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ENGLISH IRREGULAR PAST TENSE VERB DATA FROM THREE KOREAN RETURNEE CHILDREN

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This study analyzes how three Korean children who returned to Korea from the U.S. use English irregular past tense verbs. When children from an English-speaking environment move to a non-English-speaking one, their exposure to English is expected to decrease. As a result, some attrition can be expected. Experimental (judgment and elicitation tasks) and naturalistic data from the children were collected for a year after their return. The results indicate that the children maintained their proficiency during their first year of return. Also, error analysis of naturalistic data shows that their error rates approximate those for native English-speaking children.

1. INTRODUCTION. Despite the short history of work on language attrition and the scarcity of related research, there is a growing interest in the phenomenon of non-pathological language loss. The journal *Bilingualism: Language and Cognition* devoted a recent issue (13[1]) in 2010 to L1 attrition, and the *International Journal of Bilingualism* also published a special issue (8[3]) on the subject in 2004.

The causes of language attrition can vary. For Korean children, it is most likely to occur when they return to Korea after spending a few years in a foreign country. In the last few decades, the number of Korean families visiting English-speaking countries for various reasons has increased. Consequently, children from such families receive several years of exposure to English. They start acquiring English in a natural setting, but when they return to Korea, there are fewer opportunities to use English, and a decline in proficiency becomes likely.

Several longitudinal studies document morpho-syntactic changes in young children's naturally acquired language when they move to an environment where that language is no longer dominant. Among others, Reetz-Kurashige (1999), Tomiyama (1999), and Yoshitomi (1999) collected English data for at least a year from several young Japanese returnees from the U.S. They report their subjects' English morpho-syntactic performance over time, including their use of irregular past tense verb forms.

Regular English verbs are inflected into past tense with the *-d* suffix. Some irregular verbs do not conform to this rule, though, and this leads children to make two types of errors: overregularization errors and mis-irregularization errors. Overregularization involves applying the regular past tense suffix *-d* to the bare form of irregular verbs, as in *breaked* and *comed* instead of *broke* and *came*. Marcus et al. 1992 report that overregularization errors occur in about 4.2 percent of all instances of irregular verb use. In contrast, mis-irregularization is the selection of the wrong irregular past tense form, resulting in deviant forms such as *brang* instead of *brought* for the past tense of *bring* (probably due to the analogy of *ring–rang*), or the deviant *wope* as the past tense of *wipe*. However, these types of errors are exceedingly rare. In fact, they represent only 0.2 percent of all instances of irregular use (Xu and Pinker 1995).

While the three aforementioned studies in a Japanese context provide an indicator of what can be expected from returnees' use of irregular past tense forms, none of them specifically analyzes the errors themselves. Reetz-Kurashige (1999) tested eighteen Japanese returnee children[1] on two types of storytelling tasks. However, only sixteen children took both types of tests: the other two children participated in only one of the tests. The study assessed the children individually at two or three different times over twelve to nineteen months. Based on her data, Reetz-Kurashige analyzed the returnees' usage of verb tense and aspect in terms of target-like usage (TLU).[2] The observed changes in TLU from one test session to the next indicate that seven participants from each storytelling task retained or performed better on English irregular past tense forms on the final test than on the first test. Six children from the first task and five children from the second task showed less than a 20 percent decline in TLU after twelve to nineteen months. The other four and five children from each task either showed more than a 20 percent decline in TLU or began with less than 60 percent TLU in the first test.

Yoshitomi 1999 also used TLU to measure the performance of four girls who had lived in the U.S. for 3;3 to 5;5 years. Two were nine-year-olds and two were eleven-year-olds. One from each age group had returned within the month previous to the initial data collection, while the other two had returned thirteen and fifteen months, respectively, before the initial data collection. The study was conducted for a year, and the children were tested four times. Yoshitomi designed five different tasks, but English irregular past tense data came only from "story description" and "free interaction" tasks. All participants maintained near 100 percent TLU in every "story description" task. Two of the girls also maintained 100 percent TLU across all the "free interaction" tasks. Of the remaining two, one girl showed improvement over the course of the study, ending up at 100 percent in the last session, after starting at 59 percent TLU. The other showed a slight decline from 100 percent in sessions one and two to 97 percent in session three and 86 percent in session four. Thus, no one showed a significant decline in irregular past tense TLU.

Tomiyama (1999) observed an eight-year-old boy named Ken who had lived in California for nearly seven years. Data collection began two months after Ken returned to Japan and continued to nineteen months. Ken's irregular past tense verb data are based on the Bilingual Syntax Measure (BSM), spontaneous data, and storytelling. His accuracy for the BSM was perfect at the second, ninth, and eleventh months, although he produced only three or four tokens in each session. However, his spontaneous and storytelling data showed signs of decline in correct usage. Spontaneous data show that Ken used the irregular past tense perfectly at the second month, but his accuracy fell to 89 percent at the thirteenth month and to 86 percent at the seventeenth month. Moreover, his storytelling data indicate a sharp decline to 69

[1] Participants' ages ranged from 6;5 to 13;7 (average 9;8) and their length of stay in the U.S. ranged from 1 to 5;4 (average 2;4). Although most of the returnees started participating in the study within three months of their return, six children began the study eight to nineteen months after return.

[2] Reetz-Kurashige applied TLU formula set forth in Pica's (1983) methods of morpheme quantification:

No. Correctly Supplied Morphemes/Forms in Obligatory Context
No. Obligatory Contexts + No. Supplied in Nonobligatory Context

percent at the nineteenth month after perfect accuracy at both the ninth and thirteenth months.

The three studies mentioned above all followed returnee children for at least a year and tested the children two or three times. Although Tomiyama (1999) tested her subject thirteen times, she reported results from only three sessions. Data from these three studies show that many children retain their English irregular past tense forms even in their second or third year after returning to Japan from the U.S.

My research focuses on change in usage of English irregular past tense forms among three Korean children who returned to Korea after living in the U.S. Compared to the existing literature on this topic, this study reports more frequent experiments conducted over more regular intervals. Also, a brief error analysis is provided.

2. METHODOLOGY

2.1 PARTICIPANTS. There were three participants, SS (11;10), TH (6;10), and TR (4;11), all of whom returned to Korea in the summer of 2008 after living in the U.S. for two years. SS had lived in East Lansing, Michigan and attended the fourth and fifth grades at a local school. Data collection began the day after he arrived in Korea, in July 2008. At that time, SS was bilingual in English and Korean, but reported that using English was more comfortable for him than using Korean was. However, by the end of the one-year experiment, SS felt that Korean was his dominant language. Nonetheless, when SS spoke English with the researcher, his English seemed to be fluent.

TH and TR are sisters who spoke only English when they returned to Korea in June 2008 after spending two years in Honolulu, Hawai‘i. Their first data collection session took place a week before they left Hawai‘i, and their next one occurred approximately a month later, in July, in Korea. At the beginning of data collection, they understood a little Korean, but neither was able to speak it. After a year in Korea, they reported that they were equally confident in both languages. All three children were investigated for a year as part of this longitudinal study of their potential English loss.

2.2 DATA COLLECTION. Once the participants returned to Korea from the U.S., they were tested regularly. TH and TR were consistently tested every two weeks, which resulted in twenty-two sets of data. However, SS was older than the other two participants and was busier with more schoolwork and extra-curricular activities. Therefore, the experimenter was able to collect only fifteen sets of data from him. The experiment schedule for the three children is provided in Appendix A. Two types of data were collected for this research: experimental and naturalistic.

2.2.1 EXPERIMENTAL DATA. In order to measure the children's abilities to produce and make judgments on irregular past tense verbs, both a judgment task and an elicitation task were conducted. Fifty-four irregular verbs were used for the two tasks (Appendix B). These particular verbs were chosen because they are the fifty-four most frequently used irregular verbs[3] in the English language, according to Kučera 1967. In

[3] Irregular past tense forms of grammatical auxiliaries *be*, *have, do*, and *get* were not included in the fifty-four verbs used for the experiments. In addition, *see* was not included, since the overregularized form, *seed*, can be mistaken for another English word, and *say* was not included because the overregularized form, *sayed*, might sounds similar

each experiment set, approximately forty-two irregular verbs were tested in the judgment task, while the other twelve were reserved for the elicitation task. Across the nine experimental sets, each verb was included seven times in the judgment task and twice in the elicitation task. Thus, the total number of irregular verbs used in each of the two tasks was not consistent throughout the experiment sets. The actual number of irregular verbs used for the elicitation task ranged from ten to fifteen in each experiment set, while between thirty-nine and forty-four were used in each judgment task. To prevent any possibility of the two tasks affecting each other, the elicitation task and judgment task were not conducted on the same day. TH and TR had at least three days in-between the tasks, while SS had at least a week. Descriptions of the procedures for the two tasks will be presented below.

After the nine sets were completed, which took each participant about five and half months, the same set of tests were used again in the exact same order.[4] Therefore, experiment sessions 1, 10, and 19 were conducted with the same sets, experiment sessions 2, 11, and 20 used the same sets, and so on. However, data from only twelve of twenty-two experiments from TH and TR were analyzed; only experiments 1, 2, 5, 6, 9, 10, 13, 14, 17, 18, 21, and 22. On the other hand, all data from SS were analyzed. Since SS was recorded for about one hour per session while TH and TR were recorded separately for about one hour and thirty minutes per session,[5] analyzing only some of TH's and TR's data enabled the researcher to deal with similar amounts of data (in terms of recording time) for all three participants (about fifteen hours for SS and eighteen hours for TH and TR, respectively).

2.2.1.1 JUDGMENT TASK.[6] In the judgment task, participants listened to a story that the experimenter created. They were told that the story was written by a beginning-level English learner who was practicing English composition. Therefore, from the beginning, children were aware that the story might contain errors. While listening to the story, participants were asked to stop the researcher at any time and correct anything that they thought was strange or erroneous. The participants were told that by doing so, they were helping the researcher revise the writing.

On average, one sentence in every three contained an erroneous overregularization of an irregular past tense verb. The other two sentences were filler sentences that either had an error of another kind or no error at all. Following is an example of a three-sentence paragraph that contains a sentence with a target irregular verb error, another sentence with a number error, and a grammatical sentence.

Example

Last night, Mickey ***sleeped*** late at night.

---

to the correct form, *said*.

[4] TH showed familiarity with some stories only in the judgment task when she heard them for the second and third time. However, she did not realize that the same stories were recycled for the elicitation task. The other participants, TR and SS, did not show any particular reaction to the prompts for either task when they heard them again.

[5] The two tasks were part of a larger project that includes seven other experiments. Therefore, the time was not entirely devoted to the children's English irregular past tense use.

[6] This is a revision of an experiment from Kuczaj 1978.

It was because he watched a very interesting movies.

The movie he watched was *Kung Fu Panda*.

In the first sentence, the overregularized form of the past tense of *sleep*, *sleeped*, is presented instead of the correct form, *slept*. The second sentence contains a filler error, a mismatch of number between the article *a* and the following plural noun, *movies*. And the last sentence, also a filler, is grammatical. Children seemed to enjoy this task, probably because it was a chance for them to show off their linguistic proficiency and background knowledge about the familiar characters appearing in the stories. Since each judgment task contained approximately forty-two target (i.e., irregular verb) errors, each story contained around 120 sentences (≈ 42 x 3).

2.2.1.2 ELICITATION TASK. In the elicitation task, participants listened to a short story that the experimenter created following the model used by Ullman et al. 2005. Usually, the story contained three or four short sentences. In the story, the target irregular verb was presented in its bare form. At the end of each story, the experimenter asked a short comprehension question aimed at eliciting an irregular past tense form of that verb. Following is an example of a test item.

Sample test item

Yesterday, John went to the beach to swim.

But before swimming, he decided to build a sand castle.

After the sand castle was done, he enjoyed swimming.

Q: What did John do at the beach yesterday before swimming?

Expected answer: John ***built*** a sand castle.

2.2.2 NATURALISTIC DATA. Naturalistic data consist of spontaneous speech data collected from the subjects while they were talking casually to the researcher or participating in other experiments not directly related to the irregular past tense. These other experiments were concurrently conducted as part of a larger project related to English relative clauses, passives, subject-verb agreement, and articles.

3. RESULTS. Throughout the experiments, none of the three children hesitated to speak in English with the researcher. When they used Korean, it was mostly for greetings or chatting before the experiments. Sometimes, TH and TR used Korean to show off their improvement in that language, since they had not been able to speak Korean at the beginning of this research. The collected data were transcribed and scored in terms of TLU used in the previous studies.

3.1 EXPERIMENTAL DATA

3.1.1 JUDGMENT TASK. Figure 1 shows SS's performance in all the judgment tasks. Even though experiments 10 to 15 were repeats of earlier experiments, there is sign of a slight decline in his ability to correct overregularization errors of English irregular verbs. For instance, while SS was able to correct thirty-six out of forty-four total errors in experiment 1, he only corrected twenty-four in experiment 10, which used

the same story. Similarly, SS corrected thirty errors in experiment 2, but only twenty-six when presented with the same story in experiment 11. Comparing experiments 3 and 12, 4 and 13, 5 and 14, and 6 and 15, which used the same stories, reveals that they all show a slight decline in TLU[7] (table 1).

FIGURE 1. SS's TLU in the judgment task[8]

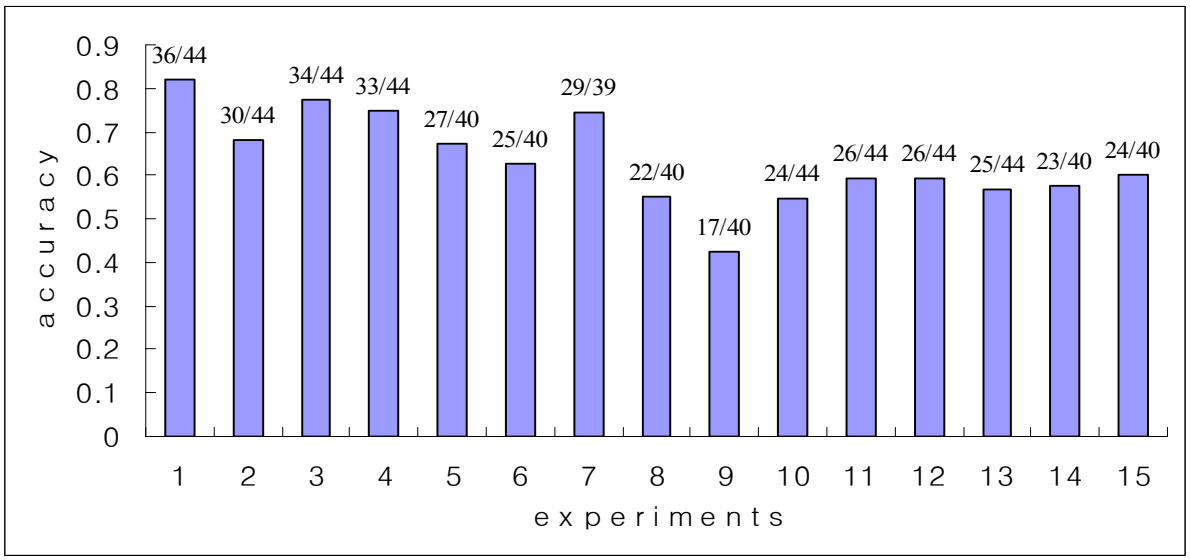


TABLE 1. SS's performance on judgment tasks that used the same stories

Exp.1	36/44	Exp.2	30/44	Exp.3	34/44	Exp.4	33/44	Exp.5	27/40	Exp.6	25/40
Exp.10	24/44	Exp.11	26/44	Exp.12	26/44	Exp.13	25/44	Exp.14	23/40	Exp.15	24/40

※ The experiments in each column made use of the same stories.

In contrast, TH's TLU does not indicate any loss of her ability to correct overregularization errors in the experiments. In fact, figure 2 shows that her highest TLU was achieved in the last experiment. In TH's case, only experiments 1 and 10, 5 and 14, 9 and 18, and 13 and 22 used the same stories, because only part of her data were analyzed. Except for experiments 9 and 18, where TH's corrections decreased from thirty to twenty-six out of forty total items, the other pairs of experiments all show some increase in her correction. She began by finding twenty-four out of forty-four errors in experiment 1, but improved to finding thirty-two when the same stories were repeated in experiment 10: she improved her score from twelve to twenty-four out of forty total errors in experiments 5 and 14, and increased from twenty-five to thirty-four out of forty-four in experiments 13 and 22 (table 2).

TR also completed all experiments, but her ability to correct overregularization errors was very limited. In fact, she corrected only one error in experiment 18 and two errors in the final experiment. In all

[7] Unfortunately, inferential statistics cannot be provided to show (in)significance of the numerical data concerning the decline.

[8] All the bar graphs in this paper have the number of correct use / total items (refer to the TLU formula) on top of each bar.

other experiments, she was unable to correct any errors at all. Although the judgment task was her favorite task because she liked listening to stories featuring characters she knew from watching American cartoons, she was not able to perform well.

However, TR performed better on the filler errors. Figure 3 shows that although she did not correct the filler items in earlier experiments, she was able to revise some errors in later experiments, especially in experiments 18 and 21, where she corrected more than half of the filler errors. This fact is in sharp contrast to her performance on irregular verbs. This suggests that her low performance on irregular verb correction was not due to external factors such as distraction or loss of concentration.

FIGURE 2. TH's TLU in the judgment task

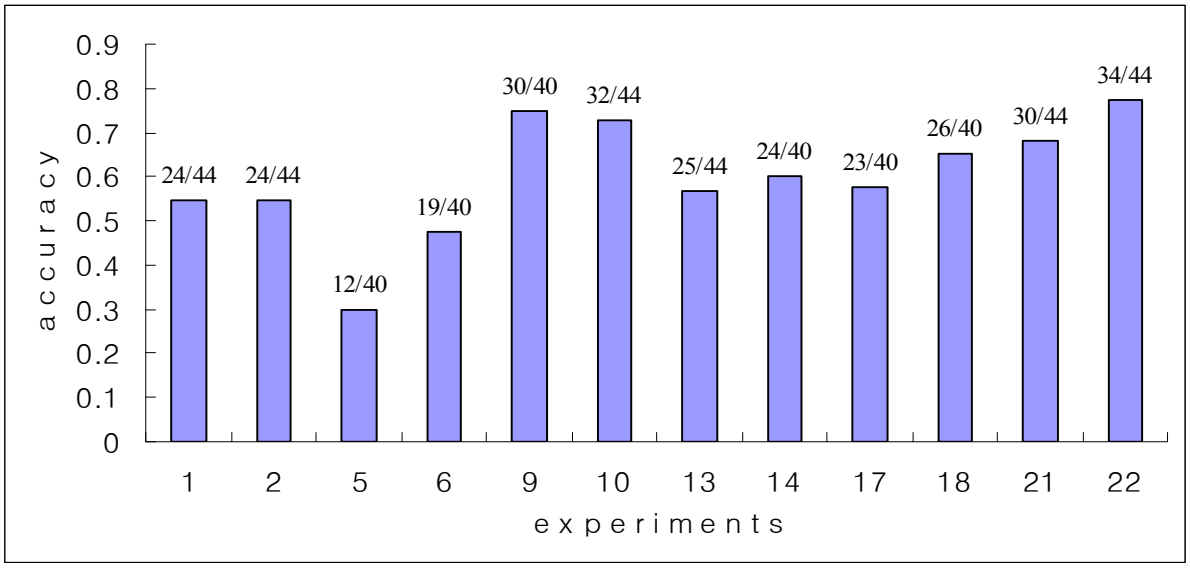
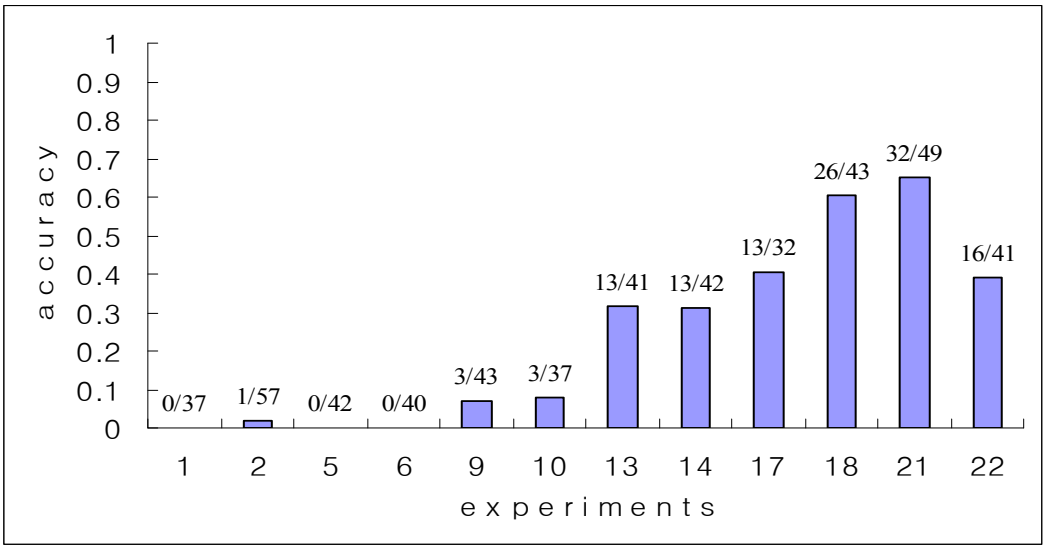


TABLE 2. TH's performance on judgment tasks that used the same stories

Exp.1	24/44	Exp.5	12/40	Exp.9	30/40	Exp.13	25/44
Exp.10	32/44	Exp.14	24/40	Exp.18	26/40	Exp.22	34/44

※ The experiments in each column made use of the same stories.

FIGURE 3. Proportion of TR's filler corrections in the judgment task



As for SS and TH, they corrected the grammatical errors in the filler items in proportions similar to those for the overregularized past tense errors. SS's correction rate for irregular verbs ranged from 42.5 percent to 81.8 percent (see figure 1), while his filler item correction rate ranged from 43 percent to 80.5 percent (figure 4). On the other hand, TH's filler item correction rate (44 percent–86.5 percent in figure 5) was higher than her irregular verb correction rate (30 percent–77.3 percent in figure 2). The ability of the two children to correct fillers tended to increase on the second round of experiments (tables 3 and 4).

FIGURE 4. Proportion of SS's filler corrections in the judgment task

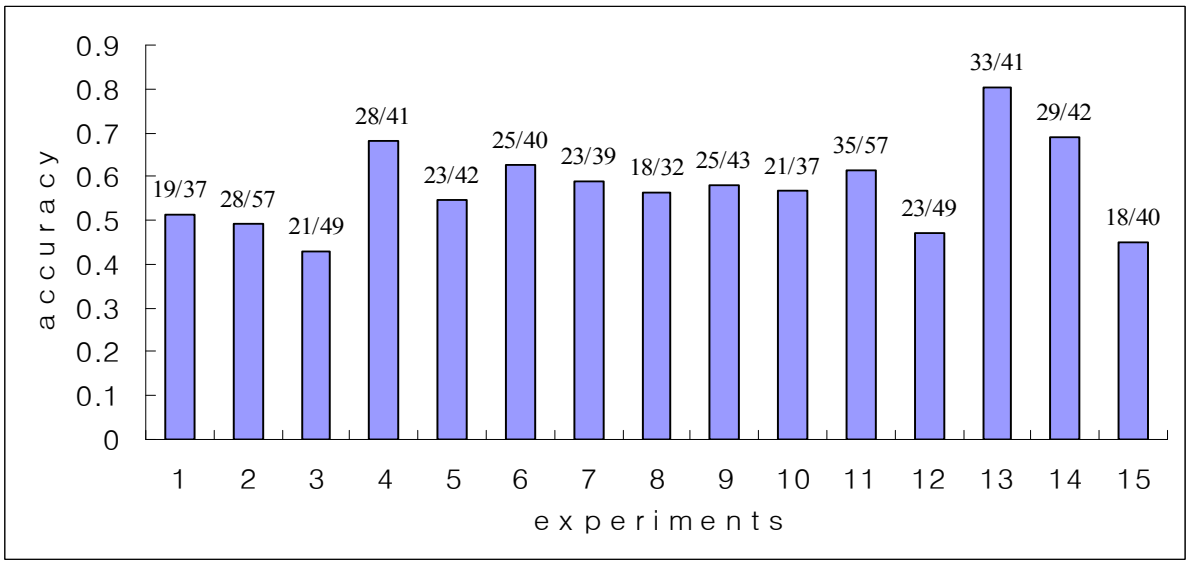


TABLE 3. SS's performance on fillers in judgment tasks that used the same stories

Exp.1	19/37	Exp.2	28/57	Exp.3	21/49	Exp.4	28/41	Exp.5	23/42	Exp.6	25/40
Exp.10	21/37	Exp.11	35/57	Exp.12	23/49	Exp.13	33/41	Exp.14	29/42	Exp.15	18/40

※ The experiments in each column made use of the same stories.

FIGURE 5. Proportion of TH's filler corrections in the judgment task

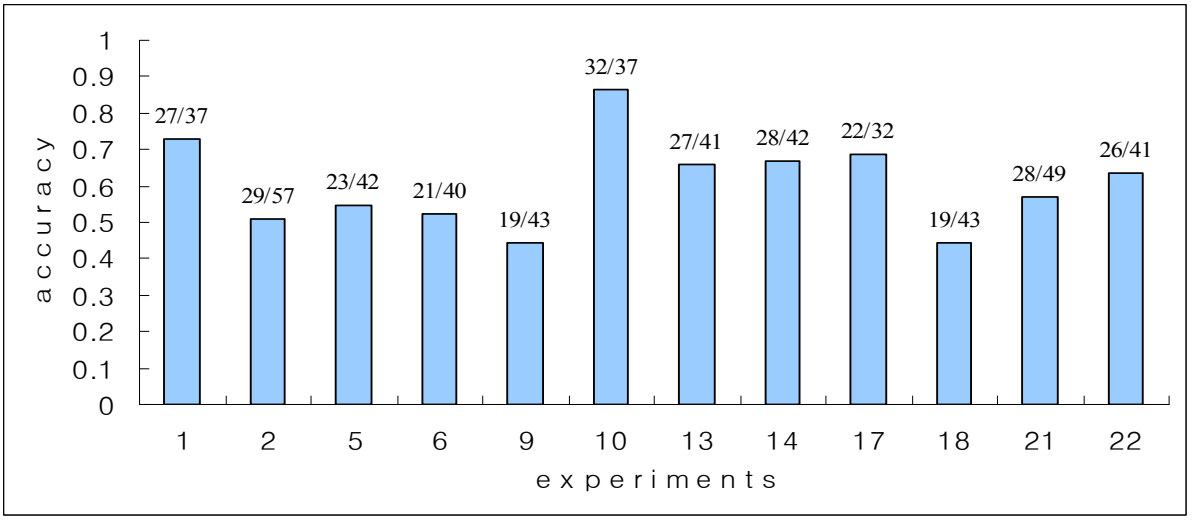


TABLE 4. TH's performance on fillers in judgment tasks that used the same stories

Exp.1	27/37	Exp.5	23/42	Exp.9	19/43	Exp.13	27/41
Exp.10	32/37	Exp.14	28/42	Exp.18	19/43	Exp.22	26/41

※ The experiments in each column made use of the same stories.

3.1.2 ELICITATION TASK. Overall, the results shown in figures 6, 7, and 8 indicate that there was hardly any decline in the participants' ability to produce English irregular past tense forms for the elicitation task. As with the judgment task, after the ninth experiment, the same tasks were reused in their original order. Figure 6 shows that, during the second round of experiments (sessions 9–15), SS was able at least to match his performance from the same tasks from the first round (sessions 1–6), except for experiment 10. It is possible that an extraneous factor was seriously disturbing his performance on that task, leading to an exceptionally low score. However, in experiments 11, 12, and 14, SS scored the same as in experiments 2, 3, and 5, which used the same test sets. Moreover, his scores for experiments 13 and 15 show a slight improvement compared to experiments 4 and 6 (table 5).

FIGURE 6. SS's TLU in the elicitation task

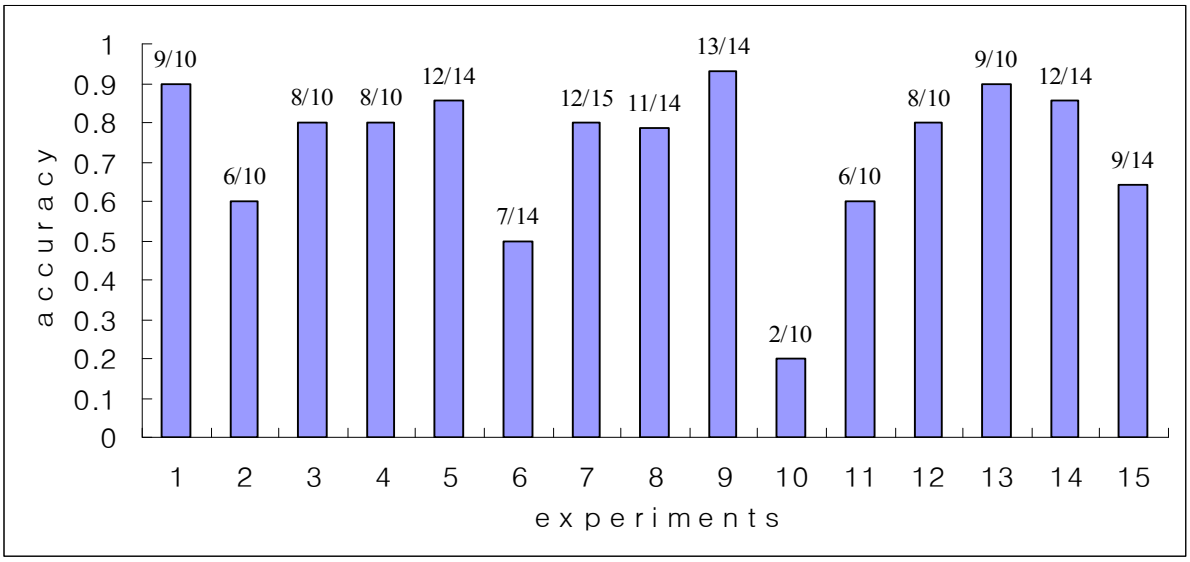


Table 5. SS's performance on elicitation tasks that used the same stories

Exp.1	9/10	Exp.2	6/10	Exp.3	8/10	Exp.4	8/10	Exp.5	12/14	Exp.6	7/14
Exp.10	2/10	Exp.11	6/10	Exp.12	8/10	Exp.13	9/10	Exp.14	12/14	Exp.15	9/14

※ The experiments in each column made use of the same stories.

Figure 7 shows that TH's TLU for the elicitation task did not decline over time. In fact, her overall scores improved over the year. Also, a comparison of experiments 1 and 10, 5 and 14, 9 and 18, and 13 and 22, which used the same test sets, reveals higher scores on the second round of experiments in general (table 6). Experiments 13 and 22 are exceptions, but the lower score in experiment 22 is still quite high at 90 percent.

Figure 8 shows TR's TLU for the elicitation task which, as in the judgment task, is generally lower than the scores of the other two subjects. Still, a comparison of scores from the same test sets shows that her ability to produce irregular past tense forms did not get worse. She performed better in experiments 10, 14, and 18 than on experiments 1, 5, and 9. And she received the same score for experiments 13 and 22 (table 7).

FIGURE 7. TH's TLU in the elicitation task

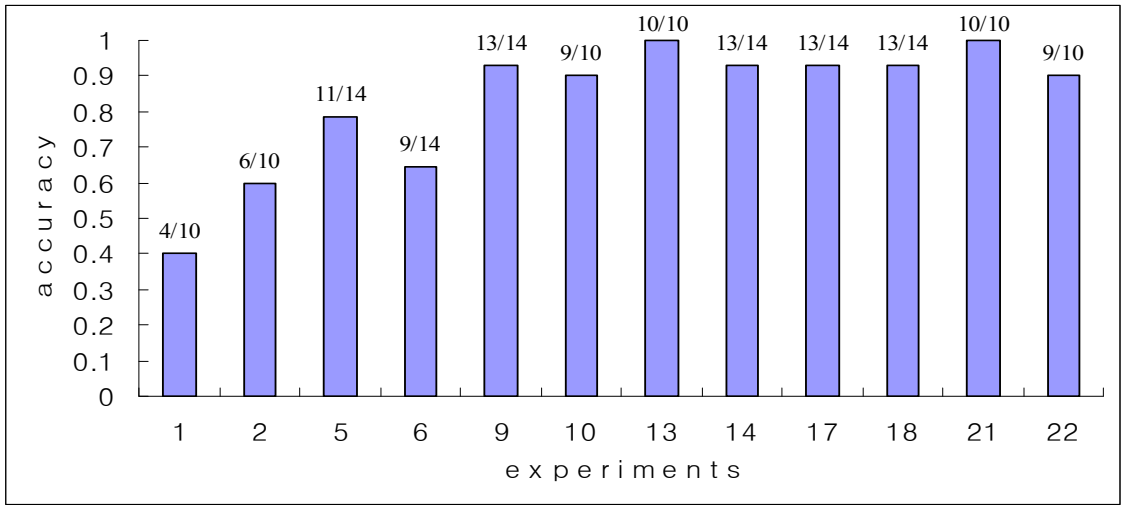


TABLE 6. TH's performance on elicitation tasks that used the same stories

Exp.1	4/10	Exp.5	11/14	Exp.9	13/14	Exp.13	10/10
Exp.10	9/10	Exp.14	13/14	Exp.18	13/14	Exp.22	9/10

※ The experiments in each column made use of the same stories.

FIGURE 8. TR's TLU in the elicitation task

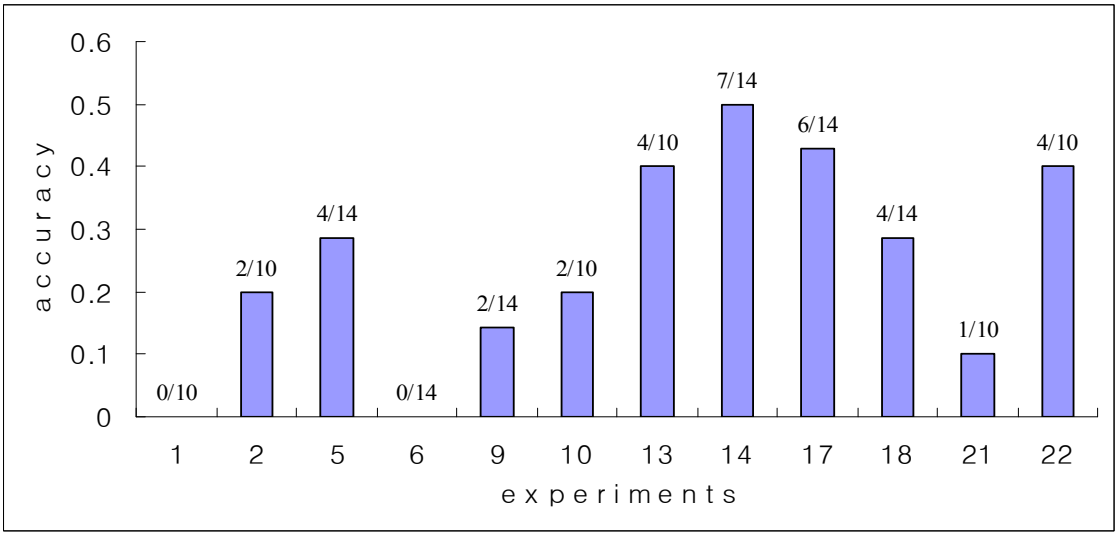


TABLE 7. TR's performance on elicitation tasks that used the same stories

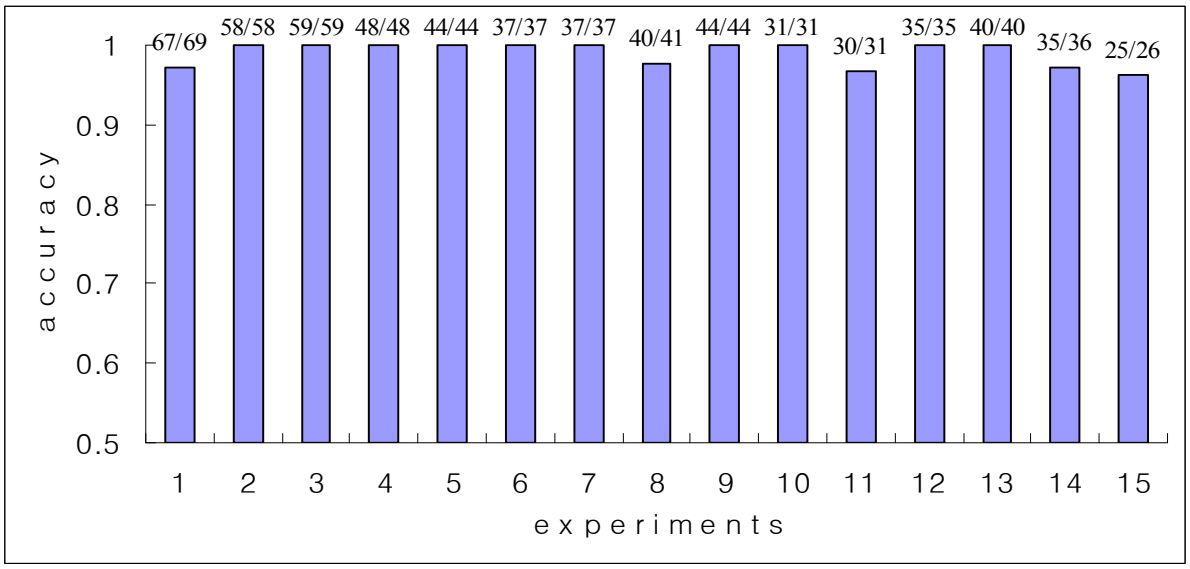
Exp.1	0/10	Exp.5	4/14	Exp.9	2/14	Exp.13	4/10
Exp.10	2/10	Exp.14	7/14	Exp.18	4/14	Exp.22	4/10

※ The experiments in each column made use of the same stories.

3.2 NATURALISTIC DATA. In general, experimental data did not reveal a decrease in the three children's abilities to use English irregular past tense forms. Analysis of their naturalistic data also supports these findings.

Figure 9 illustrates SS's TLU for the naturalistic data. He showed near perfect use of irregular past tense forms throughout the year. His lowest TLU, 96.8 percent, was recorded during experiment 11: additionally, he did not misuse the irregular past tense more than once in each experiment with the exception of experiment 1, in which he produced two errors.

FIGURE 9. SS's TLU from naturalistic data



TH's TLU from naturalistic data is illustrated in figure 10. It shows that she also rarely produced irregular past tense errors. Her lowest score was 97.6 percent in experiment 5, and she did not produce more than two errors in each experiment.

FIGURE 10. TH's TLU from naturalistic data

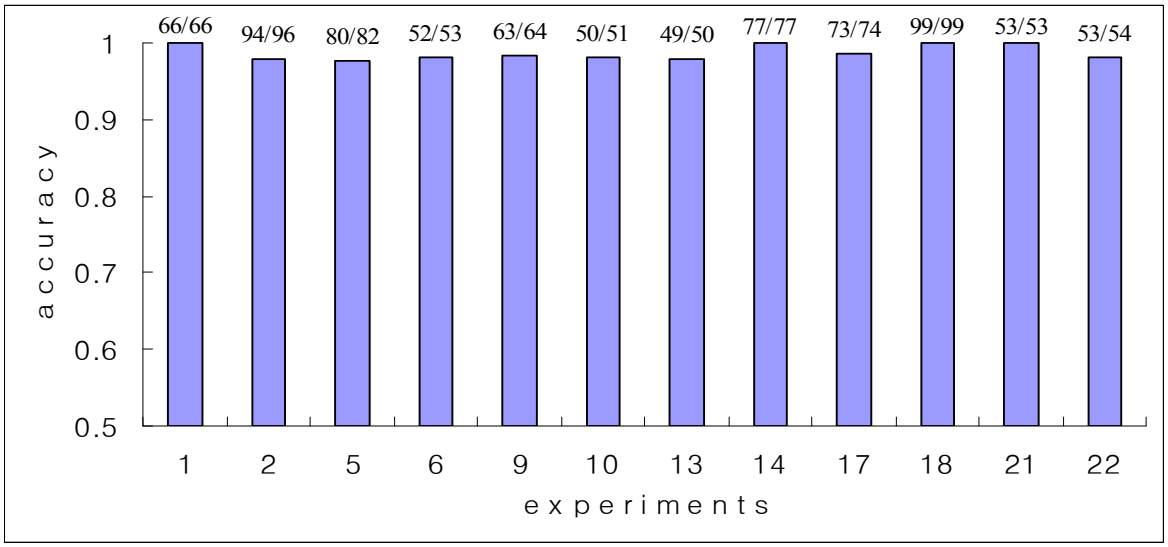
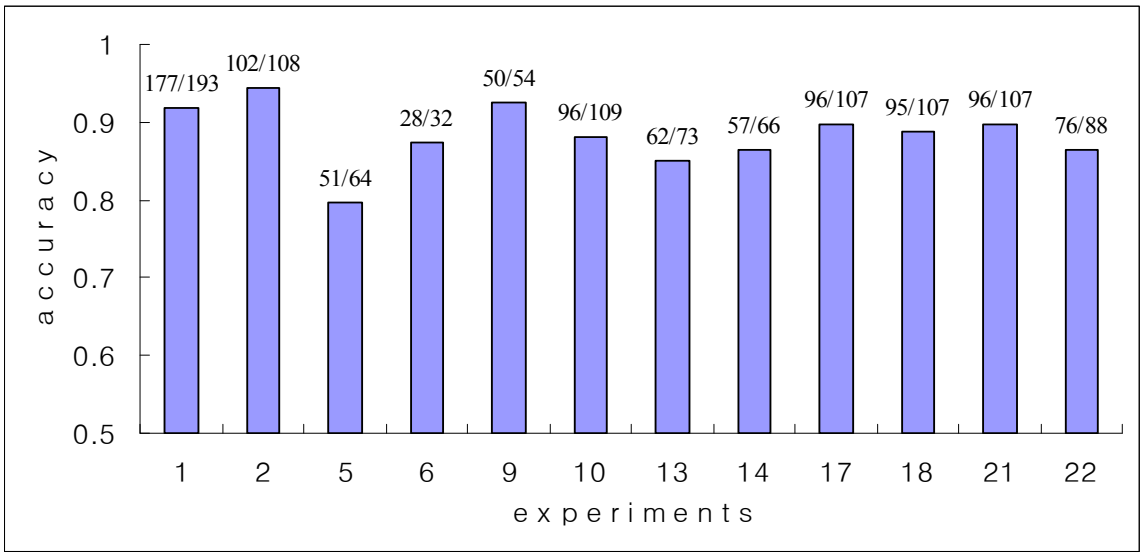


Figure 11 summarizes TR's TLU in the naturalistic data. Although her command of irregular verb usage is not as developed as that of the other two children, she maintained a high TLU throughout the year. Her lowest score is 79.7 percent in experiment 5, and the highest score is 94.4 percent in experiment 2. Although her scores toward the end of the data collection period fell below 90 percent, these are still higher than her lowest TLU, which occurred relatively early in the study in session 5.

Most of the irregular verbs that the three children produced were the same items used in the experiments. Out of forty-five verbs that SS produced in natural speech, thirty-one were included in the experimental verb list. For TH, thirty-nine verbs among the total fifty-nine that she produced were included in the experimental verb list, and thirty-six of TR's total fifty-four verbs were in the experimental list. All three children produced *was*, *were*, *had*, *did*, *got*, *said*, and *saw*, which were intentionally not included in the experiments (footnote 3). The lists of irregular verbs that are not included in the experiment list are provided in appendix B.

FIGURE 11. TR's TLU from naturalistic data



4. DISCUSSION. As can be seen in table 8, experimental data do not seem to be a good measure of the children's actual competence in irregular past tense verb usage, which Xu and Pinker also acknowledge (1995:544). For all participants, TLU was highest in the naturalistic data, followed by the elicitation data and the judgment data.

The experimental and naturalistic data (figures 1, 2, 6–11) from the three Korean children suggest that their facility with English irregular past tense forms was still retained a year after returning to Korea from the U.S. Although experimental data might not reflect children's competence as accurately as the naturalistic data do, these experiments provided a chance to test children with the same items at different times.

TABLE 8. Total usage of irregular past tense verbs (correct / error / TLU)

Subject	Experimental data		Naturalistic data
	Judgment	Elicitation	
SS	421 / 210 / 66.7%	122 / 47 / 68.2%	630 / 6 / 99%
TH	303 / 201 / 60%	120 / 24 / 83.3%	819 / 10 / 98.8%
TR	3 / 501 / 0.6%	36 / 108 / 20%	986 / 122 / 89%

Overall, experimental data from the three children show that their performance was either retained or even improved slightly during the year of the study. Although SS showed little sign of decline, and TR was not able to perform well on the judgment task, their elicitation data and naturalistic data prove that they maintained their ability to use irregular past tense forms. This result is not so surprising, considering the three similar studies on Japanese returnees summarized above, which also revealed that many Japanese children retained their competence.

4.1 ERROR ANALYSIS.[9] Possible errors are categorized into three classes: overregularization, mis-irregularization, and bare stems. When the default *-d* is suffixed to an irregular verb stem, an overregularization error occurs. Mis-irregularization errors include double tensing such as *broked* (*broke* + *-d*), and other misanalyses, as described earlier. If the verb is not tensed at all when the context requires past tense, the error is coded as bare stem.

TABLE 9. Three children's error rates in the experimental elicitation task

	SS	TH	TR
overregularization	7.3%	6.6%	31.3%
mis-irregularization	1.7%	2.3%	0%
bare stem	7.9%	1.2%	18.5%

In the elicitation task, overregularization and mis-irregularization errors for SS and TH made up approximately 7 percent and 2 percent of total usage, respectively. In contrast, overregularization errors accounted for 31 percent of TR's performance (table 9). The remaining erroneous productions comprised bare stems and situations in which the subjects did not produce the target verb at all.

However, error analysis of naturalistic data shows much lower error rates. SS overregularized only 0.8 percent of his total irregular past tense verbs in natural speech and never produced a mis-irregularization error. TH overregularized only 0.5 percent and mis-irregularized 0.6 percent of her past tense forms, while TR overregularized 5 percent and mis-irregularized 0.5 percent of her irregular past tenses (table 10). The total error rates of all three children are 3 percent for overregularization and 0.4 percent for mis-irregularization. This approximates the overregularization rate (4.2 percent) reported by Marcus et al. 1992 and the mis-irregularization rate (0.2 percent) in Xu and Pinker 1995 for native English-speaking children of similar ages.

TABLE 10. Three children's error rates in the naturalistic data

	SS	TH	TR
overregularization	0.79%	0.49%	4.9%
mis-irregularization	0%	0.61%	0.5%
bare stem	0.15%	0.12%	1.9%

5. CONCLUSION. In general, the data collected from the three Korean returnee children did not indicate a decline in their ability to use English irregular past tense forms properly. In fact, naturalistic data and error analysis indicate that the three Korean subjects did not deviate much from the performance of native English-speaking children. This is not surprising, considering that TH and TR could initially speak only

[9] There will be no error analysis for the judgment task, since the task involves correcting the already overregularized errors in the story.

English and that SS felt more comfortable with English than Korean at the beginning of data collection. My research, which is based on the expectation of potential English attrition after relocation to Korea from the U.S., thus failed to find significant signs of English loss in the use of irregular past tense forms. It is possible that repeating the same nine test sets might have influenced the outcome, especially in light of the fact that TH sometimes expressed familiarity with some stories used in the judgment task. However, she did not seem to recognize the same test sets for the elicitation task, and the other two children did not express familiarity with any of the repeated tasks. Moreover, all three children's naturalistic data illustrated their maintenance of English irregular past tense forms.

When children return to a non-English speaking environment from the U.S., their exposure to English is expected to decrease dramatically. As a result, attrition to some extent can be anticipated. However, it seems that children's proficiency is maintained at least for the first year, though other factors should be considered as well. In TH and TR's case, since they were still young and spent much time at home together, they usually interacted in English, ensuring that they maintained a consistently high frequency of use for that language. SS, who was attending middle school by the midpoint of data collection, studied English at school and went to a private English-language institution. Although SS did not have someone with whom to speak English at home, he was getting considerable English input as well.

An ideal research design would focus on returnees whose exposure to English is limited after returning to Korea, though such subjects are very hard to find. Still, devising better testing tools that reflect the returnees' competence in a naturalistic setting and observing the participants over a longer time period would shed light on how their linguistic proficiency changes.

APPENDIX A. Timeline of experiments (weeks after return)

Exp.	SS			Exp.	TH and TR	
	judgment	elicitation			judgment	elicitation
1	0	0		1	–1	–1
2	2	3		2	4	5
3	5	6		5	13	14
4	7	8		6	15	16
5	10	11		9	22	23
6	12	15		10	27	28
7	16	17		13	35	36
8	20	20		14	37	38
9	24	24		17	45	46
10	26	28		18	47	48
11	29	30		21	54	55
12	32	42		22	58	59
13	44	46				
14	51	54				
15	55	55				

APPENDIX B. Verb lists

Experimental verb list (54)

ate

became, began, bought, broke, brought, built

came, caught, cut

drank, drove

fell, felt, flew, fought, found

gave

heard, held

kept, knew

left

made, met

put

ran, rang, read, rode

sang, sat, sent, shot, shut, slept, sold, sought, spent, spoke, stood, swept, swung

taught, thought, threw, told, took

upset

went, woke, won, wore, wrote

Intentionally excluded from the experimental verb list (7)

did, get, had, said, saw, was, were

Other irregular verbs produced in naturalistic data not included above

SS (7): bit, forgot, hit, lost, rode, stole, *understanded

TH(13): chose, dove, dreamt, drew, forgot, grew, *hided, hit, hurt, led, lost, meant, swam

TR (11): *bited, *draw, fed, *feed, forgot, *growed, *hided, hit, hurt, lost, *swimmed

* marked verbs are produced in the incorrect form

(x) is the number of verbs

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