A Study of Situational Constructs of Self-Determination Theory and their Implications at a Japanese University

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1.0 Introduction

Over the last 25 years Communicative Language Teaching (CLT) pedagogy has put an emphasis on student communication in the classroom. There are a number of theories which support CLT and these concentrate on the need for students to communicate in order to acquire higher levels of spoken proficiency (Swain, 1995 ; Long, 1996). CLT has also been a feature in East Asian contexts, especially Japan, which is very much used to more traditional forms of classroom pedagogy that stem from a concentration of passive skills needed for high school students to pass university entrance tests (Nishino, 2009). Despite resistance from some levels of education to CLT in Japan, studies in Japan do support the implementation and endorsement by university students of communicative pedagogy (Fushino, 2008 ; Matsubara, 2011 ; Sakui & Gaies, 1999).

Along with a need for students to communicate, second language research has also shown that language learning requires a degree of learner motivation (Gardner, 1985). Considering communication is an important aspect of language learning in general, the same need for motivation applies when it comes to communication in the second language (MacIntyre, Clément, Dörnyei, & Noels, 1998). This is especially true in a foreign language setting, like that of Japan, where the need for communication is somewhat limited for most people.

Researchers of learner motivation in Japan have used three main theories. First, there is research based on the Canadian bi-lingual setting (Brown, Robson & Rosenkjar, 2001 ; Irie, 2005 ; Watanabe, 2011). This research sees motivation as a composite of Integrativeness, or how the learner feels about the members of the L 2 group, Attitudes Towards the Learning Situation and Instrumental Orientation, or use of English for things like work.

The second kind of motivation in Japan is a revision of the Attitudes Towards the Learning situation and is called Internal Posture (Matsuoka, 2005 ; Yashima, 2002 ; Yashima, Zenuk-Nishide & Shimizu, 2004). International Posture is a vague affective reaction to the L2 English group in Japan borne via images through media and

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education. International Posture consists of Japanese Interest in Foreign Affairs, Interest in Working Abroad, Cultural Friendship (similar to Integrativeness) and Approach/Avoidance of L2 English in Japan.

The last kind of motivation in Japan is Self-Determination Theory (SDT), which is a motivation theory related to goals for carrying out an activity, originally derived from second language psychology (Deci & Ryan, 1985). Compared to other conceptualizations of motivations, the number of researchers that have used SDT is much fewer. Those that have used SDT have tended to find mixed results (Hayashi, 2005 ; Watanabe, 2011).

Although the above studies strongly emphasize the importance of motivation in the learning process, the instruments that operationalize the constructs in these studies concentrate mainly on the trait constructs of motivation that cover general motivational dispositions. There is limited research in motivation that uses more situational or contextual-based items, despite other second language affective disciplines in Japan recognizing that need (Fushino, 2008 ; Weaver, 2010). Of the above motivational concepts, SDT researchers have hypothesized and validated situational instruments, but these have been in separate disciplines like leisure and interpersonal relationship (see Vallerand & Ratelle, 2002), not in second language studies. In Japan, where the classroom is the main place that learners will find opportunities for communication, more research that employs situational based measures is needed. This study will focus on measuring situational constructs of communication related to Self-Determination Theory at a Japanese university.

2.0 Literature review

This section will explain what constitutes Self-Determination Theory, look briefly at other studies using SDT in Japan and finish with a rationale for measuring situational constructs of SDT.

2.1 Self-Determination Theory

SDT started in the field of psychology (Deci & Ryan, 1985 ; Ryan & Deci, 2000) and involves the main distinction between Intrinsic Motivation, or goal-oriented behavior that involves "doing something because it is inherently interesting or enjoyable" and Extrinsic Motivation, which is goal-oriented behavior characterized by "doing something that leads to a separable outcome"(Ryan & Deci, 2000, p. 55). Goal-directed behavior in the SDT theory is dependent on how self-determined, or realized as part of the self, an action is. At one end of the continuum is Intrinsic Motivation, which is the most self-determined orientation and is engaged in wholly volitionally and endorsed by an individual's sense of self (Deci & Ryan, 1991 ; Deci, Vallerand, Pelletier, & Ryan, 1991). Extrinsic Motivation, on the other hand, is behavior that is instrumental in nature and carried out, not out of interest, but because it can lead to a separable consequence (Deci, Vallerand, Pelletier, & Ryan, 1991, p. 328). In other words, Extrinsically-motivated behavior is based on action which may not reflect one's sense of self. Along with Amotivation, or no motivation to carry out an activity, Ryan and Deci (1985) describe four types of Extrinsic Motivation that vary in the degree of self-determination the individual feels in relation to the activity

or goal. The first type of Extrinsic Motivation, External Regulation, describes the least autonomous behaviors that characterize this motivation, which are carried out because of external demand, force, or possible reward. The next motivation is Introjected Regulation, which is somewhat perceived as being controlled by the individual and can be described by behavior where people feel motivated to demonstrate their ability to maintain their self-worth. Even though it is internally driven, it is not perceived as part of the self and does not entail true choice (Deci, Vallerand, Pelletier, & Ryan, 1991). The next type of Extrinsic Motivation is Identified Regulation, which involves assessing a goal that can be personally important. Even though the goal is performed because of its instrumentality, the person partakes of it willingly (Deci, Vallerand, Pelletier, & Ryan, 1991). Last, the most autonomous kind of Extrinsic Motivation, Integrated Regulation, occurs when the individual has assimilated the regulations into the self, so they have become part of the person's beliefs or personal needs. Integrated Regulation is similar in nature to Intrinsic Motivation, but remains extrinsic because the goals are for extrinsic reasons, and not for the pure enjoyment or interest in the activity.

2.2 Self-Determination in Japanese universities

Although research into SDT does exist in pre-education level in Japan (Carreira, 2012 ; Hayamizu, 1997), this study will focus on students at the university level. This is because students at this level are more likely to have language classes geared towards communication goals, than say, high school or junior high school, at which English is most often used as a tool for passing tests.

In light of the focus on testing of students from junior high school onwards, Hayashi (2005) monitored motivational changes of 461 Japanese university students from junior high school through to university (nine years) through the process of recall. Results showed that most students experienced a drop in motivation from senior high school into university, signaling the end of the entrance examination period. However, it was found that some students were able to maintain both Intrinsic and Extrinsic Motivation at the same time at senior high school going into university. The author concludes by saying although Intrinsic Motivation may be innate, it needs to be supported by purposeful effort in the pursuit of a desired outcome (p.13).

Other researchers found that Japanese learners may hold different types of motivation at the same time. Kimura, Nakata, and Okumura (2001) measured various types of motivation in 1027 Japanese junior high school, junior college, and university learners. Their original 60-item questionnaire loaded onto six factors with 44 items, accounting for 50.42% of the variance. Their main factor was as an amalgamation of Intrinsic, Integrated and Instrumental Motivation (these last two come from the Gardner model of motivation). It does show a number of motivational factors working together in the EFL context, but in that sample different motivational conceptions merged together.

One of the first studies to address only SDT constructs at a Japanese university was Honda and Sakyu (2004) who measured Intrinsic and Extrinsic subscales and their effect on proficiency scores on the TOEIC Test

with 435 learners at the university level in Japan. A Japanese version of the LLOS-IEA (an instrument designed to measure SDT in second language settings) was hypothesized to factor onto seven factors, but only four were recognized (all above α =.76) explaining 58.2% of the variance. Of these factors, three were related to Intrinsic Motivation and the fourth was a combination of Introjected and External Regulation. Also, the authors found the Intrinsic Motivation constructs to be highly positively correlated, but the there was no negative correlation between Extrinsic Motivation constructs and the three Intrinsic Motivation constructs, casting doubt on the existence of a self-determined continuum. Problems in this study include the fact that both Identified and Integrated Regulation were realized in the factor analysis and some of the communality values on the External Regulation factor were well below acceptable limits.

A second study that used SDT measurements only at the university level in Japan was by Ogane and Sakamoto (1999). They created a structural model to look at antecedents and direct effects of Motivation as measured by Intrinsic and Extrinsic Motivation and Motivational Strength in 110 Japanese university students. The instrument developed for the study was translated into Japanese and included items related specifically to speaking English, but this instrument was found to have low reliability of motivation factors (α =.62-.70), which may have been a product of the small sample size.

Last, at the university level Otoshi and Hefferman, (2011) investigated how the three psychological needs of Competence, Relatedness and Competence affect Intrinsic Motivation and how Competence can affect TOEIC Test proficiency scores in 285 Business and English majors. First, a Japanese version of the LLOS-IEA displayed moderate reliability with factors above α =.67. Next, a factor analysis produced three factors, Intrinsic, External Regulation and Introjected Regulation, with Identified Regulation being an unreliable factor in the study, altogether accounting for 58% of the variance.

These few studies show that there is the potential to find clear SDT factors, but the results are as yet inconclusive. Also few strong positive and negative correlations between factors related to the SDT in the university context have been found, making the realizations of an underlying continuum of self-determination difficult. More research needs to be carried out to add to this small body of work.

2.3 Rationale for measuring Self-Determination at the contextual level

The above studies have been based on the LLOS-IEA, which measures motivation at the global level. The present study, on the other hand, used a more situational-based instrument taking cues from the LLOS-IEA, but relating all items to reasons for speaking English in class. The theoretical rationale for this instrument comes from SDT researchers who have proposed a hierarchical model with three levels of generality when exploring sub-constructs of the SDT (Vallerand & Lalande, 2011 ; Vallerand & Ratelle, 2002). The theory recognizes different instruments are needed to measure motivation at the global, contextual and situational. The global factors are general dispositions to engaging in activities. The last element is the situational level that looks at the "here

and now" of an activity, and is the least stable because it responds to the immediate environment around it. The contextual level in the middle matches the situational focus of this study, the Japanese classroom. Measurement of these three levels requires appropriate scales for each level (Vallerand & Ratelle, 2002), but they can be influenced by other levels near them. Although many studies have reported confirmation of this model in education, leisure and interpersonal relationships (Vallerand & Ratelle, 2002), application of these concepts has not yet been carried out in second or foreign language settings. The present study is the first to address self-determined goals for speaking at the contextual level in Japanese classrooms. Therefore, by using a specific situational (contextual) measurement, namely related to spoken communication, this study can make claims about the specific composition of subscales in this context.

3.0 The study

This study seeks to address the following research questions :

1) What trends can be seen in the means recorded for these items.

2) How reliable and valid are the situational subscales of the SDT instrument used in this study?

3) What are the correlations between the subscales of this instrument?

3.1 Participants and procedures

The participants used in this study are taken from the first and second year of one faculty with two departments at a Japanese university starting April 2014. Both departments have stressed the importance of English in their mission statements, which influences each department's compulsory curriculum and activities. Currently students in both departments have three hours of compulsory English classes per week, with an emphasis on communication, as well as a number of elective classes to choose from. A total of 550 questionnaires were given out in week six of the spring 2014 semester for both first year and second year classes.

3.2 Instrumentation

There are four sub-constructs that make up the instrument in this study. It excludes the Amotivation construct because it was thought to not apply to this sample group. The items were also influenced by other studies in Japan using SDT-related constructs (Otoshi & Hefferman, 2011) and one study that used the SDT-related items in a Chinese WTC model (Peng & Woodrow, 2010). Unlike the measurement used in those studies, however, in the present study items are specifically concerned with the reasons students would or would not speak English in class and were mainly written from scratch. The instrument can be seen in the Appendix A.

The factors are Intrinsic Motivation for Communication (IMC) with six items, Identified Regulation for Communication (IRC) with five items, Introjected Regulation for Communication (JRC) and External Regulation for Communication (ERC) both have four items each. All of these are expected to be separate subscales as

indicated by the SDT theory. All of the items in this survey require participants to indicate their agreement or disagreement on a 6-point Likert scale (1 = *Strongly disagree* ; 2 = *Disagree* ; 3 = *Slightly disagree* ; 4 = *Slightly agree* ; 5 = *Agree* ; 6 = *Strongly agree*) that starts *I speak English class because….* A six-point scale was used to give an even number of choices so that students would not be able to choose a neutral category. Brown (2000) explained that this is one way of avoiding students "sitting on the fence" (p. 28), which the author of this study is keen to do.

The procedure for creation of the instrument was, first, all items were created in English from the relevant literature and in consultation with EFL professionals. Second, the items were translated by a Japanese teacher of English familiar with the students and setting and checked by a second Japanese teacher of English. Third, the first Japanese teacher of English translated the Japanese version back into English. That teacher and I went through each item individually to ensure that the English and Japanese versions were as close as possible. Fourth, the Japanese version for students was given to a group of ten high-proficiency students to check their comprehension and slight alterations in wording were made. Last, all the items in Japanese were prepared for the sample.

3.3 Factor Analysis Assumptions and thresholds

Before carrying out Factor analysis, the following six assumptions were met :

1) *Sample Size and Missing data*. First, the sample size of 471 with no missing data (after excluding univariate and multivariate outliers) is within acceptable the required sample for factor analysis (Tabachnick & Fidell, 2007).

2) *Normality*. Second, acceptable skewness and kurtosis levels that describe the normality of the items are important, but distribution is more important than these values (Tabachnick & Fidell, 2007). The normality of the data was confirmed through histograms for these items.

3) *Outliers*. Third, a total of 79 univariate and multivariate outliers were identified and removed.

4) *Linearity*. Fourth, to investigate linearity, bi-variate scatterplots were examined (Tabachnick & Fidell, 2007). No curvilinear relationships were identified.

5) *Absence of multicollinearity and singularity*. Fifth, muticollinearity occurs when variables are too highly correlated with each other (r >.90) and singularity happens when variables are perfectly correlated with each other (r = 1.00). Such variables are considered redundant. In order to detect multicollinearity and singularity, SPSS Regression Collinearity Diagnostics were performed, but no instances of singularity or multicollinearity were found.

6) *Factorability of R*. Lastly, the factorability of R was checked for each group of items by inspecting Kaiser's measure of sampling adequacy. The factorability of R of the Motivation items was .88, which is over the .60 criterion required for factor analysis (Tabachnick & Fidell, 2007).

In summary, after deleting the univariate outlying values, no serious violations of the assumptions of a factor analysis remained.

Lastly, after checking the assumptions the Generalized Least Squared factor analysis was chosen with a Direct Oblimin rotation because of the anticipated correlations between variables that deal with communication. The factors were analyzed by : (a) the results of the preliminary study, (b) the scree test, and (c) the interpretability of the factor solution. Within the factors, loadings of .45 or higher are bold-faced. Furthermore, the factors receiving loadings from two or fewer items at .45 or higher were eliminated from further analysis (Stevens, 2002), as were items that were complex or had low communality values less than .4.

4.0 Results

The descriptive items from the factors can be seen in Table 1. They show the skewness and kurtosis values as well as their respective standard error of measurement scores, standard deviation, standard error of measurement for the mean and the mean itself. Looking at the means, first the Intrinsic Motivation for Communication (IMC) means range from just below 4 to the upper 4 level. The lowest mean was recorded by the IMC 3 (*I like to volunteer to answer questions in class and see whether my answer is correct or no*), which is not surprising given that volunteering in class, although important for confidence, is an anxiety-inducing activity. The second group

Table 1. *Descriptive statistics for all items*

	M	SE	SD	Skewness	SES	Kurtosis	SES
IMC 1	4.34	.047	.936	.121	.123	-.485	.245
IMC 2	4.86	.041	.807	-.149	.123	-.686	.245
IMC 3	3.43	.043	.864	.318	.123	.427	.245
IMC 4	4.85	.042	.845	-.318	.123	-.524	.245
IMC 5	3.99	.053	1.049	.078	.123	-.266	.245
IMC 6	4.13	.052	1.041	-.201	.123	-.379	.245
IRC 1	5.26	.038	.758	-.743	.123	-.004	.245
IRC 2	4.76	.039	.781	-.125	.123	-.454	.245
IRC 3	5.05	.040	.802	-.383	.123	-.623	.245
IRC 4	3.99	.060	1.193	-.125	.123	-.437	.245
IRC 5	4.24	.051	1.006	-.175	.123	-.061	.245
JRC 1	3.80	.054	1.078	-.333	.123	.221	.245
JRC 2	3.58	.059	1.170	-.263	.123	-.135	.245
JRC 3	3.27	.051	1.007	-.044	.123	.498	.245
JRC 4	3.01	.055	1.101	-.004	.123	-.193	.245
ERC 1	5.00	.040	.802	-.385	.123	-.474	.245
ERC 2	3.82	.055	1.095	-.052	.123	-.180	.245
ERC 3	4.16	.056	1.119	-.295	.123	-.107	.245
ERC 4	4.34	.050	.997	-.309	.123	.218	.245

Note. IMC = Intrinsic Motivation for Communication ; IRC = Identified Regulation for Communication ; JRC = Introjected Regulation for Communication ; ERC = External Regulation for Communication.

is the Identified Regulation for Communication (IRC) means. The highest mean was IRC 1 (*speaking English will be useful for me in the future*). These means are generally higher than the intrinsic means, especially related to the instrumental use of English in the future. The third group is the Introjected Regulation for Communication items (JRC). All of these items are in the 3 values which is slight disagreement. It appears students are less influenced by these introjected goals. Lastly, are the External Regulation for Communication (ERC) items, which show a similar pattern to the intrinsic items in that they fall around the 4 mark. The most easily endorsed item is ERC 1 (if I communicate well, it might help my job-hunting prospects), recognizing the benefit of improved speaking ability whilst at university.

　　Moving from means to the factor analysis. Although the four factor solution was tried, a three-factor solution was settled on and can be seen Table 2. The first factor contains eight items accounting for 29.89% of the total variance an Eigenvalue 6.19 units and good reliability (α =.86). The items that made up of this factor comprise of both Intrinsic Motivation for Communication and Identified Regulation for Communication. All these items reflect a mixture of intrinsic goals and those behaviors which become part of the students' personal needs,

Table 2.　*Factor analysis with Variance, Eigenvalue and Reliability*

	1	2	3	h^2
IMC 1	**.788**	-.118	.123	.613
IMC 4	**.739**	-.033	-.025	.657
IMC 5	**.724**	.035	-.023	.631
IMC 6	**.518**	.041	-.081	.458
IRC 2	**.458**	.025	-.067	.454
IMC 3	**.433**	.158	.087	.422
IRC 3	**.430**	-.164	-.323	.595
IMC 2	**.428**	-.030	-.333	.558
JRC 3	.087	**.798**	-.021	.723
JRC 4	.045	**.769**	-.145	.669
JRC 2	.187	**.597**	-.157	.558
JRC 1	.222	**.564**	.022	.459
ERC 2	-.223	.170	**-.799**	.671
ERC 4	-.058	.197	**-.723**	.647
ERC 1	.020	-.075	**-.669**	.545
IRC 4	.178	-.054	**-.542**	.508
IRC 1	.335	-.219	**-.448**	.602
IRC 5*	.315	.265	-.311	.320
ERC 3*	.218	.245	-.296	.341
Eigenvalue	6.19	2.67	1.13	
Variance (%)	29.89	11.99	6.33	
Reliability	.86	.84	.80	

Note. Bold numbers indicate loadings of .45 or higher and those of -.45 or lower. Extraction Method : Generalized Least Squared. Rotation Method : Direct Oblimin. Eigen = Eigen values. IMC = Intrinsic Motivation for Communication ; IRC = Identified Regulation for Communication ; JRC = Introjected Regulation for Communication ; ERC = External Regulation for Communication ;　* = removed item. Total variance = 48.21%.

such as self-development (IRC 3) and the importance of communication with other class members (IRC 2). Due to the make-up of the items in this factor, it will maintain the name Intrinsic Motivation for Communication Factor.

The second motivation factor in Table 2 is made up of four items and accounts for 2.67 Eigenvalue, with 11.99% of the total variance and good reliability (α =.84). The items in this factor are all the originally hypothesized Introjected Regulation items. All items deal with maintaining self-worth, mostly from classmates as peers. This factor will, therefore, retain the name Introjected Regulation for Communication.

The last factor in Table 2 has six items and the Eigenvalue is 1.13 units with 6.33% of the total variance and acceptable reliability (α =.80). The five items are a combination of those items with reasons for speaking English that deal with finding a good job and other goals for speaking English after university (ERC 1, ERC 2, & IRC 1). They also equate to a necessity for reaching some kind of recognizable standard to be highly evaluated (ERC 4) and becoming bilingual (IRC 4). Due to the gravitation towards these external reasons, this factor will continue to be called External Regulation.

There are also two items in Table one that did not factor strongly into the three main factors. With these two items removed there is a slight positive change with the total variance climbing to 51.21% of the total variance, and the Eigenvalues and reliability indices further increasing very slightly.

After the factor analysis, the relationship between the factors can be seen in Table 3 that shows the factor score co-efficient matrix, which are the correlation co-efficients between the factors. The table shows that between Intrinsic Motivation and Introjected Regulation there no was correlation (r = -.045), but between Intrinsic Motivation and External Regulation there is a moderate negative correlation (r = -.435). Furthermore, between External Regulation and Introjected Regulation, there is a weak correlation. (r = .248).

Table 3. *Factor Score Co-efficient Matrix for Motivation for Communication Factors*

Factor	1	2	3
Intrinsic Motivation			
Introjected Regulation	-.045		
External Regulation	-.435	.239	

This result mirrors the continuum of the Self-Determination Model in that higher self-determined factors are inversely correlated to the lower self-determined factors, namely Introjected and External Regulations. These last two factors are positively correlated because they both reflect externally-controlled goals.

5.0 Discussion

This section will address the research questions in turn.

1)　What trends can be seen in the means recorded for these items?

　　Looking at the means, they show that students can have different and seemingly opposing goals for study-ing English. One the one hand, students may enjoy speaking English in class and this satisfies their intrinsic rea-son for communicating. On the other, students may hold strong extrinsic goals which highlight a goal to use English in the changing Japanese work place environment. Researchers that address pre-university education in Japanese have found that both intrinsic and extrinsic motivation can be maintained (Hayashi, 2005), but others have found that intrinsic motivation may suffer as extrinsic motivation increases (Watanabe, 2011). This study shows that Japanese university students have varying degrees of both intrinsic and extrinsic motivation in the first and second years. These results tend to lead the author to infer that far from extrinsic motivation producing the least positive consequences (Deci & Ryan, 2000 ; Vallerand & Lalande, 2011), it may be a necessary reality for Japanese students in Japan as they enter the job market. These goals may become more a part of the self as the student places personal importance on them.

　　Based on the results in the current study, it is important to appeal to both intrinsic and extrinsic goals. In-trinsic motivation can be brought about by satisfying the three psychological needs of relatedness, competence and autonomy (Deci & Ryan, 2000). Classroom activities like group projects are one way to fulfill all these needs. First, projects involving other group members means that learners will need to collaborate and rely on other members to complete the task. Second, as with a task syllabi, projects can build on each other so that skills are reinforced. Also, each stage of the project can offer a chance for reflection when students can assess their own performance. Lastly, giving students choice over the content and how the project will be carried out can help students develop feelings of autonomy.

　　Equally important is attention to extrinsic goals. This can be achieved in a few ways. One way is to teach English that students will need in the work place. Teachers need to understand the needs of students studying particular majors and design lesson plans and use authentic material that would be useful for students in the fu-ture and can serve to link the classroom with the real world. Another way would be to invite what Japanese term OB / OG (Old Boys / Old Girls) who have graduated from the university to come in to the classroom and talk about how they use English at work. This serves to motivate students and reinforce the necessity of studying English at university. The last way is to encourage students to challenge English qualifications. Most of the ma-jor tests recognized by Japanese employers now have a speaking competent. For example, the TOEIC test hand-book explains that speakers with a score of over 160 can function in a typical workplace (ETS, 2012). Although giving over time specifically to practice raising scores on these tests is not recommended, providing students op-portunities to engage in a variety of classroom communicative activities may help to increase scores on tests like the TOEIC Speaking Test.

2) How reliable and valid are the situational subscales of the SDT instrument used in this study?

The factor analysis in the main study revealed three clear factors explaining 51.21% of the total variance, which although not as high as recorded in other studies is acceptable and evidence of validity. However, unlike other studies the reliability indices were all high, perhaps because all these factors retained enough items after the factor analysis had taken place. The one factor that did not separate as predicted, was Identified Regulation. First, the lack of Identified Regulation, but maintenance of other factors, mirrors a study of SDT at a Japanese university (Honda & Sakyu, 2004). Perhaps when goals have been adapted as part of the self as those in the Identified Regulation imply, there is little separation between these goals and goals viewed to be purely intrinsic. Furthermore, while other studies using SDT factors at Japanese universities have not been able to find clear SDT factors (Otoshi & Hefferman, 2011 ; Kimura, Nakata & Okumura, 2011), the present study found three related to the original SDT theory.

Further evidence of validity can be seen in the fact that this study has partially validated the existence of a contextual level for which items in this study were written. Although many studies have reported confirmation of this level of motivation in education, leisure and interpersonal relationship (Vallerand & Ratelle, 2002), application of these notions have not yet been applied in second or foreign language settings. This study is the first to confirm self-determined goals for speaking at the contextual level in Japanese classrooms. Therefore, by using a situational (contextual) measurement, namely related to spoken communication, this study can make more valid claims about the other contextual factors which are affected by or lead from motivation.

3) What are the correlations between the subscales of this instrument?

Table 2 provides evidence of the continuum predicted to exist between higher and lower extrinsic regulations in SDT theory. Confirmation does already exist of this continuum in studies for second language (Noels, Pelletier, Clément & Vallerand, (2003), a classroom study in Japan (Hayamizu, 1997) and in WTC in China (Peng & Woodrow, 2010). This study, however, is the first to confirm strong factors and evidence of the SDT continuum for contextual specific items in both second and foreign language as far as this author knows.

Along with the subscales in this study, the SDT theory also states that there are three universal innate psychological needs of Competence, Autonomy, and Relatedness that, depending on their level, can either promote or thwart self-determination (Deci & Ryan, 2000. The SDT theory holds that the three basic needs should be present in any culture, but Deci and Ryan (2004) stated that "relationships between specific behaviors and satisfaction of underlying needs might be different in cultures because the behaviors come to have different meanings in accord with culturally endorsed values and practices" (p. 26). This means that although the theory is considered universal across cultures, individual cultures may have different interpretations of the three needs. Future research should address the existence of these three needs in relation to the instrument used in this study.

6.0 Conclusion

The transition from high school to university education in Japan is important. Whereas part of learners' high school classes would have been devoted to passing tests, especially the university entrance exams, the university classes may be given over more to classes where students have to communicate. Then, what can motivate learners to communicate in class is important to research, if learners wish to become more proficient speakers of English.

This study set out to survey self-determined motivational goals of Japanese university students related to the context of communication in the class in English. An n-size of 471 was attained and three factors of the SDT theory were realized. Although all of the data in this study relies on self-report, it shows that SDT constructs can be applied in Japan. Through factor and correlation analyses and correlations these contextual factors were found to be both reliable and valid and can be used in conjunction with other affective and non-affective factors to better understand second language acquisition.

Finally, in measuring these contextually-based motivational constructs, it is important to use contextually-sensitive instruments that actually reflect what students do in the classroom. In this study, I have attempted to identify a number of SDT constructs that can be applied to the context of speaking English in class.

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Appendix A

Item for the four subscales (English version)

I speaking English in class because....

Intrinsic Motivation for Communication

IMC 1   speaking English is enjoyable

IMC 2   I feel satisfied when I can communicate my thoughts in English.

IMC 3   I like to volunteer to answer questions in class and see whether my answer is correct or not.

IMC 4   I would find it interesting if I understand things when I communicate in English.

IMC 5   I experience a feeling of high when I speak in English.

IMC 6   I want to develop a kind of "new me" in English.

Identified Regulation for Communication

IRC 1   speaking English will be useful for me in the future.

IRC 2   speaking English well is important for me to communicate with other students /the teacher.

IRC 3   I can develop myself as a person by speaking well.

IRC 4   I want to be completely bilingual

IRC 5   I feel very proud of myself when I can say something in English.

Introjected Regulation for Communication

JRC 1   I'm somehow embarrassed if I'm not good at speaking English

JRC 2   I would be looked upon as cool if I'm good at speaking English

JRC 3   I don't want other students to think I can't speak English well

JRC 4   I don't want other classmates to look down on me

External Regulation for Communication

ERC 1   if I communicate well, it might help my job-hunting prospects.

ERC 2   improving my spoken English is necessary to help me get a better salary when I graduate.

ERC 3   speaking well in English is expected of me.

ERC 4   people that speak well in English in Japan are highly evaluated.

【Abstract】

自己測定理論の状況構成概念と
日本の大学におけるその有効性の研究

ロブソン　グライアム*

　本研究は日本の大学における学生（471 名）を対象とした因子測定尺度の自己測定理論（Deci & Ryan, 1985）の有効性を探るものである。これまでの多くの自己測定理論研究とは異なり、本研究では、日本の外国語学習教室における英語でのコミュニケーションに必要な文脈判断に使用した因子測定尺度に、筆者の作成した因子項目を利用した。このレベルで書かれたアイテムの原理的説明は他の分野（Ratelle & Vallerand, 2002）からのものだが、第二言語、あるいは外国語習得の分野ではまだ確証されていない。因子分析ではまず 4 要因の仮説を立て、信頼性が高い 3 つの要因を産出した：コミュニケーションに固有の動機、同定されたコミュニケーションの規則、コミュニケーションの外的規則である。本研究は SDT（自己測定理論）にかんがみて、この 3 つの結論を探り、その結論の意味を提示する。
キーワード：日本の大学、定量調査、モチベーション、自己測定理論、因子分析

This study seeks to validate subscales of the Self-determination Theory (SDT) (Deci & Ryan, 1985) at a Japanese university (n = 471). Unlike most other studies of SDT, this study employs items written by the author for subscales that apply to contextual reasons for communicating in English in the Japanese language classroom. Rationale of items written at this level come from the field of psychology (Ratelle & Vallerand, 2002), but, as yet, have not been confirmed in either second or foreign language settings. A factor analysis originally hypothesized to produce four factors, produced three reliable factors which were Intrinsic Motivation for Communication, Identified Regulation for Communication and External Regulation for Communication. This paper looks at these results in light of the SDT theory and offers implications for those results.
Key words : Japanese university, quantitative research, motivation, Self-determination theory, factor analysis

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