A Retrospective Survey of L2 Learning Motivational Changes

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This study investigated the long-term L2 learning motivational changes of 196 Japanese university students using a retrospective approach. The participants' perceived level of motivation and the rank order of their motivational reasons over 7 years were measured using a survey in order to test five a priori hypotheses: (1) The participants' motivational levels have frequently changed since they started English learning; (2) these levels were affected by entrance examinations in their final years of junior high and high school; (3) the patterns of motivational change between high and low proficiency university students differ; (4) the rank order of motivational reasons has changed over time; and (5) the rank orders of motivational reasons between high and low proficiency university students differ. These hypotheses were mostly supported. The primary findings indicated that the participants experienced frequent motivational changes in their learning experiences and they were strongly influenced by entrance examinations.

本稿は１９６名の日本の大学生を対象に、英語学習における動機付けの変化を調査したものである。参加者自らに、過去７年間に渡る動機付けの強さとその理由の順位を回顧的調査手法にて報告させ、そのデータをもとに、以下５つの仮説を検証した。(１)参加者の動機付けの強さは、学習開始時から変化し続ける、(２)動機付けの強さは、中３および高３時の入試に強く影響を受ける、(３)学習到達度の差は、動機付け理由の変化に差を生む、(４)動機付け理由の順位は時間の経過に伴い入れ替わる、(５)学習到達度の差は、動機付け理由の順位に差を生む。すべての仮説はほぼ立証され、結果として、参加者の学習動機付けは頻繁に変化していることや、入試に影響を受けていることなどが明らかになった。

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L2 acquisition is a long-term process that inevitably involves several years of study, and as such, many learners and teachers recognize that learning motivation can change for various reasons over the long period of time necessary to attain a high level of proficiency. Despite the importance of gaining a clearer understanding of how and why motivation for learning a foreign language fluctuates, only a limited number of studies on long-term motivational change have been reported. One method of investigating L2 learner motivation change is to use a retrospective approach in which participants are asked to reflect on the motivational changes that have occurred in their learning experiences. This study utilized a retrospective approach in order to investigate Japanese university students' motivational changes over a 7-year period.

Studies of Motivational Change

Research into the dynamic nature of L2 motivation can be divided into two groups according to the length of the learning period investigated. The first group is made up of longitudinal studies of motivational change that has occurred over a specific course, which varies in length from 1 to 3 academic years. The following three studies were conducted by utilizing a primarily quantitative approach, a common practice in the field of L2 motivation research. Gardner, Masgoret, Tennant, and Mihic (2004) investigated 197 Canadian students' motivational changes in learning French over 1 academic year. They used Gardner's (1985) Attitude/Motivation Test Battery (AMTB) in the beginning and end of the 1-year course to measure five affective variables considered to be important in the socioeducational model of second language acquisition (SLA): (a) integrativeness, (b) attitudes toward the learning situation, (c) motivation, (d) language anxiety, and (e) instrumental orientation. A single-factor repeated-measures ANOVA indicated that there were statistically significant changes only for a few variables (e.g., French class anxiety, Motivational intensity, and French teacher evaluation). Gardner et al. also assessed the relationship between the participants' language achievement, as measured by the final course grades, and the changes in the affective variables. The participants were split into three course-grade groups: A, B, and less than B, and the MANOVA results suggested different patterns of affective changes in the three grade groups. For example, the A students started the course with relatively high levels of motivation, positive attitudes, and low levels of anxiety, and tended to maintain these levels through the year. In contrast, the less than B group had lower levels of motivation, less positive attitudes towards the course, and higher levels of

French class anxiety than the participants in the other two groups at the beginning of the course, and they became even more negative by the end of the course. Gardner et al. concluded that the affective changes were moderate over the 1-year course, the changes were clearly associated with the levels of students' success in the course, and there was a clear tendency for the students' attitudes, motivation, and anxiety to decrease from the beginning to the end of the course.

Similar studies have been conducted in the context of Japanese students' English learning. Irie (2005) tracked 84 junior high school students and their motivational changes over the 3-year curriculum. The participants' overall motivation and their motivational profiles were investigated with a mixed-methods design. The results indicated that most of the participants maintained a stable degree of L2 motivation over the 3 years, a result that might have been caused by the students' use of a number of motivation maintaining strategies, such as setting proximal and attainable subgoals and focusing on positive learning experiences. In addition, a supplemental qualitative investigation revealed that the participants' teacher was an especially talented and enthusiastic educator who used a variety of strategies to increase and maintain her students' motivation to learn. At the same time, Irie confirmed that the strength of many students' motivation decreased between the beginning and the end of the 3-year curriculum. Irie proposed two possible reasons for this decrease: the compulsory nature of English education in Japan and the self-critical nature of some Japanese people.

Another longitudinal study conducted in Japan was an investigation by Berwick and Ross (1989) into the relationship between the changes in 90 Japanese university students' motivation and their English learning before and after they had completed their 1st-year university courses. The researchers used a pre- and posttest design in which a 50-item attitude survey was administered and the students' English proficiency was assessed at the beginning and end of the school year. The survey items were entered as predictors in a series of stepwise regression analyses that were performed to identify the best predictors of both the pretest scores and the gain scores between the pre- and posttests. The results indicated that 150 hours of classroom instruction resulted in an increase in the number of predictors from the beginning to the end of the school year (i.e., only three predictors accounted for 20% of the variance in the beginning of the semester while six predictors accounted for 43% of the variance at the end of the semester). The researchers interpreted the emergence of a wider variety of predictors as an indication that the students' initial motivational attitudes were tem-

poral and that taking the university courses stimulated other motivational attitudes. Overall, the participants' motivation was low and there was a weak relationship between their motivational changes over time and their performance on the proficiency measures. Berwick and Ross attributed these results primarily to the university entrance examination system in which Japanese students' motivation to learn English peaks in the last year of high school. Many 1st-year Japanese university students appear to have little motivation for foreign language learning regardless of whether they successfully pass the entrance examination for their first choice university, or (more likely) fail that test and pass the examination given by a university that was not their first choice.

Distinct from the majority of L2 motivation research, a qualitative approach to investigating learners' motivational change was applied in the next two studies. The researchers focused on individual motivational reasons expressed by a small number of learners, rather than investigating the overall pattern of motivational change in a large group. Ushioda (1998) investigated the characteristics of effective motivational thinking in 20 motivated Irish college students learning French over more than a year. She conducted individual interviews twice with a 15- to 16-month interval between the interviews over 3 academic years. The data acquired from the first interview revealed that the most successful students perceived their positive learning experiences, such as being in France or a Francophone country, as the main factors underlying their motivation, and the less successful students tended to perceive their future goals as the main motivators. Based on the results, Ushioda concluded that effective motivational thinking is a selective thinking pattern in which some participants filter their learning experiences by foregrounding positive experiences and deemphasizing negative experiences; this strategy appeared to help the more successful learners to sustain long-term involvement in L2 learning.

As a part of his mixed-methods dissertation study, Nakata (2006) also investigated qualitatively how 1-year student-centered learning experiences affected the developmental process of motivation of Japanese non-English major freshmen. The researcher investigated motivation using a social constructivist framework. He emphasized the importance of learners developing a core level of intrinsic motivation and becoming autonomous learners in order to attain high levels of proficiency. After this 1-year project-based course was completed, Nakata conducted case studies of five of the successful course participants. He concluded that all five students had developed intrinsic motivation and that two of them had further developed the core

level of intrinsic motivation necessary for further linguistic development. He concluded that language learners' motivation is strongly influenced by their learning experiences and by the way and degree to which they internalize what they have experienced.

The second group of studies was focused on motivational changes over extended periods of time. As the researchers employed a retrospective approach, these studies are highly relevant to the present study. Hayashi (2005) investigated patterns of motivational change among 481 Japanese college students over 9 years: 3 years in junior high school, 3 years in high school, and 3 years in university. He explained how these patterns emerged using the framework of self determination theory (Deci & Ryan, 1985). The participants responded to questionnaire items asking about their L2 motivation during the 9-year period, specifically the periods when their motivation was the strongest and the weakest, and the reasons why it was strong and weak during those periods. Hayashi used cluster analysis to identify four motivation developmental patterns: high-high, low-low, high-low, and low-high. The participants displaying the high-high pattern showed consistently high motivation, while the low-low participants reported having low motivation throughout the 9 years. The high-low pattern was distinguished by an initially high level of motivation that dropped by the 2nd year of high school, while the low-high pattern indicated low initial motivation that increased around the 1st year of high school. Hayashi tentatively proposed that different levels of internalization of extrinsic motivation caused the different patterns. He argued that initial motivation was the result of intrinsic motivation, and that initial motivation could be sustained only if the students internalized extrinsic reasons (e.g., succeeding on an entrance examination) for studying English. Although he did not statistically analyze the overall pattern of the 9-year change in the participants' motivation, a line graph that he provided showed that the participants' motivation declined moderately from junior high school to university, increased slightly when the students were in their final years of junior high and high school, and declined relatively sharply after entering the university.

Sawyer (2007) investigated the motivational fluctuations of Japanese learners over 8 years of English instruction (i.e., 3 years in junior high school, 3 years in high school, and 2 years in university) with 120 non-English majors in a private Japanese university. Sawyer created an instrument in which the participants were asked to mark their levels of motivation to learn English at the beginning and end of each year in school. The participants also wrote comments concerning their learning and learning motivation. The

statistical analyses supported three previous findings: (a) motivation is high at the onset of junior high school but decreases, (b) motivation decreases from the 1st to 2nd year in high school but increases in the 3rd year, and (c) motivation is high immediately before the university entrance exams but decreases upon entry into a university. In addition, the hypothesis that teachers influence students' motivation gained a number of supportive comments in the junior high school period, while the hypothesis that motivation is influenced by peers and social group members was more salient in the high school period.

Motivation-Related Perspectives

In this section, three motivation-related perspectives that constitute the basis of this study will be briefly reviewed. These perspectives will then be applied to the motivational rank order section of the research instrument. The first motivational perspective concerns intrinsic and extrinsic motivation, which are important components of self-determination theory (Deci & Ryan, 1985), one of the most influential theories in motivation research. According to the theory, *Intrinsic Motivation* (IM) and *Extrinsic Motivation* (EM) are distinguished according to the degree of the learner's self-determination. Intrinsic motivation, which is considered to be a relatively strongly self-determined form of motivation, refers to motivation that is based on internal factors, such as enjoyment or satisfaction. In contrast, extrinsic motivation refers to motivation that is based on external factors, such as getting good grades or tangible rewards. EM is considered to be a relatively weakly self-determined form of motivation. Recent researchers have discussed several subtypes of intrinsic and extrinsic motivation in accordance with different degrees of self-determined forms of both. Proponents of this approach have proposed that extrinsic motivation becomes increasingly similar to intrinsic motivation as the degree of self-determination increases. For example, when a learner studies a foreign language because of future career goals (i.e., for extrinsic motivation) and is aware of the fact that the decision to study is made by herself for her own sake, her motivation may be internalized, resulting in a type of motivation that shows no major differences from intrinsic motivation.

In addition to internalized forms of motivation, goals are also considered to play an important role in motivated behavior. The importance of goals is best explained by goal-setting theory (Locke & Latham, 1994), which is the proposal that goals are necessary for individuals to take action; therefore, motivation is more likely to emerge when a goal is present. Learning per-

formances are differentiated according to the degree of goal specificity, the difficulty of attaining the goal, and the individual's commitment to achieving the goal. The more specific and difficult that a goal is, the higher the achievement and the greater the commitment to the goal that people will make, provided that the goal is perceived as valuable and attainable. Goal-orientation theory (Pintrich & Schunk, 1996) describes the distinction between intrinsically oriented goals (mastery orientation*)* and extrinsically oriented goals (performance orientation*)*, concepts that are related to the distinction between IM and EM. The differences between intrinsic or mastery orientation and extrinsic or performance orientation do not necessarily mean that the former results in greater learning because these two goals can positively interact and facilitate motivation and learning (Hidi & Harackiewicz, 2000).

The last form of motivation that is pertinent to this study is social in nature, as it arises from the influence of significant others (Urdan & Maehr, 1994). Social motivation includes social welfare goals, social solidarity goals, and social approval goals. These social motives pertain to the reasons why students are trying to achieve a goal, rather than what they are trying to achieve. Wentzel (1999) stated that interpersonal relationships and socialization processes, such as peer interactions, influence student motivation, and that the goals that emerge from these social interactions influence the quality rather than the amount of motivation. In foreign language learning, students' parents, teachers, peer groups, and the school environment may function as the four most important social influences in the learning environment (Dörnyei, 2001). However, social motivation and influences from significant others are subject to cultural contexts. For example, Japanese students are generally described as more interdependent than American students (Markus & Kitayama, 1991), and if this is true, they are likely to be influenced relatively strongly by family members, teachers, and friends.

Research Purpose and Hypotheses

The primary purpose of this study is to investigate motivational changes that Japanese college students have experienced as they moved through secondary school to their 1st year of university education. Specifically, I will test five hypotheses. Hypotheses 1 through 3 concern changes in the participants' motivational levels:

Hypothesis 1. The participants' motivational levels have frequently changed since they started learning English.

Based on investigations of motivational changes over extended periods

of time (see Hayashi, 2005; Sawyer, 2007), I hypothesize that the Japanese participants in this study have frequently experienced motivational fluctuations.

Hypothesis 2. The participants' motivational levels were affected by entrance examinations in their final years of junior high school and high school.

Hayashi (2005) and Berwick and Ross (1989) found empirical results indicating the powerful influence that entrance examinations can exert on Japanese students. I hypothesize that the participants' motivation increases before they take the examinations and decreases after the examinations are completed.

Hypothesis 3. The patterns of motivational change between the high and low proficiency university students differ; the high proficiency students have maintained generally higher levels of motivation in secondary school than the low proficiency students have.

This hypothesis is based on the assumption that the participants' current level of English proficiency reflects their past motivational levels.

Hypotheses 4 and 5 concern the change in the rank order of motivational reasons:

Hypothesis 4. The rank orders of motivational reasons have changed over time.

The participants in this study attended at least three schools where they were taught by different teachers and where they studied with different classmates over the 7-year period under examination. They also took two entrance examinations when they were in their final year of junior and senior high school. Even though English was compulsory for most of the students, these experiences may have influenced their reasons to learn English.

Hypothesis 5. The rank orders of motivational reasons between the high and low proficiency university students differ.

As Hayashi (2005) reported that students who maintained a high level of motivation were both intrinsically motivated and had sufficiently internalized external reasons for studying, I assume that these motivational differences are related to the students' current proficiency (see Nakata, 2006, for related implications).

Methods

Participants

Participants in this study were 196 non-English majors studying in a private university in western Japan: 161 freshmen, 28 sophomores, 5 juniors,

and 2 seniors.[1] All of the students had completed 6 years of compulsory English education in junior high school and high school before entering university. The freshmen and sophomores were taking 6 hours of English classes per week in an academic English program that runs for four consecutive semesters. Because the university department has a reputation for having a demanding English program, these participants' overall level of motivation to study English may have been higher than that of the average Japanese university student.

The students took an institutional TOEFL (Test of English as a Foreign Language) when beginning the program in April 2005, and were placed into one of two proficiency levels based on the results. The mean (*M*) of the TOEFL scores (*N* = 194 because of two missing cases) was 436 (*SD* = 42.42). The TOEFL scores were used in this study to divide the participants into two proficiency groups. The scores of the high proficiency group (*N* = 111) ranged from 437 to 523, and the scores of the low proficiency group (*N* = 83) ranged from 330 to 433.[2]

Instruments

The Appendix shows an English translation of the *Changes of Learner Motivation Questionnaire,* in which a retrospective approach was employed. Part I of the questionnaire asked about demographic information. Part II presented a motivation chart that was designed to allow the participants to more readily recollect and graph their past L2 learning motivational levels. The participants were asked to draw their motivational levels on the chart for a 7-year period: 3 years in junior high school (JH), 3 years in high school (HS), and 1 year in university (U1). The x-axis represents the seven school grades and the y-axis represents motivational level. The y-axis scale has five levels (i.e., three primary scales for low, mid, and high motivational levels, and two intermediate levels that are located between the low and middle, and the middle and high motivational levels). The seven motivational levels measured with this scale formed a set of dependent variables that was used to test Hypotheses 1, 2, and 3.

Part III of the questionnaire was a motivational ranking task. In the three subsections, the participants were asked to reflect on their overall learning motivations when they were in junior high school, high school, and the 1st year of university, and to rank order in importance the six statements from 1 (i.e., the strongest motivation) to 6 (i.e., the weakest motivation). The six motivational reasons that were listed in each subsection were underpinned

by three motivational perspectives: the intrinsic-extrinsic distinction, goal theories, and social motivation theory, as described earlier.

Hypotheses 4 and 5 were tested with data gathered from Part III of the questionnaire. Two intrinsic motivational reasons and three extrinsic motivational reasons were included among the six dependent variables in the ranking instrument. The first and second intrinsic motivational reasons represented interest toward the target language and culture, and enjoyment of learning English, respectively. Of the three extrinsic motivational reasons, the first represented a short-term goal, the second represented medium-term and specific goals commonly observed in the Japanese context, and the third represented relatively long-term goals. The last motivational reason in the ranking instrument represented the influence from significant others. If the participants perceived that different motivational factors were particularly memorable at a certain stage of learning, they were asked to write them in the relevant section.

Procedure

Four instructors teaching in the English language program, including the researcher, administered the questionnaire during class time in January 2006 on the last day of the fall semester. The instructors told the participants that the purpose of the questionnaire was academic research and that their responses were confidential and would not affect their grades. The instructors also obtained the students' verbal permission to use their most recent TOEFL scores.

Data analysis

The data obtained from the survey were initially entered into Microsoft Excel and then exported to SPSS for statistical analyses. The motivational levels recorded on the motivation chart were transformed into numbers from 0 to 5 (low = 0; high = 5).

Results

In the results and discussion sections, the entire sample is referred to as All Students, and the higher proficiency group and the lower proficiency group are referred to as the High Group and the Low Group, respectively. In addition, abbreviations will be used for expressing school years, (i.e., JH = 3 years of junior high school, JH1 = the 1st year of junior high school, JH2 = the

2nd year of junior high school, HS = 3 years of high school, HS1 = the 1st year of high school, HS2 = the 2nd year of high school, HS3 = the 3rd year of high school, U1 = the 1st year of university).

Hypotheses 1, 2, and 3 were tested by conducting a series of repeated-measures ANOVAs with year in school as the independent variable and the 7-year motivational level estimates as dependent variables. The TOEFL score was used as a grouping variable.

Hypothesis 1: The participants' motivational levels have frequently changed since they started learning English. Table 1 presents the descriptive statistics for the participants' motivational level as measured on Part II of the questionnaire. Two tendencies can be generalized. First, a general trend was identified for All Students, and the High and Low Groups' motivational levels: They rise steadily in the first 3 years of study, drop in HS1, rise steadily again in HS2 and HS3, and drop once again in U1. Second, the High Group displayed a higher motivational level than the Low Group throughout the 7 years. The confidence intervals of the two groups overlap in JH, indicating that the motivational levels of the High and Low Groups do not largely differ during that period; however, in HS and U1 the confidence intervals do not overlap, which indicates that the motivational levels of the High and Low Groups are reliably different during these periods.

Table 1. Descriptive Statistics for Motivational Levels

			JH1	JH2	JH3	HS1	HS2	HS3	U1
All	*M*		3.01	3.13	3.45	3.21	3.38	3.85	3.77
Students	95% CI	Low	2.80	2.94	3.25	3.03	3.19	3.66	3.60
		Upper	3.21	3.32	3.64	3.40	3.57	4.03	3.95
	SD		1.42	1.35	1.38	1.31	1.37	1.28	1.22
	Skewness		.01	-.17	-.40	-.22	-.27	-.78	-.75
	SE Skewness		.18	.18	.18	.18	.18	.18	.18
	Kurtosis		-1.27	-1.18	-1.11	-1.00	-1.12	-.60	-.42
	SE Kurtosis		.35	.35	.35	.35	.35	.35	.35

			JH1	JH2	JH3	HS1	HS2	HS3	U1
High	*M*		3.10	3.14	3.61	3.45	3.72	4.13	4.10
Group	95% CI	Low	2.75	2.88	3.36	3.20	3.46	4.35	3.88
		Upper	3.28	3.39	3.87	3.69	3.97	4.25	4.32
	SD		1.39	1.37	1.35	1.31	1.35	1.19	1.17
	Skewness		.08	-.17	-.57	-.47	-.72	-1.32	-1.33
	SE Skewness		.23	.23	.23	..23	.23	.23	.23
	Kurtosis		-1.22	-1.23	-.94	-.80	-.63	.77	.92
	SE Kurtosis		.46	.46	.46	.46	.46	.46	.46
Low	*M*		2.99	3.12	3.22	2.90	2.93	3.48	3.34
Group	95% CI	Low	2.67	2.83	2.92	2.63	2.65	3.19	3.09
		Upper	3.31	3.41	3.53	3.17	3.21	3.77	3.60
	SD		1.47	1.34	1.38	1.24	1.28	1.32	1.17
	Skewness		-.07	-.17	-.21	.04	.24	-.24	-.24
	SE Skewness		.26	.26	.26	.26	.26	.26	.26
	Kurtosis		-1.35	-1.10	-1.21	-.95	-.86	-1.16	-.69
	SE Kurtosis		.52	.52	.52	.52	.52	.52	.52

Note: School years are: JH1 = the 1st year of junior high school, JH2 = the 2nd year of junior high school, JH3 = the 3rd year of junior high school, HS1 = the 1st year of high school, HS2 = the 2nd year of high school, HS3 = the 3rd year of high school, U1 = the 1st year of university.

Figure 1 illustrates how the participants' perceived motivational levels changed throughout the 7-year period.

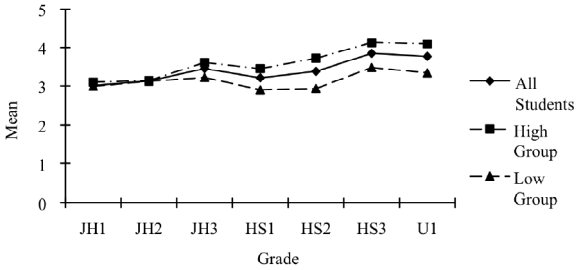

Figure 1. Change of Motivational Levels

Note. School years are: JH1 = the 1st year of junior high school, JH2 = the 2nd year of junior high school, JH3 = the 3rd year of junior high school, HS1 = the 1st year of high school, HS2 = the 2nd year of high school, HS3 = the 3rd year of high school, U1 = the 1st year of university.

A repeated-measures ANOVA was run with year in school as the independent variable, the estimated motivational level as the dependent variable, and the students' TOEFL score as the grouping variable. The results indicated that the motivational levels of All Students, the High Group, and the Low Group changed to a statistically significant degree over the 7-year period: Wilks's $\Lambda = .72$, $F(6, 188) = 12.09$, $p < .01$, multivariate $\eta^2 = .28$ for All Students; Wilks's $\Lambda = .59$, $F(6, 105) = 12.06$, $p < .01$, multivariate $\eta^2 = .41$ for the High Group; and Wilks's $\Lambda = .80$, $F(6, 77) = 3.24$, $p < .01$, multivariate $\eta^2 = .20$ for the Low Group. Follow-up polynomial contrasts indicated significant linear effects with means generally increasing over time for All Students and the High Group: $F(1, 94) = 32.50$, $p < .01$, $\eta^2 = .14$ for All Students, and $F(1, 113) = 47.41$, $p < .01$, $\eta^2 = .30$ for the High Group. Neither a significant linear effect nor higher-order effects were found for the Low Group. Table 2 presents the results of post hoc pair-wise comparisons for each group. Five pairs differed to a statistically significant degree: three pairs in the High Group, and two pairs in the Low Group. Taken together, these results suggest that the participants' perceived motivation has frequently changed since they started studying English, a finding that supports Hypothesis 1.

Table 2. Posthoc Pair-Wise Comparisons

	All Students		High Group		Low Group	
Pair	*t*	*d*	*t*	*d*	*t*	d
JH1 – JH2	-1.50	-.11	-1.09	-.10	-1.04	-.11
JH2 – JH3	-4.03*	-.29	-4.21*	-.40	-1.02	-.11
JH3 – HS1	2.58*	.18	1.42	.14	2.26*	.25
HS1 – HS2	-2.34*	-.17	-2.76*	-.26	-.26	-.03
HS2 – HS3	-5.13*	-.37	-3.39*	-.32	-3.91*	-.43
HS3 – U1	.78	.06	.23	.02	.91	.10

Note. School years are as in Table 1 above.
$p^* < .05$.

Hypothesis 2: The participants' motivational levels were affected by entrance examinations in their final years of junior high school and high school.

As shown in Table 1 and Figure 1, the means for both the High and Low Groups declined slightly twice, between JH3 and HS1 and between HS3 and U1. As shown in Table 2, the pair-wise mean comparisons differed significantly in the All Students and the High and Low Groups between JH2 and JH3, and between HS2 and HS3: All students, $t(194) = -4.03$, $p < .05$, $d = -.29$; High group, $t(111) = -4.21$, $p < .05$, $d = -.40$ between JH2 and JH3, and; All Students, $t(193) = -5.13$, $p < .05$, $d = -.37$; the High Group, $t(110) = -3.39$, $p < .05$, $d = -.32$; the Low Group, $t(83) = -3.91$, $p < .05$, $d = -.43$ between HS2 and HS3. The estimated effect sizes for these differences were relatively large, except the one for the Low Group between JH2 and JH3 ($d = -.11$). These results indicate that the students' motivational levels increased between JH2 and JH3, and between HS2 and HS3, and decreased between JH3 and HS1, and between and HS3 and U1 to a statistically significant degree. Because these increases and decreases occurred at the same time that the entrance examinations took place, it is highly likely that these motivational changes and the tests were related to each other; therefore, the second hypothesis was supported.

Hypothesis 3: The patterns of motivational change between the high and low proficiency university students differ; the high proficiency students have maintained generally higher levels of motivation in secondary school than the low proficiency students have.

This hypothesis concerns the difference between the motivational changes that took place in the two proficiency groups. As shown in Figure 1, the means of the two proficiency groups were similar in JH1 and JH2, but started to differ in JH3, and the distance between the two groups was maintained for the next 4 years. In addition, the mean increases between JH2 and JH3, and between HS2 and HS3 were all larger in the High Group than in the Low Group, while the mean decreases between JH3 and HS1, and between HS3 and U1 were all larger in the Low Group than in the High Group. As shown in Table 1, the participants in the High Group perceived their motivational levels as being higher than did the participants in the Low Group across all 7 years. This is one indication of the existence of a positive relationship between motivational level and general proficiency. These findings support the third hypothesis: that the two proficiency groups in university differ in motivational change and that the high proficiency students maintained a generally higher level of motivation in secondary school than the low proficiency students.

Hypothesis 4: The rank orders of motivational reasons have changed over time.

Hypothesis 4 was examined by conducting a series of Freidman's tests with each of the six motivational reasons in each period of schooling as test variables and English proficiency (TOEFL score) as a grouping variable. Table 3 presents the test results and medians of each motivational reason in JH, HS, and U1 for All Students as well as those in the High Group and the Low Group. The χ^2 ratios were evaluated at $p < .05$. Statistical significance was found for five motivational reasons in All Students, for four reasons in the High Group, and for four reasons in the Low Group. Among them, reasons 3 (short-term goals), 4 (medium-term, specific goals), and 5 (long-term goals) consistently differed significantly in All Students and the two proficiency groups. On the contrary, reasons 1 (interest in the target language and culture), 2 (enjoyment of learning), and 6 (influence of significant others) did not differ consistently over time in All Students or the two proficiency groups. Reason 6 (influence of significant others) was particularly stable in the Low Group (median = 2) and showed no statistically significant difference. Kendall's *W* indicated weak relationships among the variables. These results suggest that goal-related reasons changed over time, while other reasons did not; these findings partially support the fourth hypothesis.

Hypothesis 5: The rank orders of motivational reasons between high and low proficiency university students differ.

This hypothesis was evaluated by calculating Mann-Whitney *U* tests with each of the six motivational reasons for each period of schooling as test variables and the TOEFL score as a grouping variable. Table 4 presents the results of the tests and the medians of each motivation reason in JH, HS, and U1 for the High Group and the Low Group. The results of *z*-approximation tests showed statistically significant differences in the motivational reasons between the two proficiency groups when the medians differed by more than 1. Statistically significant differences were found for motivational reasons 4 (medium-term, specific goals) and 5 (long-term goals) in JH; reasons 2 (enjoyment of learning), 3 (short-term goals), 4 (medium-term, specific goals), and 5 (long-term goals) in HS; and reason 5 (long-term goals) in U1. These results suggest that the motivation ranks between the two groups were the most varied in JH and least varied in U1. Motivational reasons 1 (interest in the target language and culture) and 6 (influence of significant others) showed no statistically significant differences over time, while the other reasons showed at least one statistically significant difference. This

Table 3. Motivation Ranks

	Motivational reason	Median JH	Median HS	Median U1	χ^2	Kendall's *W*
All Students	1	4	4	5	10.50*	.04
(*N* = 138)	2	4	3	3	7.11*	.03
	3	5	4	3	51.13*	.19
	4	3	4	3	19.59*	.07
	5	3	4	4	22.83*	.08
	6	2	2	2	4.04	.02
High	1	4	4	5	.36	.00
(*N* = 83)	2	4	4	3	4.04	.02
	3	4	3	3	32.59*	.20
	4	2	4	3	12.11*	.07
	5	4	4	5	13.46*	.08
	6	2	2	2	8.50*	.05
Low	1	3	4	5	21.31*	.19
(*N* = 55)	2	4	3	3	3.06	.03
	3	5	5	4	20.69*	.19
	4	4	5	3	13.58*	.12
	5	2	3	3	9.40*	.09
	6	2	2	2	.70	.01

Note. The motivational reasons are: 1 and 2 = Intrinsic motivation, 3 = Short-term goals, 4 = Medium-term goals, 5 = Long-term goals, 6 = Influence of others. Schools are: JH = junior high school, HS = high school, U1 = the 1st year of university.
*$p < .05$.

suggests that significant differences mostly emerged among the goal-related reasons as noted in the results for Hypothesis 4. Among these goal-related reasons, reasons 3 (short-term goals) and 4 (medium-term, specific goals) were ranked high in the Low Group, while reason 5 (long-term goals) was ranked high in the High Group in JH, HS, and U1 (See Table 4). Thus, the students in the High Group ranked long-term goals higher than short- and

medium-term goals, while those in the Low Group ranked short- and medium-term goals higher than long-term goals. Taken together, these findings provide strong support for the fifth hypothesis: that high and low proficiency students differ in their rank orders of motivational reasons.

Table 4. Motivational Rank Differences Between the High and Low Proficiency Group

		Median			
	Motivational reason	High Group	Low Group	Mann-Whitney *U*	*z*
JH	1	4	3	2025.50	-1.14
	2	4	4	2128.50	-.69
	3	4	5	1860.00	-1.89
	4	4	4	1551.50	-3.26*
	5	4	2	1714.50	-2.51*
	6	2	2	2118.00	-.74
HS	1	4	4	1885.00	-1.76
	2	4	3	1781.50	-2.23*
	3	3	5	1594.50	-3.07*
	4	4	5	1685.00	-2.68*
	5	4	3	1702.00	-2.56*
	6	2	2	2083.00	-.90
U1	1	5	5	2033.50	-1.11
	2	3	3	1909.50	-1.66
	3	3	4	1933.00	-1.55
	4	3	3	2037.50	-1.08
	5	5	3	1586.50	-3.11*
	6	2	3	1963.50	-1.44

Note. Motivational reasons and schools are as in Table 3.
*$p < .05$ (2-tailed).

Discussion

The statistical results mostly supported the five a priori hypotheses. Hypotheses 1 through 3 concerned the change of motivational levels. Regarding Hypothesis 1, the results indicate that the students' L2 learning motivational levels have frequently changed over time. In previous longitudinal studies, such as Gardner et al. (2004) and Irie (2005), the researchers reported that learners' motivation level was relatively stable during the period under study; however, when investigated over a longer time period that began with the commencement of the students' initial classroom experiences studying English, their motivational levels clearly displayed frequent changes. One possible reason for this finding was that the participants in this study were asked to assess their motivational change over a 7-year period that involved experiences at three school levels (JH, HS, and U1), with numerous teachers, and with two high-stakes entrance examinations. In previous longitudinal studies, by contrast, the researchers investigated students' motivational change in one course or in a single educational institution. This difference has possibly led to the different results.

A second difference from previous findings was that the participants' motivational levels displayed a general increasing trend throughout the period under study. This is the opposite of the trend reported in previous longitudinal studies, in which the learners' motivational levels gradually decreased (e.g., Gardner et al., 2004). This difference might be attributable to the relatively strong motivation of the participants in the present study. As introduced in the methods section, the university department where this study was conducted is known to provide a rigorous English program, so the majority of the participants had to have relatively positive learning histories in order to be able to enter the program.

Although the participants' motivational levels displayed a general increasing trend, relatively sharp increases occurred twice between JH2 and JH3, and between HS2 and HS3, while relatively sharp decreases occurred twice between JH3 and HS1, and between HS3 and U1. These sharp increases and decreases, a pattern similar to that observed by Sawyer (2007), occurred when the entrance examinations for high school and university took place; these findings indicate the powerful influence that entrance examinations can exert on Japanese students' motivation. In Japan, high school and university entrance examinations remain unarguably high-stakes tests that largely determine students' future courses, a feature in the Japanese educational landscape that has not changed since Berwick and Ross (1989) conducted their study two decades ago. Therefore, it is inevitable that in many cases,

motivation for learning English increases before the test and decreases afterwards. This implies that many Japanese secondary school students perceive passing entrance examinations, especially university examinations, as an ultimate future goal and that proximal sub-goals may partly consist of succeeding on the term-end tests that they take in secondary schools and mock examinations that they take in supplementary prep schools, instead of perceiving the entrance examination as a proximal sub-goal for long-distance goals, such as studying abroad to earn a degree in a foreign university or working in an international business. This lack of long-term goals may be one reason why the majority of Japanese university students appear demotivated to learn English and eventually fail to attain high proficiency.

Looking at the change of motivational levels in the two proficiency groups (Hypothesis 3), both groups were similar in the first 2 years, but started to differ in their final year of JH. Furthermore, the High Group maintained a higher degree of motivation than the Low Group throughout JH and U1. One possible cause of this finding is the different amount of motivational increase that occurred before the entrance exams and the different amount of motivational decrease that occurred afterward in the two groups. The statistical results showed that the increase before the tests was larger in the High Group than in the Low Group, while the decrease after the tests was larger in the Low Group than in the High Group. These two changes, which occurred when the participants were in their final years of junior and senior high school, might have partly determined their current English proficiencies. The students who increased their motivational level before taking the entrance examination were more likely than students with lower levels of motivation to score well and be satisfied with the test results and were therefore better able to keep their motivational levels relatively high, a situation that may have contributed to their higher current proficiency. This interpretation is consistent with Ushioda's (1998) finding that the motivated students in her study perceived their past learning experiences as the most influential factor affecting their motivation and that successful past learning experiences generated future motivation.

Hypotheses 4 and 5 concerned changes in the rank order of motivational reasons in different years in school. Hypothesis 4 was partly supported: the rank order of the three goal-related reasons consistently changed, while the intrinsic and social reasons were stable. This finding is almost certainly related to the ranking of the reasons; the students ranked the goal-oriented reasons relatively high, intrinsic and social reasons relatively low, and the social motivational reason was ranked low for all three school periods. On

one hand, this result makes sense when considering the major impact of entrance examinations on motivation suggested in the results for Hypotheses 2 and 3. The students were pressured to become goal oriented because of the two high-stakes tests that they faced at pivotal learning stages. On the other hand, this result is unexpected because intrinsic reasons, such as enjoying learning English, have usually been found to play important motivational roles in the case of relatively motivated learners (Brown, 2001, pp. 76-77; Nakata, 2006; Ushioda, 1998). Furthermore, previous studies have suggested that many Asian English learners receive relatively strong motivational influences from people close to them such as friends or family members (Sawyer, 2007; see also Chen, Warden, & Chang, 2005). The current result is consistent with Hayashi's (2005) suggestion that initial intrinsic motivation is insufficient to sustain long-term motivation, and that students who sufficiently internalize extrinsic goals, such as passing entrance examinations, succeed in maintaining high levels of motivation. The adequate internalization of extrinsic goals may lead to the development of stronger intrinsic motivation and autonomous learning (Nakata, 2006).

Among the three goal-related reasons, and regarding Hypothesis 5, the High Group ranked the long-term goal relatively high, while the Low Group ranked the short-and medium-term goals relatively high. This difference indicates that the higher proficiency students tended to focus on long-term goals, such as their future career, while the lower proficiency students tended to target immediate goals, such as passing the next test or earning credits. Miller and Brickman (2004) argued that learners who seek long-term goals are likely to set short-term sub-goals that allow them to consequently achieve their long-term goals. The higher proficiency students in this study who established long-term goals might have successfully achieved specific sub-goals (e.g., success on term tests), but the continued presence of long-term goals motivated them to continue studying and achieve their current higher proficiency levels.

Conclusion

This study resulted in four main findings:

1. The participants' L2 learning motivation frequently fluctuated over the 7 years.
2. High school and university entrance examinations strongly influenced the participants' motivation.

3. The participants were more goal oriented rather than either intrinsically or socially motivated.
4. The higher proficiency participants generally perceived entrance examinations as proximal sub-goals that would help them achieve distant future goals, while the lower proficiency participants perceived passing entrance examinations as their ultimate future goal.

These findings imply that having distant future goals that go beyond passing a university entrance examination is important for sustaining the long-term learning motivation that leads to higher levels of foreign language proficiency. As many Japanese students need to keep studying English after graduating from university if they wish to become highly proficient users of English, university English courses should be a source of long-term goals by providing students with meaningful answers to the question of why they need to study English now and in the future.

Notes

1. The five juniors and two seniors were repeaters who had failed to pass the courses when they were freshmen.
2. For the motivational rank order section of the questionnaire, the data from only 138 participants were entered because 56 answered as if they were responding to a Likert scale instead of rank-ordering the options.

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Appendix

Changes of Learner Motivation

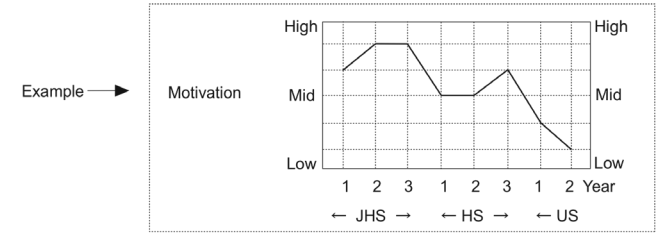
PART I

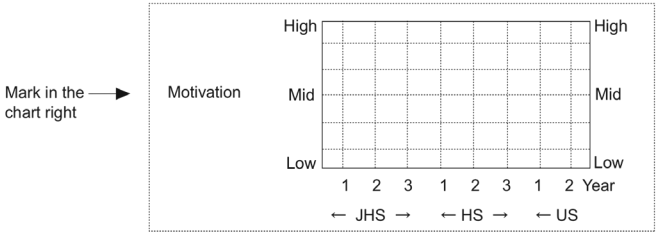
- Department_____ Year___ Student number _____Name _____
- Do you have experiences of studying abroad? (yes / no)
- If yes, what age? From age _____ to age_____ for _____ years in _____

PART II

The purpose of this survey is to investigate English learners' motivational changes. Because this is academic research, your responses have absolutely no relation to your EC course grades. Thank you for your cooperation!

How has your English learning motivation changed since you were a junior high school student (JHS), high school student (HS), and university student (i.e., current) (US). Look at the example chart below, mark your answer with dots, and connect those dots with lines as shown in the chart.





PART III

1. The following three questions (A), (B) and (C) will ask about the motivation at the three different times that you marked in the chart above. Answer the questions below by thinking of your overall junior high and high school motivation.

(A) When you were **a junior high school student**, what was your motivation to learn English? Read the following six sentences and rank them from 1 (strongest motivation) to 6 (weakest motivation)

( ) I was interested in English culture or English speaking people.

( ) I enjoyed learning English.

( ) I wanted to earn good grades in my English courses.

( ) I wanted to succeed the high school entrance exams.

( ) I wanted to study abroad, or have a job using English, or live in English speaking countries in the future.

( ) I was influenced to study English by people around me such as my parents/friends/teachers.

If you were motivated for other reasons, please write them here (no rank is needed).

_____

_____

(B) When you were **a high school student,** what was your motivation to learn English? Read the following six sentences and rank them from 1 (strongest motivation) to 6 (weakest motivation).

( ) I was interested in English culture or the English speaking people.

( ) I enjoyed learning English.

( ) I wanted to earn good grades in my English courses or to gain credits.

( ) I wanted to succeed the university entrance exams.

( ) I wanted to study abroad, or have a job using English, or live in English speaking countries in the future.

( ) I was influenced to study English by people around me such as my parents/friends/teachers.

If you were motivated for other reasons, please write them here (no rank is needed).

_____

_____

(C) **Currently**, what is your motivation to learn English? Read the following six sentences and rank them from 1 (strongest motivation) to 6 (weakest motivation).

( ) I am interested in English culture or the English speaking people.

( ) I enjoy learning English.

( ) I want to earn good grades in my English courses or to gain credits.

( ) I need English for getting a job.

( ) I want to study abroad, or have a job using English, or live in English speaking countries in the future.

( ) I am influenced to study English by people around me such as my parents/friends/teachers.

If you were motivated for other reasons, please write them here (no rank is needed).

_____

_____

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