

The Interplay of Classroom Anxiety, Intrinsic Motivation, and Gender in the Japanese EFL Context

日本人英語学習者における外国語不安と学習動機の関係と性差

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本研究では、外国語不安と学習動機および性差の関係を調べるため、日本人英語学習者182人を対象に外国語教室不安尺度（FLCAS）と自己決定論を基盤にした学習動機尺度からなる質問紙調査を実施した。外国語教室不安尺度の因子分析により、抽出された5因子のうち、「教室で英語を話す自信のなさ」「英語のクラスに対する否定的態度」は内発的動機と負の相関が見られたが、「すべてを理解できないことに対する不安」は内発的動機と正の相関が見られた。外国語教室不安尺度の構成要因の中で、動機と正の相関を示すものと負の相関を示すものの両方が見つかり、これに性差が関連していることが分析より明らかになった。全体的に、女子学生のほうが、自己決定度の高い動機をもっていることも示された。

キーワード

language anxiety（外国語不安）、L2 learning motivation（第2言語学習動機）、Self-determination theory（自己決定論）、intrinsic motivation（内発的動機）、FLCAS（外国語教室不安尺度）

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1. Introduction

Two social psychological constructs that have received much attention from applied linguists interested in the psychological dynamics of language learning are language learning anxiety and motivation. Although much research has been conducted focusing on one or the other of these constructs in past decades, interrelationships between the two have not been fully explored. When EFL teaching methods are undergoing drastic changes at Japanese schools, it is ever more important to pay attention to learners' affective variables and their interrelations, as learners' psychology mirrors the effectiveness of teaching. Another aspect that has not been investigated fully is gender differences in anxiety and motivation. The purpose of this study is to investigate the interrelationship between language anxiety and motivation as they are experienced by Japanese learners of English, as well as gender differences observed among them. Besides, as Dörnyei, (2005) notes, there is an overall uncertainty about the construct of language learning anxiety —whether it is a motivational component, a personality trait, or situation-specific emotional reactions. To investigate the relationships between anxiety and motivational constructs will help clarify the nature of both language anxiety and language learning motivation as psychological constructs.

2. L2 learning anxiety and motivation

2.1 Language Learning Anxiety

Learning a second language can be a particularly anxiety-provoking experience for several reasons. As Young (1999) points out, when students are asked to express themselves using a language in which they have limited competence, the task can be very threatening to their self-image. According to Horwitz, *et al.*, (1986) “performance in the L2 is likely to challenge an individual's self-concept as a competent communicator” and this might lead to “reticence, self-consciousness, fear or even panic.” Consistent with this position, communication apprehension in an L2 combined with perceived communication competence in the L2 has been shown to affect one's willingness to communicate in the L2 (MacIntyre & Charos, 1996; Yashima, 2002; Yashima, *et al.*, 2004). Moreover, those people who are perfectionistic may be particularly at risk of experiencing language anxiety (Gregersen & Horwitz, 2002). In a language classroom, the sense of being evaluated by the classmates in addition to the teacher adds to their anxiety level (e.g., Kitano, 2001; Price, 1991; Young, 1990; 1991). One of the most widely used language learning anxiety indices is the Foreign Language Classroom Anxiety

Scales (FLCAS). The theoretical foundation of this instrument includes both communication apprehension and fear of negative evaluation as well as test anxiety (Horwitz, *et al.*, 1986).

Anxiety has been shown to negatively influence second language learning, including achievement (Horwitz, 1986; 2001; Young, 1986) and language processing (MacIntyre & Gardner 1991, 1994). Sparks and his associates argue that language anxiety is a consequence of L2 learning difficulties (Ganschow & Sparks, 1996; Sparks & Ganschow, 1991; Sparks *et al.*, 2000). Anxiety is also implicated with personality as Dewaele (2002) discusses that introverts are generally anxious and they have combined effects on L2 production. Studies using FLCAS or adapted versions have assessed anxiety in different skill areas (Cheng *et al.*, 1999; Elkhafaifi, 2005; Saito *et al.*, 1999). Reading, writing, as well as listening in an L2 can trigger anxiety, but speaking seems to be most anxiety-provoking (Horwitz *et al.*, 1986; Price, 1991), perhaps because of the requisite immediacy of the response.

Understanding language anxiety and motivation in Japanese learners of English at this time is of considerable interest because of widespread changes taking place in the manner of programming foreign language instruction, particularly English. In high school and college English classrooms in Japan, grammar/translation is giving way to more communicative teaching practices including extensive reading, paragraph writing, speech-making, and debate. Native English speakers teach classes where oral performance is emphasized, while Japanese teachers are encouraged to use English as the medium of instruction. This trend has accelerated since 2002, when the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) announced an “Action Plan to Cultivate Japanese with English Abilities” (MEXT, 2002). This move could change at least two aspects of learning in relation to anxiety: first, students will be exposed to instructions given in English in addition to and instead of Japanese; and second, students will be expected to use English in the classroom when responding to questions and talking to classmates. This makes anxiety in using an L2 relevant for the first time in this context. We also need to note that Japanese educational practices in all subject areas have not heretofore encouraged students to interact with teachers and classmates (e.g., by exchanging opinions) in class. In other words, communicative interaction in the classroom is not a behavior in which students have been socialized.

At a time when a nationwide reform is affecting the way English is taught as well as the kinds of the classroom experiences of a great number of learners, we believe it has become more important than ever before to take a closer look at the affective aspects of L2 learners. As communicative teaching enhances opportunities for learners to use English, this trend may be motivating for those students who enjoy expressing themselves in English. On the other

hand, for learners who tend to be anxious in using an L2, the transition could result in a loss of motivation. It is, therefore, timely to investigate the interrelations between language learning motivation and anxiety.

2.2 Language Learning Motivation

Although anxiety may lead many students to avoid learning a second language, at the same time a variety of motivations may encourage students' involvement in language learning. Although many models of motivation have been proposed for understanding the dynamics of this process in the language classroom (see Dörnyei, 2001; 2005 for overview), Noels and her colleagues (e.g., Noels, 2001; Noels *et al.*, 2001) have argued that an understanding of language learning motivation is enhanced by considering Deci and Ryan's Self-determination theory (SDT: Deci & Ryan, 1985; Deci *et al.*, 1991). This theory maintains that motivation can be broadly categorized in terms of two orientations, including intrinsic and extrinsic motivation. Intrinsic motivation refers to the desire to perform an activity because it is enjoyable and personally satisfying to do so. These feelings of pleasure are believed to derive from the sense that one has freely chosen to perform an activity in which they are developing competence, and that this decision to engage in the activity is supported by others.

Conversely, many students may be extrinsically motivated, such that a goal external to the language learning activity serves as the rationale for performing the activity. Deci and Ryan (1985) suggest that there are several types of extrinsic motivation, which vary in the extent to which the goal is controlled by the individual or by external contingencies. The least self-determined form of extrinsic motivation is external regulation, in which the person performs the activity to achieve some instrumental end, such as to gain a reward or to avoid punishment. Externally regulated students have not chosen the activity of their own free will, and hence are unlikely to incorporate second language learning into their identities. A second type of extrinsic motivation, somewhat more internally regulated, is introjected regulation. A student whose motivational orientation is described as introjected performs an activity because of a self-induced pressure, such as a desire to avoid guilt or for ego-enhancement reasons. Somewhat more self-governed is identified regulation, which refers to carrying out an activity because it is important to attaining a goal valued by the individual. The activity will help the individual to achieve some goal that is highly desired. Finally learners are amotivated when they perceive their behaviors are caused by forces out of their control and that there is no sense of purpose in performing them. An important claim of this theory is that, over time, an externally regulated activity may become more internally regulated to the extent that students

feel that they have freely chosen to participate in the learning process, that their skills and competence are improving, and that they are supported in these activities by significant others.

Deci and Ryan (2000) argue that there is an innate tendency for humans to execute activities that they enjoy and to integrate these activities into their self-concepts. These claims are supported by empirical research on language learning which demonstrates that intrinsically motivated and highly self-determined students tend to be more persistent and exhibit greater motivational intensity (Noels, 2001; Noels *et al.*, 1999; Ramage, 1990), use the second language more often, and have better speaking and reading proficiency (Ehrman, 1996; Noels *et al.*, 1999, 2001; Tachibana *et al.*, 1996). Of particular importance for the present study, these behavioral outcomes parallel positive feelings about language learning: these students also tend to have less anxiety, more positive attitudes towards language learning, and increased feelings of self-efficacy (Ehrman, 1996; Schmidt *et al.*, 1996). For instance, in their examination of Anglophone learners of French, Noels and her colleagues (1999) found that greater anxiety in the classroom was associated with amotivation, and lower levels of identified regulation and intrinsic motivation (Noels *et al.*, 1999; Noels *et al.*, 2000). Such findings are supported by other researchers who have assessed the relation between anxiety (and its related construct, self-confidence) and motivation (e.g. Clément, 1986; Gardner *et al.*, 1997; Tremblay & Gardner, 1995).

2.3 Gender and L2 motivation/anxiety

Affective processes such as anxiety and motivation may be two important factors that help explain gender differences in engagement in L2 learning. There is a widespread impression that language learning is a feminized field, which partly comes from the enrollment pattern in language-related courses. Kobayashi (2002) cites MEXT's report of 1998 that says 67% of foreign language majors in Japanese university are women. Similarly, according to National Center for Education Statistics (2003), 72.5% of bachelors degrees in foreign languages and literature in the U.S. were earned by women. Some studies have empirically shown gender differences in motivation (Gardner, 1985; Samimy & Tabuse, 1992), attitude, and performance (Clark & Trafford, 1995). Sung and Padilla (1998) show that female students at American elementary and secondary schools have higher motivation to learn Asian languages than male students. Dörnyei and his associates' large scale studies also demonstrate the superiority of girls in the measures of attitudes and motivation (Csizér & Dörnyei, 2005; Dörnyei & Csizér, 2002). A study on Arabic students in Canada indicate that women have

more positive attitudes toward the host culture and a higher level of integrative motivation while men tend to have a higher extent of instrumental motivation (Abu-Rabia, 1997). Turning to Japan, Kobayashi's (2002) survey reports that female Japanese high school students have significantly more positive attitudes toward and are more interested in learning English.

In psychological research, where social anxiety has been often studied in relation to gender, women have been reported to show a higher level of social anxiety than men (e.g., Dell'Osso *et al.*, 2002; Turk *et al.*, 1998). Likewise research conducted by communication scholars suggests that communication apprehension is experienced more by women than by men (Lustig & Andersen, 1990, Jaasma, 1999) and by those with feminine than masculine psychological gender (Strohkirch & Park, 1986). So far, however, not much has been reported about gender differences in language anxiety, and among the research conducted, very different patterns are found depending on language learning contexts. Aida (1994) found that male learners of Japanese scored significantly higher in FLCAS than female students. MacIntyre *et al.* (2003) also reported higher anxiety among grade 9 boys than girls. Lin and Rancer (2003) found that men reported experiencing higher apprehension about intercultural communication than do women. Considering the scarcity of research in gender and L2 anxiety, the topic merits investigation.

3. The study

3.1 Objectives of the study

The objectives of the investigations are:

- (1) to gain insight into Japanese learners' anxiety experience in classrooms through a closer examination of the internal structure of FLCAS,
- (2) to replicate the self-determination continuum in Noels *et al.* (2000) to determine whether Deci and Ryan's self-regulation framework is appropriate to examine Japanese learners' classroom-based motivation to learn English,
- (3) to examine the interrelations between anxiety as measured by FLCAS and intrinsic/extrinsic motivation based on the SDT framework, and
- (4) to investigate whether there are any gender differences in levels of anxiety and motivation.

3.2 Methods

3.2.1 Participants

First-year students (78 females and 103 males, one unknown) enrolled in EFL classes at a large private university in Japan were asked to participate in the study, including 182 students from four faculties: law, economics, commerce, and letters. All participants had studied English as a foreign language for six years in the secondary education system. Slightly more than half (58%) received some form of English instruction of some kind when they were at the elementary school age¹⁾.

3.2.2 Procedure

The participants responded to a questionnaire during the regular English class periods in January, 2005. They were informed that their participation was voluntary and that their responses would remain confidential. The Japanese academic year starts in April, and therefore the students had received almost two semesters' English education at college when the questionnaire was administered.

3.2.3 Instruments

The materials included instruments that have been well validated and widely used in the language learning literature. They were translated into Japanese and back-translated, followed by discussion on the wording of the items among bilingual researchers. Minor modifications were made for the Japanese context [e.g., in the Language Learning Orientations Scale (Noels *et al.* 1999), "French" was replaced with "English."]

The material used in the study consists of two sections:

- 1) A Japanese version of FLCAS, (Horwitz, *et al.*, 1986). Participants were presented with various statements and asked to indicate on a five-point scale (from 1: It does not apply to me at all to 5: It applies to me completely) the extent to which the item applied to them.
- 2) A Japanese version of the intrinsic motivation, extrinsic motivation, amotivation subscales of the Language Learning Orientations Scale (LLOS; Noels *et al.*, 2000). Students were presented with a variety of statements representing different reasons, based on the motivational orientations outlined in SDT (Deci & Ryan, 1985) for learning English and responded to each item on a six-point scale from 1: It does not apply to me at all to 6: It applies to me completely.

3.3 Results

To address the objectives of this study, four sets of analyses were conducted. First the factor structure of the FLCAS was examined. Second, the structural validity of the LLOS was examined by correlational analyses. Third, the interrelationships between the various types of anxiety and motivation were examined. Finally, gender differences in the level of anxiety and motivation were investigated.

3.3.1 Descriptive statistics of FLCAS

The current study with 182 Japanese learners of English yielded a total mean score of 100.95 (*SD* 18.05) with the internal consistency (Cronbach's alpha) of .89. In ten of the 33 items, more than 50% of the respondents answered that the descriptions of the items apply to them completely or somewhat (or do not apply to them in reverse items). Some of the highest endorsed items (over 60 %) include Item 10, "I worry about the consequences of failing my English class (77.9%)," Item 11, "I don't understand why some people get so upset over English classes (negatively endorsed, 74.6%)," Item 13, "It embarrasses me to volunteer answers in my English class" (63.8%), Item 14, "I would not be nervous speaking English with native speakers" (negatively endorsed, 66.7%), Item 18, I feel confident when I speak in my English class (negatively endorsed, 74.9%), Item 32, I would probably feel comfortable around native speakers of English (negatively endorsed, 64.6%).

3.3.2 Factor Analysis of FLCAS

To examine the underlying structure of FLCAS, a principal axis factor analysis with promax rotation was performed. Examination of the scree plot and various different solutions resulted in five factors accounting for 51.9% of the total variance. The factor loadings (>.35) and Cronbach's alphas are shown on Table 1.

Nine items loaded on Factor 1. They included Item 1, "I am never quite sure of myself when I am speaking in my English class," Item 7, "I keep thinking that the other students are better at English than I am," Item 13, "It embarrasses me to volunteer answers in my English class," as well as negatively loaded items such as Item 18, "I feel confident when I speak in English class." Because this factor reflects English classroom anxiety with a focus on speaking, it was labeled *Lack of confidence in speaking English in class*.

Factor 2 obtained appreciative loadings from ten items including Item 3, "I tremble when I know that I'm going to be called," Item 9, "I start to panic when I have to speak without preparation in English class," Item 12, "In English class, I can get so nervous I forget things I

Table 1 Factor loadings, communalities for Principal factor analysis with Promax rotation on FLCAS items

	Items	Factors					Communalities
		1	2	3	4	5	
1	I am never quite sure of myself when I am speaking in my English class.	.61					.57
7	I keep thinking that the other students are better at English than I am.	.89					.55
10	I worry about the consequences of failing my English class.	.44					.22
11	I don't understand why some people get so upset over English classes.	-.67					.40
13	It embarrasses me to volunteer answers in my English class.	.54	.49		-.40		.52
18	I feel confident when I speak in English class.	-.64					.54
19	I am afraid that my English teacher is ready to correct every mistake I make.	-.43	.56				.34
23	I always feel that the other students speak English better than I do.	.50					.39
28	When I'm on my way to English class, I feel very sure and relaxed.	-.35					.43
3	I tremble when I know that I'm going to be called in English class.		.57				.48
9	I start to panic when I have to speak without preparation in English class.		.52				.53
12	In English class, I can get so nervous I forgot things I know.		.47				.37
20	I can feel my heart pounding when I'm going to be called on in English class.		.38				.53
24	I feel very self-conscious about speaking English in front of other students.		.43				.25
27	I get nervous and confused when I am speaking in my English class.		.40				.57
31	I am afraid that the other students will laugh at me when I speak English.		.64				.29
33	I get nervous when the English teacher asks questions which I haven't prepared in advance.		.36				.50
4	It frightens me when I don't understand what the teacher is saying in English.			.79			.66
5	It wouldn't bother me at all to take more English classes.			.39	-.56		.41
6	During English class, I find myself thinking about things that have nothing to do with the course.			-.47			.21
15	I get upset when I don't understand what the teacher is correcting.			.73			.56
17	I often feel like not going to my English class.			-.39	.64		.37
22	I don't feel pressure to prepare very well for English class.			-.48			.34
29	I get nervous when I don't understand every word the English teacher says.			.78			.62
21	The more I study for an English test, the more confused I get.				.67		.45
25	English class moves so quickly I worry about getting left behind.				.36		.44
26	I feel more tense and nervous in my English class than in my other classes.				.45		.58
14	I would not be nervous speaking English with native speakers.					.79	.56
32	I would probably feel comfortable around native speakers of English.					.74	.52
Factor intercorrelations							
		1	2	3	4		
Factor 2		.59					
Factor 3		.37	.43				
Factor 4		.54	.34	.31			
Factor 5		-.51	-.42	-.12	-.33		

Note. Principal factor analysis with Promax rotation (with Keizer normalization) was employed. The determination of the number of factors was based on scree test and an examination of various solutions. The factors account for 51.9 % of the total variance. Factor 1: Lack of confidence in speaking English in class ($\alpha = .76$), Factor 2: Fear of speaking in public ($\alpha = .81$), Factor 3: Anxiety about not understanding everything taught in class ($\alpha = .73$), Factor 4: Helplessness and negative attitude toward the English class ($\alpha = .58$), Factor 5: Comfortableness in speaking with native speakers of English ($\alpha = .78$).

know,” and Item 31, I am afraid that the other students will laugh at me when I speak English.” These items relate to physiological and cognitive consequences of speaking in public as well as fear of negative evaluation. The factor was named *Fear of speaking in public*, with an emphasis on physiological anxiety reactions.

Factor 3 was defined by seven items. Substantial loadings included Item 4, “It frightens me when I don’t understand what the teacher is saying in English,” and Item 29, “I get nervous when I don’t understand every word the English teacher says.” At the same time, Item 6, “During language class, I find myself thinking about things that have nothing to do with the course,” and Item 22, “I don’t feel pressure to prepare very well for English class” negatively loaded on this factor. This factor was, therefore, labeled *Anxiety about not understanding everything taught in class*.

Six items loaded on Factor 4. Three items, Items, 5, 13, and 17 cross-loaded on other factors, but in the opposite direction. For example, Item 5, “It wouldn’t bother me at all to take more English classes” negatively loaded on this. The other items that loaded on this factor were Item 21, “The more I study for an English test, the more confused I get,” Item 25, “English class moves so quickly I worry about getting left behind,” and Item 26, “I feel more tense and nervous in my English class than in my other classes.” This factor was termed *Helplessness and negative attitude toward the English class*, with the nuance that these feelings of helplessness were indicative of not being embarrassed to volunteer in class.

Finally two items loaded on Factor 5. They are, Item 14, “I would not be nervous speaking English with native speakers”, and Item 32, “I would probably feel comfortable around native speakers of English.” A similar factor was yielded in Aida’s (1994) study with American learners of Japanese, and consistent with that study, it was labeled *Comfortableness in speaking with native speakers of English*.

Factor correlations indicated that the factors were generally moderately and positively correlated, with the exception that Factor 5 was moderately and negatively related to the other factors (mean correlation 1.40). Factors 1 and 2 were notably more highly intercorrelated than any other pair of factors (.60).

3.3.3 Descriptive statistics of and correlations among SDT motivation subscales

Table 2 shows the means and standard deviations of responses to each of the SDT motivation subscale, as well as Cronbach’s alphas of the scales and intercorrelations among them. The pattern of intercorrelations is similar to Noels *et al.* (2000)’s results that suggested a simplex pattern, such that correlations among adjacent scales are positive and higher than

Table 2 Motivation subscale means, standard deviations, intercorrelations, and Cronbach's alpha indices of internal consistency

(Cronbach's alpha)	<i>M</i>	<i>SD</i>	Subscales			
			1 (.88)	2 (.69)	3 (.67)	4 (.76)
1 Amotivation	2.17	1.18				
2 External Regulation	2.89	1.10	-.10			
3 Introjected Regulation	2.98	1.14	-.19*	.62**		
4 Identified Regulation	4.46	1.16	-.55**	.37**	.59**	
5 Intrinsic Motivation	3.05	1.09	-.45**	.35**	.60**	.88**

Note. *N* = 182 * *p* < .05 ** *p* < .01 Cronbach's alpha for intrinsic motivation: Knowledge, .81; Accomplishment, .82; stimulation, .91

those between more theoretically distant scales. Another similarity is found in the way that identified regulation exhibits a higher negative correlation with amotivation than the intrinsic motivation subscales, as well as the fact that identified regulation was endorsed the highest of all the subscales.

3.3.4 Correlational analyses of anxiety and motivation subscales

Correlations were computed between mean scores on the motivation subscales and the FLCAS total score as well as scores for the subcategories of FLCAS (see Table 3). Amotivation is positively correlated with the FLCAS total score. Beyond that, there are few significant correlation between the motivational subscales and the FLCAS' total score. Examination of the correlations between the motivational subtypes and the subcategories derived through factor analysis showed that some aspects of anxiety were more strongly correlated with motivation than others. Factor 2 or fear of speaking in public was virtually unrelated to motivation, with the exception that it was associated with greater introjected regulation. As well, Factor 5 yielded a weak relations with intrinsic motivation.

Table 3 Correlation between motivation subtypes, FLCAs total score and five subcateogriess of FLCAs (derived via factor analyses)

	FLCAS	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Amotivation	.17*	.12	.02	-.43**	.45**	-.14
External Regulation	-.02	-.21**	.12	.30**	-.17*	.03
Introjected Regulation	.02	-.15*	.16*	.35**	-.17*	.14
Identified Regulation	-.10	-.14	.05	.44**	-.38**	.12
Intrinsic Motivation	-.13	-.21**	.04	.48*	-.38**	.23**

Note. *N* = 182 * *p* < .05 ** *p* < .01

Factor 1, *Lack of confidence in speaking English in class*, negatively correlated modestly with most of the motivational subtypes (except amotivation and identified regulation). Factor 4, *Helplessness and negative attitude toward the English class*, yielded stronger negative relations to the motivational subtypes (and was positively correlated with amotivation). Although it correlated positively with the other anxiety factors, in contrast with Factors 1 and 4, Factor 3, *Anxiety about not understanding everything taught in class*, yielded positive correlations with all of the motivational subtypes (but negative in the case of amotivation), and the strongest of these were with the more self-determined motivational subtypes (intrinsic motivation, identified regulation).

3.3.5 Anxiety and Motivation as a Function of Gender

A mixed model ANOVA compared gender groups across the five motivational substrates. The motivational orientation served as the within-subjects factor (amotivation vs. external vs. introjected vs. identified vs. intrinsic) and gender (male vs. female) as the between-subject factor. The main effect for motivational orientation was significant ($F(4,700)=123.45 p <.01$), as was that for gender ($F(1,175) = 18.81 p <.01$). The effect for the interaction between motivational orientation and gender was also significant ($F(4,700) = 8.37 p <.01$). Post hoc analyses indicated that female students show significant higher mean scores for intrinsic motivation, identified regulation ($p <.01$), introjected and external regulation ($p <.05$), and non-significant but a lower mean score for amotivation than male students. (see Figure 1).

A mixed model ANOVA was computed with five anxiety subcomponents identified in the factor analysis as the within-subjects factor (Factor 1 vs. 2 vs. 3 vs. 4 vs. 5) and gender as the between-subjects factor. There was a significant main effect for the anxiety subcategories ($F(4,668)=93.60 p <.01$), but no significant main effect for gender ($F(1,167) = 2.52 n.s.$). The effect for anxiety and gender interaction, however, was statistically significant ($F(4,668) = 6.51 p <.01$). As shown in Figure 2, post-hoc Tukey tests revealed that female students are significantly higher in types of anxiety identified as Factor 3, *Anxiety about not understanding everything taught in class* ($p <.01$) and significantly lower in Factor 4, *Helplessness and negative attitude to the English class* than male students ($p <.05$). The difference is not significant but female students are slightly higher in Factor 5, *Comfortableness in speaking with native speakers of English*.

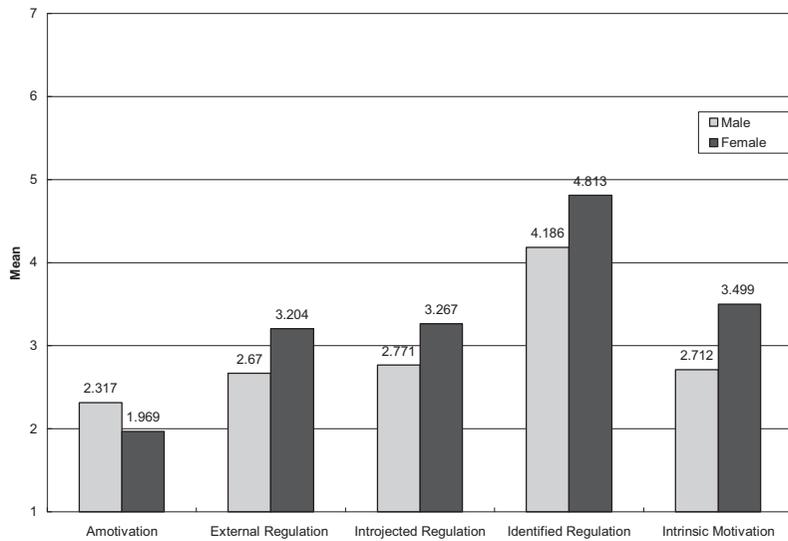


Figure 1 Motivational orientation as a function of gender.

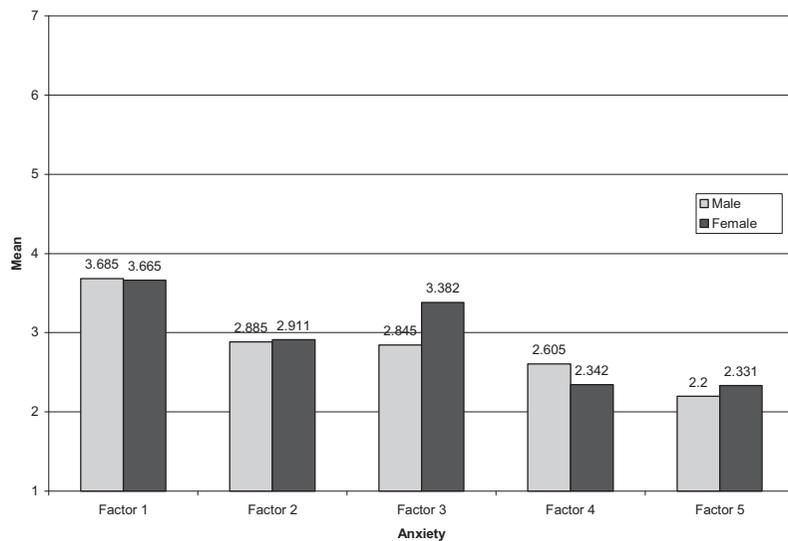


Figure 2 Anxiety as a function of gender.

4. Discussion

4.1 Foreign Language Classroom Anxiety

The first purpose of this study was to examine the internal structure of FLCAS in order to gain insight into the nature of anxiety that Japanese learners experience in classrooms. A factor analysis yielded five factors, the first two of which were quite highly correlated but

which represented distinctive facets of language anxiety. Factor 1 reflected a perceived lack of competence in speaking English as compared with the other students in class which was associated with a lack of confidence in speaking English. Factor 2 included physiological reactions to public speaking such as trembling and heart pounding as well as cognitive consequence of stage fright including forgetting things and being confused. It included affective responses such as nervousness and panic. These two factors are somewhat similar to Aida's (1994) four factors, which was labeled *Speech anxiety and fear of negative evaluation*. But our data differentiates the two consistent with the distinction between cognitive appraisals (worry) and anxious affect purported by anxiety scholars (cf. Sarasen, 1956).

The third factor captured the tendency to feel frightened, nervous and upset when one does not understand everything that the teacher says in the class. On the other hand the positively loaded item, "It wouldn't bother me at all to take more English classes" and the negatively loaded item "I often feel like not going to my English class" indicate they are willing to take English courses. The students who endorse highly on this factor may be serious students who cannot leave things they do not understand or do not appear to have tolerance for ambiguity. They would stand in marked contrast to those students who do not wish to pursue English studies and cannot be bothered to learn the finer details of the language. Our interpretation of this factor rests on the Japanese context, where the majority of English classes have been taught by Japanese teachers who use Japanese to explain grammar and meaning of English texts. As mentioned earlier, only recently have the communicative approach and direct methods been adopted in colleges and high schools, and this transition from traditional grammar/translation approaches to teaching to communicative approaches may have made them anxious. If students are used to explanations being given in Japanese and/or attempt to translate all sentences into Japanese, classes taught in English may leave them puzzled or discontent as it is quite likely that they do not understand some part of what the teacher says. Probably this contributes to a feeling of pressure to prepare well.

The fourth factor describes anxiety associated with feelings of helplessness combined with a negative attitude toward the English class. In contrast to the third factor, Item 5, "I often feel like not going to my English class" loads positively, and Item 17, "It wouldn't bother me at all to take more English classes" loads negatively on this factor. Students who endorse this factor express confusion and feel left behind their classmates. Their helplessness makes them tense and nervous in the English class and contributes to their negative attitude toward the class. The final factor pertained to the tendency to feel comfortable in interacting with native

speakers of English, and was consistent with a similar factor obtained by Aida (1994). As this factor was negatively correlated with all the other four factors and with FLCAS, the reverse of this factor indicates an aspect of anxiety. Therefore, those who endorse low in this factor tend to feel anxious about conversing with native speakers of English. It might be expected that those who have this tendency would feel more tense and nervous in classes taught by native speakers than those who do not.

Of the three theoretical pillars of the original FLCAS scale —communication apprehension, fear of negative evaluation, and test anxiety—the first two dimensions are evident in Factors 1 and 2 in the current analyses. Test anxiety did not emerge as a factor in our analysis, a result consistent with Aida's (1994) findings, and in line with MacIntyre and Gardner's (1989) claim that test anxiety is not language learning specific.

Examination of individual items on FLCAS may point to some possible origins for this high level of anxiety. Certain of these items are in marked contrast to the result found with American students. More than three fourths (77.9%) of the Japanese students admit that they worry about the consequences of failing their foreign language class [as compared to 49% in Horwitz *et al.*'s (1986), and 57% in Aida's (1994) studies]. It is understandable as English in the first year is a requisite for graduation. So responses to this item reflect the academic requirement status of the language class being studied. The high endorsement on Item 13, "It embarrasses me to volunteer answers in my language class (63.8%)" is striking compared to 9% reported in Horwitz *et al.* (1986) with university students studying Spanish in the U.S. and 25 % in Aida's (1994) study with learners of Japanese. The endorsement of Korean learners of English on this item is 26% according to Kim (2000). This item may capture the unwillingness to volunteer answers, which reflects norms constructed in Japanese classroom culture.

4.2 Intrinsic and extrinsic motivation in the Japanese context

To investigate whether or not the self-determination continuum (Deci & Ryan, 1985) underlies Japanese learners' classroom-based intrinsic and extrinsic motivation to learn English, we attempted to replicate the simplex pattern found by Noels *et al.* (2000). Generally correlations among adjacent scales are positive and higher than with the more theoretically distant scales. As in Noels *et al.* (2000), identified regulation was by far the most highly endorsed item of all the subscales and it exhibits a higher negative correlation with amotivation than intrinsic motivation subscales. Although this is a kind of extrinsic motivation in the SDT framework, it appears to capture a positive motivational disposition and conceivably relates to the kind of self or self-image that a person identifies with. Amotivation was least

endorsed followed by external regulation. Participants in this study generally seem to endorse more self-regulated types of motivation.

4.3 Relations between anxiety and motivation

To answer the third research question we examined how anxiety as measured by FLCAS as well as subcategories of anxiety derived through factor analysis relate to intrinsic motivation and different forms of extrinsic motivation. The results suggest that some dimensions of the FLCAS are more strongly and consistently related with motivation than others. In particular *Lack of confidence in speaking English in class*, (Factor 1) negatively correlates with intrinsic motivation. This factor also negatively correlates with less self-regulated forms of motivation including external regulation. On the other hand, affective/physiological aspects about speaking in public (Factor 2) do not correlate with intrinsic motivation or amotivation in correlational analyses. This induces us to believe that a distinction between the two factors is meaningful.

The tendency to feel anxious and frightened when one does not understand everything that the teacher says in class does not link to lack of motivation. There are two ways to interpret this result. First, this pattern may indicate that the need to understand everything taught in class actually relates to a tendency to learn for stimulation, knowledge, and accomplishment, which are components of intrinsic motivation. Although it may sound contradictory, learners may find the challenges related to learning English, and the corresponding risks associated with them, to be exciting and arousing, reflective of the notion of facilitating anxiety (Oxford, 1999). The second interpretation is pertinent to this particular context. Students who like English and enjoy learning English might be a little confused with and anxious about instructional methods that are different from what they are familiar with. But to the extent that anxiety is at a level that learners can handle, the learning can be stimulating or challenging and enhance motivation to learn.

Anxiety from helplessness and a negative attitude towards the English class negatively correlate with intrinsic motivation subscales and identified regulation, and it positively correlates with amotivation. This finding demonstrates that when students are anxious about a class that is too demanding or fast progressing and feel lost, confused or helpless, the affect they experience is close to what can be called amotivation.

Finally, the tendency to feel comfortable in interacting with native speakers of English positively correlates with intrinsic motivation.

The analyses show that Japanese EFL learners' responses reflect different aspects of

anxiety, and these aspects relate in different ways to intrinsic and extrinsic motivation. This rather complex profile shown in this study differs from former studies focusing on intrinsic motivation and anxiety (Noels, *et al.*, 1999; Noels, *et al.*, 2000), where the two were consistently negatively inter-related. Hence, it is our opinion that to assess foreign language anxiety, items loading on the first and second factors will most clearly grasp the concept as it is often defined: a situation-specific anxiety experienced in a foreign language classroom. On the other hand, other factors capture affect that reflect different kinds of attitudinal/motivational disposition.

4.4 Gender Differences in Anxiety and Motivation

Our final purpose was to investigate whether there is a gender difference in motivation and anxiety as measured in this study. Female students were shown to have higher levels of intrinsic and extrinsic motivation than male students although they were not any more amotivated than male students. Generally the gender difference is greater in higher self-regulated types of motivation. There was no gender difference in the total scores for the FLCAS, which gives an impression that the overall anxiety level does not differ between men and women. A closer examination shows that female students did, however, have substantially higher *anxiety about not understanding everything taught in class*. They are generally lower in *helplessness and have a less negative attitude [a more positive] towards the English class* than male students, reflecting higher motivation to learn English.

Apart from difference in the levels, the pattern of endorsement on motivational orientations are quite similar between male and female students, with identified regulation highest. We believe women's higher motivation can be partly explained in terms of gender-related cultural models in Japanese society as Kobayashi (2002) noted. Identified and introjected regulation, in particular, are pertinent to the process in which social expectations are internalized and integrated in one's self-image. A closer examination of the internalization process of self-regulation might shed light on how women come to enjoy learning English.

5. Conclusion

This study examined affective and motivational dimensions observed in the Japanese EFL context. It also showed that a combination of FLCAS and LLOS can be useful tools to examine the phenomena taking place in the Japanese EFL context. Pinpointing the specific anxiety-related problems that individuals and groups experience will help teachers and program

coordinators to cope with varied needs of language learners and help them take measures before negative affect can start harming willingness to learn.

Several limitations of this study need to be mentioned. This study was cross-sectional, but to examine the dynamics of how different kinds of anxiety influence learners to internalize motivational orientations, a longitudinal study is needed. Given that SDT provides a useful framework in predicting change in motivational orientations (Deci & Ryan, 2000), we can examine how a motivational change occurs as students' perception of the learning situation changes positively or negatively and how it interrelates with anxiety level (cf. Hayashi, 2005).

Despite these limitations, this study sheds light on various aspects of anxiety Japanese college-level learners of English experience in English classrooms and how they might interact with motivational orientations and gender. Women were shown to have a higher level of self-regulation in learning English, which confirms that gender is a crucial dimension of learner profiles. The three dimensions studied here are far from exhaustive considering the complexity of L2 learning. But the results suggest that by measuring some vital individual difference variables, English teachers in Japan, who typically teach 200 or more students in four to five classes, will have a clearer picture of the different profiles of learners, which, in turn, will allow teachers to use tasks and procedures that are considered suitable for each affective profile of the learners.

Note

- 1) In a preliminary analysis, ANOVA (gender x elementary school learning x anxiety, gender x elementary school learning x motivation) revealed that there was no significant main effect or interaction of this variable in each case. Therefore, it was not considered for further investigation.

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Appendix

外国語教室不安尺度 (FLCAS) (本研究において * は逆転項目として扱った。)

(Horwitz, E. K., Horwitz, M. B., & Cope, J., 1986 にもとづく)

- 1) 外国語の授業で話すとき自信がもてない。
- 2) 外国語の授業で間違えることは気にならない。*
- 3) 外国語の授業で当てられると思うと体が震える。
- 4) 外国語の授業で先生の言っていることが理解できないととても不安だ。
- 5) もっと外国語の授業があってもよいと思っている。*
- 6) 外国語の時間授業と関係ないことを考えていることがよくある。
- 7) 他の生徒の方が自分よりよくできると思っている。
- 8) 外国語の授業中のテストではだいたい落ち着いている。*
- 9) 外国語の授業で準備なしに話さないといけない時、パニックになる。
- 10) 外国語の単位を落としたときの影響が心配だ。
- 11) 外国語の授業で動揺する人の気持ちがわからない。*
- 12) 外国語の授業では、緊張のあまり、知ってたことも忘れてしまうときがある。
- 13) 外国語の授業で自分からすすんで答えるのは恥ずかしい。
- 14) 外国語をネイティブスピーカーと話すとき緊張しない。*
- 15) 先生が何を訂正しているのか理解できないとき動揺する。
- 16) 外国語の授業の予習を十分にしているにもかかわらず心配になる。
- 17) よく外国語の授業を休みたくなる。
- 18) 外国語の授業で話すのに自信がある。*
- 19) 先生が自分の間違いをいちいち直しそうなので心配だ。
- 20) 外国語のクラスで当たりそうになると胸がドキドキする。
- 21) 外国語のテスト勉強をすればするほど、混乱する。
- 22) 外国語の授業の予習をよくしないといけないというプレッシャーは感じない。*
- 23) 常に他の学生の方が外国語で話すのが上手だと感じている。
- 24) 他の学生の前で外国語を話すとき自意識がとても高くなる。
- 25) 外国語のクラスは進むのが速いのでついていけないかどうか心配である。
- 26) 他の科目よりも外国語のクラスの方が緊張する。
- 27) 外国語のクラスで話すとき緊張したり混乱したりする。
- 28) 外国語のクラスに向かうとき自信をもてるしリラックスしている。*
- 29) 先生の言うことがすべて理解できないと不安になる。
- 30) 外国語を話すためにあまりに多くの文法規則を勉強しないといけないので圧倒される。
- 31) 私が外国語を話すと他の学生が笑うのではないかと思う。

32) ネーティブスピーカーに会うときおそらくリラックスしてられると思う。*

33) 先生が、前もって準備していなかった質問をすると緊張する。

自己決定度尺度

(Noels, K., A., Clément, R., & Pelletier, L. G., 1999. にもとづく)

Amotivation

- 1) なぜ英語を勉強しなければいけないのかわからない。はっきり言って英語なんてどうでもよい。
- 2) 正直言って、私は英語の勉強は時間の無駄だという印象をもっている。
- 3) 英語を勉強していると、自分はいったい何をしているんだろうと思ってしまう。

External Regulation

- 1) 英語を勉強するのはまわりから期待されているような気がするからだ。
- 2) 英語を勉強するのは、卒業後（もっと）名声・権威のある仕事につきたいからだ。
- 3) 英語を勉強するのは（より）高い収入を得られるようになるためである。

Introjected Regulation

- 1) 英語が話せると国際人であるということが自覚できるから。
- 2) 英語圏の友達に会ったとき英語が話せないと恥ずかしいので。
- 3) 英語が話せないとうしろめたく感じるので。

Identified Regulation

- 1) 外国語をひとつは話せる人になりたいので。
- 2) 英語を勉強するのは自己の成長や自己啓発につながるから。
- 3) 英語が話せる人になりたいと思っているから。

Intrinsic (Knowledge)

- 1) 英語を勉強するのは英語圏の文学に関する知識を深めていくのが楽しいからだ。
- 2) 英語を勉強するのは、新しいことを知ると満足感を味わえるからだ。
- 3) 英語を勉強するのは英語圏の人々や生活様式についての知識を得るのが楽しいからだ。

Intrinsic (Accomplishment)

- 1) 英語を勉強するのは英語の学習において自らの限界を越える喜びを得たいからだ。
- 2) 英語を勉強するのは英語の難しい構文を理解できた時の喜びを得たいからだ。
- 3) 英語を勉強するのは、英語の難しい練習問題をやり遂げたときに味わえる満足感を得たいからだ。

Intrinsic (Stimulation)

- 1) 英語が話されているのを聞くとわくわくするので。
- 2) 英語で話す時、わくわくするので。
- 3) ネーティブ・スピーカーが英語を話しているのを聞くと楽しくなるので。