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Comparison of Motivation and Anxiety between Japanese EFL Learners and American JFL Learners

Iwamoto Noriko

Abstract

Recently, more studies have focused on L2 learners' psychological traits such as attitude, motivation, and anxiety; however, these studies are often conducted within the same cultural groups. This study conducted a cross-cultural examination of motivation and anxiety between 71 Japanese university students learning English and 60 American university students learning Japanese. The results of a 40-item questionnaire showed that American university students who chose to study Japanese, a difficult language for English speakers, tend to be more motivated and make greater efforts than Japanese students who study English as a compulsory subject. Although Japanese students have higher L2 proficiency, they feel greater anxiety, especially while speaking English in class. Data reduction through factor analysis extracted four factors, and Pearson correlation coefficients were calculated among them; these demonstrated that in both groups, learners having higher international posture have a greater desire to learn L2, and they report making greater efforts to improve L2. Language anxiety showed different characteristics between the two groups: Japanese students' language anxiety was negatively correlated with their desire to improve their Japanese language proficiency.

Introduction

Beginning April 2011, all Japanese elementary schools will be required to introduce foreign language classes for fifth- and sixth-graders. According to the Ministry of Education, Culture, Sports, Science, and Technology (MEXT), the introduction of foreign language classes will "further internationalize Japanese themselves and raise human resources who can work completely in international society" (Fukuda, 2010). In addition, in junior high schools, the number of foreign language classes will be increased from 315 to 420 next year (MEXT, 2010). These changes indicate that the Japanese government puts more emphasis on language education and provides opportunities for all school children to come in contact with a new language and culture.

A majority of Japanese schools teach English in foreign language classes, because as a world language, English is the most important foreign language in Japan. Moreover, English is included in entrance examinations for most Japanese high schools and universities. After being admitted to a university, students are usually required to take English classes, even if they are non-English majors. High English proficiency is often valued for obtaining a job, and in some companies, a certain level of English proficiency is necessary for getting promoted.

English is a world language that needs to be acquired to live in today's internationalized society. Therefore, many Japanese as well as non-English speaking people all over the world learn English. Thus, it appears that native English speakers have a great advantage over non-English speakers since English is their first language. Yet, many of them learn foreign languages at school. When English native speakers learn a second language (L2), their attitude toward L2 may be different from that of non-English speakers toward English. In this study, I compare Japanese university students learning English with American university students learning Japanese, and investigate the differences in two main L2 affective factors, motivation and anxiety.

Literature Review

Motivation

Gardner and MacIntyre (1993) describe the motivated individual as "one who wants to achieve a particular goal, devotes considerable effort to achieve this goal, and experiences satisfaction in the activities associated with achieving this goal" (p. 3). Dörnyei (2005) argues that motivation is so important in second language acquisition that a learner who possesses high aptitude but has insufficient motivation cannot acquire an L2 successfully. On the other hand, "high motivation can make up for considerable deficiencies both in one's language aptitude and learning conditions" (Dörnyei, 2005, p. 65).

Early second language acquisition researchers proposed that language aptitude plays a major role in language acquisition. However, Gardner and Lambert (1959) focused researchers' attention on the role of motivation. Motivation in this study was defined as "a willingness to be like valued members of the language community" (Gardner & Lambert, 1959, p. 21), which later became integrative motivation. In a subsequent study Gardner and Lambert (1972) developed items to assess integrative and instrumental orientations. Gardner and Lambert define integrative orientation as a positive disposition toward the L2 group and the desire to interact with and even integrate into that community, while instrumental orientation pertains to the pragmatic benefits of increased L2 proficiency, such as getting a good job.

Based on the socio-educational model, Gardner (1985) developed a multicomponential motivation questionnaire called the Attitude/Motivation Test Battery (AMTB). In addition to Integrative Motivation, the AMTB is designed to measure Instrumental Orientation, Anxiety, and Parental Encouragement. The AMTB has been considered an effective measure of motivation and has been used by researchers all over the world (Dörnyei, 2005).

Although Gardner's socio-educational model established the basis of motivational research, some researchers came to doubt the applicability of the model to foreign language contexts. Gardner emphasizes the importance of integrative motivation in L2 acquisition (Gardner, 1985), whereas other researchers argue that instrumental motivation is also important, especially in EFL contexts (Clément, Dörnyei, & Noels, 1994; Dörnyei, 1990). For example, Dörnyei (1990) reports that in the Hungarian EFL context, instrumental orientation plays an important role for learners to reach the intermediate level of proficiency. Moreover, Dörnyei questions the concept of integrative orientation in EFL situations because "affective predispositions toward the target language community are unlikely to explain a great proportion of the variance in language attainment" (p. 49).

Yashima (2002) agrees with Dörnyei (1990), noting that Japanese usually have little contact with English speakers in their daily lives and they do not have a clear affective response to specific L2 groups. Thus, she includes a new construct, International Posture, in her model, which she defines as an "interest in foreign or international affairs, willingness to go overseas to stay or work, readiness to interact with intercultural partners, and, one hopes, openness or a non-ethnocentric attitude toward different cultures, among others" (p. 57). In her structural equation model, International Posture had significant paths to L2 Learning Motivation and to Willingness to Communicate (Yashima, 2002).

Language Anxiety

Language anxiety is another important variable influencing learners' L2 learning and performance. Richards and Schmidt (2002) define foreign language anxiety as "subject feelings of apprehension and fear associated with language learning and use" (p. 285).

Horwitz, Horwitz and Cope (1986) describe three components of language anxiety: communication apprehension, test anxiety, and fear of negative evaluation. Communication apprehension is "an attitude characterized by fear of or anxiety about communicating with people," which includes oral communication anxiety, stage fright, and receiver anxiety (p. 126). Test anxiety refers to "a type of performance anxiety stemming from a fear of failure" (p. 126). Fear of negative evaluation is defined as an "apprehension about others' evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively" (Watson & Friend, 1969, p. 449). Taking account of the three characteristics of anxiety, the Foreign Language Classroom Anxiety (FLCAS) was developed by Horwitz et al. (1986), as a measure of anxiety specific to foreign language learning.

Language anxiety has often been investigated in the context of its relationship with L2 proficiency and most studies have indicated that language anxiety has a negative correlation with L2 proficiency (Aida, 1994; Horwitz, 1999; Saito & Samimy, 1996; Yamashiro & Sasaki, 1999).

Affective Variables among Japanese Learners of English

Recently, more studies have been conducted investigating Japanese university students' affective factors in a Japanese EFL context. For example, Ogane and Sakamoto (1997) examined 110 Japanese university students' EFL motivation using structural equation model (SEM). They reported the importance of motivation because in their model the critical paths were from Motivation to Perceived Effort (.89), from Motivation to Attitudes toward the English Language (.42), and Motivation to Desire to speak to native speakers (.89). Yamashiro and Sasaki (1999) investigated 141 Japanese junior college students majoring in English using questionnaire survey and revealed that the students had positive attitudes toward English and fairly high levels of motivation to learn English; however, they reported making little effort in their L2 study. Yamashiro and McLaughlin (2001) investigated 220 Japanese students' (95 junior college students and 125 university students) L2 attitudes/motivation using SEM and concluded that too much motivation causes higher anxiety which leads to lower level of English proficiency as measured by Comprehensive English Language Test (CELT). Yashima (2002) examined 389 Japanese university students' L2 learning variables through SEM procedures. Her model displays that International Posture influences L2 Learning Motivation consisting of Motivational Intensity and Desire to Learn English (.79), which lead to English Proficiency as measured by TOEFL test. Yahima, Noels, Shizuka, Takeuchi, Yamane, and Yoshizawa (2009) examined 182 Japanese university students' language anxiety and motivation and revealed that students' anxiety caused by not understanding the class had positive effects on all the motivation types (r = .30 to .48, p < .01 to .05), whereas "Lack of confidence in speaking English in class" and "Helplessness and negative attitude toward the English class" had negative effects (r = -.21 to -.38, p < .01 to .05).

Johnson and Johnson (2010) examined the motivational characteristics of 75 Japanese engineering students and found a strong instrumental/extrinsic nature for their motivation, because they study English mainly to attain university credits or to take standardized tests such as TOEIC to prepare for their career. Berwick and Ross (1989) argue that once students get into a university, they are left with "a motivational vacuum" and the intensity of motivation scored low in their study.

Affective Variables among American Learners of Japanese

According to the Modern Language Association, the number of Japanese learners in the U.S. was about 66,000 in 2006 (Chinen, 2010). However, compared with ESL and EFL research, the number of studies on Japanese as foreign language (JFL) is very limited. Among them, much of the research focuses on how to teach Japanese, whereas very few studies have focused on affective factors (Samimy, 1994; Samimy & Tabse, 1992). Samimy (1994) argues that it is very important to look into American JFL learners' psychological traits because Japanese is a difficult language for English speakers; hence, they are likely to feel a greater burden when learning Japanese compared with commonly taught languages such as Spanish or French. According to Jordan and Walton (1987), Japanese and Chinese are "truly foreign languages" for English speakers because they are "linguistically unrelated to English – that is, they are non-Indo-European and spoken within societies that are culturally in marked contrast to our own" (p.111). The Foreign Service Institute of the Department of State also reports that Japanese is one of the most difficult languages for English native speakers (Furuhata, 2002).

Although the number is small, some researchers have examined L2 affective factors of American JFL students. Aida (1994) examined 96 students in the Japanese classes at the University of Texas. The students' FLCAS scores were compared with their final course grades. The correlation coefficient between anxiety and course grade was r = -.38, p < .01, which indicated that higher anxiety was moderately associated with lower course grades. Saito and Samimy (1996) dealt with 257 students at the University of Texas and revealed that

Language Class Anxiety was the best predictor of the final grades of both intermediate and advanced level students (intermediate: $R^2 = .17$, p < .001; advanced: $R^2 = .22$, p < .004) and that anxiety exerts a negative influence on learners' performance. Samimy and Tabse (1992) examined affective variables among 70 American university students studying Japanese. The results of regression analysis reported that Strength of Motivation and Japanese Spoken at Home were the best predictors of the students' final grades ($R^2 = .30$, p < .05). Pearson correlation coefficients revealed that Strength of Motivation was significantly correlated with Language Class Sociability (r = .51, p = .001) and with Attitude Toward the Language Class (r = .53, p = .0006). In contrast, Language Class Discomfort was negatively correlated with Language Class Risktaking (r = -.62 to -.67, p < .0001). Thus, motivation positively influences the participants, while anxiety has a negative influence on them. Kitano (2001) investigated language anxiety of 212 university students learning Japanese in an American university and found that fear of negative evaluation of L2 speaking was a source of anxiety for the Japanese language learners, especially for advanced-level learners. The correlation coefficient between Fear of Negative Evaluation and Japanese Class Anxiety for advanced students (r = .54, p = .000) was higher than that for intermediate and elementary-level students (r = .24, p = .002).

Okada, Oxford, and Abo (1996) compared 36 American students learning Japanese and 36 American students learning Spanish on the basis of their attitudes toward the second language. It was revealed that Japanese learners were significantly more motivated to learn a second language, both intrinsically and extrinsically, than Spanish learners. The learners of Japanese also showed a strong interest in language learning, tended to make more effort and were more willing to learn about Japanese culture and people. The authors explain that Japanese learners are more motivated because they chose to learn a difficult language, which requires strenuous efforts, while Spanish is easier for English speakers and more likely chosen for meeting a language requirement.

Fukai (2000) conducted a qualitative study on language anxiety with two female American college students learning Japanese. From the interviews, it was found that the participants were afraid of committing mistakes while speaking Japanese in front of teachers and peers, and that they also felt test anxiety, especially when the test contained unfamiliar formats and tasks.

Shimokawa (2010) investigated the reasons that American students decided to take Japanese classes by interviewing 11 American university students taking Japanese classes.

With the exception of one student who took the Japanese class after she received a teaching job in Japan, 10 students were interested in Japanese pop culture such as video games and manga, which motivated them to learn Japanese. According to Shimokawa, in the past, Japanese was often learned for business purposes; currently many students choose to study Japanese because they like Japanese pop culture.

Cross-Cultural Comparisons of L2 Affective Variables

Little research has been conducted investigating the differences in L2 affective factors between Japanese EFL students and American JFL students. Redfield and Shawback (1996) compared their attitudes toward L2 by using a questionnaire with 155 American university students learning Japanese and 393 Japanese university students studying English. According to the survey results, American students had a significantly more positive view toward the second language. Redfield and Shawback maintain that this is because American students chose to study Japanese among many languages, while Japanese students had no choice but to take English. Yashima et al. (2009) compared 189 Japanese students' scores on the FLCAS with those of Aida's (1997) American students and found some items showed a marked contrast. For example, 77.9% of the Japanese students worry about the consequences of failing their language class, while 57% of American students noted the same attitude in Aida's study. Although 63% of the Japanese students are embarrassed to volunteer to answer in language class, only 25% of American students are. Cogan, Torney-Purta, and Anderson (1988), in their investigation of Japanese and American university students' attitudes toward foreign language study using 10 questionnaire items, revealed that American students are both intrinsically and instrumentally more motivated to learn a foreign language than Japanese students, although both student groups agree that it is important for them to learn a foreign language.

Purpose of the Study

Although more studies on L2 affective variables have been conducted recently, there is little research on a comparison of two different cultural groups. And the studies investigating this issue only compare the mean scores of the questionnaire items between the two groups. To fill this gap, in this study, I compare Japanese EFL students with American JFL students by not only looking at the questionnaire results but also finding L2 variables through factor analysis and examining the relationships of those variables. Therefore, the purpose of this study is to

demonstrate the differences between the two groups in more detail, which I believe can be important because comparing Japanese EFL students with other cultural groups may enable us to better comprehend Japanese students' attitudes toward learning English.

Research Questions

Three research questions are investigated in this study. The first research question is, "Are there any differences in the attitudes toward learning a second language between Japanese EFL learners and American JEF learners?" The second research question asks, "What L2 variables can be found from the questionnaire answered by Japanese and American students?" The third research question follows up on this by inquiring, "How do those L2 variables relate to each other in each group?"

Method

Participants

The participants included 72 Japanese students (62 males and 10 females) majoring in engineering in a Japanese university in the Kanto area and 61 American students (34 males and 27 females) from various majors, who were studying Japanese as a second language at an American university in Missouri. The Japanese students were all first-year college students who had studied English for at least six years in secondary schools. The American students consisted of 12 freshmen, 13 sophomores, 15 juniors, and 21 seniors. They all started to learn Japanese as university students; the beginner students had just started their first Japanese course, while the advanced students had studied Japanese for at least two years.

Instrument

A questionnaire including 40 items was used to measure the participants' attitude toward English/Japanese learning. The questionnaire was based on Gardner's (1985) Attitude/ Motivation Test Battery (AMTB) and Horwitz et al.' s (1986) Foreign Language Classroom Anxiety Scale (FLCAS). Moreover, some items were adapted from Gardner, Tremblay, and Masgoret (1997), Yashima (2002), Irie (2005), and Sick (2006) (Table 1). The participants answered each question using a six-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree.

Procedure

The Japanese participants were asked to fill in the questionnaire in the first day of the English class in April. American participants filled in the questionnaire in the second week of the Japanese class in September. The collected data were analyzed using SPSS 18.0 and Winsteps 3.70. The Alpha level for statistical significance was set at .05.

Results

The questionnaire data were collected from 73 Japanese students and 61 American students. The answers from two Japanese participants and one American participant were incomplete; hence, these data were deleted. Therefore, data from 71 Japanese and 60 American participants were used for the analysis.

Research Question 1

The first research question "Are there any differences in the attitudes toward learning a second language between Japanese EFL learners and American JFL learners?" was examined by comparing the mean scores of each item between the two groups. Table 1 shows the means and standard deviations of each questionnaire item and the t-values between Japanese and American mean scores.

Table 1. Comparison of Ea	ch Questionnaire Item between	Japanese and American Students

	Japa	nese	American		T (120)
Questionnaire Items	M	SD	M	SD	T (129)
1. English/Japanese class is one of my favorite classes.	3.45	1.54	5.20	1.40	-6.96**
2. I would take English/Japanese class even if it were not required.	4.29	1.58	5.35	1.23	-4.32**
3. I wish I had begun studying English/Japanese earlier.	4.19	1.67	5.78	.64	-7.52**
4. I wish we had more English/Japanese classes.	3.35	1.27	4.97	1.41	-7.06**
5. I believe absolutely English/Japanese should be taught at school.	5.13	.94	5.50	1.02	-2.18*
6. It is fun to learn English/Japanese.	3.74	1.29	5.47	.93	-9.06**
7. I want to improve my English/Japanese ability while I am a university student.	5.13	.94	5.63	.82	-3.25**
8. I feel that I need to acquire English/Japanese.	5.09	1.08	5.07	1.33	.09

	Japa	nese	American		T (120)
Questionnaire Items	М	SD	М	SD	- T (129)
9. I keep thinking that the other students are better at English/Japanese than I am.		1.60	3.67	1.34	2.81**
10. I tremble when I know that I am going to be called on in English/Japanese class.	4.20	1.61	2.92	1.52	4.56**
11. I worry about the exams in English/Japanese class.	4.12	1.43	3.32	1.64	2.80**
12. I worry about the consequences of failing my English/ Japanese class.	3.67	1.58	3.37	1.83	.85
13. In English/Japanese class, I get so nervous that I forget things I know.	3.48	1.53	3.80	1.60	-1.32
14. The more I study English/Japanese, the more confused I get.	2.81	1.20	2.62	1.38	.70
15. It embarrasses me to volunteer to answer in my English/ Japanese class.	4.03	1.37	2.90	1.52	4.29**
16. I feel overwhelmed by the number of rules I have to learn to acquire English/Japanese.	3.45	1.31	3.05	1.37	1.59
17. I study English/Japanese more than most of my classmates.	2.81	.94	3.67	1.27	-4.36**
18. I spend a lot of time studying English/Japanese.	2.65	.94	4.40	1.34	-8.45**
19. During English/Japanese classes I am absorbed in what is taught and concentrate on my studies.	3.99	.90	4.88	1.12	-5.20**
20. When I have a problem understanding what we are leaning in English/Japanese class, I always ask the instructor or friends for help.	3.57	1.23	4.43	1.24	-3.79**
21. I always check my corrected assignments in my English/ Japanese course.	3.84	1.24	4.88	1.11	-5.14**
22. I study hard for quizzes and tests for English/Japanese class.	4.00	1.04	4.85	1.16	-4.53**
23. I continue to study English/Japanese after I finish taking the required classes.	4.46	1.21	5.28	1.32	-3.84**
24. I want to live in a foreign country.	3.49	1.66	5.28	1.17	-7.37**
25. I want to study abroad.	3.26	1.53	5.40	1.01	-9.35**
26. I have a favorable impression towards British and Americans/ Japanese.	3.90	1.24	5.43	.98	-7.92**
27. I want to work in an international organization such as the United Nation.	2.51	1.27	3.55	1.63	-4.09**
28. I want to make friends with English/Japanese speaking people.	4.13	1.47	5.53	.87	-6.94**
29. I am interested in the culture of English speaking countries/Japanese culture.	3.83	1.48	5.65	.69	-9.50**

	Japa	nese	American		T (120)
Questionnaire Items	M	SD	M	SD	- T (129)
30. I want to work abroad in the future.	3.14	1.54	5.05	1.27	-7.71**
31. I want to have the kind of work that sends me overseas frequently.	2.81	1.36	4.58	1.50	-7.18**
32. Studying a foreign language is important to me because it will allow me to communicate more freely with people from other countries.	4.88	1.08	5.35	1.13	-2.39*
33. I study English/Japanese to get credits to graduate.	2.96	1.19	3.28	1.89	-1.20
34. I study English/Japanese because it is cool to be able to speak English/Japanese.	4.03	1.31	4.80	1.33	-3.58**
35. Learning English/Japanese is necessary in today's international world.	5.28	.89	5.08	1.17	1.11
36. English/Japanese is a must for me to succeed in the future.	4.87	1.34	4.50	1.55	1.49
37. I learn English/Japanese to be more knowledgeable.	4.00	1.26	5.23	.89	-6.54**
 I study English/Japanese because I think it will be useful in getting a good job. 	3.83	1.32	4.95	1.27	-5.06**
39. I study English/Japanese to travel abroad.	3.61	1.20	4.90	1.40	-5.76**
40. I study English/Japanese in order to get the information from English/Japanese books or Web sites.	3.10	1.33	3.82	1.61	-2.80**

p < .05, p < .01

In Table 1, the mean scores of 32 out of 40 questions were significantly different between Japanese and American students. Questions 1 to 7 indicate that American students have a significantly more positive attitude toward L2 than Japanese students, although both students equally feel the need to acquire a second language (item 8). Questions 9 to 16 are related to the anxiety that students feel in class while learning a second language. Japanese students feel significantly greater anxiety than American students in items 9, 10, 11, and 15. Questions 17 to 23 demonstrate that American students report making greater efforts in a language class than Japanese students. Questions 24 to 32 are questions about international posture, in which American students' mean scores are significantly higher than those of Japanese students. Questions 35 and 36 show that both Japanese and American students study Japanese for knowledge, travel, or job.

Research Question 2

The second research question "What L2 variables can be found from the questionnaire answered by Japanese and American students?" was examined by analyzing the 40 questionnaire items using principal factor analysis.

First, Japanese students' data were analyzed. Based on the screen plot, four factors were rotated using an oblimin rotation. Items 3, 5, 6, 16, 19, 36, 38, 39, and 40 were loaded below .40 or double-loaded; thus, these nine items were deleted (Field, 2005). The factor analysis was conducted again with the remaining 31 items. The results are shown in Table 2.

		Factor L	oading		
	1	2	3	4	Communality
Item 24	.674	096	.119	.076	.523
Item 25	.653	064	.089	.242	.551
Item 26	.802	.133	097	087	.773
Item 27	.588	.091	093	.357	.569
Item 28	.919	.012	137	.019	.499
Item 29	.813	079	216	.019	.420
Item 30	.832	.114	013	.173	.803
Item 31	.478	124	.097	.364	.759
Item 32	.538	279	.198	053	.385
Item 34	.510	.042	.394	.079	.529
Item 35	.502	025	.203	176	.225
Item 9	.147	.609	.233	117	.577
Item 10	149	.828	252	.169	.473
Item 11	.145	.858	.060	101	.592
Item 12	.040	.594	.138	125	.296
Item 13	.130	.708	022	083	.263
Item 14	110	.465	019	.147	.452
Item 15	161	.649	222	.003	.580
Item 7	.141	128	.651	.085	.564
Item 8	.302	088	.567	008	.626
Item 20	046	.045	.518	.115	.603
Item 21	238	047	.475	.067	.526
Item 22	116	.168	.686	018	.824

Table 2. Factor Loadings from Principal-Axis Factoring forQuestionnaire Items answered by Japanese Students

		Factor I	Loading		
	1	2	3	4	Communality
Item 23	.260	070	.562	.191	.669
Item 33	246	.151	410	223	.765
Item 1	.298	319	071	.447	.545
Item 2	.323	.061	007	.612	.476
Item 4	.355	.033	003	.733	.455
Item 17	184	150	.190	.585	.518
Item 18	100	044	.209	.697	.303
Item 37	.026	079	.303	.489	.451
% of variance	28.927	11.834	7.835	4.934	53.530

Note. N = 71. Boldface indicates factor loadings higher than .40.

Next, unidimensionality and item difficulty of each construct were examined using a Rash model, which has two major advantages in analyzing Likert-scale data; Rasch analysis checks whether the items in the questionnaire measure the same traits as the rest of the items and it also indicates the relative difficulty level of each item in comparison with other items in the questionnaire (Bond & Fox, 2007; McNamara, 1996). Bond and Fox (2007) suggest that items are considered a misfit when the mean square infit or outfit values are larger than 1.3. In other words, these items are not measuring the same traits as the rest of the items in the questionnaire, so they should be deleted. Following this guideline, unidimensionality of each construct was checked.

With regard to Factor 1 for Japanese students, no item was found to be a misfit; thus, 11 items (24, 25, 26, 27, 28, 29, 30, 31, 34, and 35) construct Japanese Factor 1, which was named International Posture. Winsteps reported item reliability as .98, item separation 6.93, person reliability .89, and person separation 2.88. Figure 1 is the item-person map for Japanese Factor 1. In the map, items are indicated by the item number, while persons' performances are represented by an "X" (representing one person) or a "#" (representing two persons). Persons and items are located on the map according to their ability and difficulty estimates, respectively; higher items represent those that the participants found difficult to agree with and lower items are agreed upon by most of the participants, while higher persons are those who have greater international posture and lower persons are less

internationally oriented. Based on Figure 1, many Japanese students recognize that English is necessary in today's internationalized society (Item 35, logit = -2.08) and that it will allow them to communicate freely with other people (Item 32, logit = -1.31). On the other hand, fewer students want to work abroad (Item 30, logit = .55; item 31, logit = 1.02) or in an international organization (Item 27, logit = 1.43).

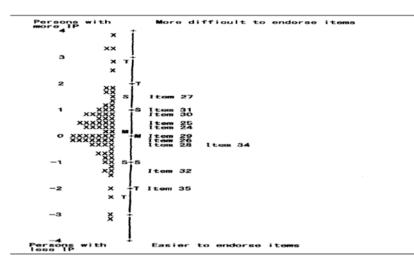


Figure 1. Item-person Map for International Posture (Japanese Factor 1)

The items loaded on Japanese Factor 2 were 9, 10, 11, 12, 13, 14, and 15. Item 9 was deleted since it was a misfit. Factor 2 was named Language Anxiety. According to Winsteps, item reliability was .94, item separation 3.89, person reliability .79, and person separation 1.94. Figure 2 shows the item-person map of Language Anxiety for Japanese students; higher persons represent those who have greater anxiety, while higher items are chosen by those who have great anxiety and lower items are agreed upon by most of the participants. From the map, we note that Japanese students tend to feel anxiety when they are called on (Item 10, logit = -.55) and when they volunteer to answer (Item 11, logit = -.43). They also worry about exams (Item 15, logit = -.33). In contrast, only those with high anxiety agreed with item 14, "The more I study English, the more confused I get" (logit = 1.00).

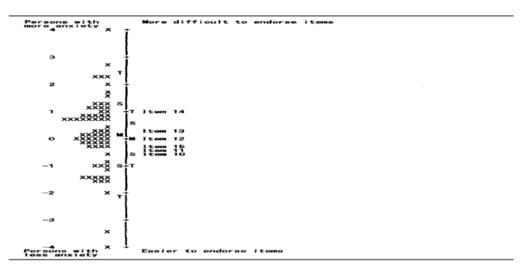


Figure 2. Item-person Map for Language Anxiety (Japanese Factor 2)

Factor 3 for Japanese students consists of items 7, 8, 20, 22, 23, and 33, with item 21 being deleted as it is a misfit. As item 33 had negatively loaded this factor (Table 2), the scores were reversely coded. Winsteps reported item reliability as .97, item separation 5.83, person reliability .65, and person separation 1.37. The person-item map of this construct is shown in Figure 3. The lower items 7 "I want to improve my English ability while I am a university student" (logit = -1.30), 8 "I feel that I need to acquire English" (logit = -1.21), and 23 "I continue to study English even after I finish taking the required classes" (logit = -.04) represent students' desire to improve English, while higher numbered items 20 "When I have a problem understanding something we are learning in English class, I always ask the instructor or friends for help" (logit = 1.26) and 22 "I study hard for quizzes and tests for English class" (logit = .72) show their efforts in English class. Therefore, Factor 3 was named Desire to Improve English & Effort In Class. From Factor 3 results, we can infer that most Japanese students feel the desire and necessity to improve their English, but only those with a strong desire to improve their English make an effort in their English class.

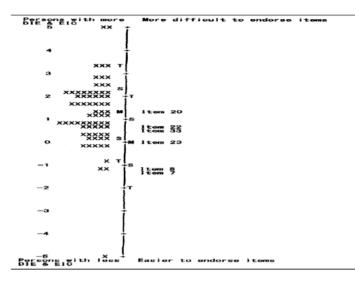


Figure 3. Item-person Map for Desire to Improve English & Effort In Class (Japanese Factor 3)

Factor 4 for Japanese students includes items 1, 2, 4, 17, 18, and 37 after deleting item 1 since it is a misfit. Winsteps reported item reliability as .98, item separation 6.30, person reliability .74, and person separation 1.68. The item-person map of this construct is shown in Figure 4. The lower items 2 "I would take English class even if it were not required" (logit = -1.39), 37 "I learn English to be more knowledgeable" (logit = -.90), and 4 "I wish we had more English classes" (logit = .10) represent students' desire to learn English, while upper items 17 "I study English more than most of my classmates" (logit = .95) and 18 "I spend a lot of time studying English" (logit = 1.23) represent students' efforts to study English. Items 17 and 18 did not load on Factor 3 along with items 20 and 22. This seems to indicate that the effort represented by items 17 and 18 is not the effort that students make toward English class coursework but the effort to study English outside of English class. Therefore, Factor 4 was named Desire to Learn English & Effort Outside Class.

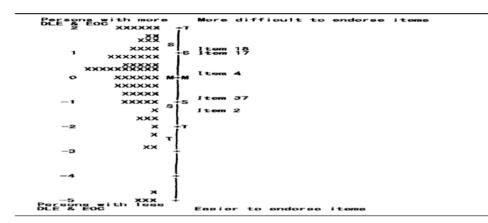


Figure 4. Item-person Map for Desire to Learn English & Efforts Outside Class (Japanese Factor 4)

Secondly, American students' data were analyzed. Based on the scree plot, four factors were rotated using an oblimin rotation. Items 1, 4, and 40 were loaded below .40 or double-loaded; therefore, these three items were deleted and the factor analysis was conducted with the remaining items. The results are shown in Table 3.

		Factor L	oading		
	1	2	3	4	Communality
Item 3	.572	.053	107	154	.692
Item 24	.709	.111	.149	.022	.289
Item 25	.530	211	.382	170	.488
Item 27	.585	060	034	.022	.719
Item 28	.435	251	.281	.079	.796
Item 29	.606	155	096	.306	.623
Item 30	.880	017	.058	.048	.500
Item 31	.761	037	.024	069	.584
Item 32	.789	.024	.000	.307	.672
Item 35	.631	.174	.034	.271	.658
Item 36	.560	.070	.372	.184	.627
Item 38	.632	059	.177	096	.511

Table 3. Factor Loadings from Principal-Axis Factoring forQuestionnaire Items answered by American Students

		Factor I	Loading		
	1	2	3	4	Communality
Item 39	.594	039	.355	.151	.608
Item 9	.133	.589	283	.088	.395
Item 10	173	.711	079	.132	.244
Item 11	.048	.849	.240	117	.544
Item 12	049	.831	.116	055	.548
Item 13	.019	.781	057	.121	.543
Item 14	.216	.466	332	242	.528
Item 15	166	.734	037	.003	.819
Item 16	.025	.540	041	231	.729
Item 33	.133	.525	216	.044	.603
Item 2	.283	298	.510	.075	.820
Item 5	.324	054	.516	112	.376
Item 6	.300	230	.509	.182	.418
Item 7	073	163	.807	.134	.567
Item 8	.280	085	.637	131	.701
Item 23	.112	307	.603	.140	.610
Item 26	.282	.088	.413	.117	.505
Item 37	027	012	.755	.104	.743
Item 17	094	004	.122	.469	.642
Item 18	.002	.176	.373	.579	.368
Item 19	.044	.001	006	.731	.343
Item 20	.159	239	187	.667	.524
Item 21	.112	077	003	.679	.535
Item 22	091	.015	042	.931	.843
Item 34	.335	.174	.122	.427	.579
% of variance	32.924	12.486	7.784	4.366	57.560

Note. N = 60. Boldface indicates factor loadings higher than .40.

After the factor analysis, four factors were extracted from the questionnaire items. Regarding Factor 1 for American students, items 27 and 28 had infit value larger than 1.3 and item 3 had an outfit value larger than 1.3; therefore, they were deleted from the analysis. As a result, the remaining 10 items (24, 25, 29, 30, 31, 32, 35, 36, 38, and 39) constructed American Factor 1, which was named International Posture. Winsteps reported item reliability as .92, item separation 3.32, person reliability .83, and person separation 2.21.

With regard to Figure 5, most students are interested in the Japanese culture (item 29, logit = -1.39), living or studying in a foreign country (item 24, logit= -.33; item 25, logit = -.61), and communicating with people from other countries (item 32, logit = -.49). Those who are greatly internationally oriented study Japanese for career purposes (item 36, logit = 1.00; item 38, logit = .32; item 31, logit = .89) or travel (item 39, logit = .40).

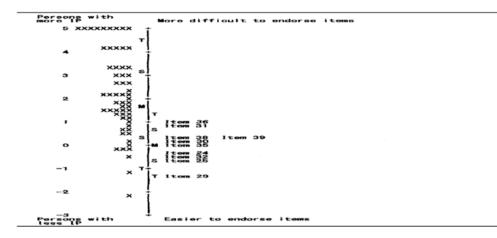


Figure 5. Item-person Map for International Posture (American Factor 1)

American Factor 2 consists of items 9, 10, 11, 12, 13, 14, 15, and 16 after deleting item 33, which had a bad fit. These items represent Language Anxiety. Winsteps reported item reliability as .88, item separation 2.73, person reliability .84, and person separation 2.33. Figure 6 shows the item-person map of Language Anxiety for American students. Most American students agreed with item 9 "I keep thinking that other students are better at Japanese than I am" (logit = -.48) and 13 "In Japanese class, I get so nervous that I forget things I know" (logit = -.61). Only those who have considerable anxiety do not want to be called on (item 10, logit = .29) or volunteer to answer in Japanese class (item 15, logit = .31), and they get more confused when they study Japanese (item 14, logit = .63).

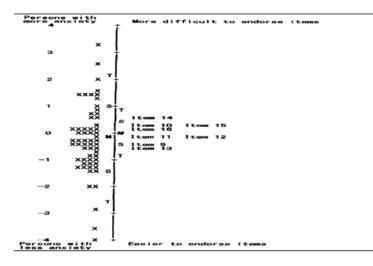


Figure 6. Item-person Map for Language Anxiety (American Factor 2)

The items loaded on Factor 3 for American students (1, 2, 6, 7, 8, 23, and 37) were examined. Winsteps detected item 1 as a misfit, so it was deleted. The remaining items represent the students' desire to improve their Japanese ability; hence, Factor 3 was named Desire to Improve Japanese. Winsteps reported item reliability as .81, item separation 2.08, person reliability .71, and person separation 1.55. Figure 7 shows the item-person map for this construct. Based on the lower part of the map, most students want to improve their Japanese ability while they are in university (item 7, logit = -.82), and they also think that learning Japanese is fun (item 6, logit = -.25). Figure 7 shows that many persons representing # are located in the upper part of the map, which is far above item 8, the most difficult item. This indicates that American students in this study have greater desire to improve their Japanese than these questionnaire items could measure.

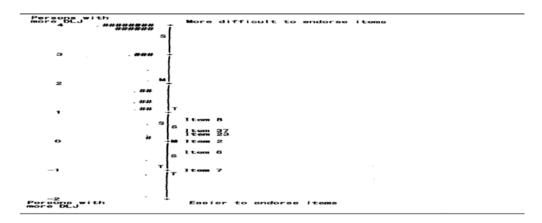


Figure 7. Item-person Map for Desire to Learn Japanese (American Factor 3)

Factor 4 for American students includes items 17, 18, 19, 20, 21, 22, and 34. Winsteps detected item 34 as a misfit, and thus, it was deleted. These items represent the efforts the students make in their Japanese class; thus, this factor was named Effort In Class. Winsteps reported item reliability as .72, item separation 1.74, person reliability .93, and person separation 1.68. The item-person map for this construct is shown in Figure 8; higher persons represent those who make more effort in a language class. Based on the map, items 19 (logit = -.57), 21 (logit = -.57), and 22 (logit = -.51) were agreed by most students; thus, many students report concentrating in class, checking their corrected assignments, and studying hard for the tests. Item 17 (logit = 1.25) is most difficult, indicating that only those who make great effort think that they study harder than other students.

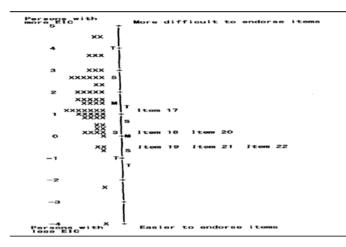


Figure 8. Item-person Map for Effort In Class (American Factor 4)

Research Question 3

The third research question, "How do those L2 variables relate to each other in each group?" was investigated by calculating Pearson correlation coefficients among the four variables for each Japanese and American group. Using the Bonferroni approach to control for a Type 1 error across six correlations, a p value of less than .008 (.05/6) was required for significance (Green & Salkind, 2004). The results of the correlation analyses for Japanese students are presented in Table 4 and the results for American students are presented in Table 5.

Table 4. Correlations among L2 Variables for Japanese EFL students

1	2	3	4
25			
.40*	28		
.44*	20	.41*	
	.40*	.40*28	 25 .40*28

*p < .008

	1	2	3	4
1. International Posture				
2. Language Anxiety	13			
3. Desire to Improve Japanese	.70*	36*		
4. Effort In Class	.42*	20	.39*	

Table 5. Correlations among L2 Variables for American JFL students

*p < .008

The results in Table 4 show that Japanese students having higher international posture have a greater desire to learn English and improve their English proficiency and they report making greater efforts to study English both in and outside English classes. However, anxiety did not have any significant relationship with other variables. Table 5 shows that American students who are internationally oriented tend to have greater desire to improve their Japanese and they report making more effort in Japanese classes; however, students having greater language anxiety have less desire to learn Japanese.

Discussion

The first research question examined the difference in L2 attitudes between Japanese and American students. The results showed that American students tend to have a more positive attitude toward a second language and report making greater effort in language classes than Japanese students. This result is the same as that of Redfield and Shawback (1996), who state that American students who choose to learn Japanese are more motivated to learn L2 than Japanese students who learn English as a compulsory subject. In addition, Americans students are more internationally oriented than Japanese students. Although Japanese students have a higher L2 proficiency than American students, they are likely to feel greater anxiety especially while speaking English.

Data reduction through factor analysis indicated four factors for each group. Factor 1 in both groups was named International Posture. A majority of the American students are interested in the Japanese culture (logit = -1.39); thus, as in Shimokawa's (2010) study, American students in this study also chose to study Japanese because they were interested in the Japanese culture. In contrast, Japanese students are not as interested in culture as American students (logit = .00). American students are likely to agree with Items 24 "I want

to live in a foreign country" and 25 "I want to study abroad," whereas Japanese students did not often agree with these items. Item 35 "learning English/Japanese is necessary in today's international world" was agreed by most Japanese students, but for Americans, it had an average difficulty. Items 36 "English/Japanese is a must for me to succeed in the future," 38 "I study English/Japanese because I think it will be useful in getting a good job," and 39 "I study English/Japanese to travel abroad" are only included in American Factor 1. Thus, it appears that for American students, the purpose of learning Japanese includes traveling to Japan or working in Japan, while Japanese students mainly think that they study English because it is necessary in a globalized world.

Factor 2 for both groups was labeled Language Anxiety. Comparing the two groups, we notice that Japanese students are very likely to agree with items 10 "I tremble when I know that I am going to be called on in English/Japanese class" (logit = -.55) and 15 "It embarrasses me to volunteer to answer in my English/Japanese class" (logit = -.34), whereas fewer American students agreed with these items (Item 10, logit = .29; Item 15, logit = .31). Fukai (2000) reports that American students learning Japanese tend to feel the greatest anxiety while speaking Japanese in front of others; however, it appears that as compared to American students, Japanese students tend to feel much greater anxiety toward L2 speaking. In addition, many American students agreed with items 9 "I keep thinking that other students are better at Japanese than I am" (logit = -.48) and 13 "In Japanese class, I get so nervous that I forget things I know" (logit = -.61), whereas for Japanese students, item 13 is above average (logit = .26) and item 9 did not load on this factor. Moreover, item 16 "I feel overwhelmed by the number of rules I have to learn to acquire English/Japanese" only loaded on American Factor 2. Therefore, it can be said that American students who started to learn Japanese at university tend to feel anxiety toward their own L2 proficiency, while Japanese students who already have a certain level of English proficiency but have not had much oral communication practice at secondary school are more likely to feel anxiety while speaking English in front of others.

Japanese Factor 3 was labeled Desire to Improve English & Efforts In Class, while American Factor 3 was labeled Desire to Improve Japanese. In Japanese Factor 3, the bottom items 7 and 8 show that students want to improve their English abilities and they feel the necessity to do so. In American Factor 3, American students easily agreed with item 7, but item 8 is the most difficult item in this construct. Moreover, most American students agreed with item 6 "It is fun to learn English/Japanese," whereas this item did not load on any Japanese factors. Therefore, most American students find learning Japanese interesting, but many Japanese students desire to learn English not because it is fun, but because it is important in the international society.

Japanese Factor 4 was labeled Desire to Learn English & Efforts Outside Class, while American Factor 4 was labeled Effort In Class. The main difference is that for Japanese students, items 20 and 22 are loaded on Factor 3 and items 17 and 18 are loaded on Factor 4, whereas for American students, these items are loaded on Factor 4 only. This may imply that American students tend to spend much time studying their Japanese coursework; on the other hand, when Japanese students say that they spend a lot of time studying English, they mean that they study English outside their coursework.

Finally, the third research question investigated the relationships among the four variables for each group. The Japanese students who are internationally oriented want to learn and improve their English. They report that they make greater efforts to study English both in and outside English class. The American students who have greater international posture also have a greater desire to improve their Japanese, and they report studying hard in Japanese class.

The main difference between the two groups is that American students' language anxiety is negatively correlated with their desire to learn Japanese; however, no significant correlations are found between Japanese students' language anxiety and other variables. This may be because American students take Japanese classes voluntarily due to their interest in Japanese culture and language; therefore, those who feel greater anxiety and stress by learning Japanese are likely to lack their motivation to improve Japanese. On the contrary, Japanese students are required to take English classes as a compulsory subject know that to acquire English is important in Japanese society. Probably for this reason, unlike American students their language anxiety does not have significantly negative relationships with their desire and effort to improve their English proficiency.

Conclusion

This study conducted a cross-cultural examination of L2 attitudes between Japanese EFL students and American JFL students. The results of this study can bring up two classroom implications. First, since it was found that Japanese students tend to feel greater language anxiety than American students, especially when they speak L2 in front of others, teachers should take account of students' nervousness when teaching. However, students' anxiety may

not be too detrimental for L2 study because it did not have significantly negative correlations with other variables. Second, it was revealed that American students are more interested in L2 language and culture than Japanese students. Yet, like the American counterpart, Japanese students' international posture is positively correlated with their desire and effort to improve their L2 proficiency. When they teach engineer majors, many teachers tend to emphasize English as tools rather than cultural aspects. However, the findings of this study seem to suggest the importance of developing students' international posture as well.

Two improvements can be suggested for future study. First, since the American students in this study scored very high on many questionnaire items; more difficult items should be developed to effectively measure American students' attitudes. Second, this study dealt with Japanese engineering majors only; research on literature students majoring in English may show somewhat different results, because as compared to engineering students, English majors are often more interested in learning English.

Studies showing cross-cultural comparisons of L2 learners' affective variables are still scarce, but this type of research should be conducted more in order to shed new light on this field of study. I believe that comparing two different cultural groups will help us better understand the new aspects of language learning, which may not be found by observing only one cultural group at a time.

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