research. The findings of this study of the overpassivization phenomenon provide additional evidence for the operation of this universal constraint in second language acquisition.

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NOTES

1. Hubbard (1994) suggested that, because passivized unaccusatives are agentless, they could be passive adjectives, as in *The house is located on 13th Street*. Oshita (1997), on the other hand, reported that no cases of overpassivization errors by L2 learners in his corpus (the 1993 Longman Learners Corpus) are used as statives because they are either accompanied by adverbials such as *often* and *suddenly* or lack stative meaning with or without context. To date, the structure in question has been widely considered to be passive. However, because no systematic study beyond Oshita's observation has found convincing evidence for the claim, this question remains open. Current research on the overpassivization phenomenon is familiar with this issue. As in this study, Hirakawa (1995) designed her experiment to ensure that ill-formed passives are read as passives, not as statives.

2. This selection of verbs is based on observations by Yip (1990, 1995) and Oshita (1997).

3. Zobl's evidence is not sufficient to rule out the possibility of transitivization of unaccusatives. Whether or not learners intransitivize transitives is not relevant in evaluating the hypothesis that learners transitivize intransitives. Additionally, Montrul (1998) reported that L2 Spanish learners make transitivity errors in both directions: transitivization of intransitives and intransitivization of transitives. Given more data, similar examples of L2 English errors of intransitivization of transitives may well be found.

4. I would like to add that what is pragmatically conceptualizable does not necessarily become part of the speaker's semantic representation. I am only claiming that the inferencing of agents is possible in the conceptualization of the events expressed by some unaccusatives.

5. One could also hypothesize that unaccusatives are treated as intransitive, not as transitive, and that external causation increases the possibility of causativization. However, given that learners not only accept ill-formed unaccusatives but also reject correct ones (Oshita, 1997; Yip, 1995), it is more likely that learners treat the verbs as transitives.

6. According to V. Yip (personal communication, March, 1998), there is little difference in the use of unaccusatives across different dialects of Chinese. Thus, subjects were not asked to specify their dialect.

7. Random sampling of verbs was not possible because some unaccusatives are more rarely used than others (e.g., *worsen* vs. *appear*) and thus may present learners with greater difficulty. Thus, approximately 90% of the unaccusatives identified by Yip (1990) and Oshita (1997) as frequently passivized incorrectly were chosen for this study.

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8. Appropriate statistical procedures were selected at a later stage in order to deal with these unequal numbers.

9. I am aware that there is no independent measure to ensure that the two contexts would be read in the way they were intended by this study. Indeed, the availability of a conceptualizable agent in discourse does not guarantee that the agent will always become part of the speaker's semantic representation of speech events. However, the wording of context sentences must have dramatically increased the likelihood that the target sentences would be interpreted as intended.

10. Two native speakers gave different answers on the following distracter sentence: *There are three CDs on the shelf. Only one of them (plays/is played) very frequently.* These two speakers chose the active sentence in contrast to the other native speakers, who all chose the passive sentence. It seems that the two speakers interpreted the sentence with the middle meaning of the verb *play* (e.g., *The book reads well*). This discrepancy in native judgments was disregarded in this study as judgments over distracter sentences were not included in the analysis.

11. However, I proceed cautiously on this claim as the number of verbs in the [–transitive] group was smaller than for the [+transitive] group. It is still possible (although unlikely, given the fact that fewer verbs exist in this category) that between-verb variation might be exhibited in a larger pool of [–transitive] verbs.

12. Once again, one could also hypothesize that unaccusatives are represented as intransitive. However, in light of the learners' tendency to reject the correct unaccusative uses (in active form), it is more convincing to postulate the deep structure of unaccusatives as transitive rather than intransitive.

13. My claim concerns only whether or not one can manipulate the degree of overpassivization. Clearly, there may be other cognitive factors besides inferred agent motivating learners to overpassivize unaccusatives.

14. Clearly, learners' responses are never totally unpredictable at a given moment. As the results of this study indicate, despite the general pattern of learners' responses, there were some whose responses deviated from the rest, as is often the case when responses depend on learners' perceptions.

15. As one reviewer pointed out, the finding that unaccusatives with transitive counterparts are not more readily transitivized than the ones without may in fact argue against the transitivization hypothesis. However, transitivization appears to be affected by the degree of causation involved in the speech event, and this heightened perception of causation can take place in both types of unaccusatives, regardless of whether they have transitive counterparts. Additionally, the distinction between the two types of unaccusatives is based on native speakers' representations, not on those of the learners, which may differ.

16. This may be the result of an unbalanced sampling of verbs (eight verbs with transitive counterparts and five verbs without).

17. Most of the learners were from Taiwan, in their first year of residency in the United States. They typically had several years of experience in the institutional study of English as an L2. Given that most of these learners come from backgrounds where memorizing large amounts of difficult vocabulary is a core part of language learning, it is highly likely that the frequency of native usage and learner usage may diverge.

REFERENCES

Balcom, P. (1997). Why is this happened? Passive morphology and unaccusativity. *Second Language Research*, *13*, 1–9.

Bowerman, M. (1983). *How do children avoid constructing an overly general grammar in the absence of feedback about what is not a sentence?* (Papers and Reports on Child Language Development, No. 22). Stanford University, Department of Linguistics, Stanford, CA.

Burzio, L. (1986). *Italian syntax: A government-binding approach*. Dordrecht: Reidel.

Croft, W. (1995). Modern syntactic typology. In M. Shibatani & T. Bynon (Eds.), *Approaches to language typology* (pp. 85–144). New York: Clarendon Press.

DeLancey, S. (1984). Notes on agentivity and causation. *Studies in Language*, *8*, 181–213.

Givón, T. (1976). Topic, pronoun, and grammatical agreement. In C. Li (Ed.), *Subject and topic* (pp. 149–188). New York: Academic Press.

Givón, T. (1983). Nonarbitrary coding in syntax. In J. Haiman (Ed.), *Iconicity in syntax: Typological studies in language* (Vol. 1, pp. 187–219). Amsterdam: Benjamins.

Hirakawa, M. (1995). L2 acquisition of English unaccusative constructions. In D. MacLaughlin & S.

https://doi.org/10.1017/S0272263100001042 Published online by Cambridge University Press

McEwen (Eds.), *Proceedings of the 19th Boston University Conference on Language Development* (pp. 291–302). Somerville, MA: Cascadilla Press.
Hubbard, P. L. (1994). Nontransformational theories of grammar: Implications for language teaching. In T. Odlin (Ed.), *Perspectives on pedagogical grammar* (pp. 49–71). New York: Cambridge University Press.
Ju, M. K. (1997, October). *Overpassivization errors of Korean second language learners of English*. Paper presented at the Second Language Research Forum, East Lansing, MI.
Kellerman, E. (1979). Transfer and nontransfer: Where we are now. *Studies in Second Language Acquisition*, *2*, 37–57.
Langacker, R. (1983). Observations and speculations on subjectivity. In J. Haiman (Ed.), *Iconicity in syntax: Typological studies in language* (Vol. 1, pp. 109–150). Amsterdam: Benjamins.
Levin, B., & Rappaport Hovav, M. (1995). *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge, MA: MIT Press.
Marantz, A. (1984). *On the nature of grammatical relations*. Cambridge, MA: MIT Press.
Montrul, S. (1997). *Transitivity alternations in second language acquisition: A crosslinguistic study of English, Spanish, and Turkish*. Unpublished doctoral dissertation, McGill University, Montreal, Quebec.
Montrul, S. (1998). Learning transitivity alternations in Spanish as a second language. In S. Montrul & R. Slabakova (Eds.), *Proceedings of the 1997 Generative Approaches to Second Language Acquisition Conference: McGill Working Papers in Linguistics* (Vol. 13, pp. 132–142). Montreal: McGill University Department of Linguistics.
Montrul, S. (1999). Causative errors with unaccusative verbs in L2 Spanish. *Second Language Research*, *15*, 191–219.
Oshita, H. (1997). *"The unaccusative trap": L2 acquisition of English intransitive verbs*. Unpublished doctoral dissertation, University of Southern California, Los Angeles.
Palmer, F. R. (1994). *Grammatical roles and relations*. New York: Cambridge University Press.
Perlmutter, D. (1978). *Impersonal passives and the unaccusative hypothesis* (BLS No. 4). University of California at Berkeley, Berkeley Linguistics Society.
Rosen, C. (1984). The interface between semantic roles and initial grammatical relations. In A. Zaenen (Ed.), *Subjects and other subjects* (pp. 38–77). Bloomington: Indiana University Linguistics Club.
Rutherford, W. (1987). *Second language grammar: Learning and teaching*. London: Longman.
Shibatani, M. (1985). Passives and related constructions: A prototype analysis. *Language*, *61*, 821–848.
Slobin, D. L. (Ed.). (1985). *The crosslinguistic study of language acquisition*. Hillsdale, NJ: Erlbaum.
Sorace, A. (1993). Complete vs. divergent representations of unaccusativity in nonnative grammars of Italian. *Second Language Research*, *9*, 22–47.
Tomlin, R. S. (1983). On the interaction of syntactic subject, thematic information, and agent in English. *Journal of Pragmatics*, *7*, 411–432.
Van Valin, R. D., Jr. (1990). Semantic parameters of split intransitivity. *Language*, *66*, 221–260.
Yip, V. (1990). Interlanguage ergative constructions and learnability. *CUHK Papers in Linguistics: Vol. 2* (pp. 45–68). Hong Kong, Chinese University.
Yip, V. (1995). *Interlanguage and learnability: From Chinese to English*. Amsterdam: Benjamins.
Zobl, H. (1989). Canonical structures and ergativity. In S. M. Gass & J. Schachter (Eds.), *Linguistic perspectives on second language acquisition* (pp. 203–221). New York: Cambridge University Press.

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APPENDIX

• Native language: _____

• Your responses will remain confidential and will be used for research purposes only.
• Do not write your name or SS# on any part of this questionnaire.

• Circle the verb form which you think is *more grammatical* as in:

(arrived/was arrived) or (arrived/was arrived)

---

1. My car was very old.
   The engine (died/was died) suddenly.
2. I have three CDs on my shelves.
   One of them (plays/is played) very frequently.
3. The rock became loose.
   It (rolled/was rolled) quickly down the hill.
4. There are three museums in the town.
   Only one of them (visits/is visited) frequently.
5. The fog cleared.
   The house (appeared/was appeared) slowly.
6. The magician did a trick with a coin.
   The coin (vanished/was vanished) instantly.
7. The wooden bridge was very old.
   It (broke/was broken) gradually.
8. Tom finished writing the book.
   It (published/was published) immediately.
9. He tied a heavy stone around the piece of wood and threw it into the water.
   It (sank/was sunk) slowly.
10. Tom was moving a desk.
    It (damaged/was damaged) during the move.
11. He made a hole at the bottom of the water bottle.
    The water level (decreased/was decreased) gradually.
12. The police were called in to remove a strange package.
    The package (disappeared/was disappeared) immediately.
13. Mary finished writing the letter.
    It (mailed/was mailed) today.
14. A ball fell from a bag.
    It (bounced/was bounced) up and down a few times.
15. I walked through the automatic door.
    The door (closed/was closed) immediately.
16. A driver offered the traveler a ride.
    The offer (accepted/was accepted) quickly.
17. I sprayed a strong pesticide on the tree.
    The leaves (turned/were turned) yellow gradually.
18. The magician did a trick to a jewelry box hidden in his hat.
    The box (emerged/was emerged) suddenly.
19. Tom had a party.
    Many people (invited/were invited) to the party.
20. I boiled the soup.
    The taste of the soup (changed/was changed) slowly.

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21. Fall was sunny and warm.
    The apples (dropped/were dropped) heavily to the ground.
22. I lowered the temperature of the refrigerator.
    The water (froze/was frozen) quickly.
23. The garbage collectors arrived.
    The garbage (collected/was collected) cleanly.
24. There were some fish left in the yard.
    The fish (dried/were dried) fast.
25. He injected a growth hormone into the tree.
    The tree (grew/was grown) tall quickly.
26. I bought two books.
    One of them (returned/was returned) the next day.
27. The weather became mild.
    The snow (melted/was melted) quickly.
28. The bag became dirty.
    It (washed/was washed) quickly.
29. Heavy trucks put more and more pressure on the bridge.
    It (broke/was broken) gradually.
30. A coin fell into the mud.
    The coin (vanished/was vanished) instantly.
31. My son wanted a book.
    It (bought/was bought) this morning.
32. The piece of wood floating in the lake became soaked with water.
    It (sank/was sunk) slowly.
33. I pushed the rock slightly.
    It (rolled/was rolled) quickly down the hill.
34. The mechanic fixed the car.
    It (drove/was driven) away immediately.
35. It didn't rain for a long time.
    The water level (decreased/was decreased) gradually.
36. I had planned to clean my room for a long time.
    It (cleaned/was cleaned) this morning.
37. A big truck crashed into my car.
    The engine (died/was died) suddenly.
38. The police were searching for a jewelry box thrown into the river.
    The box (emerged/was emerged) suddenly.
39. Mary bought some fish at the market.
    It (prepared/was prepared) soon after.
40. I hit the tennis ball.
    It (bounced/was bounced) up and down a few times.
41. Autumn arrived.
    The leaves (turned/were turned) yellow gradually.
42. The little boy tried to pull his toy house out of the sand.
    The house (appeared/was appeared) slowly.
43. The phone was out of order.
    It (fixed/was fixed) immediately.
44. I pushed the door.
    The door (closed/was closed) immediately.
45. The soup was not kept in the refrigerator.
    The taste of the soup (changed/was changed) slowly.
46. Mary bought an umbrella.
    It (used/was used) right away.
47. She knocked over the basket by accident.
    The apples (dropped/were dropped) heavily to the ground.

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48. Last night was very cold.
    The water (froze/was frozen) quickly.
49. New toys arrived in the toy store yesterday.
    Most of the toys (purchased/were purchased) immediately.
50. The fishermen used the heater.
    The fish (dried/were dried) fast.
51. The weather was mild.
    The tree (grew/was grown) tall quickly.
52. We made some food.
    It must (store/be stored) in the refrigerator.
53. I came closer to the heater.
    The snow (melted/was melted) quickly.
54. A car slid off the road and a package fell from the car into the lake.
    The package (disappeared/was disappeared) immediately.

• Thank you for completing this questionnaire.

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