A study explored similarities and differences in relative pronoun use by native speakers (NSs) and non-native speakers (NNSs) of English. The study was conducted with 40 university students, 20 NSs and 20 NNSs. Specifically, the study examined the frequency of relative pronoun use and the spontaneity of subjects' responses in completing a sentence combining task. It was found that: (1) more NNSs used relative pronouns than NSs, (2) more beginning-level NNSs used relative pronouns than advanced-level NNSs, and (3) more NSs were aware of the contextual variability of the structure of the complex sentence than NNSs. Findings suggest that frequency of relative pronoun use characterizes the current developmental stage of the learner's interlanguage system, and that the awareness of stylistic/contextual differences in sentence structures distinguishes NS competency from less advanced interlanguage competency. Contains 10 references. (Author/MSE)
A Psycholinguistic Study of Relative Pronoun Use by Native Speakers and Non-Native Speakers of English

MIHO YOROZO

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A Psycholinguistic Study of Relative Pronoun Use by Native Speakers and Non-Native Speakers of English

MIHO YOROZO

This study explored the similarities and differences in the relative pronoun use by native speakers and non-native speakers of English. The study was conducted with 40 university students consisting of 20 native speakers and 20 non-native speakers of English. Specifically, the study examined the frequency of the relative pronoun use among the two groups of students and spontaneity of their responses in completing a sentence combining task. It was found that: (1) more non-native speakers used relative pronouns than native speakers, (2) more beginning-level non-native speakers used relative pronouns than advanced-level non-native speakers, and (3) more native speakers were aware of the contextual variability of the structure of the complex sentence than non-native speakers. These findings seem to suggest that the frequency of the relative pronoun use characterizes the current developmental stage of the learner's interlanguage system; moreover, the awareness of stylistic/contextual differences in sentence structures distinguishes native speaker competency from less advanced-level interlanguage competency.

INTRODUCTION

A number of researchers have attempted to describe the process and mechanism of second language development (SLD). The system that the learner develops in the acquisition process was referred to as "transitional competence" (Corder, 1967), "approximative system" (Nemser, 1971), and "interlanguage" (Selinker, 1972). These terms are closely related to one another in that they describe a continuum of transitional stages from zero competence to native-like competence. In particular, Selinker described the transitional system as a unique grammar that did not belong to either the learner's first language or target language (1972). Also, by contrasting SLD with the child's first language acquisition, other researchers suggested the nature of the development of interlanguage system. A notable contribution is from Krashen's Monitor Model (1977) which hypothesizes that the development of conscious second language knowledge results from formal study while acquisition is the spontaneous, unconscious process of internalization through natural language use.

Given Krashen's attention to the difference between formal and naturalistic language development, one of the discrepancies is seen between the formal instruction of relative pronouns and the reality of natural language use the learner encounters outside the classroom: the relative pronoun, which the learner is taught to place before the relative clause, is often omitted by native speakers. When the learner is first exposed to the target language in a natural setting, frequent use of the relative pronoun is likely to be a factor that characterizes his/her interlanguage system.

The above untested assumption motivated me to investigate the relative pronoun use in the first and second language contexts. In spite of the uniqueness of
Selinker's interlanguage theory and Krashen's Monitor Model, some fundamental questions were still remaining: "Can interlanguage systems be characterized by the frequency of relative pronoun use?" "Is native speakers' use of relative pronouns really an unconscious process?" or "What kinds of cognitive processes are involved in the mechanism that enables the learner to comprehend and produce a complex sentence that contains a relative clause?" If interlanguage is dynamic and constantly changing as Ellis (1985) claimed, the difference in syntactic construction of a complex sentence containing a relative clause should be observed among learners at various levels. The observation will also lead to an exemplification of another aspect of interlanguage: systematicity (Ellis, 1985) consisting of characteristics of transitional competence at each stage of development.

This paper examines differences and similarities between the systems developed in the first language context and interlanguage context. Comparison is made by giving a simple grammatical task to a group of native speakers and a group of non-native speakers.

**METHODOLOGY**

**Subjects**

This research involved 40 students who attended the University of Alabama in the Fall semester of 1993. They were categorized into two groups: 20 students who are native speakers of English, and 20 students who are non-native speakers of English. The two groups were not consistent in terms of class rank and major at the time of the research. The students in the non-native group had diverse linguistic backgrounds: Chinese, Japanese, Korean, Icelandic, Spanish, Vietnamese, and Sinhalese were listed as native languages, and their competency in English ranged from beginning to advanced fluency.

**Materials**

I designed a questionnaire accompanied by a task. The task was a simple grammar problem in which the subject was asked to combine two simple sentences and produce in writing a complex sentence whose initial word was fixed:

**Task:** How do you combine the following two sentences?

- She gave me a watch.
- This is the watch.

The questionnaire sheet, which was filled out immediately after the completion of the task, consisted of five questions:

1. Did you use "that" or "which" to combine the sentences?
   - Yes______ (Go on to Q. 2)
   - No______ (Go on to Q. 4)

2. Did you think of combining them without "that" or "which"?
   - Yes______ (Go on to Q. 3)
   - No______ (Stop here)

3. Why do you think you chose to use one?

(Stop here)

4. Did you think of combining them with "that" or "which"?
Relative Pronoun Use

Yes______ (Go on to Q. 5)
No_______ (Stop here)

5. Why do you think you chose not to use one?

(Stop here)

Since the subjects who marked "Yes" on 1 moved on to 2 or both 2 and 3 and the subjects who marked "No" on 1 moved on to 4 or both 4 and 5, the actual number of questions to be answered was either two or three of the five. The subjects who used either of the relative pronouns and did not think of not using the pronoun did not have to continue the questionnaire. Similarly, the subjects who used neither of the relative pronouns and did not think of using one were considered to have completed the questionnaire at that point.

The task and the questionnaire were kept short as well as the time spent completing them so that the subjects' prompt reactions could be elicited. In addition, the task and the questionnaire were printed on two separate sheets of paper in order for the subjects not to be distracted by the questions when performing the task.

Procedures

The subjects were randomly chosen on the University of Alabama campus. I spoke to students who happened to be having lunch at the cafeteria or who were waiting for a class in the hall at the building where I work. As the number of the responses accumulated, I controlled who to ask in order to even the numbers of native speakers and non-native speakers. However, a distinction was only made as to whether the subject was a native speaker or a non-native speaker.

First, the task sheet containing the sentences in question was given to each subject. The purpose of the research was not explained at all, although it was made clear that the task had nothing to do with the correctness or incorrectness of the answer. The questionnaire sheet was given right after the task, and both sheets were collected immediately. The subject was constantly prompted to complete the task and the questionnaire as quickly as possible and was not even allowed to change his/her answers. All the subjects were kept anonymous; the only information that they were asked to provide was their class standing, major, and native language.

I briefly conversed with each non-native speaker when I gave the questionnaire and rated his/her fluency in English as 1 (beginning), 2 (intermediate), and 3 (advanced), based on general impression. The fluency ranking of each non-native speaker was noted down on the questionnaire sheet.

RESULTS

First of all, the collected questionnaire sheets were divided into two categories: native speakers and non-native speakers. Each category was further divided into two: a group of students who used a relative pronoun to combine the two simple sentences and a group of students who did not use a relative pronoun for the same purpose. As Table 1 shows, seven native speakers used a relative pronoun in the complex sentence, and thirteen did not use a relative pronoun. It should be noted that three of the seven who did not use a relative pronoun stated that they would not have used it if it had been a verbal task. Conversely, fourteen non-native speakers used a relative pronoun, and six did not use a relative pronoun.
In a further categorization, the following result was elicited as shown in Table 2. Four of the seven native speakers who combined the simple sentences with a relative pronoun thought of doing the same task without using a relative pronoun, and three did not consider the possibility of not using a relative pronoun. In addition, six of the thirteen native speakers who did not use a relative pronoun considered using it, and seven did not consider using it. On the other hand, as shown in Table 3, five of the fourteen non-native speakers who used a relative pronoun considered not using it, and seven did not consider not using it. That the combined total of these two sub-categories differs from the total number of the non-native speakers who used a relative pronoun is no doubt attributable to two invalid answers included under this item. Two of the six non-native speakers who did not use a relative pronoun thought of using it, and four did not even think of using it.

In terms of the fluency levels of the non-native speakers, there were nine level-1 students, four level-2 students, and one level-3 student in the relative pronoun user group, and there were one level-1 student, one level-2 student, and four level-3 students in the non-relative pronoun user group (Table 4).
Relative Pronoun Use

Table 4. Non-native Speakers

<table>
<thead>
<tr>
<th></th>
<th>level 1</th>
<th>level 2</th>
<th>level 3</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>used RP</td>
<td>9</td>
<td>4</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>didn't use RP</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 5. Non-native Speakers

<table>
<thead>
<tr>
<th></th>
<th>level 1</th>
<th>level 2</th>
<th>level 3</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>used RP thought of not using RP</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>used RP didn't think of not using RP</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>didn't use RP thought of using RP</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>didn't use RP didn't think of using RP</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Moreover, as shown in Table 5, all five of the non-native students who used a relative pronoun and considered not using it were level-1 students; three of the non-native students who used a relative pronoun and did not consider not using it were in level-1, three were in level-2, and one was in level-3. Whereas each of the two non-native students who did not use a relative pronoun and considered using it was in level-1 and level-2; one of the four non-native students who did not use a relative pronoun and did not consider the possibility of using it was in level-2; three were in level-3.

DISCUSSION

Monitor Model Reevaluated

As stated in the introduction, the main purpose of this paper is to examine differences and similarities between systems developed in the first language context and interlanguage context. Krashen (1981) argued that the way a child acquires a first language is quite different from the way an adult learns a second language in the sense that a child develops systems subconsciously, whereas an adult develops systems consciously. Also, first language learners are not aware of linguistic rules though second language learners are usually taught rules and therefore aware of them when they manipulate them in the target language. Krashen's proposal has been controversial since his theory began to evolve in his several articles, but at the same time it has been popular among SLD researchers. The results of the above research, however, do not support his argument.

There was an apparent difference in tendency to use a relative pronoun in a complex sentence between native speakers and non-native speakers. More non-native speakers used a relative pronoun than native speakers, which is not only shown by the numbers in Table 1 but also reconfirmed by the comment written by three of the seven native speakers who used a relative pronoun: they stated that they would not have used a relative pronoun in conversation. The structural
difference in explicit language outcome signifies the possibility of a different processing mechanism between native speakers and non-native speakers.

As for the awareness of rules, the results do not seem to be favorable to Krashen's theory if by rules he meant linguistic rules in general including not only syntax but also pragmatic conventions. More native speakers thought of other ways of combining the simple sentences than non-native speakers. For example, four native speakers who used a relative pronoun and six who did not use a relative pronoun considered otherwise (sum: 10). Three native speakers who used a relative pronoun and seven who did not use a relative pronoun never considered otherwise (sum: 10). The ratio of native speakers who did consider the alternative sentence structure and those who did not was 1.0. Whereas seven non-native speakers considered the alternative, and eleven did not, producing a ratio of 0.64. The subjects who thought of both ways of producing a complex sentence were aware of two alternatives of producing a new grammatical structure in the same context. In other words, at the moment of the task, more native speakers were aware of the two different sets of linguistic rules than non-native speakers.

In interpreting the above result, it should be noted that five native speakers mentioned the style difference between casual conversational usage and formal written usage, although only one level-3 non-native speaker mentioned it. The difference can be interpreted as deriving from native speakers' awareness of stylistic variation that can lead to produce syntactic difference, something which non-native speakers do not have ample chances to learn in a classroom setting. In addition, four non-native speakers mentioned that they followed the grammar that they were taught in schools, and two mentioned that a relative pronoun makes it easier to construct logic. Thus it illustrates that non-native speakers tend to focus on form rather than styles and context and mindfully monitor their production of the target language in terms of its syntax.

Within the group of non-native speakers, the higher the competency level, the less frequently they used a relative pronoun, which reminds us of native speakers' tendency to omit a relative pronoun. It seems that learners' use of the relative pronoun becomes less frequent as they progress along a continuum from zero competence toward the level that resembles the native speaker's competence. Furthermore, all the students who eventually used a relative pronoun after considering otherwise were in level-1, and three of the four students who did not use a relative pronoun even without considering the alternative were in level-3. The evidence of spontaneity shows a change in self-regulation as the learner progresses along the interlanguage continuum.

**Awareness of Contextual/Stylistic Variability**

In the field of SLD study, the information processing theory postulated by Shiffrin and Schneider (1977), which was adopted and applied to SLD (McLaughlin, 1987), is currently the most prominent cognitive theory. Another notable cognitive theory that can be applied to SLD is the biofunctional model (Iran-Nejad, 1990) which emphasizes the multiple sources of self-regulation in the learning process. The Gestalt theoretical model has more advantages than the information processing theory when one attempts to describe second language competency in terms of the understanding of the relationship between language as parts and the external environment as a whole.
According to the biofunctional model proposed by Iran-Nejad (1990), there are three types of self-regulation that are activated in learning processes: external self-regulation, active self-regulation, and dynamic self-regulation. External self-regulation is externally available information that is beyond the learner’s control. For example, not only the task in the questionnaire used in this study but also the context of filling out the questionnaire were externally provided and could not be controlled by the subject. Active self-regulation is internal control that occurs under the conscious control of the central executive process and is referred to as intentional and voluntary self-regulation. Dynamic self-regulation is also internal control that occurs under the spontaneous control of the nonexecutive components of the nervous system and is inherently rapid and simultaneous (Iran-Nejad, 1990).

Although the external environment was provided for the respondents in which they were required to do a task and fill out a questionnaire, the interpretation of the task was dependent on their internal self-regulation. Considering that a slightly larger number of native speakers than non-native speakers thought of two ways of producing a complex sentence and that several native speakers commented on the style variation as a factor that influenced the use of a relative pronoun, it can be said that native speakers dynamically interpreted the environment and actively selected the grammatical structure that they felt suitable to the whole environment. In other words, dynamic self-regulation is responsible for clarifying the relationship between language as parts and the environment as a whole. There is no question about the activation of active self-regulation in the conscious selecting process, but the whole process is governed by simultaneous and spontaneous activation of dynamic self-regulation.

As for the non-native speakers’ internal process, lower level students tended to actively focus on form and pedagogical grammar rather than pragmatic factors that require them to dynamically understand the parts-whole relationship. It might be premature to make a positive assertion that higher level students tended to work on the task more dynamically than lower level students because of the small number of level-3 students who mentioned style variation, using the term "simple." However, it can be assumed that the internal process of higher level students tended to be more intuitive, rapid, and less active than lower level students and somewhat resembled the tendency among the native speakers.

CONCLUSION

The initial interest of the present study was to investigate the use of relative pronouns and spontaneity of the native and no-native speakers’ response in a sentence combining task. In other words, stylistic variation was not the initial concern of the present study. The evidence, however, demonstrated the respondents’ awareness of the variation influencing their language use, which was consistent with many researchers’ observation (Tarone, 1983; Ellis, 1985). As a result, findings regarding stylistic/contextual variability were obtained in addition to the speaker’s self-regulatory system in language production. It implies the importance of the richness and clear presentation of the context of language use consisting of interactions in which the learners engage themselves in the second/foreign language classroom.

In this research, different aspects of internal self-regulation might have been observed if the responses had been elicited through an interview. Also, it could
have been possible to obtain a different set of findings contributing to the creation of successful learners if the researcher had controlled the ratio of level-1 students to level-3 students. Such modifications should be considered in a follow-up study. Nevertheless, it was fruitful to find similarities and differences in the extent of activation of active self-regulation not only between native and non-native speakers but also between beginning and advanced non-native speakers.

REFERENCES
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