The Acquisition of Countable and Non-countable Structures by Sinhalese and Japanese Learners of English

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The present study examined the effects of the learning contexts in the L2, the effects of the level and the influence of the L1 in the L2 acquisition process. The independent variables included Japanese and Sri Lankan learners and ESL (English as a Second Language) and EFL (English as a Foreign Language) contexts. The Grammaticality Judgment Test was the dependent variable. The students who studied English as a Second Language (ESL) in Sri Lanka indicated higher accuracy of handling countable and non-countable nouns than the students who studied English as a Foreign Language (EFL). The influence of the L1 in the L2 seemed possible.

Key words: Countable /Non-countable, Sinhalese and Japanese Learners of English, Universal Grammar and Parameter, ESL, EFL (S)/EFL-Sp, EFL (J)

1. Introduction

For second language researchers, there already exists a sophisticated and successful approach to understanding the mechanism, which underlies the human ability to build mental grammars. This stems from the work of Chomsky (1981, 1986a, 1995) on the nature of the mental grammars of mature native speakers. At the heart of the approach is the assumption that all the grammars of human languages are essentially built on the same pattern, i.e. there is Universal Grammar, which underlies the particular grammars of specific languages. At the same time, Universal Grammar allows possibilities for variation between languages in the way that its constructs are realized. A good number of recent studies of second language acquisition have been conducted within the framework of the principles and parameters approach to Universal Grammar. It is this perspective that was adopted in this research too. Mental grammar for countable and non-countable nouns for Sinhalese and Japanese learners of English differs in the way they are realized. Two languages exhibit two typological classifications. This research is an attempt to find how Japanese and Sinhalese learners of English acquire these rules (reset this parameter).

2. Background

The view of language acquisition in terms of parameter setting is the basis of current work in the Generative Tradition. With the introduction of the Government and Binding (GB) Theory (Chomsky 1981, 1986)
for explaining certain aspects of L2 acquisition, there has been a growing interest in the areas of Second Language Acquisition (SLA) and Universal Grammar (UG). Although many L2 researchers are united in their claim that the principles of Universal Grammar (UG) guide and constrain L2 development, there is disagreement about the extent of the role of the L1 in L2 development. Minimal Trees Hypothesis (Vainikka and Young-Scholten, 1994; 1996a; 1996b) claims that only lexical projections transfer from the L1. Full Transfer/Full Access Hypothesis (Schwartz and Sprouse 1994; 1996) claims that the entire L1 grammar serves as the initial grammar for the L2 learner. The Modulated Structure Building Theory (Roger Hawkins, 2001) claims that the structure building is influenced by the properties of the L1 at the relevant point in the construction of a grammar, and not before. Present researcher (Hettiarchchige, 2003) compared the profiles of individual learners with different L1 backgrounds. In the research, accuracy on countable and non-countable nouns (acquisition of countable and non-countable parameter) was measured with subjects, both Japanese and Sinhalese. The results obtained concerning the L1 influence were controversial. It was believed that the mismatch between participant groups was the cause to this controversy. Though there are no ESL learners in Japanese context, there are ESL-Special* (*These students, who could be distinguished from normal English learning students, were English majoring students or English learning students in an international environment and hereafter they will be referred as ESL-Sp) learners in Japan. In the first experiment, the participants of the school level were the learners of ESL-Sp but in the university level, were the learners of EFL. This might have affected the results of the first experiment. Therefore, the objective of the second experiment was to include all the groups that are important and to test the ability in general with all relevant groups of students.

3. Rationale

There are two syntactic classes of nouns, countable and non-countable. One is directly combinable with numerals while the other is not. Based on this noun phrase classification, Gil (1987) has identified two groups of languages. In Type A languages, nouns are obligatorily marked for nominal plurality (Number); in Type B languages, however, all nouns are treated as mass nouns; they are not obligatorily marked for number and they may be interpreted as either singular or plural (Gil, 1987). Sinhala and English are considered to be in Type A and Japanese, in Type B.

3.1. Countable and Non-countable Parameter

Whether the plurality of a word must be expressed overtly or not is subject to parametric variation. Learners of specific languages have to reset the parameter. Gil (1987), in his chapter of the lexical parameters has provided a detailed description about the typology of nouns. Following Gil, Elizabeth Lobel has clearly identified C/NC features as a parameter.

Sinhala (SIN)
Mama raTa nerabuwa
I country [sin] visited

Japanese (JP)
Watashi wa kuni-o otozureta
I country [sin] visited
I visited the country

SIN
Mama raTa-val (pl) tunak nerabuwa
I countries (pl) three visited
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**JP**
Watashiwa mitsuno kuni o otozureta
I three countries (pl) visited
I visited three countries.

**SIN**
Mama raTa-val (pl) nerabuwa
I countries (pl) visited
I visited countries

In the case of the Sinhala language, the suffix ‘val’ marks the plurality while there is no special suffix to mark the plurality in Japanese. Yet, in Japanese, the number is specified with the suffix ‘tsu’.
In addition, there are uncountable nouns in Sinhala similar to English.

Bootale vatura tiyenawa.
In the bottle water is.
There is water in the bottle.

Ivure veli tiyenawa.
In the bank sand is.
There is sand in the bank.

In Japanese, unlike Sinhala or English, the nouns are unmarked for its plurality. Japanese treats all nouns structurally, as mass nouns (non-countable), which imply that plurality has a peripheral status. In addition, the use of numeral classifiers is obligatory for all nouns. Numerals cannot occur without such a classifier, a phenomenon that, according to Gil (1987), is a direct consequence of the countable and non-countable parameter. Furthermore, English and Sinhala possess a choice of classifying expressions for their mass nouns such as:

**Sin**
Bindu/ puTu/ pot/ tunak
Drops/ chairs/ books three

**Eng**
Three drops/ chairs/ books

However, Japanese offers a choice of classifiers for all nouns:

Sansatsu-no hon  – ‘three volumes of book’
sanmai-no hon, – ‘three pages of book’
sansyoku-no hon   – ‘three colors of book’
4. Objectives

The present study plans to provide an explanation of how Sinhalese and Japanese learners of English acquire their target languages through the acquisition of countable and non-countable condition. It is the researcher’s wish to pay his attention mainly to the following three areas of L2 acquisition.

1. The influence of context in L2 acquisition
2. The influence of level in L2 acquisition
3. The influence of L1 in L2 acquisition process

4.1. Research Questions and Hypotheses

The focus of this study will be to compare the accuracy rate in using countable and uncountable nouns by Japanese and Sinhalese learners of English and the influence of the L1. The present study will examine the following research questions:

1. Does the context of the learner play a major role in L2 acquisition?
2. Does the level of the student affect the accuracy profiles of the students?
3. Does the mother tongue influence the target language?

5. Method

5.1. Subjects and Procedure

The subjects consisted of two groups: (1) Sinhalese learners of English and (2) Japanese learners of English. Group I included 37 senior high school students (ESL) from a city school, 23 university students (ESL) from a city university, 35 senior high school students (EFL) from a countryside school and 39 university students (EFL) from a countryside university from Sri Lanka. In the second group, the participants included 40 students from a senior high school (EFL–Sp), 37 university students (EFL–Sp), 29 university students (EFL) and 40 high school students (EFL) from Japan. Japanese EFL–Sp students were English majoring students. There were two papers to be answered: the Comprehensive English Language Test (CELT) was used to measure the general performance of the students while the Grammaticality Judgment Test (GJT) was used to check the specific grammar knowledge. No prior notice about the test was given and the test was conducted during regular class time. The students who answered both test papers were counted and the duration of each paper was 30 minutes.

5.2. Design and Task

In this study, a 3-way ANCOVA (Analysis of Covariance) was employed with the Grammaticality Judgment Test (GJT) as the dependent variable, the Proficiency Test (CELT) as the control variable and school levels (school and university), contexts (two levels: ESL, EFL (S) and EFL–Sp, EFL (J)) and countries (Sri Lanka and Japan) as independent variables.

5.3. Results and Discussion

The objectives of the study were to measure:
(a) the influence of the contexts on SLA
(b) the influence of level on SLA
(c) the effects of L1 on SLA.

The notion of an opportunity for interaction leads to the distinction between second language (SL) and foreign language (FL) learning environments. A second language is “one that is learnt in a location where that language is typically used as the main vehicle of everyday communication for the most people”. On the other hand, a
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foreign language is "one that is learned in a place where that language is not typically used as the medium of ordinary communication". It is the belief of many researchers that the learners in SL contexts perform better than the learners in FL contexts. Indeed, the L2 context appears to have an important effect on the L2 competence (Susan and MacIntyre, 2000). This is attributed to their being in the natural environment of the target language. Also, the higher the level, the higher the accuracy rate is. This is attributed to their exposure to time span during the course of study. Finally, it is possible that L1 influence may assist learners in constructing representations for L2 grammar. ANCOVA results revealed (see Table 1) that the environment of the learners was critical to their improved performance. The results revealed that the differences between university and high school were significant, F (1,279)=66.15 *** (p < .001) (Uni > HS). The differences between two countries were significant, F (1,279)=181.83 *** (p < .001) (SL > JP). The differences between contexts were significant, F (1,279)=94.58 *** (p < .001) (ESL > EFL). Also, the interaction between school and country was significant, F (1,279)=18.78 *** (p < .001).

Table 1. Table of Analysis of Covariance

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>77.019</td>
<td>8</td>
<td>9.627</td>
<td>126.217</td>
<td>.000</td>
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<tr>
<td></td>
<td>164.145</td>
<td>1</td>
<td>164.145</td>
<td>2151.973</td>
<td>.000</td>
</tr>
<tr>
<td>PT</td>
<td>3.799</td>
<td>1</td>
<td>3.799</td>
<td>49.803</td>
<td>.000</td>
</tr>
<tr>
<td>LEVEL</td>
<td>5.045</td>
<td>1</td>
<td>5.045</td>
<td>66.146</td>
<td>.000</td>
</tr>
<tr>
<td>COUNTRY</td>
<td>13.869</td>
<td>1</td>
<td>13.869</td>
<td>181.830</td>
<td>.000</td>
</tr>
<tr>
<td>CONTEXT</td>
<td>7.214</td>
<td>1</td>
<td>7.214</td>
<td>94.579</td>
<td>.000</td>
</tr>
<tr>
<td>LEVEL * COUNTRY</td>
<td>.310</td>
<td>1</td>
<td>.310</td>
<td>4.062</td>
<td>.045</td>
</tr>
<tr>
<td>LEVEL * CONTEXT</td>
<td>6.007E-02</td>
<td>1</td>
<td>6.007E-02</td>
<td>.788</td>
<td>.376</td>
</tr>
<tr>
<td>COUNTRY * CONTEXT</td>
<td>1.433</td>
<td>1</td>
<td>1.433</td>
<td>18.782</td>
<td>.000</td>
</tr>
<tr>
<td>LEVEL * COUNTRY * CONTEXT</td>
<td>.181</td>
<td>1</td>
<td>.181</td>
<td>2.376</td>
<td>.124</td>
</tr>
</tbody>
</table>

Since an interaction between A (country) and B (context) was observed, further clarification was needed to know within which group the exact significant difference existed. The simple main effect in the AB interaction (post hoc analysis) was computed (see Table 2). Line 1 of the Table 2 showed that there was a significant difference between Sri Lanka and Japan in the ESL context. F (1,270)=248.85 *** (ESL-SL)>(EFL-Sp-JP). Line 2 showed that there was a significant difference between Sri Lanka and Japan in the EFL context, F (1,270)=111.021 *** (EFL-SL)>(EFL-JP). Line 3 showed that there was a significant difference between ESL and EFL in Sri Lanka, F (1,270)=211.43 *** (ESL-SL)>(EFL-SL). Line 4 showed that there was a significant difference between ESL and EFL in Japan, F (1,270)=86.53 *** (EFL-Sp-JP)>(EFL-JP).

Since interaction between A (school) and B (country) was observed, further clarification was needed to know within which group the exact significant difference existed. The simple main effect in the AB interaction was computed (see Table 3). Line 1 of the Table 3 showed that there was a significant difference between high school and university level students in Sri Lanka. F (1,270)=49.13 *** (Uni)>(HS). Line 2 showed that there was a significant difference between high school and university level students in Japan, F (1,270)=4.31 *** (Uni)>(HS). Line 3 showed that there was a significant difference between Sri Lanka and Japan in the high school level, F (1,270)=103.38 *** (SL)>(JP). Line 4 showed that there was a significant difference between Sri Lanka and Japan in the university level, F (1,270)=228.04 *** (SL)>(JP).
Table 2. Comparisons between ESL and EFL Learners of Sri Lanka and Japan

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(b1)</td>
<td>18.987</td>
<td>1</td>
<td>18.987</td>
<td>248.846 ****</td>
</tr>
<tr>
<td>A(b2)</td>
<td>8.470904</td>
<td>1</td>
<td>8.470904</td>
<td>111.021 ****</td>
</tr>
<tr>
<td>B(a1)</td>
<td>16.13199</td>
<td>1</td>
<td>16.13199</td>
<td>211.4284 ****</td>
</tr>
<tr>
<td>B(a2)</td>
<td>6.602534</td>
<td>1</td>
<td>6.602534</td>
<td>86.53387 ****</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001, ****p < .0001
A = Country, A1 = Sri Lanka, A2 = Japan, B = Context, B1 = City, B2 = Rural

The Scores of ESL and EFL Learners of Sri Lanka and Japan

<table>
<thead>
<tr>
<th>Score · SRI LANKA</th>
<th>ESL (SL)</th>
<th>EFL Sp (J)</th>
<th>EFL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score · JAPAN</td>
<td>4.015</td>
<td>3.532</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Comparisons between School and University Learners of Sri Lanka and Japan

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(b1)</td>
<td>3.748344</td>
<td>1</td>
<td>3.748344</td>
<td>49.1264 ****</td>
</tr>
<tr>
<td>A(b2)</td>
<td>0.32872</td>
<td>1</td>
<td>0.32872</td>
<td>4.308254 *</td>
</tr>
<tr>
<td>B(a1)</td>
<td>7.887893</td>
<td>1</td>
<td>7.887893</td>
<td>103.38 ****</td>
</tr>
<tr>
<td>B(a2)</td>
<td>17.39943</td>
<td>1</td>
<td>17.39943</td>
<td>228.0397 ****</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001, ****p < .0001
A = School, A1 = High School, A2 = University, B = Country, B1 = Sri Lanka, B2 = Japan

The Scores of University and High School Learners of SL and JP

<table>
<thead>
<tr>
<th>Score · High School</th>
<th>SRI LANKA</th>
<th>JAPAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score · University</td>
<td>3.881</td>
<td>3.379</td>
</tr>
</tbody>
</table>

5.3.1. Influence of the Context on SLA

It is clear from the result that the difference between ESL and EFL was significant. ANCOVA results (See Table 1) revealed that the difference between contexts was significant, (ESL > EFL), the interaction between country and the context was significant. Multiple comparison results revealed that (See Table 2 Line 1) Sri Lankan learners were better than Japanese learners in the ESL context (ESL-SL) > (EFL-Sp-JP). Line 3 showed that Sri Lankan ESL learners were better than EFL learners in Sri Lanka, (ESL-SL) > (EFL-SL). Line 4 showed that Japanese ESL-Sp learners were better than EFL learners, (EFL-Sp-JP) > (EFL-JP). The scores of the students in each level showed that the ESL students who had achieved higher accuracy profiles were better than EFL subjects tested.

5.3.2. Influence of the Level

The test results showed that the higher the level the higher the accuracy rate was. The results (See Table 1) revealed that the difference between the university and the high school was significant (Uni > HS). University level students of Sri Lanka and Japan were better than high school students of both countries (Uni > HS). The overall results revealed that the university students of both countries (Sri Lanka and Japan) were more accurate.

— 140 —
The Acquisition of Countable and Non-countable Structures by Sinhalese and Japanese Learners of English than the high school students of both countries.

5.3.3. Influence of the L1 on SLA

ANCOVA results (See Table 1) revealed that Sri Lankan learners of English were better than Japanese learners of English, (SL > JP). Sri Lankan learners were better than Japanese learners in both the ESL (ESL-SL) > (EFL-JP) and EFL contexts, (EFL-SL) > (EFL-JP). Sri Lankan learners were better than Japanese learners in the high school level and in the university level (SL) > (JP).

It is possible to say from the results that Sinhalese learners were comparatively more accurate in using countable and non-countable nouns than Japanese learners. It is possible that this may be the result of L1 influence on grammar building.

5.4. Discussion

In the nonlinguistic areas of language learning, clear differences exist between students from ESL contexts and EFL contexts. The finding (observation) that ESL students perform better, might be taken to support the idea that the students in EFL contexts are less competent in communicating in English than those in ESL contexts (MacIntyre, 2000, Green & Oxford, 1995; Oh, 1992). A similar pattern occurred in the present research too. Given these results, however, it is clear that the ESL students are better than the EFL students. Clashen and Muysken (1986) and Ellis (1989) studied the development of German word order in two different settings. The course of learner development in these cases was parallel, although the types of input the learners received was different, going from predominantly naturalistic to predominantly tutored. This has led some L2 researchers to assume that ‘in principle there ought to be no difference in the learning mechanism that one assumes for foreign language learning and second language acquisition’. However, they claim that in situations of language use, the two groups are comparable. In use, the performance of classroom learners may be quite different from that of naturalistic learners.

The results of the tests reveal that the type of input has much effect on the course of learner development. However, two qualifications are made: Enhanced input can affect the speed of acquisition, and it can affect performance on academic tasks like grammar tests and translations; learning second languages in the classroom is different from learning second languages as a result of being exposed to them in naturalistic environments. The difference should be clearly identified through a performance test. It is to be tested in future research.

Sinhalese has a usage of countable and non-countable nouns, which is similar to English countable and non-countable usage. In the case of the plural -s, there is evidence that plural -s may be more difficult for speakers of a language like Japanese than for speakers of a language like Sinhalese. The results of the test (see Tables 1, 2 and 3) showed that the Japanese subjects found it more difficult to detect the grammaticality or the ungrammaticality of these two types of sentences than the Sinhalese subjects. It can be argued that a parameter of variation allowed within Universal Grammar, which is set differently between NP in Japanese, and NP in English and Sinhalese is at the root of this difference in development.

Linguistic arguments show that if there is enough exposure in any environment for students who study an L2, the SLA process is facilitated; otherwise, it is difficult for them to reach the expected level of proficiency.

6. Limitation of the Study

In reading and writing tasks, classroom learners are apparently able to deploy acquired skills, which enable them to increase accuracy in a way, which is not intrinsic to their subconscious L2 mental grammars. However, the overall results revealed that Japanese learners of English seemed lower in accuracy than Sri Lankan learners. Therefore it is worth examining in future research, the accuracy rate of each individual item that was included in the test. In this research, it was only the writing task that was undertaken. Therefore, an
oral performance test is worth doing in future research. The fact that Sri Lankan students of English are more accurate than Japanese learners of English, can trace back to two reasons: ESL context and L1 influence. Which one is more powerful is to be tested with a third L1 in future research. Also, the countable and non-countable nouns that included at the word level were checked here. It is worth investigating in further research, the accuracy level of both these learners in countable and non-countable structures that included at the phrase level and sentence level.

7. Conclusion

The study found that the L2 context could play a major role in SLA, irrespective of students' language backgrounds. The result of the experiment showed that the mother tongue influence on L2 acquisition might have an important effect and the accuracy can be achieved through the course of time. The higher the level, the higher the accuracy is. However, this finding was controversial with ESL high school students and EFL university students where ESL high school students were more accurate than EFL university students, which should be inquired in future research.

References


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White, L and Genesee, F. (1996) how native is near-native? The issue of ultimate attainment in adult second
Appendix 1

Countable and Non-Countable distinction among English, Japanese and Sinhalese

<table>
<thead>
<tr>
<th>Count</th>
<th>Sing/Plu</th>
<th>English</th>
<th>Japanese</th>
<th>Sinhala</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular (1)</td>
<td>+</td>
<td>(+)</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Plural (2)</td>
<td>+</td>
<td>(+)</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>N count</td>
<td>-3</td>
<td>+</td>
<td>(+)</td>
<td>+</td>
</tr>
</tbody>
</table>

Note: () = peripheral (no distinction among singular, plural and non-countable)

Appendix 2

The test paper- 30 minutes

There are five statements in front of each sentence on their grammaticality and acceptability. Select one of the statements that you think to be the most appropriate and circle it.

(1) Incorrect (2) I think incorrect (3) I don’t know (4) I think correct (5) correct

Ex:

*She drinks less sugar*  
*We are not good friends.*

1. I'd like to recite a poem now.  
2. She ate many mango.  
3. The United Kingdom have four parts.  
4. Everybody is present for today's meeting.  
5. This is an interesting book.  
6. There is not much water there.  
7. Those is a valuable watch.  
8. These books are beautiful too.  
9. They himself did it.  
10. He made up his mind.  
11. Would you give me fewer sugar?  
12. They are a hardworking girl.  
13. Smoking is a bad habit.  
15. There are advices on the board.  
16. We are good friends.  
17. I had a strange experience the other day.  
18. The president called Kennedy was very famous.  
19. The clock has two wings.  
20. Mango is a delicious fruit.  
21. Christmas are a big festival.  
22. They gave us informations on this matter.  
23. The princess have two boy friends.  
24. Television is a popular media.  
25. The actor in these films are not handsome.
26. The city called Athens have grown in the past.
27. There was an April I well remembered.
28. Medias should not be partial.
29. This species of roses is very rare.
30. They want someone with an experience.
31. There is a pair of gloves there.
32. She's are helpful girls.
33. I gained this knowledge from my professor.
34. The students are very happy.
35. A packet of biscuits are lying there.
36. These are history books.
37. This friends are better.
38. How many apples do you want?
39. How many money do you have now?
40. Two lecturers are in the lecture hall.
41. One of my friends is coming today.
42. Neither of him went there.
43. How much apple will you eat?
44. Each have to get only one.
45. We are university lecturer.
46. Rices are expensive too.
47. Those are a new structure.
48. How much flower did you buy there.
49. There is some milk in the fridge.
50. Money is everything.
51. Either of us should attend the wedding.
52. Beer is expensive in Japan.
53. Three man work here in this room
54. How many childs are there at home
55. I recite classical poems.
56. Do you like a poetry?
57. Drinkings are not good for your health.
58. They are students.
59. There is very little cheese left there.
60. How much do you want?