Why Do They Want to Learn English?  
A Self-Determination Theory Perspective

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The present study intends to identify potential L2 orientation variables that may explain some proportion of the variances associated with Korean university students’ perceived English proficiency. To this end, four subtypes of motivation suggested by self-determination theory (i.e., external regulation, introjected regulation, identified regulation, and intrinsic motivation) were subjected to the multiple regression analysis with perceived English proficiency served as the dependent variable. Furthermore, to detect the existence of potential variables that mediate the relationship between the four SDT orientation variables and perceived English proficiency, an additional regression analysis was performed with the four orientation variables plus motivational intensity served as the independent variable. Results of the regression analyses suggest that intrinsic motivation was the most powerful predictor of Korean students’ perceived English proficiency, followed by introjected regulation. However, the additional mediator analysis indicates that the effect of intrinsic motivation on students’ perceived English proficiency was insignificant, once the effect of motivational intensity on perceived English proficiency was considered, thereby demonstrating the mediating role of motivational intensity played between intrinsic motivation and perceived English proficiency. These findings were also confirmed through a post-hoc structural analysis.

I. INTRODUCTION

Previous studies have identified factors that are closely related to L2 achievement. According to L2 literature, potential predictors of L2 achievement include factors, such as language aptitude (e.g., Sparks & Ganschow, 1991), strategy use (e.g., Green & Oxford, 1995; Oxford & Nykos, 1989), motivation (e.g., Gardner, 1985a; Gardner, Masgoret, Tennant, & Mihic, 2004), self-confidence (e.g., Clément, 1980; Clément, Dörnyei, & Noels, 1994; Noels, Clément, & Pelletier, 1999) or language learning attitudes (e.g.,
Among these predictors, L2 orientations or a class of reasons to study an L2 receive substantial attention from L2 researchers. Therefore, inter-correlations between various subtypes of L2 orientation and L2 achievement have been well documented in the literature. For instance, Gardner and colleagues contrasted integrative orientation with instrumental orientation, and generally showed that the integrative orientation has more predictive power than the instrumental orientation in accounting for the variances associated with L2 achievement in an ESL (English as a Second Language) setting. However, in an EFL (English as a Foreign Language) context, where direct contact with native speakers of the target language is limited, the relationship between the integrative orientation and L2 achievement is less clear. For example, data collected from Hungary (Csizér & Dörnyei, 2005) attested the usefulness of integrative orientation in predicting L2 achievement, whereas studies conducted in Asian countries such as China or Korea suggested that the instrumental orientation is a stronger predictor of L2 achievement than the integrative orientation and the integrative orientation is only indirectly related to L2 achievement (e.g., Chen, Warden, & Chang, 2005; Dong-Ho Kang, 2001). This indicates that the relationship between L2 orientation and L2 achievement cannot be accurately described without considering the existence of potential mediating or moderating variables that may confound the true relation between L2 orientation and achievement, thereby underscoring the need of simultaneous analysis of structural relationship among the potential factors surrounding L2 achievement.

In response to this call, scholars in the area of L2 acquisition have proposed several models of L2 achievement in order to simultaneously examine the direct and indirect factors affecting L2 achievement (e.g., Clément, 1980; Clément et al., 1994; Deci & Ryan, 1985; Dörnyei, 1994; Gardner, 1985a; Noels, Pelletier, Clément, & Vallerand, 2000; Schumann, 1978). For instance, Gardner’s socio-educational model of L2 acquisition (e.g., Gardner, 1985a) suggests that motivation to learn an L2 is the key determinant of L2 achievement, while attitudinal or affective variables indirectly influence L2 achievement through motivation. Similarly, Clément’s model of L2 acquisition (e.g., Clément, 1980, 1986; Clément et al., 1994; Clément & Kruidenier, 1985) focuses on self-confidence coupled with integrative motivation in a classroom setting, whereas Schumann’s model (1978) capitalizes on group attitudes and motivation in the natural process of language acquisition for members of a minority group.

Another powerful model of L2 achievement has been suggested by self-determination theorists (e.g., Deci & Ryan, 1985, 2002; Deci, Vallerand, Pelletier, & Ryan, 1991; Ryan, 1995). Self-determination theory (SDT) positions various motivational constructs of human behaviors along the continuum of self-determination or internalization. Especially, intrinsic versus extrinsic duality of motivation receives attention from L2 researchers.
Intrinsic motivation refers to the internalization process that is fully self-determined, whereas extrinsic motivation focuses on motivational tendency that is external to the activity. In spite of the theoretical importance of self-determination theory of human motivation, relatively sparse attention has been given to the application of SDT framework to L2 research. For example, Noels and her colleagues (Noels, 2001; Noels, Pelletier, Clément, & Vallerand, 2000) have pioneered the applicability of SDT framework to L2 motivation in the classroom settings, and generally showed that SDT-based variables, such as intrinsic and extrinsic motivation, explained a good proportion of variance associated with various L2 related outcomes. However, the pioneering work conducted by Noels and her colleagues was based on North American samples, and accordingly it still remains to be seen whether the motivational constructs proposed by self-determination theory can be applied to the EFL context, such as Korea. Therefore, the purpose of the present study is to systematically examine the relationship between subtypes of SDT motivational constructs and L2 outcome using a Korean EFL sample.

II. RESEARCH BACKGROUND

In self-determination theory, motivation of human behaviors is classified depending on the degree of internalization. (Deci & Ryan, 1985, 2002; Deci, Vallerand, Pelletier, & Ryan, 1991; Noels et al, 2000). Internalization represents a motivational process where human behaviors motivated by external contingencies are changed into the ones with more self-determination. For instance, intrinsic motivation results from the internalization process that is fully self-determined. Hence, people with intrinsic motivation pursue activities because of the inherent pleasure and satisfaction experienced by doing so, rather than contingencies or reinforcements external to the activities.

Extrinsic motivation, on the other hand, represents the motivational tendency whereby people are engaged in an activity because of some pragmatic reasons that are external to the activity. Extrinsic motivation can be further divided into three sub-categories (i.e., external regulation, introjected regulation, and identified regulation) depending on the degree of self-determination. Among these three sub-types of extrinsic motivation, external regulation is the least self-determined form of motivation. People with external regulation perform an activity in order to satisfy external demands (e.g., praise or punishment) or social contingency. On the other hand, people with introjected regulation are involved with a task because of some kind of internal pressure (e.g., guilt, shame, or self-aggrandizement). Finally, identified regulation is the most autonomous form of extrinsic motivation. People with identified regulation are engaged in an activity because they value the goal of the activity and the activity is personally meaningful. Therefore, the
person with identified regulation pursues an activity with more sense of choice or volition, but does so only as long as she or he perceives the usefulness or instrumental value of the activity.

With regards to the relationship between SDT motivational constructs and L2 outcomes, it is found that a high level of intrinsic motivation is related to greater motivated behavior and persistence (e.g., Noels et al., 1999; Ramage, 1990), higher self-efficacy (Ehrman, 1996; Schmidt, Boraie, & Kassabgy, 1996), stronger intention to continue L2 study (e.g., Noels et al., 1999), less perceived anxiety and children’s enhanced academic achievement (Harter, 1981; Noels, 2001), whereas extrinsic motivation generally shows the reverse trends. For instance, Noels et al. (2000) witnessed a general pattern where more self-determined forms of motivation were positively related with increased perception of autonomy, more intention to continue language study, less anxiety, and a higher level of self-competence. In a similar vein, Noels (2001) performed a series of hierarchical multiple regression analyses to examine differential impact of motivational subtypes (i.e., intrinsic and extrinsic motivation, amotivation, and integrative orientation) on the predictive strength of motivational intensity, L2 intention, and attitudes toward learning an L2. The results revealed that amotivation was a strong negative predictor of the three dependent measures, while more self-determined forms of motivation predicted positive endorsement of motivational intensity, L2 intention, and L2-related attitudes. However, these findings were based on North American samples, and no replication studies have been reported as to the relationship between SDT-based orientations and L2 achievement with an EFL sample.

In a similar manner, it is also suggested in the literature that general L2 orientations (e.g., instrumental and integrative orientation, intrinsic and extrinsic motivation) exert their influences on L2 achievement indirectly through the mediation of motivational intensity or desire (e.g., Gardner, 1985a, 2001; Gardner, Masgoret, Tennant, & Mihic, 2004; Masgoret & Gardner, 2003). In other words, only motivation, operationally defined as the combination of three factors (i.e., motivational intensity, desire to learn an L2, and attitudes toward an L2) is directly responsible for L2 achievement (e.g., Gardner, 1985a). For instance, Masgoret and Gardner (2003) correlated L2 achievement measures with motivational strength, L2 orientations, and attitudinal variables. The results demonstrated that L2 achievement consistently correlated more highly with strength of motivation than with L2 orientations or attitudinal variables across three measures of achievement (i.e., objective tests, self-ratings, and grades), thereby verifying the indirect relation between L2 orientations and achievement. Again, this finding has not been replicated with a different national sample, thus limiting its generalization. Therefore, the present study purports to explore the full structural relationship between L2 orientation suggested by self-determination theory (i.e., external regulation, introjected regulation, identified
regulation, and intrinsic motivation) and perceived English proficiency in the presence of other theoretically important mediators and moderators associated with L2 learning.

With this purpose in mind, three research questions are generated. The first question of the present study is to simultaneously measure the strength of prediction made by four motivational variables under the SDT framework (i.e., external regulation, introjected regulation, identified regulation, and intrinsic motivation) on perceived English proficiency. The second question is to explore potential variables that mediate the relationship between the four SDT related variables and self-reported measure of English proficiency. The last question is concerned with an empirical confirmation of the findings coming from the first and second research question using a structural equation modeling (SEM) approach.

III. METHODS

1. Participants

Data were collected from a compulsory college English course recommended for freshman in a large university in Korea. As part of the data collection procedure, the purpose of the present study was explained first, and all the students taking the course were asked to participate in the present study. A total of 200 students across five sections of the English course agreed to participate in the present study. Due to missing data, however, three cases were eliminated from the data pool, thus resulting in a total sample of 197 students. One hundred of the 197 participants were females and 97 were males. Data collection was completed in December, 2006.

2. Instrument

Data were collected using a questionnaire consisting of six subscales and a total of 31 five-point Likert scale items. Description of each subscale was followed below.

*Extrinsic Motivation* (EM). Extrinsic motivation was assessed by three subscales (i.e., *External Regulation*, *Introjected Regulation*, and *Identified Regulation*). Each subscale consisting of three items was derived from Noels et al. (2000). Internal consistency as measured by Cronbach’s alpha was 0.91 for External Regulation, 0.81 for Introjected Regulation, and 0.79 for Identified Regulation.

*Intrinsic Motivation* (IM). Nine items were drawn from Noels et al. (2000). All of the nine items were subjected to factor analysis for data reduction, and three factors (i.e., Knowledge, Accomplishment, and Stimulation) showing an Eigenvalue of one or above
were extracted, as consistent with the original theoretical conceptualization suggested by Noels and her colleagues (Noels et al., 2000). Each of the three factors was transformed to a standardized factor score (i.e., \( M = 0, SD = 1 \)) and treated as an observed variable. Alpha for the Intrinsic Motivation subscale with three factor scores was 0.94.

Motivational Intensity (MI). Ten items from the Attitude/Motivation Test Battery (AMTB, Gardner, 1985b) were slightly modified for the present study. However, item analysis identified one item with a very low D-value (i.e., item discrimination), and this item was dropped out of the subscale. Alpha with the final nine items was 0.86. For the later SEM analysis, the nine items were combined into three indicators (i.e., MI1, MI2, and MI3).

Perceived English Proficiency (PEP). Four items asking how individual respondent perceives his or her English proficiency were constructed. This subscale measures students’ self-reported perception of proficiency in reading, speaking, writing and understanding English. Cronbach’s alpha for this subscale was 0.90.

3. Analysis

For research question 1, standard multiple regression analyses were performed. For this purpose, items comprising a subscale were combined to form an aggregate score for each subscale. Negative items were recoded prior to the aggregation. To be specific, five subscale scores (i.e., external regulation, introjected regulation, identified regulation, intrinsic motivation, and perceived English proficiency) were generated. Among them, the first four subscale scores served as the independent or predictor variable in the regression analyses, and perceived English proficiency was targeted as the dependent variable.

To gauge the mediating effect of motivational intensity on the relationships between perceived English proficiency and SDT subtypes of L2 orientations (i.e., research question 2), an additional composite score was generated for motivational intensity. Using this composite score and the existing four SDT subscale scores as the independent variable, an additional multiple regression analysis was performed with the perceived English proficiency as the dependent variable. The existence of a mediator variable will be signaled by significant increase in the model R-square or decrease in the strength of regression coefficients (i.e., \( \beta \)s).

Finally, the full structural relationship between SDT subtypes of L2 orientation and perceived English proficiency in the presence of other mediating variables was examined using structural equation modeling (SEM). The SEM procedure allows for measurement errors and simultaneously tests the causal relationships between latent (i.e., unobserved) variables, which are again measured by sets of indicator (i.e., observed) variables. In the present study, the structural relationship was analyzed by the LISREL 8.5 program. Out of
the five L2 orientation variables (i.e., external regulation, introjected regulation, identified regulation, intrinsic motivation, and perceived English proficiency), only the ones reaching statistical significance were subjected to the SEM analysis. Detailed information of SEM analysis based on the LISREL program can be found from Tae-Il Pae and Gi-Pyo Park (2006).

IV. RESULTS AND DISCUSSION

1. Regression Analyses

Table 1 documents the results from a multiple regression analysis that examined the magnitudes of prediction made by four orientation variables on perceived English proficiency.

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta</th>
<th>T-statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Regulation</td>
<td>.047</td>
<td>.675</td>
<td>.5</td>
</tr>
<tr>
<td>Introjected Regulation</td>
<td>-.198</td>
<td>-3.131</td>
<td>.002*</td>
</tr>
<tr>
<td>Identified Regulation</td>
<td>.112</td>
<td>1.586</td>
<td>.114</td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>.255</td>
<td>3.360</td>
<td>.001*</td>
</tr>
</tbody>
</table>

*Statistically significant at .05 or .01 alpha level.

Table 1 reveals that only two (i.e., introjected regulation and intrinsic motivation) out of the four types of L2 orientation significantly predicted the variance in L2 achievement. Specifically, it was found that intrinsic motivation exerted the strongest influence on L2 achievement, followed by introjected regulation, identified regulation, and external regulation, although influences from the last two predictors (i.e., identified and external regulation) were statistically insignificant, highlighting that intrinsically motivated L2 learners will display an increase in English proficiency. It must be noted, however, that the strength of prediction made by introjected regulation was bigger than the prediction made by identified regulation. This contradicts the expectation made by self-determination theory (Deci & Ryan, 1985). With this exception aside, results from the present regression analysis reflect a general motivational tendency that more self-determined forms of motivation will lead to a greater L2 proficiency, as consistent with the SDT framework of motivation (e.g., Deci & Ryan, 1985, 2002; Deci et al., 1991). It is also interesting to note that the introjected regulation was negatively related to L2 achievement, as shown by the negative regression coefficient. This means that more
introjected regulation was associated with decrease in L2 proficiency. Hence, it is inferred that a student who studies English for an internalized pressure (e.g., to avoid feeling guilty) is likely to show decrease in perceived English proficiency. A negative regression coefficient of the introjected regulation was also observed in a regression study with a US sample where motivational intensity served as the dependent variable (Noels, 2001). Another study with a Canadian sample reported a negative correlation between introjected regulation and final grades (Noels et al., 1999). Taken together, this implies that a negative relationship between introjected regulation and L2 proficiency may be a reliable pattern consistent across different national samples. Finally, a substantially low R-square value of the present regression model (i.e., $R^2 = .21$) deserves special attention since it signals the presence of unaccounted influence of some other variables on L2 proficiency or a possible model misspecification.

### TABLE 2

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta</th>
<th>T-statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Regulation</td>
<td>.060</td>
<td>.872</td>
<td>.384</td>
</tr>
<tr>
<td>Introjected Regulation</td>
<td>-.172</td>
<td>-2.760</td>
<td>.006*</td>
</tr>
<tr>
<td>Identified Regulation</td>
<td>.084</td>
<td>1.210</td>
<td>.227</td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>.122</td>
<td>1.551</td>
<td>.122</td>
</tr>
<tr>
<td>Motivational Intensity</td>
<td>.295</td>
<td>4.570</td>
<td>.000*</td>
</tr>
</tbody>
</table>

N=197. Dependent Variable = Perceived English Proficiency, $R^2 = .38$. *Statistically significant at .05 or .01 alpha level.

Results of an additional regression analysis targeted to detect possible mediator variables point to the presence of mediating effects for motivational intensity. Specifically, a comparison of Table 1 with Table 2 discloses that motivational intensity absorbed the proportion of variance in the perceived English proficiency explained by intrinsic motivation, as evidenced by an insignificant regression coefficient of intrinsic motivation and a significant regression coefficient of motivational intensity. This change suggests that intrinsic motivation made an indirect influence on L2 achievement through motivational intensity, hence confirming the findings from Gardner (e.g., Gardner, 1985a, 2001; Gardner et al., 2004; Masgoret & Gardner, 2003). It should be also pointed out that the predictive power of introjected regulation on L2 achievement remained unchanged in spite of motivational intensity. On the other side of the coin, considering the observation that the effect of intrinsic motivation on L2 proficiency is mediated by the strength of motivation (e.g., Gardner, 1985a, 2001), it is inferred that intrinsic motivation is in fact a kind of L2 orientation. This provides empirical evidence in support of the suggestion made by Deci and Ryan (1985) in that SDT subtypes of motivation reflect motivational orientation as well as the amount of motivational intensity. However, a relatively small
increase in the R-square value of the regression model \((R^2 = .38)\) signals the presence of variables whose influences on L2 proficiency were not accounted for.

2. SEM Analyses

A structural analysis was performed in order to confirm the relationship among the factors identified through research questions 1 and 2. To this end, an SEM model with three latent variables and a total of 10 indicator variables was developed based on the results of regression analyses mentioned above.

**FIGURE 1**
A Schematic Representation of the SEM Model of Perceived English Proficiency, Motivational Intensity & Intrinsic Motivation

![Figure 1](image)

*Note. PEP: Perceived English Proficiency; MI: Motivational Intensity; IM: Intrinsic Motivation; IM_KN: Intrinsic Motivation Knowledge Subscale; IM_AC: Intrinsic Motivation Accomplishment Subscale; IM_ST: Intrinsic Motivation Stimulation Subscale. *Statistically insignificant at .05 alpha level.

As shown in Figure 1, this SEM model structurally examines the predictors of perceived English proficiency, and more importantly, this model tests the mediating role of motivational intensity played between intrinsic motivation and perceived English proficiency. This model was analyzed using the LISREL 8.5 program.

Results of the structural analysis were schematically represented in Figure 1. Specifically, the SEM model produced a chi-square of 30.89 with 29 degrees of freedom \((p = .37)\), thus suggesting an acceptable fit of the data to the suggested SEM model. Other
model-data fit statistics also indicated a satisfactory fit of data to the model (GFI= .97, NNFI= .99, CFI=1.0, RMSEA= .018). In terms of path loadings, all the path loadings were significant at the .05 alpha level, except for a structural path linking intrinsic motivation to perceived English proficiency, which shows that L2 orientation, such as intrinsic motivation, is only indirectly related to perceived English proficiency. This proves that the effect of intrinsic motivation on perceived English proficiency is mediated by motivational intensity, hence confirming the findings reported from research questions 1 and 2.

V. CONCLUSION

The present study was intended to identify L2 orientation variables that may explain some proportion of the variances related to English proficiency for Korean EFL learners. Using self-determination theory as a theoretical framework, subtypes of orientation variables suggested by self-determination theory (external regulation, introjected regulation, identified regulation, and intrinsic motivation) were entered into a standard multiple regression to examine magnitudes of the predictive power of these SDT subtypes of motivation. The results of the multiple regression analysis demonstrate that intrinsic motivation was the strongest predictor of Korean students’ English proficiency, followed by introjected regulation, whereas the other SDT subtypes of motivation did not make any significant influences. This indicates that students who are involved in English learning activities for the sake of inherent pleasure and satisfaction derived from doing so may show significantly higher English proficiency than the students with less self-determined forms of motivation (e.g., external regulation). These results show a sharp contrast to the common expectation that pragmatic reasons of studying English may underlie Korean students’ motivation to learn English. Introjected regulation also made a significant prediction of the variances in L2 proficiency. Introjected regulation, however, was negatively associated with Korean students’ English proficiency.

Along with these results, it was also found that intrinsic motivation affects students’ English proficiency indirectly through mediating variables, such as motivational intensity, thus verifying the suggestions from Gardner (e.g., Gardner, 1985a, 2001; Masgoret & Gardner, 2003; Gardner et al., 2004) as well as Clément (e.g., Clément, 1980, 1986; Clément et al., 1994; Clément & Kruidenier, 1985). This indicates that intrinsic motivation alone is not sufficient for leading Korean EFL university students to increased perception of his or her English proficiency. Rather, intrinsic motivation should be coupled with expended efforts of L2 learning on the part of learners. For classroom English teachers, results of the present study suggest that teachers should promote
teaching methods or activities that help students pursue English learning activities because of the inherent pleasure and satisfaction, rather than external pressure such as exams or other pragmatic reasons. On top of that, intrinsic motivation should be implemented in the language classroom in a way that strengthens students’ motivational intensity. This way, students will enjoy enhanced perception of his or her English proficiency.

As a final reminder, the perceived English proficiency, which served as the dependent variable in the regression analyses, merits attention. Since it is based on a self-reported measure of one’s English proficiency, interpretation of this variable should be made with caution. A future study that employs an objective measure of students’ English proficiency will address this point.

REFERENCES


**APPENDIX A**

**Questionnaire Items**

(External Regulation)
1. I learn English because I have the impression that English is expected of me.
2. I learn English in order to get a better job.
3. I learn English in order to have a better salary later.

(Introjected Regulation)
1. I learn English to show myself that I am a good citizen because I can speak English.
2. I learn English because I would feel ashamed if I couldn’t speak English to my American friends.
3. I learn English because I would feel guilty if I didn’t know English.

(Identified Regulation)
1. I learn English because I want to be the kind of person who can speak more than one language.
2. I learn English because I think it is good for my personal development.
3. I learn English because I want to be the kind of person who can speak a second language.

   (Intrinsic Motivation: Knowledge)
1. I learn English for the pleasure I experience in knowing more about English literature.
2. I learn English for the good feeling I get in finding out new things.
3. I learn English because I enjoy knowing more about American society and American way of life.

   (Intrinsic Motivation: Accomplishment)
1. I learn English for the pleasure I experience when I do well in English.
2. I learn English for the enjoyment I experience when I understand a difficult idea in English.
3. I learn English for the satisfied feeling when I accomplish difficult exercises in English.

   (Intrinsic Motivation: Stimulation)
1. I learn English for the good feeling when I hear English spoken.
2. I learn English for the good feeling when I speak English.
3. I learn English for the pleasure I get from hearing Americans speaking English.

   (Perceived English Proficiency)
1. I can read English well.
2. I can write English well.
3. I can understand English well.
4. I can speak English well.

   (Motivational Intensity)
1. I make a point of trying to understand all the English I see and hear.
2. I keep up to date with English by working on it almost everyday.
3. I really work hard to learn English.
4. When I am studying English, I ignore distractions and stick to the job at hands.
5. I don’t pay too much attention to the feedback I receive in my English class.
6. I don’t bother checking my corrected assignments in my English courses.
7. I tend to approach my English homework in a random and unplanned manner.
8. I have a tendency to give up when our English instructors goes off on a tangent.
9. I can’t be bothered trying to understand the more complex aspects of English.

Application levels: tertiary education
Key words: structural equation modeling, mediator, self-determination theory, L2 orientation
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