

Crosslinguistic Effects in L2 Acquisition: Strong/Weak Resultatives and the Directional/Locational Interpretation of PPs in L2 English by Japanese Speakers

Atsuko Yotsuya, Masanao Asano, Sayaka Koyama, Kazunori Suzuki,
Mayumi Shibuya, Eri Iwagami, Kazuki Endo, Minami Ono,
Kazue Takeda, and Makiko Hirakawa
Bunkyo University

1. Introduction

We report on an experimental study that investigates L2 acquisition of English Strong/Weak Resultatives and the Directional/Locational interpretation of prepositional phrases (PPs) in English by Japanese speakers and discuss possible crosslinguistic effects in their L2 acquisition process.

Although the three sentences in (1) have the same NP-V-NP-AP sequence, the relations between the secondary predicate AP, and the argument it is predicated of, are different.

- (1) a. John left the room angry.
b. John ate the fish raw.
c. John painted the wall black.

The secondary predicates in (1a) and (1b) are referred to as depictive predicates. In (1a) the secondary predicate is associated with the subject, whereas it is connected with the object in (1b). Both of the secondary predicates in (1a) and (1b) depict the states of the associated argument at the time the action denoted by the primary predicate takes place. The secondary predicate in (1c), on the other hand, describes a certain state resulting from the action expressed by the verb. Such secondary predicates are referred to as resultative predicates, which we call resultatives in this paper.

Washio (1997) divides resultatives into two types: Weak and Strong Resultatives as shown in (2) and (3), respectively. He argues that the latter is not allowed in Japanese, unlike English. The verb *painted* in (2a) entails that the wall changes its color as a result of the action of painting. In contrast, the verb *hammered* in (3a) in itself does not imply that the metal would change its form or condition as a result of hammering. It just denotes an action of hammering.

- (2) a. John painted the wall red.
b. John-ga kabe-o akaku nut-ta.
John-NOM wall-ACC red paint-PAST

* We thank all the participants in our study. We are most grateful to Miku Ohira, who drew numerous pictures for our experiments, and Yuri Fujisaki for her help with statistical analyses. We would like to thank Akiyo Asano, Katsumi Hino, Richard Logan, Joyce Maeda, John Matthews, Neal Snape and Takeru Suzuki for their insightful comments and feedback at various stages of this project. Our thanks also go to the audience at the J-SLA summer seminar 2012 and SLRF 2012, where earlier versions of this paper were presented. This research was in part supported by a grant from the Ministry of Education, Culture, Sports, Science and Technology (No. 22320109) and by travel grants from Bunkyo University.

- (3) a. John hammered the metal flat.
 b. * John-ga kinzoku-o taira-ni tatai-ta.
 John-NOM kinzoku-ACC flat hammer-PAST
 c. John-ga kinzoku-o tatai-te taira-ni si-ta.
 John-NOM kinzoku-ACC hammer-INF flat make-PAST

The Japanese counterpart in (2b) is well-formed, but that in (3b) is not. To convey the intended meaning, the main verb *tatai*-ta ‘hammered’ needs to be replaced with a light verb *si*-ta ‘made’ and demoted to a subordinate/adjunct position as shown in (3c), which means that John made the metal flat by hammering.

As for Strong Resultatives, Suzuki (2012) attempts to capture their characteristics by comparing them to several path related constructions (intransitive manner-of-motion verbs followed by PathPPs, transitive directed motion verbs followed by PathPPs, the verb-(DP-)particle construction) from a crosslinguistic perspective. (4a) is an example of a path related construction, which has an intransitive manner-of-motion verb and a PathPP. It has two interpretations: Directional and Locational readings. The former states that the balloon was moving toward under the bridge (that is, the balloon moved from its original position and ended up being at the position under the bridge)¹ whereas the latter is that the balloon was staying on the surface of the river and that it was under the bridge.

- (4) a. The balloon floated under the bridge.
 b. Huusen-ga hasi-no sita de ui-ta.
 balloon-NOM bridge-GEN under at float-PAST

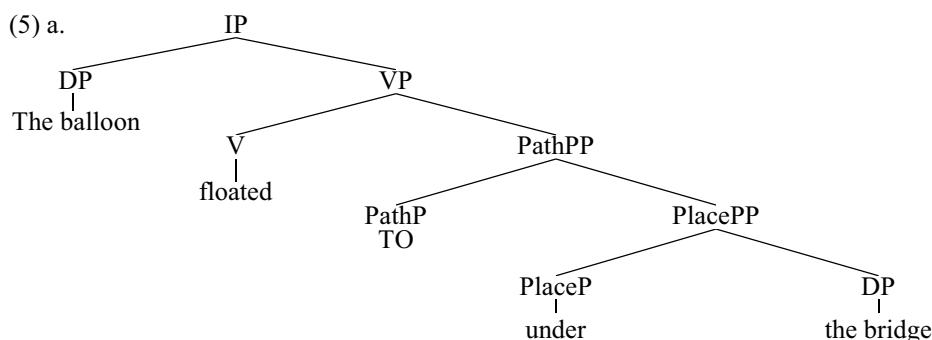
The presence of the Directional reading in English and its absence in Japanese is closely parallel to the presence of Strong Resultatives in English and its absence in Japanese. Upon this observation, Suzuki proposes to extend the concept of PathP to the structure for Strong Resultatives, deriving variations among languages from parametric differences of the nature of PathP and its syntactic licensing. In the next section, we review the discussion by Suzuki (2012).

2. Suzuki (2012)

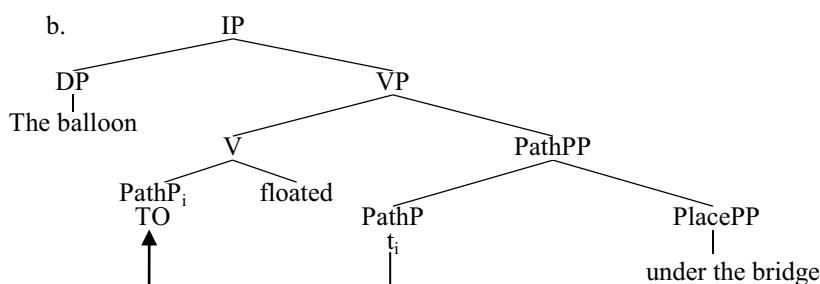
First, let us examine the sentence (4a). (4a) is ambiguous with Locational and Directional readings. Suzuki (2012) posits different structures for the two readings. The Locational reading is obtained when we have a manner-of-motion verb combined directly with a Place PP. In contrast, the Directional reading is derived from a structure in which a manner-of-motion verb is put together with a PathPP whose head takes a PlacePP as its complement, as in (5). Suzuki basically follows the analysis by Koopman (2010), who notes that the syntactic representation in which a functional head ‘Path’ is located on some projection of ‘Place’ corresponds to Jackendoff’s (1990) conceptual structure for Directional PPs. Notice that in (5a) an invisible head PathP, which is unpronounced, selects PlacePP *under the bridge*. Suzuki further assumes, adapting the analysis by Noonan (2010), that to meet the requirement for the covert element, this phonetically empty PathP needs to be incorporated into V, an overt category.² English has an option to move the PathP to V, as in (5b), and this PathP is syntactically licensed and the derivation converges. It represents the Directional reading of the PP *under the bridge*.

¹ One of the reviewers pointed out that there is a third reading available for (4a): the balloon goes all the way under and comes out the other side of the bridge. This is another instance of a ‘path’ reading, as the space under the bridge serves as a path for the moving object. The Japanese counterpart in (4b) lacks this reading, too. We will not go into the detail here but the existence of the third reading in English and its absence in Japanese seems to follow once we assume the parametric differences regarding PathP given below.

² Note here that Noonan (2010) does not propose ‘incorporation’ as a way to license covert elements. She suggests that ‘languages vary whether or not each of articulated P categories is pronounced,’ and stipulates that ‘an unpronounced category must be licensed in one of the following ways: (i) by being selected by a pronounced head, (ii) by moving to the specifier of a pronounced head, or (iii) by attracting a pronounced category to its specifier’ (Noonan, 2010, p. 162). The idea that covert elements are narrowly restricted in their distribution and require some syntactic/semantic licensing has been suggested in different forms from time to time and played an important role in the syntactic theory, e.g., the recoverability condition on deletion, and the ECP. Noonan (2010) cites Rizzi’s (1990) dual licensing requirement of covert categories (a phonetic (formal) licensing, and interpretive, indentificational licensing).



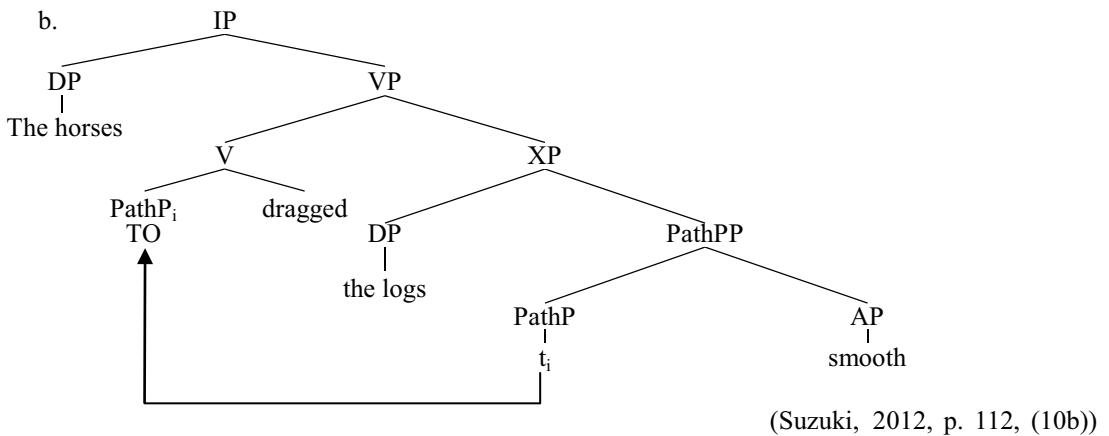
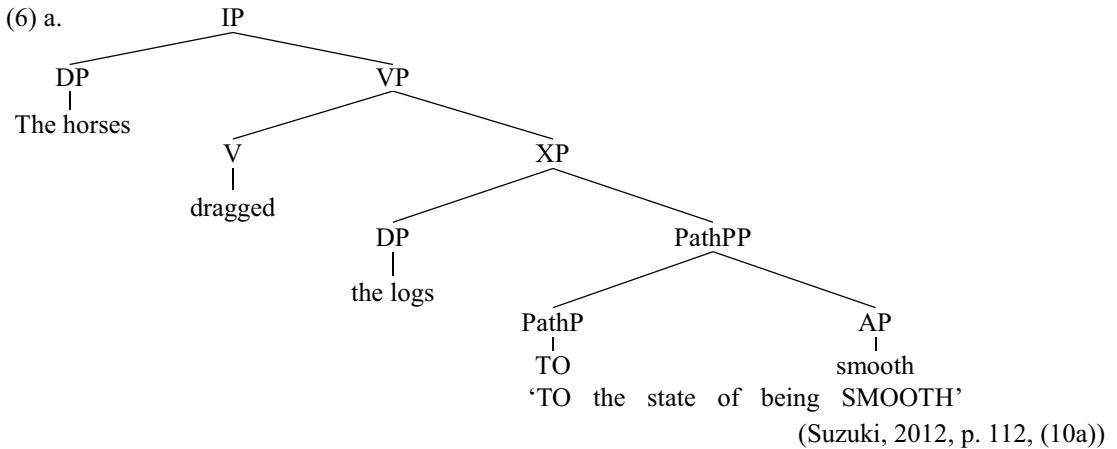
(Suzuki, 2012, p. 111, (9a))



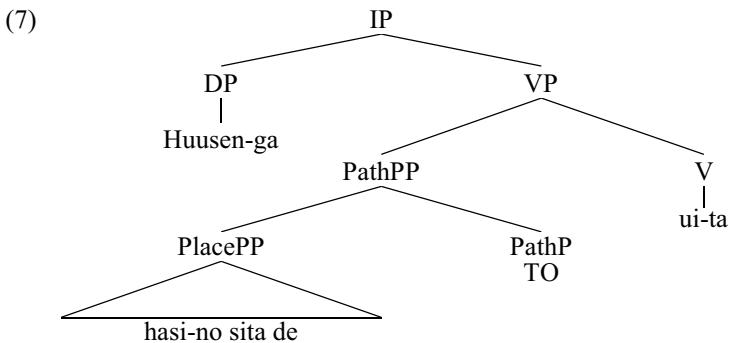
(Suzuki, 2012, p. 111, (9b))

Suzuki attempts to explain the differences between English and Japanese regarding Strong Resultatives by extending the PathP analysis and proposes that ‘Strong Resultatives syntactically contain a bounded PathP head that may select AP, as well as PlacePP, for a complement’ (Suzuki, 2012, p. 111). Suzuki assumes that (i) ‘the (phonetically) empty PathP is (syntactically) licensed by incorporating to the main V³, and (ii) ‘the PathP movement is available in Germanic but not in Romance and Japanese languages,’ following and extending Noonan (2010). Recall here that verbs involved in Strong Resultatives do not imply any change of state by themselves. A covert PathP contributes in introducing the change of state/result expressed by an AP, which corresponds to the abstract endpoint/location. (6) schematically shows how the incorporation of a PathP takes place. The PathP originates as a head of PathPP, selecting AP *smooth* in *the horses dragged the logs smooth* as shown in (6a). It is then raised to V, as shown in (6b). (6b) means that as a result of an action expressed by a main verb like *dragged*, the object *the logs* has undergone a change of state along the abstract ‘path’ and then ended up in the state of being smooth (Suzuki, 2012, p. 112), in the same way as the balloon changed its location along the covert path and ended up in the position under the bridge in (5b). In other words, the existence of PathP plays a crucial role, assuming that the structure that yields Directional readings parallels that of resultative secondary predicates.

³ We have slightly modified Suzuki’s (2012) original explanation ‘the empty PathP is licensed ...,’ to avoid potential misunderstanding.



The Japanese counterpart in contrast has the Locational interpretation only. If we assume the same syntactic process for Japanese, we would expect that in order for the sentence to have a Directional interpretation, *hasi-no sita de* 'under the bridge' would be headed by the covert PathP as shown in (7).



(Suzuki, 2012, p. 113, (11b))

Since Japanese lacks its movement to the overt category V for the reason of its parametric setting, as stipulated by Suzuki (2012), the PathP faces no choice but to remain in-situ. In order for the PathP to be licensed, it must be locally associated with a non-null verbal head, but it is not allowed in Japanese. This is the reason why there are no Directional readings in Japanese. In the same vein, Japanese lacks Strong Resultatives. In sum, Strong Resultatives contain a bounded PathP as a covert head selecting an AP or a PlacePP for its complement in English. Both Strong Resultatives and various path related constructions (with a covert PathP) are available in English. In contrast, the head with a similar

property cannot be licensed in Japanese, leading to the lack of Strong Resultatives and the Directional interpretation of PPs in path-related constructions.

For Weak Resultatives, which not only English but also Japanese exhibits as shown in (2), Suzuki (2012) points out that they do not contain a bounded PathP, but rather some syntactic category corresponding to the semantic operator BECOME in the conceptual structure, which is responsible for the ‘change of state’ meaning. Suzuki states that this distinction is supported by the fact that Strong Resultatives require bounded adjectives, which can delimit the event, while Weak Resultatives are free from this requirement. For example, *flat* in *John hammered the metal flat* is well-formed as a Strong Resultative but *beautiful* in **John hammered the metal beautiful* is not. The former has bounded properties but the latter does not. In contrast, *red* in *John painted the wall red* in (2a) is unbounded, but it is nonetheless grammatical.

Furthermore, Suzuki (2012) proposes crosslinguistic classification in terms of Strong versus Weak Resultatives on one hand and PathP versus PlaceP on the other, as shown in Table 1. English, a Germanic language, allows covert PathP to select PlacePP and AP, which can be regarded as languages with Strong/Weak Resultatives and with ambiguous interpretations for manner-of-motion verbs followed by PPs. In Japanese and Romance languages, covert PathP disallows PlacePP or AP, which can be regarded as those with Weak Resultatives and an unambiguous Locational interpretation for the relevant sequence. There are other types of languages such as Indonesian, Javanese, and Malayalam where PathP is allowed to select PlacePP but not AP. A fourth type of language that allows Strong Resultatives but not the Directional reading is not clearly attested. It should be noted that among the languages that permit the Directional reading for the relevant case, those that allow Strong Resultatives (Germanic) are fairly limited or more marked compared with those that do not (Indonesian/Javanese/Malayalam). Suzuki (2012) speculates that the crosslinguistic markedness relation in Table 1 is derived from the property of PathP which selects a PlacePP complement in unmarked cases and an AP complement only in marked cases.

Table 1

Crosslinguistic Differences (Strong vs. Weak Resultatives and Directional vs. Locational)

PathP selects	PlacePP	No PlacePP
AP	Germanic	---
	(Strong/Weak and Directional/Locational)	(Strong/Weak and Locational)
No AP	Indonesian/Javanese/Malayalam	Romance/Japanese
	(Weak and Directional/Locational)	(Weak and Locational)

Note. Based on Suzuki (2012, p. 115, (20))

3. Methodology

In the field of second language acquisition, there are experimental studies testing resultative constructions and manner-of-motion verbs separately. With respect to resultatives, it has been claimed that resultatives are regarded as a diagnostic for deep unaccusativity; i.e., resultatives are compatible with objects in their base-generated position (Kageyama, 1993; Levin & Rappaport Hovav, 1995). Hirakawa (2003) reported that Japanese-speaking learners of English observe deep unaccusativity in terms of the resultative construction, which suggests that they know resultative constructions are compatible with transitive objects and unaccusative subjects but not with transitive and unergative subjects. L1 effects are also reported in the study of Directional/Locational readings of English manner-of-motion verbs with Directional/Locational PPs. Inagaki (2002, 2006) investigated whether Japanese learners of English would observe the Directional and Locational readings and reported that they fail to recognize the Directional reading.

The combination of resultative constructions and the Directional interpretation of PPs has not been investigated in L2 acquisition, as far as we are aware. Thus, the present paper focuses on the two types of resultatives (i.e., Strong and Weak Resultatives) and two types of interpretations of a PP, following Suzuki (2012).

3.1. Research Questions and Predictions

Our research questions are: 1) whether or not L2 learners know that Strong and Weak Resultatives are allowed in English, 2) whether they know that manner-of-motion verbs have both Directional and Locational readings, and 3) whether they observe the parameter setting for English PathP. Assuming that L1 plays a role in L2 acquisition and that Japanese learners of English show L1 transfer effects due to the lack of PathP movement, we predict the following: (i) L2 learners will accept Weak Resultatives but not Strong Resultatives, (ii) they often fail to accept the Directional reading, and (iii) proficient L2 learners will observe the parameter setting for English PathP, selecting PlacePP and AP (Table 1, above) but less proficient learners will not.

3.2. Participants

81 Japanese learners of English and 10 English native speakers (NS) participated in our study. Table 2 gives the details about the L2 learners.

Table 2

Background Information of the L2 Learners

Group		Low (n=23)	Middle (n=35)	Advanced (n=23)
Mean score of Cloze Test	Points	17.95	24.31	30.22
	SD	2.36	0.80	1.83
	Range	13–20	23–25	28–35
Mean age	Years old	18.82	18.89	19.39
	SD	0.80	0.72	1.20
	Range	18–20	18–21	18–23
Mean age of exposure	Years	11.23	11.03	11.30
	SD	2.16	2.19	2.05
	Range	4–13	6–13	5–13
Mean length of study	Years	7.59	7.86	8.09
	SD	2.22	2.32	1.90
	Range	5–14	5–14	6–13

All the learners were first and second year students at a university in Japan. We divided the learners into three groups (Low, Middle, and Advanced), based on the scores of a cloze test we had administered prior to the experiment (cf. Montrul, 1997).

3.3. Tasks and Materials

We carried out two types of tasks: A truth-value judgment task (TVJT) and an acceptability judgment task (AJT). We will report the overall results first and then the individual results.

The TVJT was administered using Microsoft Power Point software. Each slide included two pictures in sequence, and one English sentence below the picture. There were four sentence types: Resultative (Object), Resultative (Subject), Directional, and Locational, as shown in Table 3.

Table 3
Test Materials (the TVJT)

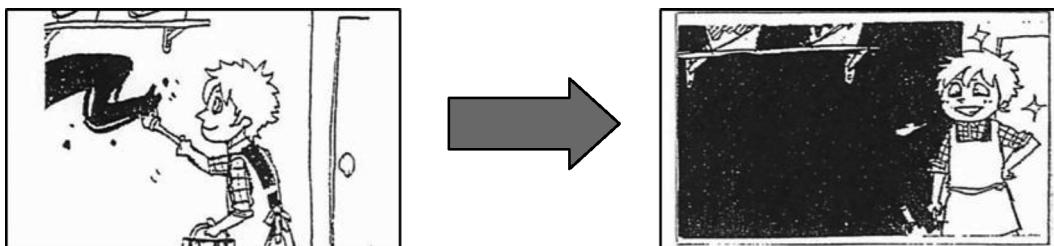
	Type	Sentence	Expected Answer	# of Items
A	Resultative (Object)	John painted <u>the wall</u> black.	T	3
B	Resultative (Subject)	<u>John</u> painted the wall black.	F	3
C	Directional	The bird flew above the tree.	T	5
D	Locational	The bird flew above the tree.	T	5

Type A involved transitive verbs with secondary predicates being predicated of the object NP (i.e., *the wall became black as a result of painting*), and Type B was designed to yield an interpretation where the secondary predicate is to be predicated of the subject NP of transitive verbs (i.e., *John became black as a result of painting*). Since secondary predicates never describe the change of state that the Agent has undergone, Type B was always unacceptable. Regarding Type C (Directional) and Type D (Locational), we used the same test sentences. They were compatible with both Directional and Locational readings. We examined whether the participants would allow both readings.

In this task, a set of two pictures was presented for each test item as shown in (8a). For example, firstly one picture (i.e., showing some action) appeared in the left of the slide for 2 sec(ond)s; then the arrow appeared in the middle for 2 secs; next the picture (i.e., showing the resultant state) was shown in the right for 2 secs; after 4 secs, only the first picture (the one on the left) disappeared. Then, an English sentence such as (8b) was presented, with an audio-file recorded by a male, native speaker of English. The participants were asked to judge whether the English sentence matches the situation described by the two pictures.

(8) An example of Type A

a.



b.

John painted the wall black.

The AJT was a written task, which was designed to examine whether L2 learners would accept Strong and Weak Resultative sentences. The participants were presented with a pair of sentences, i.e., a context and a test sentence including a resultative phrase, with a four-point Likert scale. For both of the Strong and Weak Resultatives, the same test sentence was presented in two different contexts, each of which led the resultative sentence in question to be natural or unnatural, as indicated in Table 4. The participants were asked to judge to what extent the underlined sentence was compatible with the context given, by circling one of the four numbers on the scale from 1 (quite unnatural) to 4 (quite natural). Each type had five test items. It should be noted that since both Strong and Weak Resultatives are allowed in English, unnatural test items were designed to be grammatically correct, but semantically odd in the given context.

Table 4
Examples of Sentence Types in the AJT

Contexts	Strong Resultatives	Weak Resultatives
Natural/ True	Jack decided to make a name plate. First ... <u>he hammered the metal flat.</u>	The window was dirty, so ... <u>John wiped the window clean.</u>
Unnatural/ False	Jack decided to make a wooden shelf. First ... <u>he hammered the metal flat.</u>	The window was broken, and ... <u>John wiped the window clean.</u>

4. Results

Figure 1 shows the mean acceptance rates of the resultative construction in the TVJT by group. As mentioned above (i.e., Table 3), the resultatives with transitive objects were grammatical whereas those with transitive subjects were ungrammatical. These test materials were designed to examine whether or not L2 learners know resultative constructions. All the groups responded as we had expected. They accepted the resultatives with transitive objects (grammatical) more than 70% whereas they rejected those with transitive subjects (ungrammatical). Acceptance rates on resultatives with transitive subjects were less than 24%. A repeated measures ANOVA showed a significant effect for Sentence Type ($F(1, 87) = 801.97, p < .0001$) and for Group ($F(3, 87) = 2.86, p = .0363$), but not for Interaction ($F(3, 87) = 0.69, p = .5598$). Post-hoc Turkey-Kramer tests revealed that there was a significant difference between the Advanced group and the Low group ($p = .0468$), suggesting that the Low group of learners were less accurate in their responses. Nevertheless, the learners as well as the native speakers all observed the transitive object vs. transitive subject contrast; that is, they knew that the resultative phrase modifies object and not subject.

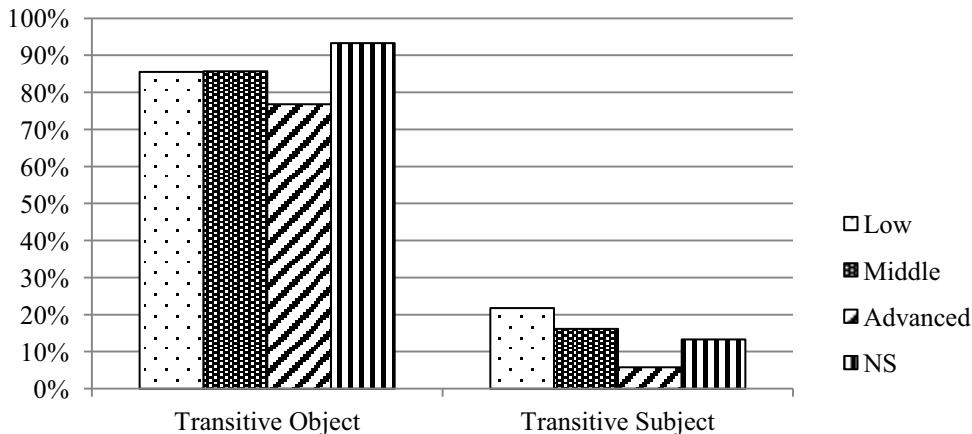


Figure 1. Acceptance rates of resultatives with transitive object vs. transitive subject.

Figure 2 shows the mean acceptance rates of Directional and Locational readings in the TVJT by group. These test materials were created to see whether L2 learners know that manner-of-motion verbs have both Directional and Locational readings. As shown in Table 1, English has both Directional and Locational readings, whereas Japanese has only one reading, i.e., a Locational reading. Based on these facts, we predicted that Japanese learners should fail to accept the Directional reading. Contrary to our expectations, all the learner groups generally accepted both Directional and Locational readings, which in fact differs from the results of previous studies reporting that Japanese learners failed to accept the Directional reading (Inagaki, 2002, 2006). A repeated measures ANOVA showed no significant

differences for Sentence Type ($F(3, 87) = 0.58, p = .4473$) and for Group ($F(1, 87) = 0.48, p = .6931$), but a significant difference for Interaction ($F(3, 87) = 5.07, p = .0017$). Interaction was due to unexpectedly lower acceptances of the Locational reading by the native speakers. Post-hoc Turkey-Kramer tests showed significant differences between the NS and Advanced group ($p = .0412$), the NS and Middle groups ($p = .0156$), and the NS and Low group ($p = .0418$) on the Directional reading.

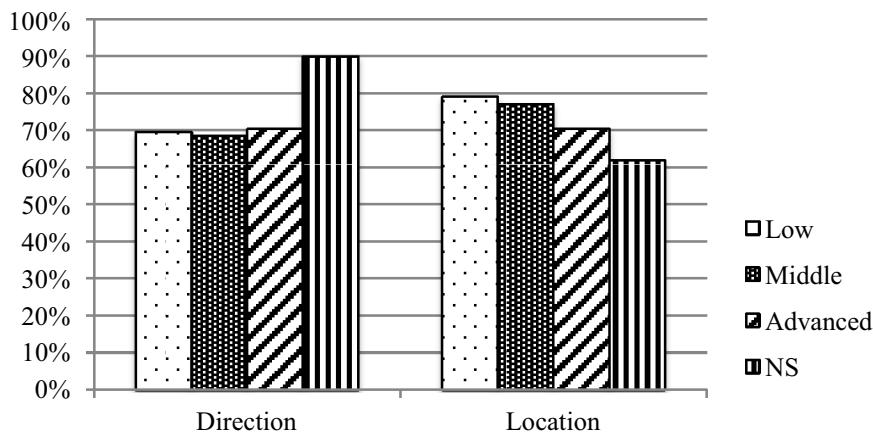


Figure 2. Acceptance rates of Directional vs. Locational.

Figure 3 shows mean scores of Strong and Weak Resultatives in the AJT. Recall that the AJT was to test whether or not L2 learners of English would allow Strong and Weak Resultatives. As shown in Table 1, English has both Strong and Weak Resultatives, while Japanese has only Weak Resultatives. Based on these facts, we predicted that Japanese learners would accept Weak Resultatives but not Strong Resultatives. Strong and Weak Resultatives were analyzed in the two contexts: True and False. Expected responses for the true contexts were 3 or 4 whereas those for the false contexts were 1 or 2. The former were referred to as true contexts and the latter as false contexts in Figure 3.

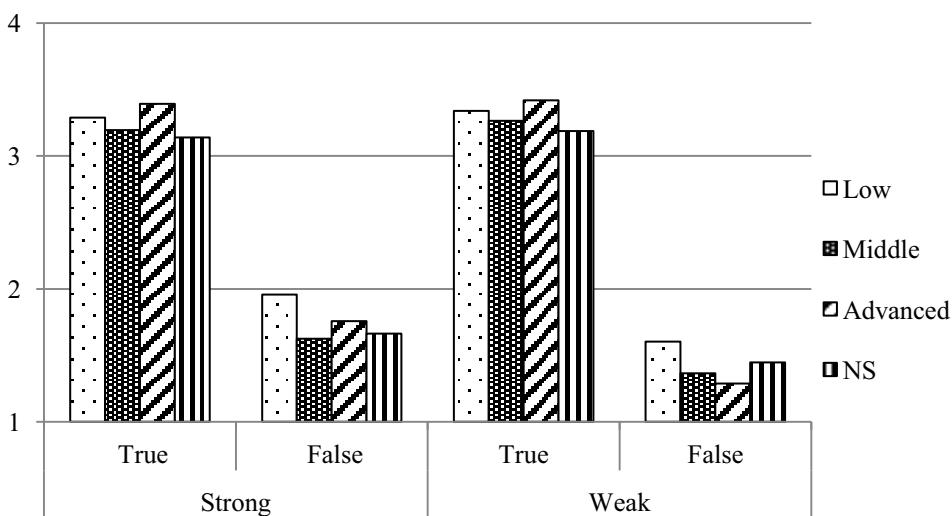


Figure 3. Mean scores of Strong vs. Weak Resultatives.

The mean scores of the Strong and Weak Resultatives in the true context from all four groups reached higher than 3, accepting the sentences, whereas those in the false context were less than 2,

correctly rejecting the sentences. A repeated measures ANOVA on Weak Resultatives showed a significant effect for Sentence Type ($F(1, 87) = 726.41, p < .0001$), but not for Group ($F(3, 87) = 1.22, p = .3011$) and for Interaction ($F(3, 87) = 1.78, p = .1489$). A repeated measures ANOVA on Strong type resultatives also showed a significant effect for Sentence Type ($F(1, 87) = 378.79, p < .0001$), but not for Group ($F(3, 87) = 2.37, p = .0695$) and for Interaction ($F(3, 87) = 0.829, p = .4798$). The learners' acceptance of Strong Resultatives in the true context was not expected, but in fact they all accepted Strong Resultatives which are not exhibited in Japanese.

We now turn to individual analyses in order to examine our prediction 3: Proficient learners will observe parameter resetting for English PathP but less proficient learners will not, due to L1 transfer. The performance of individual participants was analyzed, looking at overall consistency in their responses. We will discuss the results by the constructions: Strong vs. Weak Resultatives on the one hand, and Directional vs. Locational readings on the other. The consistency was determined as being accurate on four or more out of the five items on each sentence type, as shown in Table 5.

Table 5
Number of Participants Who Accepted More than Four or Five Items on Each Construction

Group	Strong/Weak	Directional/Locational
NS (n = 10)	7 (70.0%)	3 (30.0%)
Advanced (n = 23)	15 (65.2%)	5 (21.7%)
Middle (n = 35)	10 (28.6%)	13 (37.1%)
Low (n = 23)	10 (43.5%)	7 (30.4%)
Total [learners only] (n = 81)	35 (43.2%)	25 (30.8%)

The middle column shows the number of participants in each group who were accurate on both Strong and Weak Resultatives. The figures in the right column show the number of participants who accepted both Directional and Locational readings. In total, 35 learners consistently accepted Strong and Weak Resultatives and 25 learners did so on Directional and Locational readings. NSs' behavior was not what we had expected, which may indicate some problems with the design of the task. It is possible that we were only able to tap their preference but not their linguistic knowledge. Based on these results, we argue that L2 acquisition of Strong and Weak Resultatives is easier for Japanese learners than Directional and Locational readings.

We decided to focus on those participants who gave correct responses consistently on Strong/Weak Resultatives and then to look at those participants' behavior on the Directional and Locational readings. Table 6 gives these 35 L2 learners' and seven native speakers' responses to Directional and Locational readings.

Table 6
Number of Participants Who Consistently Accepted Directional and/or Locational Readings

Group	Directional	Locational	Both
NS (n = 7)	5 (71.4%)	0 (0.0%)	2 (28.6%)
Advanced (n = 15)	5 (33.3%)	5 (33.3%)	3 (20.0%)
Middle (n = 10)	1 (10.0%)	4 (40.0%)	5 (50.0%)
Low (n = 10)	1 (10.0%)	3 (30.0%)	5 (50.0%)
Total [learners only] (n = 35)	7 (16.7%)	12 (28.6%)	13 (31.1%)

Out of the 35 learners, 13 learners were consistent in accepting both Directional and Locational readings. We can say that these 13 learners were able to set the PathP parameter to the English setting, where the PathP selects PlaceP and AP as its complement.

5. Discussion and Conclusion

Overall results indicate that Japanese learners of English generally accepted both the Strong Resultative and the Directional readings. These results were in fact not expected and were contrary to our predictions (i) and (ii). Nevertheless, individual results further show that only 13 learners (31.1%) behaved consistently. The individual results appear to suggest that the acquisition of Strong Resultatives is easier for Japanese learners than that of the Directional reading of PPs. This looks contradictory to Suzuki's (2012) prediction that there should be a correlation between the two processes. Given the parametric analysis for PathP proposed by Suzuki, the acquisition of the Strong Resultative and the Directional reading should occur simultaneously.

Two possible scenarios to explain this problem are drawn from those results. Scenario 1 is that parameter-setting takes place in two steps. That is, PathP takes AP as its complement first and then it takes PlacePP. This scenario is not plausible, as the PathP taking PlacePP but not AP is attested crosslinguistically, but the one taking AP but not PlacePP is not attested. Scenario 2 is that the parameter re-setting takes place in one step, allowing Japanese learners to have recourse to covert PathP taking both AP and PlacePP. However, the morphological knowledge of the Japanese learners that the notion of PathP usually corresponds to overt prepositions like *to*, *into*, *onto* somehow prohibits the straightforward activation of invisible PathP for the Directional reading. This kind of blocking explains the delay of the acquisition of Directional readings, but it does not take place for AP, as English as well as Japanese lacks overt lexical items denoting an abstract change of state which are combined with APs. Furthermore, in interpreting Strong Resultatives, Japanese learners may utilize another strategy, re-analyzing primary predicates of Strong Resultatives as implying change of states in addition to denoting simple actions, just like primary predicates of Weak Resultatives. Thus, this strategy is likely to cause the acquisition of the Strong Resultative easily.

We have suggested that the acquisition of the positive value for the covert PathP parameter takes place in one step but the acquisition of Strong Resultatives may be easier than Directional readings because of the absence of some blocking effects. However, the behavior of English native speakers was not completely what we had expected, that is, they allowed Locational readings around 60% of the time. This may suggest the unnaturalness of our test items or the limited number of verbs included in our test.⁴ For future research, we may need to include less proficient learners of English to examine possible L1 transfer effects. We should also test learners of other L1 backgrounds such as Romance or Indonesian learners of English, in order to reveal the developmental course of the L2 acquisition of the PathP parameter.

References

- Hirakawa, Makiko (2003). *Unaccusativity in second language Japanese and English*. Tokyo: Hituzi Syobo.
- Inagaki, Shunji (2002). Japanese learners' acquisition of English manner-of-motion verbs with locational/directional PPs. *Second Language Research*, 18, 3–27.
- Inagaki, Shunji (2006). Manner-of-motion verbs with locational/directional PPs in L2 English and Japanese. In Roumyana Slabakova, Silvina Montrul, & Philippe Prévost (Eds.), *Inquiries in linguistic development* (pp. 41–64). Amsterdam: John Benjamins.
- Jackendoff, Ray (1990). *Semantic structures*. Cambridge, MA: MIT Press.
- Kageyama, Taro (1993). *Bunpoo to gokeisei* [Grammar and Word Formation]. Tokyo: Hituzi Syobo.
- Koopman, Hilda (2010). Prepositions, postpositions, circumpositions, and particles. In Guglielmo Cinque & Luigi Rizzi (Eds.), *Mapping of spatial PPs: The cartography of syntactic structures: Vol. 6* (pp. 26–73). Oxford: Oxford University Press.

⁴ Native speakers tended to reject Locational readings with the verb, *walk behind* and *walk in*. In fact, this tendency was also observed among the advanced learners. The Low and Middle groups showed the opposite tendency, that is, accepting the Locational reading only.

- Levin, Beth & Rappaport Hovav, Malka (1995). *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge, MA: MIT Press.
- Montrul, Silvina (1997). Transitivity alternations in second language acquisition: A crosslinguistic study of English, Spanish and Turkish (Doctoral dissertation). Retrieved from <http://digitool.library.mcgill.ca/>
- Noonan, Maire (2010). *À to Zu*. In Guglielmo, Cinque & Luigi, Rizzi (Eds.), *Mapping of spatial PPs: The cartography of syntactic structures: Vol. 6* (pp. 161–195). Oxford: The Oxford University Press.
- Rizzi, Luigi (1990). *Relativised minimality*. Cambridge, MA: MIT Press.
- Suzuki, Takeru (2012). Strong resultatives as a bounded PathPP construction: PathPP structure and parameterized path head movement. *Coyote Working Papers*, 20, 109–117.
- Washio, Ryuichi (1997). Resultatives, compositionality and language variation. *Journal of East Asian Linguistics*, 6, 1–49.

Selected Proceedings of the 2012 Second Language Research Forum: Building Bridges between Disciplines

edited by

Ryan T. Miller, Katherine I. Martin,
Chelsea M. Eddington, Ashlie Henery,
Nausica Marcos Miguel, Alison M. Tseng,
Alba Tuninetti, and Daniel Walter

Cascadilla Proceedings Project Somerville, MA 2014

Copyright information

Selected Proceedings of the 2012 Second Language Research Forum:
Building Bridges between Disciplines
© 2014 Cascadilla Proceedings Project, Somerville, MA. All rights reserved

ISBN 978-1-57473-464-5 library binding

A copyright notice for each paper is located at the bottom of the first page of the paper.
Reprints for course packs can be authorized by Cascadilla Proceedings Project.

Ordering information

Orders for the library binding edition are handled by Cascadilla Press.
To place an order, go to www.lingref.com or contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA
phone: 1-617-776-2370, fax: 1-617-776-2271, sales@cascadilla.com

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Yotsuya, Atsuko, Masanao Asano, Sayaka Koyama, Kazunori Suzuki, Mayumi Shibuya, Eri Iwagami, Kazuki Endo, Minami Ono, Kazue Takeda, and Makiko Hirakawa. 2014. Crosslinguistic Effects in L2 Acquisition: Strong/Weak Resultatives and the Directional/Locational Interpretation of PPs in L2 English by Japanese Speakers. In *Selected Proceedings of the 2012 Second Language Research Forum*, ed. Ryan T. Miller et al., 89-100. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #3088.