EFL Learners' Productive Language Behaviors

Report of the Outcome

1995 Hiroshima City University Grant for Special Academic Research (General Studies)
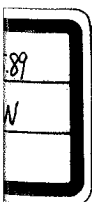
Research Cord A403

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Title   EFL Learners' Productive Language Behaviors

Research Subtitles

Productive Language Behaviors of Speaking

> 1) Influence of Cognitive Factors on Communication Strategies in L1 and L2
>
> 2) Sociopragmatic Competence in the Interlanguage of Japanese EFL Students

Productive Language Behaviors of Writing

> 3) Writing Processes of Japanese Student Writers

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General Statement of This Research Project

In the study of second language acquisition, it is of great concern for researchers to understand the involved processes of language learning and language use. One common research method in this field is to conduct experimental studies and provide empirical data to validate hypotheses scientifically.

The research project in this report was intended to carry out empirical studies according to such a research trend regarding two major productive language skills, i. e., speaking and writing, of EFL (English as a foreign language) learners. These productive skills have been investigated from various theoretical perspectives. To make our research more specific, we focused mainly on the following areas: 1) Japanese EFL learners' use of communication strategies, 2) their realization of speech acts, and 3) their writing processes. Each one of us has specialized in these areas of second language acquisition in the last several years; therefore, we each decided to be in charge of one selected area instead of all of us devoting ourselves to the same particular topic.

Methodologically, however, we shared one important procedure, i.e., selection of EFL learners. No matter what language skill we observe, the proficiency variable is one of the most crucial criteria in conducting empirical studies. We decided to adopt the TOEIC (Test of English for International Communication), which is a widely recognized standardized test that constitutes a highly reliable measure of EFL learners'

communicative skills.

The test was given in August, 1995 to sixty freshman and sophomore students majoring in International Studies at Hiroshima City University. To select subjects for participation in each one of our experiments, we used an official version of TOEIC called an IP (Institutional Program) test offered by the Educational Testing Service. The test scores were returned to us from the TOEIC office about a month later. Using the reported scores, we were able to select a necessary number of students for each experiment.

In the following part of this outcome report, the results of each experimental study will be presented one by one. As the readers will notice, results of some of our empirical studies are tentative and by no means conclusive. It is not our intention to report our decisive conclusions from our project. Even after the completion of this project, all of us have been attempting to carry out other studies on the basis of research questions raised by this project.

Acknowledgments

1) Sociopragmatic Competence in the Interlanguage of Japanese EFL Students

Carol RINNERT

I. Introduction

Sociopragmatic competence in a language refers to the ability to use linguistic forms appropriately in social situations. The concept of sociopragmatic competence comes from the fields of sociolinguistics and pragmatics. As proposed by Hymes (1971, 1972), one of the pioneers in the interdisciplinary field of sociolinguistics, communicative competence requires more than knowledge of grammatical and lexical rules: It means being able to adjust one's way of speaking according to such contextual factors as relative status and degree of familiarity with the interlocutor. Refinements in the notion of communicative competence have come from the closely related field of language study known as pragmatics (Leech, 1983, Levinson, 1983), which grew out of theories of "speech acts" (e.g., apologies, compliments, invitations) by language philosophers Austin (1962) and Searle (1969, 1976), and the postulation of cooperative principles in conversation (Grice, 1975; Leech, 1983) and types and principles of politeness (Brown & Levinson, 1978,1987; Leech, 1983).

Based on theories of sociolinguistics and pragmatics, a large number of researchers (e.g., Beebe & Takahashi, 1989; Eisenstein & Bodman, 1986; Kasper, 1989; Manes & Wolfson, 1981; Olshtain, 1983; Wolfson, 1989; and many others whose studies appear in Wolfson & Judd, 1983) have attempted to compare cultures in terms of their ways of expressing different speech acts, such as requests and refusals, in native and non-native languages, using procedures that vary from collection of written responses on questionnaires to ethnographic description of naturally occurring speech events. These researchers investigate variations in linguistic forms and semantic formulas used for expressing the same speech act within and across cultures, in first and/or second languages, looking for effects of such social factors as the relative age and status of the participants, the degree of intimacy between them, their genders, and the social setting. Based on the findings from such studies, the "norms" for various cultural groups are being identified,

and some knowledge is being collected of the extent to which non-native speakers of these language are able to match the native norms.

In a recent study based on questionnaire data (Rinnert, 1995a), I collected and analyzed Japanese university students' perceptions of a variety of appropriate English request, invitation, refusal, apology and suggestion forms in specific situations, comparing their judgments to those by American students in the U.S. However, awareness of appropriateness of specific forms does not necessarily imply an ability to produce such forms. Thus, the present project aimed to collect and analyze spoken data produced by Japanese students interacting with native English speakers in order to determine to what extent they had internalized appropriate forms as part of their interlanguage, that is, the internal, developing linguistic system of second language (L2) learners (Selinker, 1972).

II. This Study

1. Goal

The goal of the project was to investigate the developing sociopragmatic competence in the interlanguage of Japanese university students of English as a foreign language (EFL) in an attempt to understand the factors enabling students to learn to communicate appropriately and effectively in a second language. The project focused on English requests, refusals, responses to compliments and suggestions, four areas that had been identified as potentially difficult for Japanese students (see Rinnert, 1995a, 1995b). The analysis was based on visual and auditory recording of interaction between Japanese students and native English speakers in six unscripted roleplay situations, described below. Additional data consisted of self-reflective interpretations by the participants of the decision-making processes involved in their oral production, as well as self-reports of their background experiences in learning English.

2. Data Collection

Between February 23, 1996 and March 12, 1996, 20 volunteer participants recruited from among first and second year Hiroshima City University students majoring in International Studies took part in video-taped role plays and follow-up interviews. All of the students were 19–21 years old, and their English language proficiency level varied from high beginner to advanced, based the TOEIC (Test

of English in Communication) test administered in August, 1995. The test scores ranged from a low of 420 to a high of 865, with a mean score of 594. Based on the scores for 17 of the 20 students, four proficiency groups were distinguished, as shown in Table 1 (three of the students had not taken the TOEIC).

Table 1: Proficiency Groups based on TOEIC Scores

	Group 1	Group 2	Group 3	Group 4
Number	3	4	6	4
Mean Score	443	529	613	741
S. D.	(23)	(13)	(29)	(84)
Range	420-465	515-540	585-665	680-865

Background information on four experiential factors was collected: amount of experience with native English speaking teachers in junior and senior high school, time spent overseas, study in English conversation schools, and other kinds of experience, including study based on radio and TV English programs and friendship with non-Japanese-speaking foreigners. Table 2 summarizes the experiential data, listing the number of participants in each category.

Table 2: Distribution of Students According to Amount of Experience in 4 Categories

Amount of Experience	Native English Teacher	Overseas Stay	Conversation School	Other (Radio/TV/Friends)
>1 year	6	1	3	1
up to 1 year	9	10	11	13
none	5	9	6	6

The six roleplay situations were designed to elicit the four target communicative functions (requests, refusals, responses to compliments and suggestions) as follows: (1) Extension situation: A Japanese linguistics student requests the foreign teacher for an extension on the deadline for the final paper (REQUEST).

(2) Suggestion situation: While drinking coffee/tea, a Japanese student offers suggestions in response to requests for advice by a foreign student about three of the following four problems: how to improve her Japanese, how to meet more Japanese people, how to lose weight or keep from gaining weight and/or how to get more exercise, how to overcome the problem of not being able to sleep well at night (SUGGESTIONS).

(3) Request/invitation 1 situation: Over coffee/tea, a Japanese student who is very busy studying for an important test refuses a foreign student's request to tutor her in Japanese and an invitation to go to a hot spring (REFUSAL).

(4) Invitation 2 situation: Over coffee/tea, a Japanese student refuses invitations to go skiing or hiking and to go to a movie or out to dinner from a foreign student that he/she does not like very much (REFUSAL).

(5) Request/invitation 3 situation: A Japanese student whose boyfriend/girlfriend's birthday is that night refuses a foreign teacher's invitation to go to dinner with a visitor from Australia and her request to check a 10-page Japanese report (REFUSAL).

(6) Report revision situation: A 3-part scenario (based on a true experience of the researcher) in which a foreign teacher first compliments the Japanese student on his/her English and progress in her linguistics class (COMPLIMENT RESPONSE), then asks the student to revise and resubmit his/her paper, which the teacher found totally inadequate; after one week of trying to figure out the problem, the student asks the teacher to re-read the paper and explain what is wrong with it (REQUEST); after another week, the teacher returns the paper with an A+, apologizes for having misunderstood it and suggests that the student consider becoming a linguist because the paper is so good (COMPLIMENT RESPONSE).

In each case, the Japanese student was played by one of the 20 Japanese participants, and the foreign student or teacher was played by an American or Australian English native speaker. The written explanation of each situation was given to the students in Japanese to avoid any problems of misunderstanding. Students were video-taped individually while roleplaying each of the six situations in systematically alternated order so as to avoid any effect of order of presentation. In follow-up interviews, the students watched the video tape of their own roleplays with the researcher and responded to questions about their judgments of

appropriateness of their choices of target expressions and their reflections on where they had learned those expressions, as well as their judgments of how they would respond in Japanese in similar situations. For comparison, one of the native speakers, a graduate student from the U.S., was initially asked to roleplay the six situations in the part of the Japanese student with the researcher as the foreign teacher or student.

3. Data Analysis

In addition to qualitative analysis of the results, quantitative analyses were performed. Specific expressions used by students in the roleplays were coded on a scale of 1 to 3 points, according to their degree of appropriateness (1=inappropriate/impolite, 3=appropriate/polite). Descriptive statistics of means and frequencies and correlational analyses of the various factors in the study were determined. (The quantity of data proved insufficient for multivariate/ANOVA analysis.)

III. Results

In the first part of this section, each of the four communicative functions being investigated will be discussed in terms of both background information and roleplay and interview results. In the second part of the section, the quantitative analyses will be presented.

1. Qualitative Results

(1) Requests

Requests are potentially face-threatening acts (Kitao, 1989). In making a request, the requester is threatening the other person's need for freedom from imposition ("negative face" as defined by Brown and Levinson, 1978, 1987). At the same time, the requester is risking being refused, which is uncomfortable for both parties. On the questionnaire in the earlier study (Rinnert, 1995a), students were asked to choose the most appropriate polite way to ask their teacher to read their paper and check it for them. The percentages indicate the portion of Japanese (JS) and American (AS) students who selected each response:

JS	AS	
51%	68%	a. Could you read my paper and check it for me?
10%	0%	b. Couldn't you read my paper and check it for me?
1%	0%	c. I want you to read my paper and check it for me.
38%	32%	d. I would like you to read my paper and check it for me.

Only one of the Japanese students chose "I want you to..." as most appropriate, which shows their awareness of the inappropriateness of this form for making a polite request in English. In fact, "I want you to..." is generally used by superiors (bosses, teachers, parents) to formulate directions to subordinates (employees, students, children). Therefore, its use by a student to a teacher tends to be perceived as arrogant or pushy, with the possible exception of cases where the student is of a clearly higher status, much older than the teacher, and/or the direct employer of the teacher.

The more indirect version of this formula, "I would like you to...," was selected by 38% of the Japanese students. While this formula sounds more polite than "I want you to..." to native speakers, and 32% of the American students selected this response as the most appropriate of the four, one British respondent in a previous study confided that this sounded even worse to him than "I want you to...", because it had an "edge of imperiousness" (i.e., a nuance of condescension, perhaps as if it were coming from a noble person used to commanding others). Several Japanese students who chose "I would like you to" mentioned in the interview that they had learned the polite expression "I would like" in junior or senior high school and felt comfortable with it. One American informant asked about this response also mentioned the politeness of the "I would like" formula.

The strongest preference for native English speakers responding to this questionnaire (including 68% of the American students) has been "Could you...," which 51% of the Japanese students selected. Previous studies suggest that the most common forms of polite requests in American English involve the use of modals, such as "Could you...?," "Would you...?" and "Would you mind...?" These conventional, indirect formulas, which are widespread in polite English usage, appear to be used infrequently by Japanese speakers of English. For example, in a detailed study of the speech of Japanese and native English speakers in a business meeting, LoCastro (1993) found relatively less frequent use of

modals and other markers of politeness in the English of the Japanese as compared to the native speakers, even though the English proficiency of the Japanese speakers was quite high. This difference could result from a number of possible factors, including a low pragmatic competence level in English among the Japanese, caused by a lack of experience interacting with foreigners; differing perceptions of the need for polite markers in that situation; the particular difficulty of acquiring the English modal system (much like the English article system, which is probably the last aspect of English grammar to mastered by non-native speakers); or a belief on the part of some Japanese speakers that more direct speech is preferable when speaking English.

The last alternative above points out a major factor that may affect the choice among different request forms by English and Japanese speakers communicating with each other, that is, the commonly accepted stereotype that English speakers are direct, while Japanese speakers are indirect. In actuality, as demonstrated by Miller (1988), both English and Japanese speakers often use varying degrees of indirectness, depending on the specific relationship between the speakers and the situation. Looking at communication styles in work situations in Japan and analyzing video and audio taped data in Japanese and English, she suggested that in-group vs. out-group membership can be a stronger factor than relative status in determining the levels of directness or indirectness employed. For example, she found that Japanese subordinates, speaking in Japanese, tended to use direct language with superiors who are members of the same working group pursuing the same interest or goal, which contradicts the stereotype that Japanese are always indirect when speaking to superiors, and shows that the choice of appropriate forms is more complex than commonly realized.

In sharp contrast to the questionnaire date, in the roleplays, expression of speaker's desire ("I want...") was the most common single formula used for requests. For example, in the Extension situation, "I want you to..." (e.g., "I want you to postpone the deadline") was used by 5 of the 20 students, "I want..." (e.g., "I want 3 more days" and "I want to ask you to extend the deadline") by 4 other students, and "I'd like..." by 2 others. Most of the students said they had learned these expressions in high school or junior high, although several who had used "I want..." mentioned that they had learned that "I'd like..." was more polite, and a couple said that "I want..." or "I'd like..." was a translation of Japanese expression

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they would use.

In roleplaying the same situations, the native English speaker used much more tentative, hedged expressions ("I was really wondering if I could possibly ask for an extension" and "I'm just wondering if maybe you wouldn't mind reading it again") than the Japanese students when making requests of her teacher. Those few Japanese students who used polite modals (e.g., "would you mind extending...?" or "can I postpone...?") said they had learned them in high school and/or from experience overseas or other sources like Radio English programs.

The discrepancy between the appropriateness judgments on the questionnaire and the formulas produced in these roleplays appears to provide a clear example of how knowledge of appropriate forms can precede the ability to use those forms as a productive part of a learner's interlanguage. We can thus infer that awareness is a necessary but not sufficient criterion for acquisition of the ability to use a particular form appropriately.

(2) Refusals

Refusals to invitations and requests are dispreferred responses in most cultures, perhaps because of a widespread preference for agreement (as expressed as a maxim of the cooperative principle, Leech, 1983), and perhaps because of the face-threatening aspect of being seen as lacking in generosity (a threat to one's own "positive face," that is, the need to be valued by other people, Brown & Levinson, 1978, 1987) or as lacking care or respect for the other person (a threat to that person's positive face). Whatever the reasons, refusals are seldom stated in terms of a simple "no" in either English or Japanese. Some studies have found that when they are refusing invitations, English speakers tend to give positive evaluation and a specific excuse, whereas Japanese speakers tend to apologize and give less specific reasons (Beebe et al., 1990). According to their findings, questionnaire response d., below, would represent the preferred native English refusal to a dinner invitation from a friend, whereas b. should constitute a popular choice among the Japanese (Rinnert, 1995a).

JS

33%	a.	It sounds nice, but...
9%	b.	I'm sorry, but I'm busy.
6%	c.	Thank you, but I want to eat at a restaurant that night.
52%	d.	That sounds like fun, but I have to finish my report that evening.

A third of the Japanese students chose a., which contains a positive evaluation and nothing else except "but" (a signal of contrast, without any apology or reasons given). This may represent pragmatic transfer from Japanese expressions like "*chotto...*" (literally meaning "a little" but indicating some difficulty) or a tendency not to refuse an invitation explicitly. Choice c., which originally appeared as a response on an open-ended questionnaire eliciting refusals from Japanese students at a national university, was selected by only 6% of the students. Choice of this form may exemplify the stereotypical idea that English speakers prefer directness, whereas most, if not all, native speakers, like this group of Japanese students, would consider it impolite to use this kind of personal preference as an excuse to refuse an invitation. Generally, English speakers tend to say why they "cannot" accept. Even if they, in fact, are able to but simply choose not to attend, there is a strong preference against saying "I won't attend" or "I want to do something else," which is probably related to threats to the positive face of both speaker and hearer.

Like invitations, when refusing requests, English speakers reportedly tend to give specific reasons why they cannot fulfill the request (Beebe et al., 1990), whereas Japanese speakers have a well-known reputation as tending to avoid saying "No" and using a number of more indirect expressions and evasions (Ueda, 1974). In the following item from the questionnaire, response c. was intended to represent a typical (according to Beebe et al., 1990) native English refusal to a request from a colleague for a ride, whereas a., b., and d. represent typical indirect formulas, like those reported in Ueda (1974). Over 40% of the students selected one of the more vague formulas, whereas close to 60% chose response c., which gives a specific reason for the refusal.

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JS	AS	
7.25%	1.5%	a. It's difficult.
27%	72%	b. I'm sorry, but...
58.5%	25%	c. I can't. I have to pick up my sister at the airport.
7.25%	1.5%	d. I'm not sure. I'll have to think about it and let you know.

According to native English speakers who selected option b., the "but..." was interpreted as being followed by an appropriate excuse. The preference for b. over c. among American students can be seen as suggesting that an apology ("I'm sorry") is considered more polite than "I can't" and/or that other excuses of the speaker's choosing would be preferable to the one given in c., which to some respondents sounded untrue or at least unconvincing.

In the roleplays in the current study, just over half of the refusals were judged completely appropriate, with only four of the 20 students having produced completely appropriate refusals in all three situations (it should be mentioned that three of the 20 students chose not to refuse in at least one of the three situations). Among the appropriate refusals, most expressed regret ("I'm sorry" or "I'm afraid") and a convincing reason why it was not possible to accept the invitation or request, and a smaller subset expressed positive evaluation along with a reason for refusing (e.g., "I'd like to..., but..."). The native speaker also gave positive evaluation ("that's very kind of you") and a plausible reason, and offered alternative possibilities ("maybe another time" or "is there someone else I could call...?")

Among the less successful refusals, some contained only a reason for the refusal (e.g., "I have to study") with no apology, positive evaluation, or marker of refusal like "so I can't." Most of the remainder generally had a rather vague reason (e.g., "I don't have much time") along with a positive evaluation and/or apology. A small number seemed too blunt ("Tonight? No, I have a very important plan tonight.") because of insufficient use of mitigating phrases, hedges or politeness markers; or used inappropriate expressions ("today is my **lover's** birthday" or "I **want** to study for an exam").

From these observations, it can be concluded that most of these students are still in the process of acquiring the ability to perform appropriate refusals in English. Many of the successful refusal formulas appear to have been learned

fairly explicitly. For example, those who used "I can't" or "I'm very sorry" mentioned having learned those expressions from American or Australian usage, including TV or movies, or from NHK Radio English, and those using positive evaluation and/or offering alternatives reported having learned those strategies in secondary schools or at the university.

(3) Compliments and Responses to Compliments

In American English, compliments are expressed very frequently as part of greetings, partings, thanking, encouraging, and trying to build rapport (Manes & Wolfson, 1981), whereas compliments appear to be much less frequent in Japanese (Barnlund & Araki, 1985). The standard response to compliments in English is considered to be "Thank you," in contrast to the standard Japanese rejection of a compliment (e.g., "No, no, no, I can't speak English." in response to a compliment on the quality of someone's English). In fact, in both languages, there is an underlying conflict between the preference for agreement in conversation and the preference for modesty (Pomerantz, 1978; Kumatoridani, 1989). That is, if the person complimented agrees politely with the compliment, he or she is being impolite because of a lack of modesty. Considering the standard answers for both groups, we can infer that for Japanese speakers, modesty may be considered more important, whereas for English speakers, avoiding disagreement and offering solidarity (Herbert, 1990) may be ranked higher in importance.

As implied by all these differences, compliments represent a difficult area of cross-cultural communication. Many Japanese speakers I know feel uncomfortable with receiving so many compliments and feel that English complimenters giving so many compliments are insincere. At the same time, English speakers often feel confused by the Japanese rejection of compliments and will generally respond by reinforcing and elaborating on the compliment to show their sincerity, making the Japanese recipient of the compliment feel even more uncomfortable and suspicious of the complimenter's motives.

Although compliment responses were included on the original questionnaire, they were not included in the report of the earlier questionnaire study (Rinnert, 1995a) because the responses by Japanese and American students were almost the same. That is, almost all the Japanese students recognized that "Thank you" was a more appropriate response to a compliment about their English ability than the

other responses, which involved various ways of questioning or rejecting the compliment. However, in follow-up interviews, a number of the participants mentioned that although they knew it was inappropriate, they would feel more comfortable questioning or rejecting the compliment. These admissions strongly suggested that some of the Japanese students in this study would reject the compliments in one or both the roleplay compliment situations.

Nevertheless, in the roleplay data, the Japanese students almost unanimously produced "Thank you" in response to the teacher's compliments. The only exceptions were two students who had not understood the compliment at the time. Several students mentioned that they would have responded more "modestly" in Japanese, in particular, by rejecting the truth of the content of the compliment from an older Japanese teacher that they did not know very well.

At the same time, only a fourth of the Japanese students' roleplay compliment responses included additional components besides "thank you" that made them sound more natural, the way the responses of the native speaker did (e.g., "Thank you. I'm glad to hear that" and "Thank you so much"). The two students who used a particularly natural sounding compliment return strategy after the appreciation formula (e.g., "Thank you. I really like your class") said they had learned that from experience with a particular teacher who often said such things or in an overseas setting where such expressions were common.

From these observations it can be inferred that these students had learned to produce the appropriate appreciation token "Thank you" in response to English compliments by a native English speaker. However, it appears that their interlanguage generally did not yet include the additional knowledge of ways of modifying the simple formula to make the compliment response sound more natural. Many Japanese students may be helped to feel more comfortable with English compliments if they can become aware of appropriate expressions for deflecting (i.e. avoiding direct acceptance of) the compliments, e.g., by using expressions like "that's very kind" and "I'm glad you like it," or giving credit to someone or something else.

(4) Suggestions

In the questionnaire study (Rinnert, 1995a), the following item was designed to elicit judgments of appropriateness of suggestion expressions, comparing three

modal forms and the direct imperative with *please*, a fairly direct translation of the commonly used *–te kudasai* form in Japanese. The situation described was advice to a friend having trouble sleeping.

JS	AS	
13.5%	3%	a. Please try drinking some sake before you go to bed.
0%	2%	b. You must try drinking some sake before you go to bed.
23%	90%	c. You should try drinking some sake before you go to bed.
63.5%	5%	d. You'd better try drinking some sake before you go to bed.

Although many native English speakers would probably prefer "might" or "could" or "why don't you" when making a suggestion like this one, when they are forced to choose among the above options, the results indicate that almost all would choose "you should." The particular selection of options in this item was based mainly on results of a study by Altman (1990) showing a considerable difference between native English speakers and ESL (English as a Second Language) students in the U.S. in terms of their judgments of the meaning and relative strength of the English forms "you should" and "you'd better". The ESL students in his study assumed "you'd better" means something like "it would be a good idea," whereas native English speakers took it to mean "if you don't, there may be negative consequences." On the other hand, the ESL students considered the model *should* to be close in meaning to "it is necessary" whereas for the native English speakers it had the meaning "it would be a good idea" or "it might help." The following item from section 2 of the questionnaire (Rinnert, 1995a), based on Altman's study (1990), elicited students' judgments about the meaning of *should*. Respondents were asked to choose the sentence that was closest in meaning to the italicized part of the original.

In order to improve our skills, *we should try to practice every day*.

JS	AS	
5%	61.5%	a. It would be a very good idea for us to practice every day.
83%	14%	b. It is necessary for us to practice every day.
12%	24.5%	c. It might help if we practiced every day.

As shown in the these results, the Japanese students' perceptions tended to match those of the ESL students in Altman's study and to differ from the perceptions

of the Americans, who tended to chose either "it would be a good idea" or "it might help," as opposed to "it is necessary" as closest in meaning to "we should."

Based on the responses to another section of the questionnaire (Rinnert, 1995a), again taken from Altman (1990), the following table lists the ranking of expressions from strongest (1) to weakest (7) by the Japanese and American students.

Japanese Students	American Students
1. you must	1. you must
2. you have to	2. you have to
3. you should	3. you'd better
4. you'd better	4. you're supposed to
5. you're supposed to	5. you should
6. you can	6. you can
7. you could (17%=you'd better)	7. you could

According to the results of independent t-tests, Japanese students' judgments of the strength of "you should" were significantly higher, and those of "you'd better" and "you're supposed to" were significantly lower, than American students' judgments ($p <.000$). It should be noted that 17% of the Japanese students judged "you'd better" as the weakest, like the majority of the ESL students in Altman's (1990) study. According to reports from some Japanese students and teachers, this perception of "you'd better" as carrying weak force may result from inaccurate descriptions in some English textbooks in Japan of "had better" as being equivalent to "it would be better." While there are cases in which "had better" carries such a meaning (e.g. "I don't know the answer, so you'd better ask someone else."), there are many other cases where "had better" is used as a warning or even a threat (e.g. "You'd better stop doing that." and "You'd better not be late again.").

Turning now to the roleplay data, the above results strongly suggest that "you'd better" would be more common than "you should" for suggestions by these students. Totally contrary to expectations, there were no cases of "you'd better" in this data, and "you should," along with "I think you should...," was more commonly used by these students than any other formula Many of the students had learned "you should" as long ago as junior high school, but several said they had been taught that "you'd better" was more polite, whereas a number had learned the

opposite more recently. Several expressed doubts about whether their use of "should" had in fact been appropriate in their roleplay data. Another appropriate expression "How about..." was reportedly learned in high school grammar classes. Other appropriate expressions, including "the best way...." and "you can," were reported as having been learned in junior high or *juku*.

Although the native speaker tended to use more softeners, like "I guess," "you could" and "probably that would...," the Japanese students were nonetheless generally successful in conveying suggestions appropriately in these roleplays. Those suggestions that were judged less appropriate generally contained no modals ("you speak to them"), and a few contained overly strong modals like "you must" and "you have to." From these results, it can be concluded that English suggestions do not pose a serious problem for these Japanese students, although they might benefit from learning more tentative ways of formulating advice and/or ways of softening their suggestions.

2. Quantitative Results

Table 3 presents the mean appropriateness rating scores for the combined roleplay requests, suggestions, refusals and compliment responses for each of the four language proficiency groups, as well as the undetermined proficiency group (the 3 students who had not taken the TOEIC). Because the appropriateness ratings for each individual speech act consisted of a possible 3 points and there were two requests in the roleplays, the combined request scores totaled a possible 6 points, as did the compliment responses. However, for both suggestions and refusals, the possible total was 9 points because there were three instances of each of these two functions in the roleplay data.

As can be seen in Table 3, the scores for requests and suggestions tended to go up as the proficiency level increased. However, the same could not be said for the other two functions; in fact, although the highest proficiency group had the highest scores for refusals and compliment responses, the lowest proficiency group had the second highest scores for both these functions. Given the great discrepancy in language proficiency between the highest and lowest groups, these findings strongly suggest that some other factor or factors besides language proficiency must be affecting sociopragmatic competence among these students.

Table 3: Mean Appropriateness Scores by
Proficiency Group for 4 Functions

Prof. Group	Req. *	Sugg. **	Refus. **	ComRes. *
Group 4	4.75	8.50	8.25	5.50
Group 3	3.75	8.17	6.75	4.83
Group 2	3.63	8.00	6.13	4.88
Group 1	3.50	7.00	6.83	5.00
Undet.	3.00	8.00	7.50	5.17

[Key]: Req. = Requests
Sugg.. = Suggestions
Refus. = Refusals
ComRes. = Compliment Response
Undet. = Undetermined (No TOEIC score)
* out of a possible total of 6
** out of a possible total of 9

Looking at the experiential factors in this study quantitatively, I found what appeared to be significantly high correlations between only two of the proficiency and experience factors and the appropriateness rating scores. First, students' language proficiency scores correlated highly with their total response scores (the appropriateness scores for the four functions combined) at .683. Second, the amount of students' experience with native English speaking teachers in junior and senior high school was correlated with their appropriateness scores on requests at .522. (Both of these correlations were at the $p < .05$ level, although the SYSTAT computer statistics program I used warned that the probability levels were suspect because of the small number of cases.) The only other correlations that seemed high enough to suggest a possible relationship were proficiency scores with requests (.473), suggestions (.446), and to a lesser extent refusals (.372) and compliment responses (.354), and overseas experience with requests (.390) and refusals (.319), but none of these latter six correlations were significant at the .05 level.

IV. Conclusion

The earlier questionnaire-based study (Rinnert, 1995a) identified several factors, besides language proficiency, that may have affected Japanese EFL students' judgments of appropriateness of expressions for particular communicative functions in specific situations: experience abroad; other sources of cultural knowledge, such as foreign movies; and effects of instruction. The qualitative and quantitative results of the present study suggest that not only English language proficiency, but also secondary school experience with native English speaking teachers, and to a lesser extent overseas experience, affect Japanese students' ability to communicate appropriately with native English speakers. Reports by students also suggested definite instructional effects from junior and senior high school, private conversation schools and radio/television language programs on their acquisition of particular English forms and strategies for making requests, suggestions, refusals and compliment responses.

At the same time, the present study went one step further than the earlier study by eliciting and analyzing orally produced forms, as opposed to written judgments of appropriateness. In this way, it was possible to observe the extent to which Japanese EFL students have acquired the ability to use sociopragmatically appropriate forms in actual interaction with native English speakers. From the results, it appears clear that awareness of appropriateness of specific forms in particular contexts is a necessary but not a sufficient condition for producing such forms appropriately. In particular, whether it comes from first language influence or from instructional effects, the pervasive use of certain inappropriate request formulas ("I want you to...") by Japanese students to native English teachers shows that they have not yet internalized more appropriate forms as part of their interlanguage. It seems clear that these students need more experience using polite English forms, particularly modals like "could" and "would" and softeners like "possibly" and "I was wondering if..."

Finally, although roleplay data can certainly be seen as superior to written data for investigating language learners' productive ability, naturally occurring interaction should be considered even better in terms of reflecting actual sociopragmatic competence. Thus, the next step in the investigation of language learners' sociopragmatic competence should involve collection and analysis of

naturally occurring data in real-life situations, instead of relatively artificial roleplay contexts, although the fact that students played "themselves" in these roleplays can be seen as one merit of this data. At the same time, more efforts are needed to investigate native speaker norms as well as interlanguage patterns in order to develop more effective means of assisting learners in acquiring the ability to communicate appropriately and effectively in their second language. As pointed out in Rinnert (1995a), the goal of improving second language learners' sociopragmatic competence is a valuable one to pursue as a significant step in learning to avoid potentially serious cross-cultural misunderstandings based on differences in cultural norms for appropriate communicative behavior.

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2) Writing Processes of Japanese Student Writers
-Using a Computerized Coherence Analyzer
for Revising EFL Composition-

Nobuyuki Aoki

I. Abstract

The purpose of this paper is to present Coherence Analyzer (COAN), a new tool for computer-assisted topical structure analysis (TSA), and investigate how macro level revision of Japanese university student writers can be enhanced with the support of COAN.

According to the specification of sentence topics in texts and analysis of progression types, COAN automatically draws a diagram of topical sequence, and calculates the ratio of each type of progression and the average of topical depth. COAN also provides effortless revision of text coherence. Moving the topics in the diagram is automatically reflected in the original text. The writer can instantly see the outcome of the revision.

Two groups of Japanese university students revised their own texts as well as one provided by the experimenter. One group performed TSA with COAN, and the other without the support of COAN. The results revealed that the lower proficiency writers tended to benefit most from using COAN for text analysis.

II. Topical Structure Analysis

Several linguists have proposed methods for analyzing coherence (McCagg 1990; Bardovi-Harlig 1990; Clark and Haviland 1977; Lautamatti 1987). Among these methods, topical structure analysis introduced by Lautamatti(1987) is most applicable to teaching writing because of its coverage of global coherence as well as local coherence, and ease of effort to perform (Connor 1996).

Topical structure analysis examines two types of text structure: topical structure and topical progression. The analysis of the former is conducted by examining to what degree the mood subject, topical subject and ISE (initial sentence element) overlap. This analysis is helpful for checking readability of texts. The latter is examined by describing the sequence of sentence topics, and is useful for analyzing text coherence (Lautamatti 1987).

According to Lautamatti, three types of topical progression are identified in

texts: parallel progression, sequential progression and extended parallel progression. Parallel progression refers to a sequence of the same topics, that is, the topic of a succeeding sentence is semantically the same as the topic of the sentence that immediately precedes it. Sequential progression means that the topic of a succeeding sentence is different from that of the previous sentence. For example, the comment of the previous sentence becomes the topic of the next sentence. Extended parallel progression indicates a structure in which the topic of a sentence refers back to the topic of a previous sentence after intervening sequential progressions.

These three types of topical progressions are presented as a diagram. The topics of parallel progression are placed in the same positions exactly below the topic of the previous sentences. The topics of sequential progressions are indented progressively, and the topics of extended parallel progressions are placed in the same position under the topic it refers to. This diagram allows the writer to analyze the sequence of sentence topics, or the coherence of the text. The introduction of new sub-topics in the text is also shown by the depth of topics. Observing the topical depth, the writers can examine how they have developed the discourse.

III. Using TSA for teaching writing

Topical structure analysis has been used for analyzing students' written products and teaching revision. Witte (1983a) asked student writers to revise the same text and these revised papers were rated by four raters. He found that lower rated texts include more different sentence topics than higher rated texts. The lower rated texts also start parallel or extended parallel progressions at a deeper level of topical depth than higher rated texts. These findings indicate that in the higher rated texts, the writers consistently stay with the main discourse topic without distraction.

Witte (1983b) examined papers written by first-year university students and found similar results to those of his previous study. The lower rated essays included more sequential progressions, and fewer parallel and extended parallel progressions than the higher rated essays. He also found that the average topical depth in the lower rated essays was much deeper than that in their higher counterparts.

However, Schneider and Connor(1991) presented contradictory results. Analyzing high-rated and low-rated essays, they found that the low-rated essays

contain more parallel progressions, and the high-rated essays include more sequential progressions. They discussed that these contradictory results could be attributed to the lack of sensitivity in the definition of sequential progressions. They also proposed that sequential progressions should be divided more delicate subcategoris: directly related; indirectly related; and unrelated to a previous topic. These subcategories were incorporated in the computer software I will present in the next section.

Cerniglia, Medsker and Connor(1990) developed computer software called STAR (Studying Topical Analysis to Revise) for teaching topical structure analysis to ESL students. After giving a programmed lesson through STAR to 29 ESL writing students, they reported that the students could evaluate the coherence of their writings, and their attitude toward STAR was very favorable. Connor and Farmer (1990) used topical structure analysis to teach the revision process to their students. According to them, topical structure analysis is most beneficial after writing a first draft because at this stage the writer can still make a substantial change. They found that the students could relate the sentence topics to the main discourse topics after the training. Specifically, the focus of their writings became clearer and each sentence topic was appropriately developed in the discourse. They also indicated that poor written products include more sequential progressions and fewer extended parallel progressions than better ones. They concluded that a greater number of sequential progressions may lead to inadequate development of the discourse topic, and few extended parallel progressions may indicate a lack of completeness.

IV. Coherence Analyzer (COAN)

COAN is not the first computer software dealing with TSA. Cerniglia, Medsker, and Connor' STAR also treat TSA on computers. However, STAR only provides a programmed type of learning about how to perform TSA. The users perform TSA on the texts presented by STAR, not their own writings.

On the other hand, COAN, which runs on Apple Macintosh computers, can be used for analyzing any texts. After importing a text, the user identifies the sentence topics and chooses the type of progression in the text field. Accordingly, COAN draws the diagram and calculates the ratio of each progression automatically (see Figure 1). COAN also calculates the topical depth of each progression.

In addition, COAN provides a powerful tool for revising. The user can revise his or her own texts by directly manipulating the topics in the diagram. Movement of the topics in the diagram is automatically reflected in the original text. The user can instantly see the outcome of the revision. The manipulation of sentence topics in the COAN diagram is more helpful than directly changing the original text because going back and forth between the diagram and the original text can aid the writer in shifting between macro and micro perspectives for the text. Manipulating the original text directly often distracts the writer's attention, especially the poor writers' attention, from the global to a local part of the text.

The user can also examine his or her own text coherence quantitatively as well as visually thanks to the figures COAN provides. The user can understand

Figure 1. Diagram presented by COAN.

```
 COAN v1.06
 1 Root    computer software
 2 P       software
 3 P       program
 4 P       program
 5 S(DRS)  |  └this function
 6 S(IRS)  |      └pen and paper
 7 S(IRS)  |          └the tradition
 8 EP      computer software
 9 S(IRS)  |  └language
10 EP      software
```

出現度数	3	出現度数	4	EP度数	2	AEP度数	0
出現割合	33%	出現割合	44%	EP頻度	22%	AEP割合	0%
開始平均	0.0	内訳RDRS	25%	開始平均	0.0	開始平均	–
		内訳RIRS	75%	深さ幅平均	2.0	深さ幅平均	–
		内訳RUS	0%	間のトピック数平均	2.0	間のトピック数平均	–
単語総数	6	開始平均	1.0				
トピック総数	10	深さ平均	2.0				
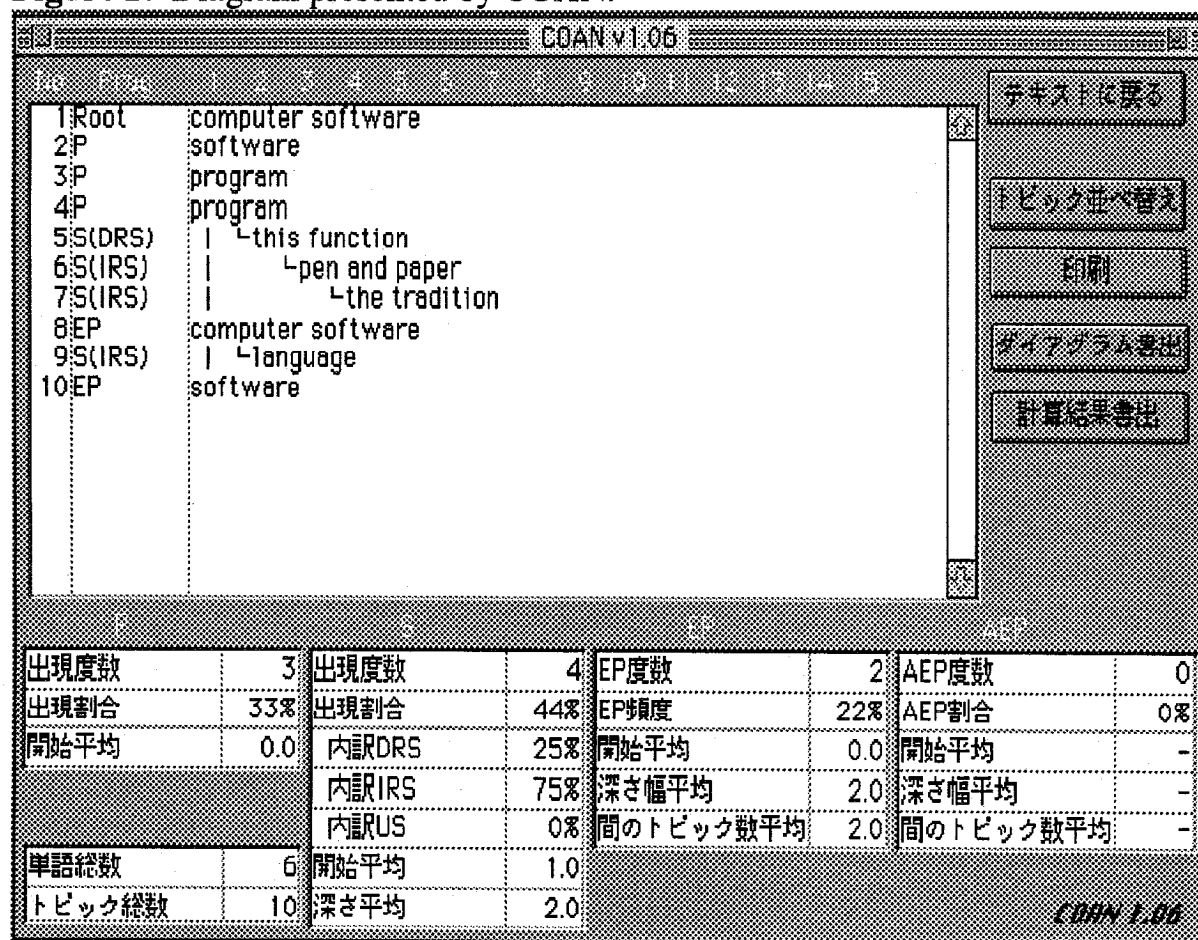
coherence of the text according to the proportion of each progression. For example, a higher percentage of sequential progression may indicate a lack of consistency in the text.

With the support of COAN, topical structure analysis is almost effortless

because the user has only to identify the sentence topics and select the progression types. Using COAN, the students can analyze their own texts or other students' texts very easily and the teacher can also easily analyze a large number of student compositions in a short time and instruct them how to improve the coherence of their texts based on the visual and quantitative data.

V. Study

The purpose of these studies is to investigate whether macro revision of EFL student writers can be enhanced with the support of COAN. Forty eight Japanese university students in two classes of a basic English composition course participated in the study. As the basic data for English writing ability, they were asked to write a composition under the title of "How do you use computers for your study?" without the use of any dictionaries. Two Japanese teachers of English rated these writing samples on the basis of the ESL Composition Profile (Hughey et al. 1983). Their interrater reliability on this evaluation was 85%.

Table 1. Basic Data

	Class A	Class B
Mean	40.8	36.2
SD	11.5	8.9
Size	25	23

$t = 1.54$ $df = 46$ n.s.

The students in Class A performed slightly better than Class B students; however, the difference was not significant (Table 1). The students in both classes were considered approximately equal in writing ability in English.

1. Study I

In Study 1, they were given a student's composition and asked to check its coherence and arrange the sentences in a more appropriate order (See Appendix). The students in Class A performed TSA with the support of COAN, and Class B students also did TSA on word processors, but without using COAN. The number of students who arranged the sentences in an appropriate order was counted.

The Class A students using COAN showed a greater tendency than Class B ($p < .1$) to rearrange the sentences into the appropriate order; however the difference did not reach a significant level.

Table 2. The number of appropriately ordered texts

	Class A	Class B
Match	15	8
Mismatch	10	15

$\chi^2 = 3.05$ df = 1   n.s.

In order to examine the influences of the use of COAN more closely, the students were divided into higher and lower writing ability groups according to Content and Organization subscores in the ESL Composition Profile. The other subscores such as Vocabulary, Language Use and Mechanics were not considered for the selection because the researcher wanted to exclude English proficiency as opposed to writing ability as much as possible. The students rated above 0.5 z score were categorized as the higher ability group and those below -0.5 as the lower ability group.

Table 3. The number of appropriately ordered texts

	Higher ability group		Lower ability group	
	Class A	Class B	Class A	Class B
Match	5	4	4	2
Mismatch	3	1	5	9

Exact Probability Method   p = .49 n.s.   p = .22 n.s.

The figures in these cells were small, so the difference was checked by direct calculation of probability instead of chi square analysis. The differences between the two classes were not significant for either higher or lower ability groups, but Table 3 shows that many lower group students in Class B, who did TSA without using COAN, failed to arrange the sentences into the appropriate order.

2. Study II

In Study II the students were asked to revise their own writings unlike Study I where they all reordered the sentences in the same text given by the experimenter. They were asked to write an essay under the topic, "How can you use computers for education?" and then check the coherence of their first products. As in Study I, Class A students analyzed their essays with COAN, Class B students, without COAN.

The revision of their own products was analyzed in two respects: the amount of sentence movement from first drafts to revised ones and the number of added sentences. The following example explains how the amount of sentence movement is calculated. T-units in the first draft are numbered, and then in the revised draft the number of changes of the sentence places is calculated. As shown in Figure 3, if the sixth sentence is moved before the first sentence, the movement is counted as 4 because there used to be 4 sentences between these two sentences in the first draft. Thus, the sentence movements are 8 and 10 for examples 1 and 2 respectively. Each sentence is identified as the same sentence in the revised draft as long as it conveys the same information, even if its form is modified.

Figure 3. Calculation of sentence movement.

First Draft   Example 1   Example 2
Sentence Place

(1)   (5)   (8)⌐
(2)   (6)⌐   (1)⌐┘ 6
(3)   (1)⌐┘ 4   (2)
(4)   (2)⌐   (3)⌐
(5)   (4)⌐┘ 1   (5)⌐┘ 1
(6)   (3)⌐   (6)⌐
(7)   (7)⌐┘ 3   (4)═┐ 1
(8)   (8)   (7)⌐┘ 2
             = 8   = 10

The number of added sentences in the revised drafts was also calculated as another index of the amount of revision. It seems necessary that the number of deleted sentences should be also counted; however preliminary observation revealed that very few students deleted the sentences in the revised drafts; therefore only the number of added sentences was counted.

Table 4.
The number of sentences in the first drafts

	Class A	Class B
Mean	11.6	8.9
SD	5.1	2.9

t = 2.28   df = 39   p<.5

Table 5.
Amount of sentence movement

	Class A	Class B
Mean	10.4	6.1
SD	19.1	4.6

t = 1.09   df = 27   n.s.

Table 6.

The number of added sentences

	Class A	Class B
Mean	2.3	2.1
SD	2.6	2.5

t = .25   df = 44   n.s.

Table 7. The number of sentences in the first drafts

	High ability group		Low ability group	
	Class A	Class B	Class A	Class B
Mean	13.3	10.7	12.3	9.5
SD	4.1	3.2	6.7	2.6

t = 1.02 df = 10 n.s.   t = 1.1 df = 9 n.s.

Table 8. Amount of sentence movement

	High ability group		Low ability group	
	Class A	Class B	Class A	Class B
Mean	7.7	0	12.9	4.2
SD	21.1	0	16.3	4.4

t = 1.09 df = 8 n.s.   t = 1.5 df = 8 n.s.

Table 9. The number of added sentences

	High ability group		Low ability group	
	Class A	Class B	Class A	Class B
Mean	1.6	2	3.75	0.9
SD	2.1	2	3.1	1.1

t = -.3 df = 10 n.s.   t = 2.47 df = 8 p<.5

VI. Discussion

The results from Tables 5 and 6 show that the use of COAN did not produce any significant differences between two classes. Tables 8 and 9 also indicate that the high ability students did not benefit from using COAN for revising their texts. However, COAN affected the amount of revision of the low ability group. The low ability group in Class A showed a tendency to move sentences more actively than their counterparts (p<.1). In addition, the low ability COAN users added significantly more sentences in the revised drafts than non-users (Table 9) in spite

of the fact that Class A students already wrote more sentences in the first drafts (Table 7).

Although it is likely that the students in Class A achieved higher figures in terms of sentence movement because of the greater number of sentences in their first drafts than the students in Class B, it does not seem unreasonable to conclude that the low proficiency group students made more revisions with the support of COAN.

An interesting finding the researcher did not expect was that in both classes, lower ability students showed more active sentence movement than higher ability students. According to previous research (Hayes et al. 1987), good writers are expected to make more macro revisions. Regardless of using COAN or not, it seems that TSA can help especially lower ability students to find coherence problems in their writing. This issue is interesting, but the research purpose here is not to clarify how TSA influences the writers' macro level revision, but to investigate the effects of COAN on macro level revising; therefore, I will not pursue it further here.

Let's take a closer look at the differences in the conditions for two classes again in order to understand the factors which influenced the low ability group. The only difference between these two classes is the use of COAN. Both groups performed TSA on computers, but Class A students used COAN and Class B students used word processors. When performing TSA, Class B students first identified sentence topics in the passages and deleted the remainder of each sentence. Then they arranged these sentence topics according to each progression type and drew diagrams. Although they had their original texts and diagrams in front of them on the computer screen, they could not see the texts and the diagrams at the same time because of the size of the computer screen. In addition, the movement of sentence topics in the diagram is not reflected in the corresponding original texts. Therefore, they were likely to first look at the diagrams and understand problems in their writings, and then manipulate their original passages. Considering these conditions, it can be speculated that when Class B students were revising their writings, low ability group students could be more easily distracted to local parts of the texts than high ability group students. Previous research findings point out that poor writers tend to make surface level revisions rather than macro level revisions (Hayes et al. 1987). Unlike good writers, who revise their writings

according to the order of importance, poor writers tend to revise any parts which come to their attention regardless of importance. Therefore, even after checking and understanding the coherence problems in their writings, when low ability group students faced their full texts, they may have been distracted by local problems.

In contrast, COAN users' revision in the diagram is reflected in the original texts. That is, when they find coherence problems and move sentence topics in the diagrams, this revision is directly reflected in the original texts. With the support of COAN, the low ability groups can revise macro problems without their attention being distracted to local problems by seeing the full text. Therefore, the use of COAN did not produce any differences in revision for the high ability group students, but helped the low ability groups students to concentrate on macro level problems in their writings.

VII. Conclusion

Recent development of computer software helps the writer in many respects, for example, making an outline, checking grammar and correcting spelling mistakes. However, writing is still a complex and cognitively heavy task. Because writers are busy generating ideas, putting them into grammatical structures, and remembering correct spelling, etc., they often cannot allocate their attention to monitoring their writing and do not notice logical jumps or coherence gaps. Even if they can afford to attend to the logical sequence of their own writings, checking the coherence in their own writings is very difficult because it is like checking their own thinking. One's own logic is too natural for anyone to analyze. Having no clear purpose for the writing, poor writers especially have difficulty revising the macro level problems and inevitably tend to focus on more micro revision.

Software such as COAN can help writers to put some distance between themselves and the writings, and concentrate on macro level problems. Combined with other software which checks grammatical and spelling mistakes, COAN can enable writers, especially poor writers, to produce more coherent and communicative written texts.

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Appendix
1) I use computers for my study. 2) For example, I use them for Internet, sending and reading e-mail, practicing typing and so on. 3) Sometimes I can't understand how to use computers, 4) then my friends teach me how to use it. 5) I think that computers are useful to keep a friendship. 6) Especially, Internet is very useful for my computer's study. 7)Internet has a lot of information. 8) Each information is useful for my thinking, too. 9) Someday I want to be a man who can use computers perfectly 10) and I think that I have to be that man. 11) So I have to study computers very hard in this college.
Target Order: 1)-2)-6)-7)-8)-3)-4)-5)-9)-10)-11)

3) Influence of Cognitive Factors on Communication Strategies

Chiaki IWAI

Introduction

In the study of second language (L2) acquisition, it is now a well-known fact that L2 learners need to possess different components of communicative competence to use language for communicative purposes. Traditional L2 studies mainly investigated L2 learners' grammatical competence, which includes linguistic knowledge of phonology, grammar, morphology, and lexicon. Since Selinker (1972) pointed out that L2 learners often rely on certain strategies in their interlanguage communication, however, it has been understood that L2 learners need more than the component of grammatical competence.

Strategic competence, which is now regarded as one of the components of communicative competence, controls L2 learners' ability to complement their linguistic inadequacy. Strategies that are used for this purpose are now called *communication strategies* (CS).

The academic research history of CS is rather short. Even after it was noticed by Selinder that L2 learners often depend on such strategies in actual language use, it was not until Tarone (in Tarone et al. 1976) formalized the concept of CS that many researchers paid attention to this non-linguistic aspect of L2 use. She defined an interactional definition of CS, which was adopted by such researchers as Faerch and Kasper (1983) and then later by the researchers of the Nijmegen project (Poulisse 1990).

CS studies in the past have presented several theoretical and methodological issues. Theoretically, Tarone's definition was criticized by Faerch and Kasper because it did not have a perspective of psychological processes underlying the use of CS. Faerch and Kasper proposed an alternative psycholinguistic definition.

The researchers of the Nijmegen project, however, could not be satisfied with the psycholinguistic definition, not because of its theoretical perspective but mainly because of the taxonomy of CS offered by Faerch and Kasper. For the Nijmegen researchers, it was necessary to have a psychologically plausible taxonomy.

Criticizing the previous CS studies for being product-oriented, they proposed a new taxonomy consisting of two archistrategies: conceptual strategies and linguistic strategies. (See Iwai (1996) for further discussion of this issue.)

Along with these theoretical and methodological issues, a great many empirical studies were conducted in the 1980s. The most common research question was whether the use of CS and the kinds of CS would be affected by L2 learners' proficiency levels. In addition to this, CS were examined from various standpoints. Some of the examples include: the relations between CS used in L1 and in L2, CS used by native speakers and non-native speakers, and influence of task nature on CS.

Although it was noticed at an early stage of CS studies that the use of CS would be affected by personal traits (e.g., Corder 1978), no systematic study, as far as I know, has been conducted to investigate their influence on CS use. Therefore, the study reported in this section aimed at examining the relation between personal variables and CS use.

About this Study

There have been may personal traits reported in psychological studies and linguistic studies. Among them, personality, anxiety and cognitive styles of individual learners have been focused on in many studies of second language acquisition. Since it was practically impossible to deal with all these factors in one experiment, it was decided prior to the experiment to investigate three types of cognitive factors: field dependence and independence (FD/FI), ambiguity tolerance, and reflection and impulsivity. While carrying out the experiment, however, I recognized that it was extremely difficult to investigate all these three factors at the same time; therefore, I decided to concentrate primarily on FD/FI of individual learners.

Research Procedures

Immediately after the TOEIC (Test of English for International Communication) was given to 60 students, I gave them a psychological test to measure their FD/FI levels. Combining the proficiency factor and the FD/FI factor, I selected 23 students who were classified into four groups according to the research goal.

Following the selection of these students, an oral interview consisting of three different tasks was given to each one of them. Since the researcher of this study is a non-native speaker of English, a native speaker was hired for the oral interview. (See the details of this research procedure in the following section of this report.)

Research Findings and Publication

After completing the experiment for this study, I analyzed the elicited data. The findings were summarized later and published in the following journal:

Chiaki Iwai. 1997. "Cognitive Styles and Communication Strategies." *NIDABA* (Linguistic Society of West Japan) No. 26, pp. 96-105. (Publication Date: March 31, 1997)

In the remaining section of my report, I would like to excerpt this paper and share the results of this study with readers of this report.

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Cognitive Styles and Communication Strategies

I. Introduction

The most noteworthy and remarkable accomplishment that has been delivered by researchers of second language acquisition (SLA) in the last two decades is the clarification of communicative competence. It is generally considered that it consists of four components: grammatical competence, sociolinguistic competence, discourse competence, and strategic competence (Canale and Swain 1980).

Communication strategies (CSs), the main focus of this research paper, have been dealt with in the research area of strategic competence, and they can be roughly defined as systematic attempts by second language learners to compensate for their linguistic shortcomings. The author of this paper reported a recent research trend in this area, and he indicated that it is necessary to clarify how individual differences are reflected on the use of CSs (Iwai 1996a and 1996b).

This paper first reports the results of an experiment conducted recently by the author to examine the relationship between different cognitive styles and the use of CSs, and the implications of the results and related research questions will be discussed later.[1] Three different types of tests were given to the subjects of this experiment to measure their cognitive styles, and this paper primarily concentrates on one of these cognitive styles, namely, field dependence (FD) and field independence (FI), of second language (L2) learners and their use of CSs.

II. Method and Hypotheses

1. Subjects

The total number of subjects in this study consists of twenty freshman and sophomore students majoring in International Studies at the university with which the present author is affiliated. They were chosen from a total of sixty students on the basis of the scores of an English proficiency test and the scores of a FD/FI test.

The proficiency test given in this experiment was an official version of the TOEIC (Test of English for International Communication), which is now widely taken by many English learners in the world. This test was adopted in this study due to the fact that it is a test battery to measure learners' communicative levels in English rather than their grammatical knowledge. For this reason, it was determined

to be most suitable for this study which is primarily concerned with English learners' communicative competence.

The test used to measure the cognitive styles of FD and FI is called the Group Embedded Figures Test (GEFT), which was produced by Witkin and his colleagues and has been commonly used in psychology-related studies (Witkin et al. 1971). It is provided as a booklet consisting of two sets of nine questions with seven preparatory questions. The highest score of this test is 18 and the lowest 0. Following the proficiency test, the GEFT was given to all sixty students.

Twenty students chosen from sixty students were classified into two by two matrix categories, i.e., TOEIC (high vs. low) and GEFT (FD vs. FI), and five subjects were assigned to each category.

Those students were requested to participate in oral interview sessions later. The table below shows mean scores and standard deviations of the TOEIC and the GEFT in four groups:

	H-FD	H-FI	L-FD	L-FI
N	5	5	5	5
TOEIC	616	627	438	431
SD	37.48	43.39	32.33	34.17
GEFT	6.2	15.8	7.4	16.8
SD	2.05	1.30	3.23	0.84

Table 1: Means and SD's of four groups
Note: H and L stands for high and low in the TOEIC.
FI is field independent, and FD is field dependent.

The TOEIC scores of the H-FD group and the H-FI group are significantly higher than the other two groups (independent t-test t=11.85 p<.01). The GEFT scores of the two FI groups are also much higher than the other two FD groups at a significant level (t=10.34 p<.01).

2. Tasks

Each individual subject took part in an oral interview consisting of three different tasks with three different control levels. Different tasks were administered because previous CS studies indicate that not only learners' variables (e.g., proficiency) but also task variables (kinds of tasks with different experimental control levels) affect CS use (e.g., Poulisse 1990). The interviewer was a female native English speaker with abundant experiences in SLA research, and the present author gave directions for these tasks in Japanese. Each interview lasted

approximately 30 to 40 minutes. The interview sessions were video-taped and audio-taped, and then transcribed later for analysis. The main activities of the three tasks are briefly summarized below.

Task 1: Picture Description. This is the same data eliciting technique as the present author reported in the last issue of the NIDABA (Iwai 1996a), although it was done orally this time. Two different pictures were shown to the interviewees, and they were asked to describe ten different stops in them. This task was presumably the easiest because the items in the picture to which it was considered that the subjects would apply certain CSs were mostly concrete nouns. Out of ten items that were required to describe, four items were targeted for the analyses of CS use. They are: the sun's ray, a flipper, a hat string, and a crab claw. Since the subjects' utterances were limited only to the target items, this task can be said to be most tightly controlled by the researcher.

Task 2: Story Retelling. (Appendix) This interview task was adopted from the Nijmegen project (Poulisse 1990, p. 217). Poulisse's original story in English was slightly modified and translated into Japanese. First, the story was told to the subjects in Japanese. Next, they were requested to reproduce it in Japanese in order to assure that the subjects understood the story and that they knew the target words in Japanese. Then, they were asked to retell the story in English with the help of a seven-frame comic strip. The investigated words are: an old people's home (*rojin home*), a care taker (*kanrinin*), a resume (*rirekisho*), and a funeral (*soshiki*).

Task 3: Free Talking. In this final task, the subjects talked with the interviewer about two photographs displayed to them. One picture was taken in front of a Japanese shrine, and two children wearing kimono were accompanied by their parents to visit the shrine for a *shichigosan* festival (a traditional Japanese ceremony to celebrate children's growth at the ages of seven, five, and three). Another picture shows two Japanese women divers putting on a traditional costume and holding a wooden *oke* (a tub or a big bucket) on top of their heads. It was assumed that the subjects had to rely on certain CSs to talk about these photos since no equivalent English words were available to describe main items in them. The observed words are: *shichigosan* (see above), *chitoseame* (a present of a long white stick candy to children), *ama* (women divers), and *oke* (see above). Finally, this can be said to be the least controlled task since the subjects were able to talk about anything they wanted to.

3. Hypotheses

Prior to the experiment, the following two statements were hypothesized:

Hypothesis 1: The kinds of CSs L2 learners use will not differ from each other despite their proficiency difference, which was the main result revealed by Iwai (1995).

Hypothesis 2: The cognitive style difference of FD and FI will affect their use of CSs. That is, FI learners will be able to use CSs more effectively than their counterparts because FI students, by nature, can find solutions to their lexical problems without being restricted to the actual images of the given tasks.

III. Results

1. Results of Task 1 and Task 2

Tables 2 and 3 on the next page show kinds and frequency of CSs used in Task 1 and Task 2, respectively. CSs were classified into five categories taking the process-oriented taxonomy advocated by the researchers of the Nijmegen project into account (see Poulisse and Schils 1989: 20-22; also Poulisse 1990: 109).[2] Although avoidance strategy was beyond their consideration, it is included in this study as in the product-oriented CS taxonomies (e.g., see Tarone 1983: 62-63). In addition, the occurrences of detouring strategy, which was found and named by the present author (Iwai 1996a), were counted for the analyses of the elicited data even though its use was observed only in Task 1. The author of this study pointed out and discussed the importance of inclusion of these two CSs in the previous study (Iwai 1996a).

To see how two factors (high vs. low in the TOEIC and FD vs. FI in the GEFT) affect the use of CSs, an analysis of variance (ANOVA) for a 2 x 2 design was conducted to each CS, except for the detouring strategy and the cases where no CS were used.[3] The former was excluded from the statistical analyses because its use was limited to Task 1 and that its relative occurrences were far fewer than any other CS category. Since the figures given in Tables 2 and 3 represent frequency of CS use, each subject's data of CS use were altered to percentage data in order to apply ANOVA to them. Furthermore, results of CS use in Task 2 and

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Table 2 (Task 1)

		HOCO	ANCO	DET	AVOID	NS
H-FD N=5	sun's ray	3		1		1
	flipper	3	2			
	hat strong	4			1	
	crab claw	4			1	
	Total	14	2	1	2	1
H-FD N=5	sun's ray	3		1		1
	flipper		1	3	1	
	hat strong	4			1	
	crab claw	5				
	Total	12	1	4	2	1
H-FD N=5	sun's ray	4			1	
	flipper	1		3	1	
	hat strong	3		1	1	
	crab claw	4			1	
	Total	12	0	4	4	0
H-FD N=5	sun's ray	5				
	flipper	1		2	2	
	hat strong	4	1			
	crab claw	3			2	
	Total	13	0	3	4	0

Table 3 (Task 2)

		HOCO	ANCO	DET	AVOID	NS
H-FD N=5	old people's home	1	4			
	care taker	1	3		1	
	resume		4		1	
	funeral	1	1			3
	Total	3	12	0	2	3
H-FD N=5	old people's home	1	4			
	care taker	1	3		1	
	resume	1	3		1	
	funeral		3			2
	Total	3	13	0	2	2
H-FD N=5	old people's home	3	1		1	
	care taker	2			3	
	resume	1	4			
	funeral		1		2	2
	Total	6	6	0	6	2
H-FD N=5	old people's home	3	1		1	
	care taker	2	1		2	
	resume	2	2		1	
	funeral	2	2			1
	Total	9	6	0	4	1

Table 2: Group total of CS use in Task 1   **Table 3**: Group total of CS use in Task 2

Note: Det = Detouring Strategy AVOID = Avoidance NS = No strategy use

Source	df	SS	MS	F-ratio
Between Groups				
Proficiency (A)	1	322.40	322.40	1.19
FD/FI (B)	1	7.81	7.81	0.03
A x B	1	154.01	154.01	0.57
Within Groups	16	4306.18	269.14	

Table 4: Results of ANOVA for HOCO (Task 1 + Task 2)

Source	df	SS	MS	F-ratio
Between Groups				
Proficiency (A)	1	3127.50	3127.50	20.44**
FD/FI (B)	1	0.68	0.68	0.00
A x B	1	0.00	0.00	0.00
Within Groups	16	2448.38	153.02	

Table 5: Results of ANOVA for ANCO (Task 1 + Task 2) **p<.01

Source	df	SS	MS	F-ratio
Between Groups				
Proficiency (A)	1	922.08	922.08	3.78
FD/FI (B)	1	22.90	22.90	0.94
A x B	1	5.83	5.83	0.02
Within Groups	16	2448.38	153.02	

Table 6: Results of ANOVA for AVOID (Task 1 + Task 2)

Source	df	SS	MS	F-ratio
Between Groups				
Proficiency (A)	1	420.44	420.44	0.71
FD/FI (B)	1	3.44	3.44	0.01
A x B	1	169.64	169.94	0.29
Within Groups	16	9472.11	592.01	

Table 7: Results of ANOVA for HOCO in Task 1

Source	df	SS	MS	F-ratio
Between Groups				
Proficiency (A)	1	8004.00	8004.00	0.02**
FD/FI (B)	1	13.94	13.94	0.94
A x B	1	0.00	0.00	0.00
Within Groups	16	12112.56	757.04	

Table 8: Results of ANOVA for ANCO in Task 2 **p<.01

Task 3 were combined because samples of CS use in each task were considered to be not large enough and, therefore, to lack in statistical reliability.

Tables 4 to 6 show the results of ANOVA in the categories of HOCO (Holistic Conceptual strategy), ANCO (Analytic Conceptual strategy), and AVOID, respectively. The results of statistical analyses in these tables reveal that the proficiency factor, the FD/FI factor, and their interaction effect did not affect the learners' CS use, except for the proficiency variable in Table 5 (significant at the level of $p < .01$). Thus, as far as Tasks 1 and 2 are concerned, learners' cognitive style difference turns out to have nothing to do with their CS use and, thus, Hypothesis 2 is rejected.

Further analyses are necessary to interpret the influence of proficiency difference obtained in Table 5. The statistical significance obviously derived from the fact that the learners with high English proficiency used the strategy of ANCO twice more frequently in Task 2 than those with low proficiency, which is displayed in Table 3 above. This is, however, not the case in Task 1 as Table 2 shows, where the strategy of HOCO predominates over other CSs. The risks of reliability violation being acknowledged, the strategy of HOCO in Task 1 and the strategy of ANCO in Task 2 were statistically processed by ANOVA, and the results shown in Tables 7 and 8 were obtained.

The results in Table 7 present statistical proof that the proficiency difference as well as the FD/FI difference did not affect learners' CS use in Task 1, although HOCO was a predominantly preferred CS in Task 1. Table 8, on the other hand, tells us that the use of ANCO strategy is affected in Task 2 by the proficiency factor (significant at $p < .01$).

These findings result in a contradictory conclusion to Hypothesis 1. Since no difference between groups was obtained, the hypothesis can be supported in Task 1, which is the most tightly controlled task as mentioned above. Contrary to this, the same hypothesis can be rejected from the results of Task 2 since the significance level of the proficiency factor reached $p < .01$. The reasons for these contradictory results will be discussed further in the discussion section.

2. Results of Task 3

The conventional CS taxonomies were not very useful for the analyses of CSs the subjects used in Task 3, except for *oke*.[4] This is because the target items

in this task were words about Japanese cultural events and customs, and, therefore, the subjects had to explain them with English words and phrases they knew. In such cases, we can hardly expect that the strategy of HOCO, which was the most common strategy in Task 1, would frequently be used.

For this reason, the analysis technique in terms of 'information bits' (IB) reported in Hirano (1987) was applied to elicited utterances, instead of the commonly used taxonomies. The IB analysis examines how much information a speaker gives to a target item in order to explain it. Take a look at the next example from one of our subjects:

(e.g.) I: Can you tell me anything about this picture?
S: Ah that is about celebrat, cebre, celebrating ceremony (N) ah, when, in Japanese (N) we celebrate the children grown up to the, 3 and 5 and 7 years old.
I: OK.
S: Nn and maybe this boy is 5 years old (N) and this girl is 7 years old (N) and, and they maybe they were going to the shrine.
Note: I=interviewer. S=student. N's in parentheses show some kinds of back channel cues such as "uh-huh."

The subject attempted to convey information on *shichigosan* in this interaction. The delivered messages consist of the following information bits: 1) *shichigosan* is a ceremony, 2) it is related to children's ages, and it is held at a shrine. Some subjects added further information bits, mentioning the reason why this ceremony was held and stating that it was a 'traditional' ceremony.

The elicited utterances were changed to numerical scores by giving one point to one information bit. Tables 9 to 12 summarize group totals of information bits for the target items.

Each subject's scores of information bits were counted, and an ANOVA for a 2 x 2 design was also run to investigate the influence of the proficiency factor and the FD/FI factor on our informants' utterances. The results are shown in Tables 13 to 15.

These tables indicate that proficiency is a significant factor in all of the target items, and, judging from the results from Tables 9 to 11, obviously more able learners can convey more detailed information than less able learners. This fact makes the interpretation of Hypothesis 1 further complicated. As mentioned in the previous section, the results of Task 1 support Hypothesis 1, while the results of Task 2 reject it. Here in Task 3, no conclusion for the kinds of CSs can be made, but it can be said that the amount of information is positively influenced by

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learners' proficiency.

Table 9: Group total of information bits on *shichigosan*

	C	A	P	R	T
H-FD	4	5	2	3	
H-FI	4	5	4	2	4
L-FD	1	3	1		
L-FI	5	4	1	1	

Information bits
C= ceremony
A= ages
P= place where it is held
R= reason
T= traditional

Table 10: Group total of information bits on *chitoseame*

	C	L	W	T	R
H-FD	5	4	1	0	1
H-FI	5	4	0	2	1
L-FD	3	2	0	0	0
L-FI	5	4	0	0	0

Information bits
C=candy
L=long
W=white
T=taste
R= reason why this candy is given

Table 11: Group total of information bits on *ama*

	D	C	W	NT
H-FD	4	4	4	0
H-FI	5	5	5	1
L-FD	3	3	3	
L-FI	3	5	5	

Information bits
D=dive or swim
C=catch
W=what they catch
NT=without using tanks

Table 12: Group total of HOCO and an information bit on *oke*

	HOCO	U
H-FD	1	5
H-FI	4	5
L-FD	2	2
L-FI	1	4

Information bits
U=what it is used for

Source	df	SS	MS	F-ratio
Between Groups				
Proficiency (A)	1	7.20	7.20	6.55*
FD/FI (B)	1	7.20	7.20	6.55*
A x B	1	0.20	0.20	0.18
Within Groups	16	2448.38	153.02	

Table 13: Results of ANOVA for *shichigosan*
*p<.05

Source	df	SS	MS	F-ratio
Between Groups				
Proficiency (A)	1	3.20	3.20	6.73*
FD/FI (B)	1	0.80	0.80	1.68
A x B	1	0.20	0.20	0.42
Within Groups	16	2448.38	153.02	

Table 14: Results of ANOVA for *chitoseame*
*p<.05

Source	df	SS	MS	F-ratio
Between Groups				
Proficiency (A)	1	3.81	3.81	6.50*
FD/FI (B)	1	1.18	1.18	2.01
A x B	1	0.42	0.42	0.72
Within Groups	16	2448.38	153.02	

Table 15: Results of ANOVA for *ama*
*p<.05

Another important finding from the analyses of Task 3 is that the cognitive style difference of FD and FI is a significant factor in the utterances for *shichigosan*

(p<.05), although no statistical significance is observable in the other two items. This provides us with a further research question regarding to Hypothesis 2. This hypothesis was rejected from the results of Tasks 1 and 2. The results of Task 3, however, partially support this hypothesis even though it cannot be confirmed from the present study.

IV. Discussion

The present study was carried out under the assumption that L2 learners' proficiency was not the only determinant factor for the use of CSs, and that individual differences deriving from the differences of their cognitive styles would be another important factor for CS use. Ironically, however, the obtained results did not present strong evidence to back up this assumption; instead, it was found that learners' proficiency was a key factor affecting their communicative performance in less controlled tasks.

One optimistic result regarding Hypothesis 2 was, however, found in one of the analyses in Task 3. This result can be interpreted in several ways, and one plausible interpretation is that the FD/FI difference may affect L2 learners' CS use in a natural interactional setting. On the other hand, strictly controlled circumstances as in Tasks 1 and 2 would not be appropriate to observe the differences of CS use affected by the cognitive factor.

Needless to say, this interpretation should be taken cautiously because no affirmative evidence was gained from the analyses in this study. Furthermore, it goes without saying that the FD/FI variable is not the only factor representing individual cognitive styles. In this research, two other cognitive tests to measure learners' ambiguity tolerance and reflection/impulsivity were given to the twenty subjects, and their scores varied to a great extent within each group. Further research is necessary to examine the relationship between cognitive style differences and the use of CSs.

Promising findings were obtained from this study regarding the influence of proficiency on CS use. Although the results of Task 1 were in favor of Hypothesis 1, Tasks 2 and 3 provided us with enough evidence to reject this hypothesis. It was found that the proficient learners relied on the strategy of ANCO more frequently than their counterparts (Task 2), and that their utterances contain much more information than less proficient learners (Task 3).

These findings are, however, not surprising because proficient learners have more means to deliver what they want to say. To use the strategy of ANCO, a speaker has to have not only analytical ability but also linguistic means to express what he or she analyses. In fact, many of the utterances that the proficient learners produced in Task 2 belong to the category of paraphrase in Tarone's product-oriented CS taxonomy. The less proficient learners, on the other hand, tended to find a right word or rely on the effort saving strategy (HOCO) more frequently. This is probably because less proficient learners have too many linguistic deficits to verbalize what they actually want to say. This difference between the proficient learners and the less proficient learners is reflected on the amount of information they delivered, which is observed in the results of Task 3.

V. Conclusion

Personal traits present intangible and complicated psychological questions. However, it is very interesting and challenging to know how language use is affected by them. An effort was made in this study to examine the relationship between the cognitive style difference in terms of FD and FI and the use of CSs. Although this study could not make concrete conclusions about their relationship, it does not reject the possibility that FD and FI have something to do with learners' CS use. It also revealed that a proficiency factor affects the kinds of CSs the learners use and the amount of information they give in less controlled communication settings.

Many research questions for future studies have derived from this study. One is that only one of the cognitive styles was investigated here, so, undoubtedly, other styles have to be examined. The number of subjects should be increased in future studies to raise the reliability of statistical analyses. Also, no time restriction was given to the experiment of this study. The author of this paper now has another assumption that the FD/FI difference is reflected on how fast learners can process what they want to say, rather than what CSs they would use. Finally, it is also necessary for future research to clarify the relationship between cognitive factors and CS use in their first language.

and carefully revise this paper. Without her kind help, I could not complete this study. Every shortcoming of this study is, of course, my own responsibility.

[Notes]

1 This study was supported by 1995 Hiroshima City University Grant for Special Academic Research (General Studies).

2 The CS taxonomy of the Nijmegen project has two main categories: conceptual strategies and linguistic strategies. The former consists of a holistic strategy (HOCO) and an analytic strategy (ANCO) as subcategories, and the latter also has two subcategories. Linguistic strategies were excluded from the analyses of the present study because their occurrences were extremely few in the obtained data.

3 These were the cases where subjects knew the target words, e.g., the sun's ray, in English and, therefore, did not have to use any CSs.

4 In fact, many subjects used the strategy of HOCO to explain *oke*. The most typical utterance was that first they described it by using HOCO such as "big bowls" or "big bags" and then stated what they were used for. No statistical analysis was run to this item.

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[**Appendix**] The story used in Task 2. (The underlined words indicate the investigated words. The comic strip is omitted.)

長い間スミスさんは<u>老人ホーム</u>の<u>管理人</u>として仕事をしたいと思っていました。あちこちに<u>履歴書</u>を出して、ついに仕事を手に入れました。そこで奥さんと一緒に近くのマンションに引っ越しました。次の日花屋さんからカードのついたきれいな花束が届けられました。カードには「心からお悔やみ申し上げます」と書かれていました。当然ながら驚いたスミスさんは、花屋さんに電話を入れ、このメッセージはどういうことか尋ねてみました。花屋さんは間違いに気付き、すぐにスミスさんに謝りましたしかし、花屋さんはスミスさんに送られるはずだった花束がある人の<u>葬式</u>の方に送られたことがもっと心配になりました。そこには「新天地おめでとうございます」と書かれていたのでした。