Retention of English by Japanese Returnee Children

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Abstract

海外において一定期間を過ごす学齢期の児童の現地語能力は、在留年数、渡航時及び帰国時の年齢、就学形態、本人の性格や適性、帰国後の言語接触量などによって幅があるが、総じてその保持・伸長は容易ではない。本研究では、海外生活を通じて英語を習得している小学生 6 名（3 組の兄弟姉妹）に対し、読解力査定を縦断的に行い、得られた発話データに基づき、語彙の多様性、統語的複雑さ、正確さについて、その特徴を記述した。その結果、兄弟ごとに言語的特徴及びその保持状況が類似していることが明らかとなった。これまでの研究においては、児童の言語保持・喪失に影響する要因として、年齢や滞在年数といった数値化が可能なものに焦点が置かれていたが、今後は児童を取り巻く家庭環境など社会的要因にも注意を向けていくべきである。

Key Words: L2 retention, Japanese returnee children, Sibling pairs, Age, Social factors

1. Introduction

Children who have lived abroad with their families for significant periods of time and have returned to their homelands, in this case, Japan, are called returnees (or *kikoku-shijo* in Japanese). These children's language retention or attrition has always been fascinating to linguists, especially in the field of bilingualism. Upon returning to Japan from overseas, it is well known that a lack of sufficient support for children with multi-cultural experience results in an overall loss of the language that children have acquired abroad (Fry, 2007). This paper presents a case study exploring second language retention for Japanese returnee bilingual children in a changing environment.

2. Literature Review

Several studies have examined returnee children's second language attrition after returning their native country. For example, Berman and Olshtain (1983) and Olshtain (1986, 1989) are a series of longitudinal studies examining the English retention of children who returned to Israel

where their first language (hereafter referred as to L1), Hebrew, is the main language spoken. A limited reversal of the acquisition process with younger children aged five to eight years was found. This suggests that younger children experience greater language attrition in the same period of time compared with older children aged eight to fourteen years. It is important to note that the participants' period of disuse of the second language (hereafter L2) was controlled for, and they were examined with oral and written tests immediately after return to their native country. For these reasons, it is a very rare and valuable sample indeed. However, it remains unclear whether the age factor truly has an influence on L2 retention because the younger children were reported to have not mastered reading or writing in English at any time during the investigations. Furthermore, other important variables such as the children's language background were not examined in detail, and no assessment was made to identify the English proficiency of participants, although every participant was reported to have native-like fluency in English.

Tomiyama (2009) investigated the relationship between L2 retention and age in the Japanese returnee context. This study examined two siblings aged ten and seven, whose L1 and L2 are Japanese and English. The study relied on their storytelling data obtained over a period of 31 months. Each sibling was asked to describe a story by looking at a book with pictures showing a clear storyline, without any written text. The results have indicated that age plays an important role in retaining grammatical skills, especially grammatical accuracy, and literacy skill was reported to be an important factor in terms of the maintenance of L2. Additionally, a number of advantages of investigating L2 attrition with siblings as participants were clearly mentioned in her study. For example, siblings have very similar language profiles, social backgrounds, and language environments. They also share a certain length of disuse of the language that Gardner (1982) refers to incubation periods, and the same family circumstances, which means that the major factor affecting differences in L2 retention is age.

Yoshitomi (1994; 1999) presents a qualitative case study of Japanese returnee children in the period of L2 disuse. Speech data were elicited from multiple tasks including free interaction, story-description, planned speech and listening comprehension, accomplished by four Japanese children aged nine and ten. The study aimed to examine the change of participants' linguistic skills in real-time communication at different stages of attrition. The main finding of this study was that the overall accuracy of the children's English use showed greater attrition as time elapsed compared with syntactic complexity and lexicon. It also revealed that social and individual factors such as motivation and the opportunity to use L2 were associated with L2 maintenance.

3. Research Questions

In investigating the phenomenon of child English retention in the returnee context, the

following research questions have been generated to guide the present study:
(1) As shown in previous findings (Berman and Olshtain, 1983), do younger children (six to seven years of age) suffer more attrition than older children (aged nine or older)?
(2) What can the linguistic features of the participant children's L2 reveal about factors affecting language retention and attrition?

4. Method

4.1 Selection Criteria

For screening Japanese returnee children, five criteria were adopted. The participants should be children who (1) currently receive primary education in the Japanese language at an elementary school, (2) use Japanese as their first language, (3) have both parents whose first language is Japanese, (4) returned to Japan after a prolonged (more than three years) sojourn abroad prior to the investigation, and (5) received primary education in English at a local elementary school abroad, or an international school in a mainstream class. Only those who satisfied all criteria above were recruited for the study. These criteria ensure that English is the participants' second language and not spoken as a main language on a regular basis – a situation that leads to severe attrition. This criterion excludes children attending a full-time school whose educational language is English, such as international school. Criterion 1 was taken into consideration because previous studies indicate that significant language loss is exhibited in young children (Hansen, 1999; Olshtain, 1986, 1987, 1989; Yoshitomi, 1994; Yukawa, 1998) and the investigation requires relatively young children to see the age factor affecting L2 retention.

4.2 Participant Children

Six young returnee children (three pairs of siblings, two female pairs and one male pair, aged seven to eleven who had lived overseas were recruited as participants in the present study. Prior to the study, they were removed from their native linguistic environment, required to learn a new language (English), and returned to Japan at a relatively early age. The younger siblings, who belong to an age group reported to be more vulnerable to language loss, were exposed to English during the ages of 1;8 (years and months of age) to 6;8, birth to 7;0, and 4;9 to 7;9 respectively. On the other hand, the ages of the older siblings, in an age group reported to be less vulnerable to attrition, were 4;4 to 9;4, 1;3 to 9;6, and 7;3 to 10;3 when they used English regularly.

4.3 Baseline Data

To assess the children's English proficiency level at the onset of L2 retention or attrition, student report cards were examined.

Table 1: List of Participant Children in the Study

Participants		Gender	Age	Transferred age	Returned age	Foreign residence	Place of residence
SP1-Oldr	Jim	male	11;8	7;3	10;3	3;0	US
SP1-Yngr	Tom	male	9;1	4;9	7;9	3;0	US
SP2-Oldr	Eri	female	9;11	4;4	9;4	5;0	Dubai
SP2-Yngr	Saya	female	7;3	1;8	6;8	5;0	Dubai
SP3-Oldr	Meg	female	11;0	1;3	9;6	8;3	US
SP3-Yngr	Rico	female	8;6	birth	7;0	7;0	US

These cards were written by the children's teachers overseas, describing the details and extent of literacy attainment at the end of their last school year. Using this baseline data, I was able to identify literacy skills attained by the participants just before returning to Japan. Alongside their school reports, test results were also examined: 2006 results for the Minnesota Test of Emerging Academic English[1)] (TEAE) and the Minnesota Student Oral Language Observation Matrix[2)] (MN-SOLOM) for the first sibling pair (SP1), and Optional Scholastic Aptitude Test (SAT) papers in Year Four for Eri (SP2-Oldr). Although limited space does not allow for a detailed description of all the information about their baseline data, it is fair to say that every participating child had attained grade-equivalent levels or above in terms of literacy skills and oral proficiency in English.

4.4 Data Elicitation Tool

The main tool employed in this research was the Developmental Reading Assessment, Kindergarten through Grade Three, Second Edition (DRA). DRA is a set of individually administered criterion-referenced and standardized reading assessments for children attending Kindergarten through Grade Eight (Beaver, 2001). The reading assessment was carried out between January and July 2009. The reading sessions were conducted by the researcher, a Japanese/English bilingual, at three- to four-week intervals for six months each. During the assessment, children were urged to select a text that seemed "just right" from range of leveled texts, preview the book or make predictions, read aloud, retell the story, and respond to relevant questions. The entire process of the assessment was done individually with each child and took from ten to forty minutes depending on the level of the selected text.

4.5 Data Analysis

Using the speech data obtained in each session, scores were subjected to quantitative analyses. To explore the linguistic features of the returnee children, three aspects of language use were examined:

1) Lexical diversity: Guiraud's Index of Lexical Richness (Types/ $\sqrt{}$ Tokens)
2) Syntactic complexity: clauses per AS-unit – to be explained shortly (C/A)
3) Syntactic accuracy: error-free AS-unit per total number of AS-units (EFA/A)

As shown above, linguistic features of each speech data set were measured by calculating three elements. Lexical diversity was determined by Guiraud's Index, also called Root TTR, in which the total number of word types are divided by the square root of the total number of word tokens. Vermeer (2000) demonstrated the validity of this measurement, finding that among the multiple measures he applied, Guiraud's index of lexical richness showed the highest correlations with a vocabulary test for L2 learners. Unlike the simple type-token ration (TTR) which is sensitive to text length (Vermeer 2000, 2004), Guiraud's index included the square root to eliminate differences in text length and accommodate the effect of story length. In particular, Guiraud's Index controls for the risk that the rate at which new word types are introduced in a text decreases as the sample size of the text increases. Syntactic complexity was computed by dividing the total number of clauses by the total number of the AS-units, the analysis of speech unit derived in Foster et al. (2000). According to Foster et al. (ibid.), an AS-unit is defined as a single speaker's utterance consisting of an independent clause or sub-clausal unit, together with any subordinate clause(s) associated with either.

5.Results

5.1 Lexical Diversity

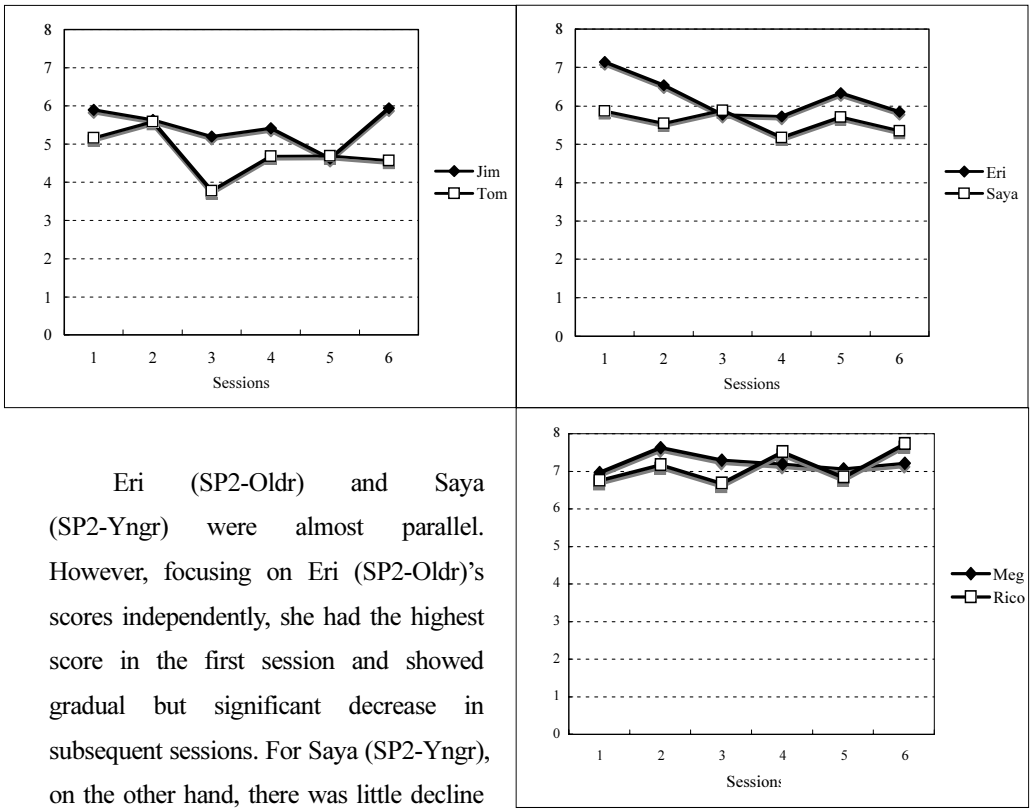
There is a general tendency for children who have experienced a very short period of contact with L2 to retain vocabulary skills (Cohen, 1989). In other words, their knowledge of vocabulary in terms of both types and tokens is not resistant to loss. The results suggest that SP1 experienced a tendency of regression, with Jim (SP1-Oldr) showing a gradual decline except in the last session. Meg and Rico from SP3 made progress in the final session compared to the first one; Guiraud's index marks them as the most advanced learners overall. In terms of the lexical diversity of Jim and Tom from SP1, different patterns can be observed between the two. Looking at Figure 1, which illustrates the changes in their Giraud's index, Jim (SP1-Oldr) showed a slight decrease, but an exception to this was the final session. Interestingly, Jim (SP1-Oldr) improved to the extent that he was marked above all his previous figures in the final session. Tom (SP1-Yngr) also showed recovery in the later sessions after achieving the minimum score in the third session,

however he ultimately achieved a lower score than in the first session. Considering their improvement and decline from the previous sessions, lexical diversity was not stable for either of them.

Table 2: Guiraud's Index over Participants and Sessions

		#1	#2	#3	#4	#5	#6
SP1	Jim (Oldr)	5.893	5.624	5.192	5.415	4.625	5.938
	Tom (Yngr)	5.160	5.582	3.771	4.681	4.685	4.569
SP2	Eri (Oldr)	7.142	6.537	5.774	5.727	6.329	5.852
	Saya (Yngr)	5.866	5.547	5.886	5.174	5.714	5.350
SP3	Meg (Oldr)	6.956	7.611	7.281	7.176	7.046	7.201
	Rico (Yngr)	6.733	7.150	6.660	7.501	6.825	7.714

Figure 1: Lexical Diversity of Participants



Eri (SP2-Oldr) and Saya (SP2-Yngr) were almost parallel. However, focusing on Eri (SP2-Oldr)'s scores independently, she had the highest score in the first session and showed gradual but significant decrease in subsequent sessions. For Saya (SP2-Yngr), on the other hand, there was little decline

and she exceeded her older sister's score in the third session. Later, the wide gap between the two, which was present during the first and second sessions became much smaller.

From Figure 1, it is apparent that Meg and Rico from SP3 did not show any decreased accessibility of their vocabulary items. Although both of them have slight fluctuations – rising and falling changes in numbers from the previous sessions – their scores never dropped significantly, and Rico (SP3-Yngr) obtained a higher score than her older sister at the fourth and final sessions. This can be the evidence of her progressing retrieval of lexical skills.

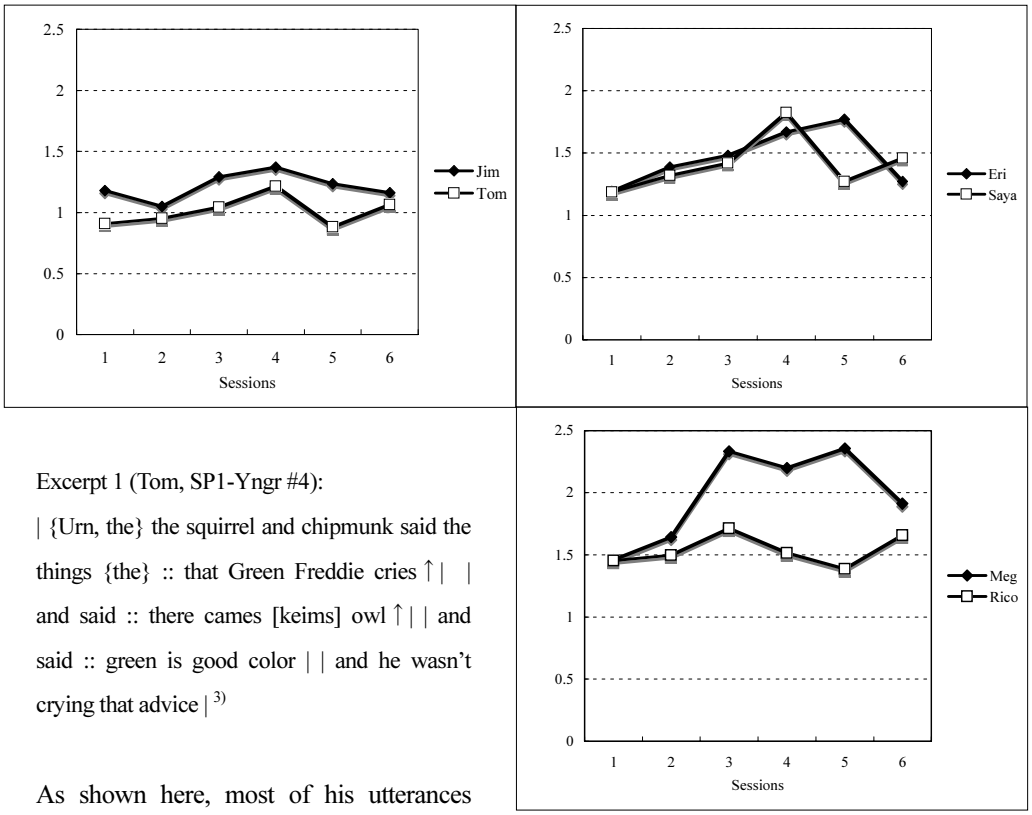
5.2 Syntactic Complexity

Table 3 summarizes the syntactic complexity index of participants. As defined in the previous section, a syntactic complexity measure is the total number of clauses divided by the number of clauses which consist of a subject and predicate. The smaller the number of subordinate clauses included in the speech data, the more closely the index will be to 1.0, but since a minor utterance or irregular sentence can be referred to as one AS-unit under certain circumstances, there is a possibility that the index goes below 1.0, as seen in some of Tom (SP1-Yngr)'s figures. Several times, he replied using a one-word utterance (e.g. pointing at a relevant picture in the book and saying "This"). In terms of syntactic complexity, the results of the index are shown in Figure 2. A parallel pattern can be observed in SP1. Both children's performances peaked at the fourth session, but the amount of difference between the sessions was very slight, not showing any significant improvement or decline – generally their performance was very stable. Few attempts to use complex syntactic structures were found in their speech data, and such attempts often met with failure. There were a few rare cases where Tom (SP1-Yngr) presented a syntactic complexity in a longer stretch of his speech; however, we see that he is comprehensively limited in his ability to use complex syntactic structures in an excerpt below.

Table 3: Syntactic Complexity (C/A) over Participants and Sessions

		#1	#2	#3	#4	#5	#6
SP1	Jim (Oldr)	1.179	1.049	1.291	1.372	1.236	1.163
	Tom (Yngr)	0.909	0.954	1.043	1.214	0.881	1.066
SP2	Eri (Oldr)	1.190	1.387	1.480	1.667	1.769	1.271
	Saya (Yngr)	1.185	1.317	1.419	1.823	1.269	1.459
SP3	Meg (Oldr)	1.459	1.645	2.333	2.200	2.357	1.913
	Rico (Yngr)	1.454	1.497	1.714	1.515	1.386	1.660

Figure 2: Syntactic Complexity of Participants



Excerpt 1 (Tom, SP1-Yngr #4):

| {Urn, the} the squirrel and chipmunk said the things {the} :: that Green Freddie cries ↑| | and said :: there cames [keims] owl ↑| | and said :: green is good color | | and he wasn't crying that advice | [3)]

As shown here, most of his utterances which included syntactic complexity consisted of direct quotations to connect the words of the characters in the stories with the verb, "said". Whenever Tom attempted to speak using complex grammatical structures, he exhibited morphosyntactic errors and failed to convey intended meanings. Although the same was true for Jim (SP1-Oldr), he eventually managed to form structures that were syntactically accurate. He did not show much difficulty in having communication strategies such as approximation or circumlocution at his command, which helped his utterances with complex syntactic structures to fill in the missing parts of what he meant. As shown in the excerpt below, he tended to use specific words or phrases as "hedges" or "fillers".

Excerpt 2 (Jim, SP1-Oldr #5):

| and next the owl came :: to advise the frog | | and like he said :: like green is a great color | | and the {frog} frog was {good} good :: to be green |

SP2 showed a very similar pattern from the first to the third session. Saya (SP2-Yngr)'s syntactic complexity reached its peak at the fourth session and her score dropped significantly during the next, which was still slightly improved compared with her first session. In the fifth session, Eri (SP2-Oldr) achieved the highest score, when her syntactic accuracy was at its minimum. This suggests that there was a trade-off effect between these two indices for Eri. Seemingly, this is a situation that involves gaining syntactic complexity at the cost of losing syntactic accuracy (see detail in 5.3). However, when dealing with the syntactic complexity of children, numerical analyses have their limitations. The most obvious problem is that certain linguistic features of the participants are not elicited from these indices. Saya used a lot of direct quotations with "said". Other grammatical items showing complexity produced by Saya could be broadly restricted to conjunctions such as "when", "because" or "if". On the contrary, Eri (SP2-Oldr) showed her ability to use embedded clauses preceded by various kinds of conjunctions with no apparent difficulty. These linguistic characteristics can be found in the excerpt below.

Excerpt 3 (Saya, SP2-Ynger #4):

| because {um} if everyone didn't give {um} a big golden medal to (1.0) Raccoon {um} :: what he did to everyone :: was {um} a big mistake | | and then {he was} he was sobbing and crying |

Excerpt 4 (Eri, SP2-Oldr #1):

| {um} it made me think of my friends | | because Kate made new friends (1.0) | | before that I went swimming at the summer holidays | | so I already had some friends | | but there were friends :: that I've never met on that day | | so I made new friends :: which are {the} the people :: who didn't go swimming | | after {I got um} I got new friends nearly all the girls at the class :: I was very happy |

Meg and Rico from SP3 achieved very high scores for syntactic complexity, and they did not show any attrition; syntactic complexity was very stable for both of them. As shown in Table 3 and Figure 2, there was no decline altogether for either of them. Although Rico (SP3-Yngr) indicated subtle differences between each session, she showed a certain improvement after dipping into the minimum score at the fifth recording session. Her final session showed a slight improvement compared to the first. Rico used a number of direct quotations like other younger siblings (Tom, SP1-Yngr and Saya, SP2-Yngr), but her speech sample below demonstrates that her utterances were full of complex structures such as relative adverbs and relative clauses. Meg (SP3-Oldr), on the other hand, showed relatively large differences between the first two consecutive sessions and the rest. She improved her linguistic performance on syntactic complexity substantially in the third session, resulting in a wide gap between the two. At the

initial stages, Meg seemed cautious to be as accurate as possible in terms of sentence structures, which might have simplified her utterances, as can be seen in Excerpt 6. In Excerpt 13, we can see that she is proficient enough to exhibit a number of complex grammatical structures and elaborate on her story.

Excerpt 5 (Rico, SP3-Yngr #2):

| and one day he (1.0) was sleeping on the rock | | and prairie dog was (1.0) making a tunnel ↑ | | and then by lunchtime he was hot and tired | | and then he is bumped into the rock :: that lizard was sleeping on ↑ | | then he said :: who put the rock there? | | and lizard said :: not me |

Excerpt 6 (Meg, SP3-Oldr #1):

| they're getting the boxes out of their car ↑ | | and kid's worried ↑ | | {um} and the teacher is reading a book | | and kid's reading with some other classmates ↑ |

5.3 Morphosyntactic Accuracy

In terms of morphosyntactic accuracy, we can divide the participants into two groups, SP1 and SP2/3. As can be seen in the numerical summary in Table 4 below, the scores of the former never exceeded 0.8, which is one of the indicator regarded to be "acquired" in L2 acquisition research (Tomiyama, 2009). On the other hand, the scores of participants in SP2/3 never dropped below the indicator, 0.8. It is apparent that morphosyntactic accuracy in SP2/3 was consistently maintained at a high level.

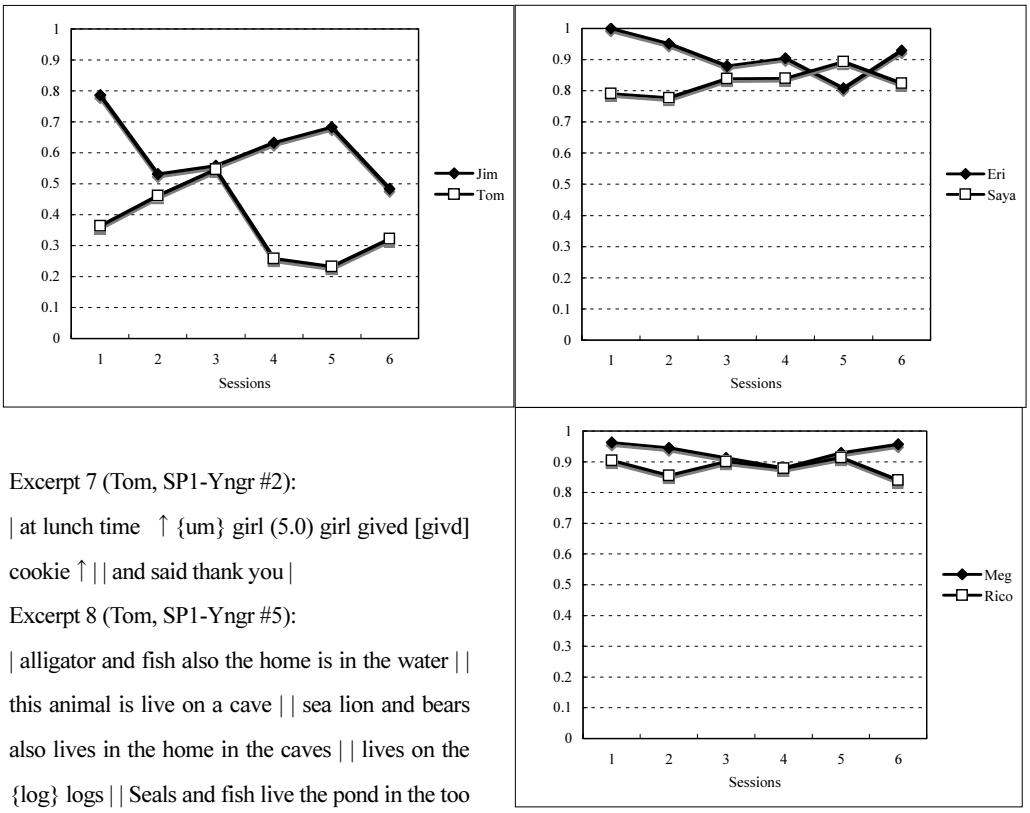
Table 4: Morphosyntactic Accuracy (EFA/A) over Participants and Sessions

		#1	#2	#3	#4	#5	#6
SP1	Jim (older)	0.786	0.531	0.558	0.632	0.683	0.484
	Tom (ynger)	0.364	0.462	0.547	0.258	0.233	0.322
SP2	Eri (older)	1.000	0.951	0.880	0.905	0.808	0.930
	Saya (ynger)	0.791	0.778	0.839	0.840	0.893	0.824
SP3	Meg (older)	0.963	0.945	0.912	0.880	0.929	0.957
	Rico (ynger)	0.904	0.855	0.901	0.879	0.913	0.840

Figure 3 shows completely different patterns observed between Jim (SP1-Oldr) and Tom (SP1-Yngr). Tom's accuracy score, 0.364, is far below the "acquired' level, showing a wide gap with his brother at the initial session. Thereafter, there was a slight improvement and Tom's

morphosyntactic accuracy peaked at the third session, which was nearly equivalent to Jim. However, his score at the next session dropped drastically, and even the recovered figures after the fourth session were lower than those of the first session. Taking a closer look at Tom's utterances with a qualitative perspective, his accuracy decline consisted mainly of errors in irregular verbs and the past "-ed" morphs. It is evident that he was relatively limited in his ability to use past irregular morphemes since we can see generalizations of "-ed" on irregular verb forms such as "thinked", "maked" and "breaked" in his utterances. The only past irregular verb produced correctly by Tom was "said". Additionally, phonological and semantic errors occurred frequently, which did affect the overall meanings of the sentences. He had consistent difficulties coming up with the appropriate words, which led him to apply communicative strategies to compensate for the lack of vocabulary. In excerpt 8, he paraphrases the word "bat" with "this animal". Omissions of an auxiliary verb and incorrect word order are often observed in his description as well.

Figure 3: Syntactic Accuracy of Participants



Excerpt 7 (Tom, SP1-Yngr #2):

| at lunch time ↑ {um} girl (5.0) girl gived [givd] cookie ↑ | | and said thank you |

Excerpt 8 (Tom, SP1-Yngr #5):

| alligator and fish also the home is in the water | | this animal is live on a cave | | sea lion and bears also lives in the home in the caves | | lives on the {log} logs | | Seals and fish live the pond in the too |

Jim (SP1-Oldr)'s accuracy score for the initial session reached 0.786, almost achieving the 0.8

level, but his score decreased at the next recording session. Thereafter his figures recovered gradually over time, and he ended the study by reaching the bottom score, 0.484, at the final session, which fell far behind the 0.8 level. As with his younger brother, frequent use of incorrect past-forms of irregular verbs contributed to the decline of his morphosyntactic accuracy. Over-regularization of "-ed" can also be also observed in his speech data, but it is noticeable that he added the regular past tense "-ed" suffix to irregular past forms such as "gaved" or "tooked" and even to regular past forms such as "likeded". At the last session, he used "saided" for the past form of "say", although he had produced "said" correctly before. Grammatical errors in the use of verb morphs to mark agreement such as subject-verb agreement and coordinated clause tense agreement were also characteristic in his speech. Furthermore, he occasionally omitted the subject of sentence, the third person singular marker "-s", and an auxiliary such as "fish making homes in water".

Excerpt 9 (Jim, SP1-Oldr #3):

| before ↑ {like} he was drinking the water ↑ | | {before um} (2.0) {uh he uhm} (1.0) before (2.0) {he was he} he losed weight | | {a te-d} so he moved to rock | {like} she doesn't do well |

Morphosyntactic accuracy in SP2 seemed to be maintained well for both siblings in SP2, and Figure 3 illustrates their stable condition. For Saya (SP2-Yngr), if accuracy scores at the first and the second session can be rounded to 0.8, her accuracy level was maintained above the indicator. In absolute terms of the reading session, Saya attempted to respond with the most accurate and sophisticated utterances possible. Nevertheless, she made errors in the use of past irregular morphemes such as "finded", "runned" and "goed". Saya also failed to produce the conditionals which required tense agreement. For instance, she intended to say "if the rabbit hadn't stopped crying, he couldn't have eaten the cabbage" for the first sentence in Excerpt 10. As can be seen in Excerpt 11, her speech was full of self-repetition, self-correction and unfilled pauses, which indicated that she was not a risk-taker and attempted to be as accurate as possible with the sentence structures that she used.

Excerpt 10 (Saya, SP2-Yngr #3):

| because {um} (2.0) if rabbits didn't stop crying :: he couldn't eat {cabba-} the cabbage | | and if somebody {um} eat the cabbage :: it's the end |

Excerpt 11 (Saya, SP2-Yngr #6):

| because {if he if if that day was a bad day :: and if she didn't say that :: she couldn't {s- her her mo- her} if it was a bad day and {she couldn't she couldn't} she didn't say it :: her mom might make it out | | but {um} if

she didn't say it :: {um} she can't make it out |

Eri (SP2-Oldr) achieved a perfect accuracy score in the first session and showed a slight decline in the next two sessions, although the drop is not too drastic. She did not continue to regress, making improvement at the final session. Her lowest score was at the fifth session, which was still above the 0.8 level. This low score allowed the gap between the two sisters to be reversed, but Eri recovered with a final score above 0.9. A more careful examination of her errors reveals that she maintained past regular and irregular forms, which significantly differentiates her errors from those of her sister Saya. Some of the sentences in Eri's narratives contained grammatical errors in tense agreement in conditionals and subjunctives, as can be seen in the examples below.

Excerpt 12 (Eri, SP2-Oldr #3):
| because he was very happy :: that now he's thin | | but before that he was happy :: that he's fat |

Few performance errors in terms of morphosyntactic accuracy were observed for both siblings in SP3. Their high scores indicate that these siblings are L2 learners at an advanced level, who have acquired native-like competence. The types of errors made by SP3 were similar to those of Eri (SP2-Oldr), most of which were inappropriate use of verb tenses to show the chronological relations in a complex sentence structure. It should also be noted that their errors were local, usually involved a single element that did not affect their intended meaning, as shown below.

Excerpt 13 (Rico, SP3-Yngr #2):
| {monkey's mother} monkey wanted :: to go for a walk | | and monkey's mother said :: not to go too far | | and monkey promised :: that he won't go too far |

6. Discussion

Thus far, an overview of the returnee children's linguistic features in the reading sessions has been provided. The scores of the lexical diversity, syntactic complexity and morphosyntactic accuracy showed significant evidence of retention for SP2 and SP3, while SP1 exhibited more difficulty in producing utterances, using complex sentence structures and rich vocabulary accurately. Excerpts have also revealed that there were various kinds of linguistic performances by the participants, which was not reflected in numerical analysis.

The result for SP1 is in accordance with the weaker maintenance of productive skills reported in previous research. As for SP1, some attrition was found in terms of loss of vocabulary and

grammar. Their use of words was considerably limited and word selection was occasionally inappropriate as well. The sentence structures used by them were rather simple; especially for Tom (SP1-Yngr), whose speech was full of one-word utterances and uncompleted sentences. Although they showed similar patterns, Jim (SP1-Oldr) performed better in grammatical accuracy than his younger brother, yet his accuracy scores still dropped below 0.8. From a qualitative perspective, there was a tendency for their morphosyntactic errors to affect meaning, distinguishing their errors from those of other participants. The result implies that both Tom and Jim seem to have lost a large portion of their English abilities, and their age difference was not as evident as reported in previous studies (Hansen, 1999; Yoshitomi, 1994).

Children in SP2 showed very similar retention patterns. Eri (SP2-Oldr)'s performance was generally better than Saya (SP2-Yngr), however Saya occasionally went above her sister's score and the gap between the two never became particularly large in absolute terms. In contrast with the previous literature, Saya's lexical richness was well maintained and very resistant to attrition, while Eri (SP2-Oldr) showed slightly decreased accessibility of her lexical items. Syntactic complexity seemed to be less vulnerable to loss, judging by both their scores. What separated them was the complexity of grammatical items produced by the two. As stated earlier, Saya used many direct quotations, while Eri was capable of handling more complex structures such as embedded clauses preceded by diverse conjunctions. Scores in morphosyntactic accuracy ranged approximately from 0.8 to 1.0 (to 0.9 for the younger sister), which is quite high respectively. Although their retention patterns for morphosyntactic accuracy were also similar, their linguistic performances had different features as far as the types of errors were concerned, especially in the area of morphology. Eri basically retained the past regular and irregular forms, while Saya made errors in both, attaching the past inflectional morphs "-ed" to some of the irregular verbs. This might suggest that the age factor or cognitive maturation does not affect the congruency of the whole speech, but it has an effect on a more local manipulation such as past morphemes.

An interesting result from SP3 is that there was no regression in their overall English ability. In fact, their scores occasionally showed improvement. These results are somewhat surprising because Rico (SP3-Yngr)'s age of return was only seven years old – an age belonging to the younger group reported to be vulnerable to loss. Additionally, she already had an incubation period of 18 months at the first reading session, and it had been almost two years after returning to Japan for her final session. This does not support previous literature (Yoshitomi, 1994) that reports that younger children such as Rico usually lose much English within a two-year incubation period.

In sum, we can say that SP2 and SP3 did not lose their English proficiency like SP1 during the incubation period. There seem to be at least three possible reasons for this result. The first

potential reason is that personal factors such as incubation period and the length of residence overseas seem to be influential factors in differences in participants' linguistic performance. Data-collecting sessions started when the incubation period for SP1 was 18 months, which probably means they have lost a significant portion of their English discontinuing their use of it. Additionally, SP1's length of stay in the U.S. was three years, which was shorter than the other sibling pairs. However, examining SP1's baseline data of English proficiency at the start of the study, it is difficult to say that SP1 is the only sibling pair that started with a low level of proficiency. For example, an English teacher of Tom (SP1-Yngr), the returnee child with the most severe attrition, commented that Tom could understand familiar and unfamiliar topics with ease, maintain conversation using sophisticated and varied vocabulary easily, and craft expressions with very few errors. The teacher also added that Tom read and understood material independently, with infrequent assistance, that he wrote using descriptive language, correct grammar, mechanics, and spelling with high accuracy, and that he was able to write for a variety of purposes. As for incubation period, SP3 had the same duration as SP1, and in terms of the length of stay, SP1 spent more years in an educational setting which provided them with more opportunity to solidify their academic English, including literacy skills, than the other two younger siblings.

The second possible reason is that there were some differences in the curricula of their English maintenance programs. SP1 are taking English maintenance classes taught by a Japanese teacher where they mainly read and write for educational purposes. SP2 (and SP3 used to) attend a biweekly children's English book club where children get together for about two hours to browse English books and videos from the library, and the parents also lead songs or games. SP3 are receiving English lessons provided by a native English-speaking teacher one hour per week, intended to develop conversational skills on certain academic topics.

The third potential reason is that the parents' view of language maintenance may differ between families. Parental attitude towards literacy has been identified as an important factor affecting children's literacy behavior, which has been adopted as a major variable in previous research such as Watanabe (2003) on bilingual children's literacy development. Although the parents of SP1 admitted that English maintenance is important, they preferred not to reinforce the use of English with their children. They believe that development of academic Japanese is more crucial for their children's education because they are planning for Jim and Tom to take several entrance examinations at private junior high schools, even though their Japanese currently falls far below the grade-equivalent level, especially in a lexical aspect. SP2's parents, on the other hand, are strongly interested in the English retention of their children, and show active participation in the children's linguistic activities in English. Particularly, their father tends to consider himself primarily responsible for his children's English retention, showing a contrasting attitude from the

other fathers. The parents of SP3 also emphasized the significance of English retention, though the parents of both SP2 and SP3 admitted that there is much difficulty in this goal. Additionally, the homes of both SP2 and SP3 are extremely text-rich environments, particularly for English print materials. Among their possessions was a large amount of print resources and recreational materials in English, which were apparently chosen very carefully by their parents. This is clear evidence that the richness in literacy resources at home significantly contributes to language retention for these children.

7. Conclusion

Returning to the research questions stated at the beginning of this paper, the results of this study indicate that the returnee children's age differences were not such an important factor as reported in previous studies. As for the second research question, a number of factors are at play for a returnee child to maintain their L2, such as the gender of the participants, the age on arrival in a foreign country and the length of residence overseas. However, to my knowledge, the issue of social factors such as parental attitude towards language maintenance and children's literacy engagement has not been an explicit focus in the domain of L2 retention research, especially in the context of returnee children. This paper shows that home is as an important domain for maintaining L2, especially when more recreational uses are emphasized as well as formal language maintenance programs. The potential effect of such social factors needs to be further explored in future research.

Notes

1) The TEAE is a timed paper-and-pencil assessment with multiple segments that is administered in four grade bands (3-4, 5-6, 7-8 and 9-12). The reading section contains items with five answer choices, each of which is correct or incorrect. The writing section consists of two prompts, one graphic and one written.

2) The MNSOLOM is used to assess the listening and speaking skills of English language learners in academic settings (Grades K-12).

3) | (an upright slash) = an AS-unit boundary, :: (a double colon) = a clause boundary within an AS-unit, { }(brackets) = false stars, functionless repetitions and self-corrections, ↑ = rising intonations

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