

Individual Differences and Pragmalinguistic Awareness: A Structural Equation Modeling Approach

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個人差、動機づけ、リスニング、語用言語学的気づき、依頼、構造方程式モデル
Key words: individual differences, motivation, listening, pragmalinguistic awareness, request, structural equation modeling

Abstract

This study explored causal relationships between Japanese EFL learners' L2 motivation and listening proficiency with respect to their pragmalinguistic awareness in the framework of structural equation modeling. Learners' attentional targets in the treatment input were complex bi-clausal request forms. The concept of awareness was operationalized as the summation of learners' "interest" in the target forms and their "processing load" for these forms. The participants were 154 Japanese college students. The treatment input was role-play request dialogues, which was provided through video dictation tasks; the participants were required to dictate any native expressions that were beyond their command. There were three hypothesized structural models tested, which showed the different patterns of causal relationships between the four motivation subscales identified from the factor analysis and listening proficiency in predicting awareness. The final structural model that best fit the data manifested the following causal relationships: learners' listening proficiency and their class-oriented motivation directly predicted their awareness of the target forms. This model also demonstrated that the indirect effect of their communication-oriented motivation was much weaker than the direct effect of their listening proficiency, suggesting that listening proficiency plays a more important role in predicting pragmalinguistic awareness.

1. Introduction

There has been a growing interest in examining the effect of individual difference (ID) factors on developing pragmatic competence in a second language (L2). Kuriscak (2010), for example, refers to several key studies in this emerging area, suggesting that efforts are steadily being made by interlanguage pragmatics (ILP) researchers to pursue this line of study (e.g., Kuriscak, 2006; Takahashi, 2005). In particular, the study by Takahashi (2005) is unique, in that it is a process-oriented study intended to explore the effects of motivation and proficiency on pragmalinguistic *awareness* rather than pragmalinguistic *learning outcomes*.

Specifically, Takahashi (2005) investigated whether, and to what extent, Japanese EFL learners' motivation to learn English and their L2 proficiency affected their awareness of pragmalinguistic features in English request discourse. I explored this through the intervention (treatment) in which input was implicitly (inductively) provided to learners. The major finding was that while some of the motivation subscales were significantly related to their awareness of the target pragmalinguistic forms, the effect of their English proficiency was not confirmed. The findings were insightful enough to contribute to ILP awareness research; however, there were some limitations. One of the most crucial limitations was that the research design of the study did not allow us to systematically examine the causal relationships between the independent variables with respect to the dependent variable. In other words, it was unclear how and to what extent the motivation subscales were related to each other in constraining learners' pragmalinguistic awareness. Moreover, it could be possible that L2 proficiency indirectly affects pragmalinguistic awareness.

By focusing on motivation and proficiency, the present study aims to investigate causal relationships between the two ID variables with respect to pragmalinguistic awareness under implicit pragmatic intervention. The dependent variable is Japanese EFL learners' awareness of bi-clausal request forms. Unlike Takahashi (2005), in which learners' reading proficiency was targeted, this study clarifies the effect of "listening" proficiency. To explore the causal relationships between these variables, three models are proposed, and they are tested using the framework of structural equation modeling (SEM).

2. Background

The present study was undertaken to substantially improve Takahashi's (2005) research design; thus, this section focuses on a review of the 2005 study (see also Takahashi, 2010a). It was intended to investigate Japanese EFL learners' pragmalinguistic awareness

in processing L2 implicit input, and to what extent their awareness of the target features is constrained by their L2 motivation and proficiency.

The target features were six pragmalinguistic forms; however, among them, learners' awareness of three bi-clausal request head-act forms was my central concern¹⁾. Thus, in this section I will concentrate on the findings related to these bi-clausal forms. Examples of these forms are as follows: "I was wondering if you could VP" (a mitigated-preparatory statement), "Is it possible to VP/Do you think you could VP?" (a mitigated-preparatory question), and "If you could VP" (a mitigated-want statement, without a main clause). My previous studies already verified that Japanese EFL learners were unable to use these complex bi-clausal forms as their most appropriate request realization strategies in relatively imposing request situations. Instead, they showed their preference for employing mono-clausal forms such as "Could/Would you VP?" with or without "please" (before VP or at the end of the requestive move) in the same situations (Takahashi, 1996, 2001; see also Martínez-Flor, 2009).

On the basis of second language acquisition (SLA) research on attention and awareness (Schmidt 1990, 1993, 2001), the concept of awareness was defined as "conscious detection of targets and subsequent subjective experience." The "subjective experience" was further linked to learners' "interest" in the target features. This led us to operationalize "awareness" as detection of the attentional targets and the degree of interest in them, entailing the graded nature of noticing or awareness as claimed by SLA attention researchers (Leow, 2000; Philp, 2003, Robinson, 1995; Simard & Wong, 2001)²⁾. This operationalization yielded a seven-point rating scale for the awareness rates, which were assessed via the awareness retrospection questionnaire.

The participants were 80 Japanese college students. They were asked to engage in treatment tasks in the form-search (FS) input condition, which was focused on in Takahashi (2001). In the FS condition, they were asked to identify and list any native and native-like expressions distinctive from learner English expressions in the request discourses (via role-play transcripts) that contained the target pragmalinguistic forms. Immediately after the treatment, the participants were asked to fill out the awareness retrospection questionnaire, in which the target forms were listed, together with the awareness rating scales mentioned above.

With regard to the ID variables, a nine-factor solution was identified as a result of applying factor analysis on data from the motivation questionnaire, and the reading and listening proficiency scores were obtained from the General Tests of English Language Proficiency. The correlation analysis between awareness and motivation subscales revealed that only intrinsic motivation was significantly associated with two of the three bi-clausal request forms, namely, the forms "Is it possible to VP/Do you think you could VP?" and "If

you could VP." The form "I was wondering if you could VP" was found not to be associated with any of the ID variables. Moreover, it was found that learners' proficiency was not significantly correlated with their awareness of any target pragmalinguistic features³⁾.

As previously mentioned, the findings obtained by Takahashi (2005) provide us with a deep insight into the nature of motivation/attention and proficiency/attention interfaces. However, there are some limitations and inadequacies in its research design; this design needs to be substantially improved. There are five methods to do this.

First, and most importantly, there should be an exploration of the causal relationships between the variables. The significant associations between awareness of the target pragmalinguistic forms and the motivation subscales identified in my 2005 study do not tell us any of the causal attributional processes of L2 learners. Some motivation subscales may influence proficiency, which may further affect awareness. Such predictions would be plausible in light of the models proposed in past research on motivation. In many of the models, learning motivation influences achievement (or learning outcomes), which is often measured by proficiency in target languages (TLs) (Gardner, 1985; Gardner & MacIntyre, 1993; Dörnyei, 2001). On the other hand, some empirical findings indicate that learning outcomes further affect learners' motivation to learn TLs (Berwick & Ross, 1989; Hermann, 1980; see also Skehan, 1989). Thus, the relationship between motivation and proficiency with respect to awareness should be more rigorously investigated by means of more relevant inferential statistics.

Second, the operational definition of pragmalinguistic awareness needs to be reconsidered. Takimoto (2009) suggests that learners' acquisition and consolidation of target pragmatic knowledge may be realized maximally if they push themselves to process the target features and are assured of deeper levels of analysis (Craik & Lockhart, 1972). It would thus be more advisable to include the depth of processing in the operationalization of awareness.

Third, learners' awareness of target forms needs to be assessed alongside treatment input processing. In my 2005 study, awareness was examined through the awareness retrospection questionnaire *after* the input containing the attentional targets was processed, rather than *concurrently*. Though such a post-exposure forced-assessment format was necessary because it was important to collect data from a relatively large number of participants, the time lag between the ongoing input processing and the awareness assessment might have prevented us from accurately examining whether and to what extent learners were aware of the targets. Thus, it is more promising to adopt an awareness assessment method that would enable us to examine awareness while participants are processing attentional targets.

Fourth, noticing-the-gap activities during treatment should allow learners to directly

compare their own request realization strategies with the target forms. Takahashi (2005) focuses on the FS condition under which the participants were asked to compare native-speakers' (NS) expressions with non-native-speakers' (NNS) counterparts in the role-play transcripts. However, a comparison of NS expressions with their own English expressions would be more promising, because such procedures would make the identified gap more realistic to them as evidence of their lack of L2 pragmalinguistic competence. Thus, it would be advisable to integrate the FS input condition into the form-comparison (FC) condition, as used in Takahashi (2001), in which such a direct comparison is possible.

Fifth, the possible effect of modality on attention and awareness should be explored. In Takahashi (2005), the treatment input containing the target pragmalinguistic forms was provided through the "reading" modality. In actual communicative interactions of request realization, however, learners are more likely to rely on their "listening" skills. Thus, the effect of listening proficiency on learners' awareness of the target request forms needs to be investigated in an in-depth manner.

3. Research Question

This study is a part of a larger research project on the role of pragmalinguistic awareness and the effects of ID factors in developing L2 pragmatic competence. In an effort to overcome the inadequacies of my previous research, the project is intended to examine (1) whether and to what extent Japanese EFL learners are able to learn to use complex bi-clausal request forms as a result of their noticing these forms in an implicit input condition, and (2) in what way and to what extent learners' motivation and listening proficiency affect their learning of the target forms as functions of awareness attributions. However, in this study, I concentrate on reporting the findings on the effects of the two ID variables on learners' pragmalinguistic awareness, without mentioning any learning outcomes of the awareness intervention. This study then addresses the following research question: "What causal relationships emerge between Japanese EFL learners' motivation to learn L2 and their L2 listening proficiency with respect to their awareness of the target bi-clausal request forms?"

This research question is pursued through a series of analyses using SEM. Given the results of Takahashi (2005) and the previous research on motivation (as related to proficiency) in SLA, three structural models are hypothesized, as shown below, for testing in this study.

Model 1: Covariance is established between the identified motivation subscales and between each motivation subscale and listening proficiency. Each of these

independent variables then directly affects pragmalinguistic awareness as the criterion (dependent) variable. Note that the prediction for the criterion variable is based on Takahashi (2005), in which motivation was found to override proficiency in learners' attentional allocation, thereby suggesting that direct and independent influences of the independent variables are possible.

Model 2: Listening proficiency influences each of the identified motivation subscales. Each of the motivation subscales then directly affects pragmalinguistic awareness. Thus, this model tests a possible indirect influence of listening proficiency on awareness. Following the results of Takahashi (2005), the model also tests the direct influence of listening proficiency on awareness.

Model 3: Covariance is established between the identified motivation subscales, and each motivation subscale influences listening proficiency. Listening proficiency then directly affects pragmalinguistic awareness. This model tests the possible indirect influence of motivation on awareness. Following the results of Takahashi (2005), the model also tests the direct influence of each motivation subscale on awareness.

The research question is also examined through the treatment input condition that successfully manifests the features of both the FS and FC conditions. To this end, the situations used in the pretest discourse completion test (DCT) are also used in the treatment/awareness tasks. This provides learners with more opportunities to compare their own request forms provided in the pretest DCT with the target forms presented in the treatment discourse for the corresponding situations, though such a comparison is not mandatory.

4. Target Request Forms

Unlike Takahashi (2005), this study exclusively focuses on complex bi-clausal request forms as target pragmalinguistic features. Table 1 shows the target forms for each situation in this study, which will be explained in detail in the "Method" section below.

All the forms are request head acts; that is, minimal core units for request realization in the request sequence. They comprise two clauses: main and subordinate. It should be noted that these request forms are featured with some internal modification devices as shown below, which modify head acts internally by mitigating the impositive force of a request with phrasal and syntactic choices (Blum-Kulka, House, & Kasper, 1989):

Table 1. Target request forms for awareness treatment

Situation	Target Forms
Appointment	Would it be possible to change that appointment to later in the day? (Mitigated-preparatory question) I would really appreciate it if we could change the meeting time. (Mitigated-want statement)
Recommendation	I was just wondering if you could write me another letter of recommendation. (Mitigated-preparatory statement) I was just wondering if it would be at all possible if you could write the letter. (Mitigated-preparatory statement)
Conflicting Schedule	I was wondering if you could let me write a term paper instead of doing the actual exam. (Mitigated-preparatory statement) I was wondering if there is any chance that you'd let me write a term paper. (Mitigated-preparatory statement)
Reference Book	I was wondering if you would let me keep it. (Mitigated-preparatory statement) Would it be at all possible if I could keep it? (Mitigated-preparatory question)

- (1) Some target forms contain a softener such as “just.”
- (2) Some target forms contain intensifiers such as “really” and “at all.”
- (3) Some target forms employ a progressive aspect.
- (4) Some target forms employ a past tense.
- (5) All the target forms employ a subjunctive mood.

The participants are therefore expected to notice these internal modification devices in addition to the head-act forms.

5. Operationalization of Awareness

Following Takahashi (2005), the concept of awareness is defined here as “conscious detection of targets and subsequent subjective experience” (Schmidt 1990, 1993, 2001). The “subjective experience” continues to be equated with learners’ interest in their attentional targets. Unlike my previous study, however, a new attempt is made to operationalize “conscious detection” and connect it with the notion of “depth of processing” (Takimoto, 2009; see also Takahashi, 2010b), which is measured with listening dictation scores (see the “Method” section below for more details). Thus, “conscious detection” is also treated as a graded phenomenon. The concept of awareness in this study is then operationalized as the summation of “interest” and “processing load” as follows:

Awareness = Learners' interest in their attentional targets + Learners' processing load for the targets

It should be noted that, by relying on dictation scores, learners' awareness of the target request forms is assessed while they process the treatment input. Thus, the operational definition of awareness in the present study assures us of a concurrent assessment of awareness, rather than through post-exposure measures.

6. Method

6. 1. Participants

The participants in the present study were 154 Japanese college students. All were first-year students majoring in sociology and humanities. They were placed in the advanced level of the general English program offered at the university. Moreover, 50 students were unable to complete all the data eliciting tasks; thus, the analysis was made using the data from the remaining 104 students. Their mean age was 18.75 (SD = 1.094), and they all had received formal English instruction in Japan for seven to eight years.

6. 2. Materials

For this study, three types of materials were prepared. The first was the motivation questionnaire that was employed in my past research involving motivation as one of the variables (Takahashi, 2005, 2010b). It was adopted from Schmidt, Boraie, and Kassabgy's (1996) motivation questionnaire prepared for Egyptian EFL learners; revisions were made to some of the questionnaire items to make them more relevant for Japanese EFL learners. I decided to continue to use the same motivation questionnaire because Schmidt et al.'s measure was developed on the basis of the motivation models that specifically referred to the motivation/attention interface. Each questionnaire item was assessed for the strength of motivation on a five-point rating scale (1 = Totally disagree; 5 = Totally agree).

The second data-eliciting instrument was the proficiency measure. In this study, I adopted the Secondary Level English Proficiency Test (SLEP) (Form 6) developed by the Educational Testing Service. SLEP is intended to assess L2 learners' listening and reading abilities; however, only its listening section (full score = 74; $\alpha = .94$) was used in this study since the effect of listening proficiency on pragmalinguistic awareness was targeted.

The third type of material comprised video dictation (VD) exercises, which were to be used in the treatment/awareness session. Prior to the development of VD materials, three preliminary studies were undertaken. The first phase of the preliminary studies aimed to

select request situations. Twelve situations in which requests were made from status-low (a college student) to status-high (a professor) were prepared and included in the “Situation Perception Test.” The test was given to students who had similar characteristics to the participants in the main study. In this measure, each of the following four imposition factors was assessed on a five-point rating scale for each situation: (1) the speaker’s right to make the request, (2) the hearer’s (perceived) obligation in carrying out the request, (3) the hearer’s ability to carry out the request, and (4) the hearer’s willingness to carry out the request (Takahashi, 1995, 1998). The imposition rates obtained by adding the rating-scale values of these four factors were analyzed through one-way repeated measures ANOVA ($\alpha = .05$), and eight situations were found to show relatively high requestive imposition that might assure the use of bi-clausal request forms. From among them, the situations showing statistically similar degrees of imposition were paired, and it was decided to use one of them in the pretest measures and treatment/awareness tasks and the other in the posttest measures. Specifically, the following four situations were included in the pretest DCT and the treatment/awareness tasks:

“Appointment” situation: A student asks his/her professor to reschedule an appointment because he/she desperately needs to go to a dentist around the same time owing to a great deal of pain in his/her teeth.

“Recommendation” situation: A student asks his/her professor to write one of the recommendation letters required for admission to a university in the U.K.

“Conflicting Schedule” situation: A student asks his/her professor to allow him/her to submit a term paper for course credit, instead of taking a written exam, because he/she needs to participate in an ice hockey tournament scheduled on the same day.

“Reference Book” situation: A student asks his/her professor to postpone the date of returning a reference book that he/she borrowed before, because he/she wants to keep it for two to three more days to complete his/her term paper.

In addition to the above four situations, two situations—“Thesis” (A student asks his/her professor to return a paper with the professor’s comments on it as soon as possible) and “Marking Problem” (A student asks his/her professor to correct his/her grade on the exam)—were included as fillers. It should be noted that, in these two situations, the use of mono-clausal request forms is more pertinent owing to their lower degrees of requestive imposition.

The second preliminary study was intended to check whether Japanese EFL learners were unable to use bi-clausal request forms by concentrating on using mono-clausal request forms in the situations selected in the first preliminary study. This tendency was confirmed by means of open-ended DCTs, which were administered to the other group of students.

In the third preliminary study, I asked two native English speakers to provide the most appropriate request forms for the situations (except fillers) selected in the first preliminary study. It was confirmed that complex bi-clausal forms were the most pertinent request expressions in these relatively imposing situations.

Validation of the situations and request forms used in them through the preliminary studies was followed by the construction of the VD materials for the treatment/awareness session. In all, three forms of VD materials (A, B, and C) were prepared, each of which contained dictation tasks for two situations (including fillers). Specifically, I asked four native English speakers to role-play the situations by making requests using the target bi-clausal request forms (mono-clausal forms for the filler situations). The role-plays were videotaped and edited using Ulead VideoStudio 11 and Ulead DVD MovieWriter 6. The finalized materials were entitled "Let's Communicate in English!" (see Figure 1).



Figure 1. Video dictation materials ("Appointment" situation).

Each VD task for each situation began with “Just Listen,” which allowed the participants to simply listen to the role-play dialogues while searching for any interesting expressions. This was followed by “Dictation 1,” in which the participants were requested to write down, using a black pencil, any expressions that they found interesting and judged to be beyond their command on a separate dictation sheet (i.e., a noticing-the-gap activity). They were allowed to listen to the same attentional targets up to three times. Right after the dictation of a particular expression, they were also asked to indicate their degree of interest in it in the designated portion of the same sheet; the degrees of their interest were assessed on a seven-point rating scale (−3 = Not interested in it at all; 3 = Very interested in it). In the subsequent “Dictation 2,” similar exercises were repeated, but using a red pencil. In other words, in case they wrote down the words/phrases that they had been unable to catch during Dictation 1, they needed to do so using a red pencil. In “Dictation 3,” they were asked to repeat the same procedures using a blue pencil (see Table 2 for a summary of these activities). All the VD tasks (in Forms A, B, and C) were uploaded to a server so that the participants could access them through the “Screen Lesson” function of the Soft Recorder developed by Uchida Yoko installed in the PC-LL rooms, where treatment data were collected.

Table 2. Video dictation tasks for each situation and dictation score calculation

Task	Activity	Dictation Score for the Target Forms
Just Listen!	Listen to the whole dialogue.	
Dictation 1	Dictate useful/interesting expressions with a black pencil. + Show the degree of interest in them.	3 points per accurately dictated word
Dictation 2	Dictate useful/interesting expressions with a red pencil. + Show the degree of interest in them.	2 points per accurately dictated word
Dictation 3	Dictate useful/interesting expressions with a blue pencil. + Show the degree of interest in them.	1 point per accurately dictated word

6. 3. Procedures

Data were collected in the regular general English classes taught by this researcher during the fall semester of 2008 and the spring semester of 2009⁴⁾. The participants were requested to take the listening section of SLEP (45 minutes) at Week 1 and the pretest DCT at Week 2. The treatment/awareness session began at Week 3. At Weeks 12 or 13, they were asked to complete the motivation questionnaire (approximately 30 minutes).

At the beginning of the treatment session, the participants were told that the

classroom tasks they would be engaged in were some forms of noticing-the-gap activities that were intended to improve their overall communication skills in English, in particular their listening skills. In each class, each participant was asked to be engaged in the VD tasks provided in one of the forms (A, B, or C); they were asked to complete the VD tasks in all the three forms in three classes (across three weeks). The presentation order of these three forms was counterbalanced across the participants. The majority of the participants finished the VD tasks for each class in about 40 minutes.

6. 4. Data Analysis

Using PASW Statistics 18, an exploratory factor analysis (EFA) was applied to the data from the motivation questionnaire. The negatively worded questionnaire items were reverse coded, and possible outliers from the raw data were checked. Then, a principal factor analysis with promax oblique rotation was employed to extract the underlying motivation factors. A scree plot was initially used to determine the number of factors, and the minimum loading was set at .40. The validity of the obtained factorial structures was further checked through confirmatory factor analyses (CFAs) using AMOS 18 ($\alpha = .05$).

With regard to learners' awareness of the target request forms, only the accurately dictated words in the target forms were focused on in order to calculate their dictation scores. A word dictated using a black pencil (Dictation 1) was counted as three points; a red pencil (Dictation 2), as two points; and a blue pencil (Dictation 3), as one point (see Table 2). For each participant, the dictation scores of the two target forms in each situation were totaled, representing his/her target processing load (converted for a total load of 10) for the particular situation. The processing load was further combined with his/her interest in the target forms (converted for a total interest rate of 10), yielding his/her awareness score (for a total score of 20) for the particular situation. The total awareness scores for the four target situations (for a total score of 80) were used in the final analyses.

The relationships between the identified motivation factors (subscales), learners' listening proficiency obtained from SLEP, and their awareness of the target request forms were tested in the three hypothesized structural models for this study. In this study, each motivation factor (subscale) was treated as the observed indicator variables, rather than the latent variables. Each model was analyzed in the framework of SEM using AMOS 18; motivation and proficiency were the predictor (independent) variables and awareness was the criterion (dependant) variable. The model that best fit the data was selected by examining the goodness-of-fit indices.

7. Results

7. 1. Underlying Motivation Factors and the Hypothesized Structural Models

The EFAs yielded a four-factor solution, which accounted for 51% of the total variance in learners' L2 motivation. Table 3 shows the Eigenvalue and the variance for each underlying factor, along with the Cronbach's alpha internal consistency reliability for each subscale. The appendix presents the factor loading for each questionnaire item.

The first factor was named "Class Enjoyment." This factor indicates that learners enjoy their English classes and try to improve their L2 skills through classroom lessons. In view of the variance of this factor (22.930%), the participants in this study appeared to be greatly class-oriented. The second factor, "Communicative Interaction," shows that learners are interested in improving their L2 communication skills through active interactions in real communicative settings. The third factor was concerned with learners' having confidence in using their English skills in classroom activities, including taking tests; thus, it was named "Confidence." The fourth factor was "Competitiveness," which indicates that learners tend to improve their English skills by competing with other students and to expect greater material benefits in the future. The subsequent CFAs conducted for each factor successfully validated the factorial structures for all the motivation subscales by showing a moderately good fitness to the data for each of them: Goodness of Fit Index (GFI) = .891, Adjusted Goodness of Fit Index (AGFI) = .829, Comparative Fit Index (CFI) = .933 for "Class Enjoyment"; GFI = .915, AGFI = .847, CFI = .924 for "Communicative Interaction"; GFI = .972, AGFI = .915, CFI = .941 for "Confidence"; and GFI = .926, AGFI = .632, CFI = .775 for "Competitiveness."

With the identification of the four motivation subscales, three hypothesized structural models are concretely delineated in Figures 2, 3, and 4, respectively. These three hypothesized models were examined with reference to the values of CMIN (χ^2), GFI, AGFI, CFI, the Root Mean Square Error of Approximation (RMSEA), and Akaike's Information Criterion (AIC).

Table 3. Results of exploratory factor analysis for motivation

Factor	Level (Summary of item descriptions)	Eigenvalue	Variance (%)
Factor 1	Class Enjoyment [10 items / $\alpha = .878$]	6.191	22.930
Factor 2	Communicative Interaction [8 items / $\alpha = .814$]	3.225	11.946
Factor 3	Confidence [5 items / $\alpha = .650$]	2.261	8.375
Factor 4	Competitiveness [4 items / $\alpha = .656$]	2.093	7.750

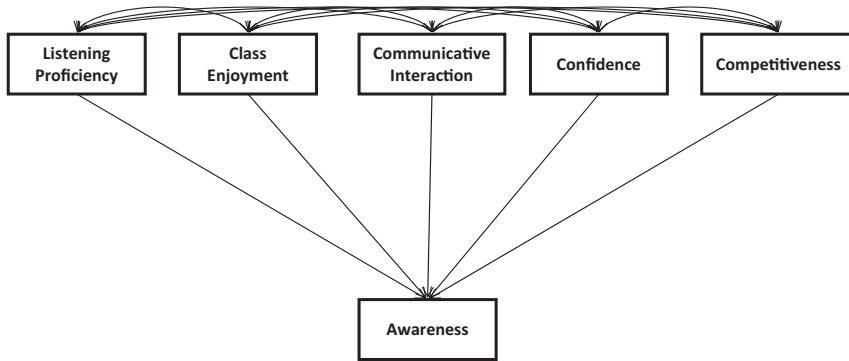


Figure 2. Hypothesized structural model 1.

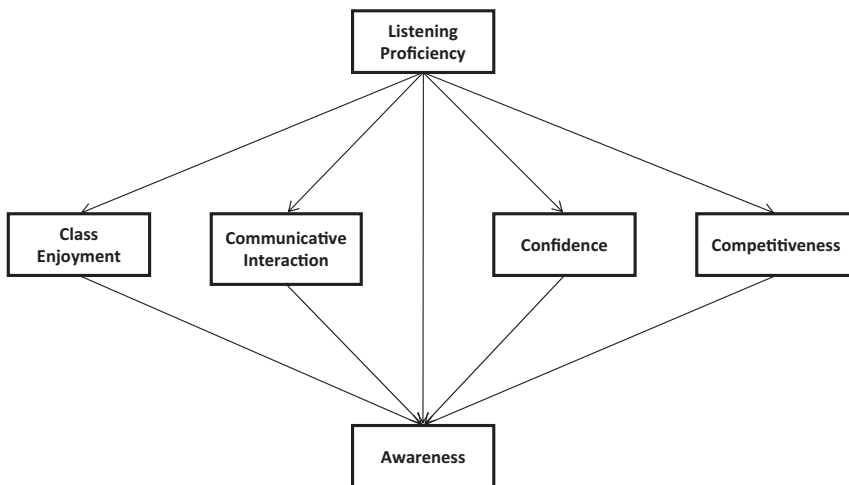


Figure 3. Hypothesized structural model 2.

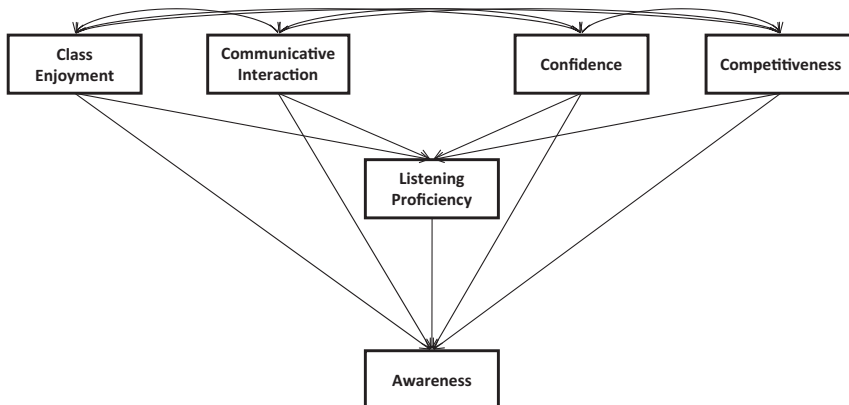


Figure 4. Hypothesized structural model 3.

7. 2. Final Structural Models

The results of the descriptive statistics for the motivation subscales, listening proficiency, and awareness are presented in Tables 4, 5, and 6, respectively. The participants in this study are characterized as individuals who highly valued communicative interaction to improve their L2 skills and showed moderately high listening proficiency. Their awareness of the target forms varied according to the situation; the bi-clausal forms used in the “Appointment” situation were most likely to be noticed, followed by those in the “Recommendation” situation. It appears that the participants showed moderately high interest in the target request forms; however, it would be difficult for them to accurately dictate the words in them in light of the low processing load of the targets.

Table 4. Means and standard deviations for motivation factors

Motivation Factor	Means	Standard Deviation
Class Enjoyment	3.065	.6186
Communicative Interaction	3.776	.6453
Confidence	2.487	.6230
Competitiveness	3.142	.7026

Note: Range: 1–5

Table 5. Means and standard deviation for listening proficiency (SLEP raw score)

Skill / Section	Means	Standard Deviation	Maximum	Minimum
Listening (74 items)	57.17	5.847	67	38

Note: Full score = 74

Table 6. Means and standard deviations for awareness scores

Situation	Means	Standard Deviation
Appointment	8.931 [Processing load = 2.441 / Interest = 6.490]	4.472
Recommendation	8.297 [Processing load = 3.321 / Interest = 4.976]	5.123
Conflicting Schedule	6.093 [Processing load = 1.798 / Interest = 4.295]	3.775
Reference Book	4.465 [Processing load = 1.420 / Interest = 3.045]	3.879
Awareness Total	27.786	11.805

Note: Full processing load for each situation = 10
 Full interest rate for each situation = 10
 Full awareness score for each situation = 20 (10 + 10)
 Full total awareness score = 80 (20 × 4)

The three hypothesized structural models were submitted for hypothesis testing using AMOS 18. Path analyses were repeated until the final structural models were obtained.

In Model 1, the four motivation subscales and listening proficiency were all treated as exogenous variables; thus, covariance was initially established between each of them. Only awareness was an endogenous variable. Path analysis yielded the final structural model for Model 1, which indicated that the following two paths were significant (on the basis of the standardized estimates): "Class Enjoyment" → "Awareness" ($\beta = .242, p < .01$) and "Listening Proficiency" → "Awareness" ($\beta = .317, p < .001$). It was also found that these two variables accounted for 16% of the variation in the awareness score ($R^2 = .159$). Covariance was significant between "Class Enjoyment" and "Communicative Interaction" ($r = .240, p < .05$), "Class Enjoyment" and "Confidence" ($r = .230, p < .05$), "Communicative Interaction" and "Confidence" ($r = .220, p < .05$), and "Listening Proficiency" and "Communicative Interaction" ($r = .288, p < .01$).

With regard to Model 2, only listening proficiency was an exogenous variable. The four motivation subscales and awareness were thus treated as endogenous variables. The final structural model for Model 2 featured three significant paths: "Listening Proficiency" → "Communicative Interaction" ($\beta = .345, p < .001$), "Listening Proficiency" → "Awareness" ($\beta = .317, p < .001$), and "Class Enjoyment" → "Awareness" ($\beta = .242, p < .01$). Listening proficiency accounted for 12% of the variance in "Communicative Interaction" ($R^2 = .119$); "Listening Proficiency" and "Class Enjoyment" jointly explained 16% of the variance in the awareness score ($R^2 = .159$).

Model 3 contained the four motivation subscales as exogenous variables and listening proficiency and awareness were endogenous variables. Accordingly, covariance was initially established between each of the motivation subscales. The final structural model for this third model revealed the following three significant paths: "Class Enjoyment" → "Awareness" ($\beta = .241, p < .01$), "Listening Proficiency" → "Awareness" ($\beta = .315, p < .001$), and "Communicative Interaction" → "Listening Proficiency" ($\beta = .345, p < .001$). The effect of "Communicative Interaction" on awareness via "Listening Proficiency" was indicated with a relatively low path coefficient ($\beta = .109$). This demonstrates that the direct effect of "Listening Proficiency" was larger than the indirect effect of "Communicative Interaction." With regard to the variance of the endogenous variables, "Communicative Interaction" accounted for 12% of the variance in the proficiency scores ($R^2 = .119$), and "Class Enjoyment" and "Listening Proficiency" shared 17% of the variance in the awareness scores ($R^2 = .172$). As in the case of Model 1, covariance was found to be significant between the three motivation subscales: between "Class Enjoyment" and "Communicative Interaction" ($r = .283, p < .01$), "Class Enjoyment" and "Confidence" ($r =$

.230, $p < .05$), and “Communicative Interaction” and “Confidence” ($r = .265, p < .01$).

7. 3. Best Final Structural Model

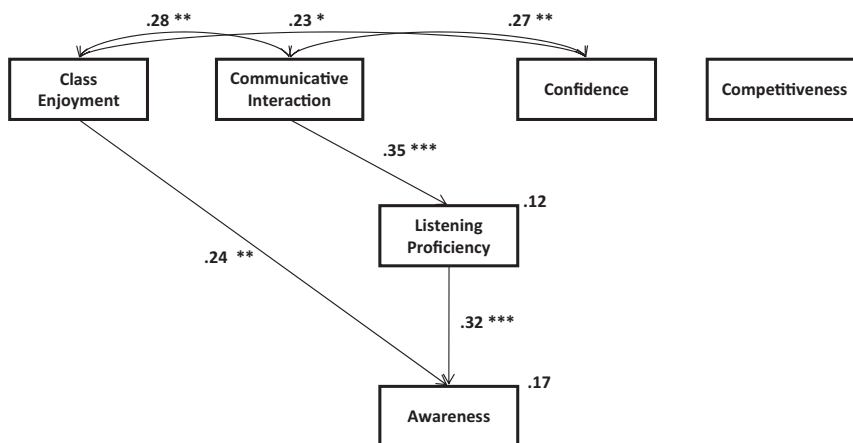
In order to select the model that best fit the data, the goodness-of-fit indices for the three final structural models were examined; the results are shown in Table 7. A comparison of the indices revealed that Model 3 best fit the data. In other words, among the three, it showed the lowest values for CMIN (with the highest p -value), RMSEA, and AIC and the highest values for GFI, AGFI, and CFI. In particular, the AIC, which provides good indices for multiple-model comparison, was found to be relatively low. Given the results of the goodness-of-fit statistics as presented here, it can be concluded that Model 3 most adequately accounted for the causal relationships between learners’ motivation, listening proficiency, and awareness of the target pragmalinguistic forms in this study. This final and best structural model is shown in Figure 5, and the significant paths are indicated in the figure.

This final structural model provides five remarkable findings. First, learners’ listening

Table 7. Model comparison based on goodness-of-fit indices

Model	CMIN	GFI	AGFI	CFI	RMSEA	AIC
1	9.535, $p = .389$	.971	.932	.988	.024	33.535
2	24.871, $p = .015$	.922	.864	.703	.102	42.871
3	5.874, $p = .752$	.981	.957	1.000	.000	29.874

Note: CMIN = Minimum Discrepancy (Chi-Squared), GFI = Goodness of Fit Index
 AGFI = Adjusted Goodness of Fit Index, CFI = Comparative Fit Index,
 RMSEA = Root Mean Square Error of Approximation, AIC = Akaike’s Information Criterion



Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

Figure 5. Final structural model (Model 3) with standardized estimates. The error variances are not indicated. Only the significant paths are indicated.

proficiency was the most influential factor in predicting their awareness of the target bi-clausal request forms. Second, class-oriented learners who make efforts to improve their English skills through classroom activities ("Class Enjoyment") were more likely to notice the target request forms. Third, learners who were interested in improving their English skills through real communicative interactions ("Communicative Interaction") demonstrated higher listening proficiency, and their communication-oriented motivation indirectly influenced their awareness of the target forms, though its predictive power was much weaker than that of their listening proficiency. Fourth, learners' confidence in using their English skills in classroom activities and their intention to compete with each other to improve their L2 skills did not affect their awareness of the target request forms, though the former was correlated with their class-oriented and communication-oriented dispositions. Fifth, in light of the relatively low R^2 estimate for the criterion variable, there might be unexplored factors other than learners' listening proficiency and class-oriented motivation, which could more adequately account for the pragmalinguistic awareness examined in this study.

8. Discussion

In view of the fact that the effect of L2 proficiency was not identified in Takahashi (2005), the significant effect of listening proficiency on pragmalinguistic awareness observed in this study is intriguing. The results obtained demonstrate a modality effect on learners' attentional processes in L2. My 2005 study employed treatment activities that required learners' reading skills, and their awareness was assessed after such activities in a retrospective manner. On the other hand, the present study required learners to perform dictation activities during the treatment, and their dictation scores (manifesting their processing loads) of the target forms were used to assess their awareness of them. In other words, learners' dictation performance itself determined the degree of their awareness; thus, their listening abilities were directly and deeply involved in the assessment of awareness in this study. In view of this, the re-operationalization of the notion of awareness as such might contribute to the emergence of both proficiency and modality effects.

In relation to the proficiency effect, it was found that learners who try to improve their English skills through real communicative interactions showed higher listening proficiency, and not vice versa, as confirmed in Model 3. This prediction from "Communicative Interaction" to "Listening Proficiency" is understandable since such interactions provide learners with more opportunities to expose themselves to TL oral input. However, it was also found that the indirect effect of "Communicative Interaction"

on awareness was much weaker than the direct effect of “Listening Proficiency.” This suggests that the relatively high listening proficiency that enables learners to dictate target words accurately, is a more important condition for learners to notice the target bi-clausal request forms than their communication-oriented motivation. All these demonstrate that, in real communicative contexts, it would be difficult for learners to notice the target bi-clausal forms unless they have a sufficiently high listening proficiency and a capacity for selective attention in L2 input processing.

The present study also revealed that learners who emphasize classroom activities and enjoy them were more likely to detect the target bi-clausal forms. Learners with this motivation disposition are expected to gain the maximum benefit from classroom materials. In the context of this study, the intensive dictation exercises were prepared such that learners believed that these materials would greatly improve their listening proficiency. Moreover, the dictation dialogues manifested the normative request performance by NSs, providing them with more opportunities to compare their own performance (in the pretest DCT) with that of the NSs; class-oriented learners might essentially be interested in such noticing-the-gap activities. The dictation materials in this study might be sufficiently intriguing for such learners to concentrate on these tasks, leading them to notice the target forms more easily. This suggests that awareness of target forms is possible or more efficient in classroom settings than in real communicative settings if the goals of classroom activities are clear and the input is relevantly manipulated through the materials for meaningful activities.

In light of the unexpectedly small ratio of variance in awareness, it would be advisable to include more ID variables in future structural models. We found that learners’ confidence in using L2 skills and their intention to compete with classmates did not predict their pragmalinguistic awareness. There may be other motivation-related factors that would possibly affect learners’ awareness of bi-clausal request forms. They might include willingness to communicate (MacIntyre, Baker, Clément, and Conrod, 2001) and situation-specific or task motivation (Dörnyei & Csizér, 2002). Possible causal effects of ID variables other than motivation and proficiency should also be explored in future research. In particular, the effects of learners’ working memory load and their grammatical sensitivity need to be investigated since they appear to govern the dictation of linguistic forms.

9. Conclusion

The present study investigated the causal relationships between learners’ motivation, listening proficiency, and the awareness of complex bi-clausal request forms. There were

three hypothesized structural models tested in the framework of SEM. By applying goodness-of-fit statistics, one final structural model was selected as the best fit to the present data. This model supported the basic causal scheme in which learners' communication-oriented motivation predicts their listening proficiency, which further predicts their pragmalinguistic awareness as a criterion variable of the model. In these causal relationships, the direct effect of learners' listening proficiency on awareness was much stronger than the indirect effect of their communication-oriented motivation. Therefore, it can be argued that instructional priority should be given to substantially improving learners' listening proficiency so they can efficiently process L2 input and accurately detect the target forms in it. The selected structural model also demonstrated that learners' class-oriented motivation directly predicted their awareness of the target forms. These results suggest that a key to increasing learners' pragmalinguistic awareness may be instructors' efforts to make classroom activities and materials interesting and meaningful enough to improve their L2 proficiency maximally. In spite of these findings, more efforts should be made to explore the effects of other ID variables in future research to gain a more comprehensive picture of the causal attributions of pragmalinguistic awareness; furthermore, this line of research needs to be continuously pursued in the framework of SEM.

Acknowledgments

This study, which is part of a research project on the development of second language pragmatic competence, was funded by grants from the Japan Society for the Promotion of Science (Grant-in-Aid for Scientific Research (C) 19520518 (2007–2009)). I am grateful to Professors Paul Allum and Christopher Glick for providing native-speaker judgments on the appropriateness of the target request forms in the preliminary phase of this study.

Notes

- 1) The remaining three pragmalinguistic features were all non-request strategies, which included discourse markers (e.g., "well," "you know," "maybe"), idiomatic expressions (e.g., "This has to do with," "How ya doin?"), and non-idiomatic expressions (e.g., "I don't want to bother you").
- 2) In this study, the terms "awareness" and "noticing" are used interchangeably though, precisely speaking, the latter is a higher-order concept of the former.
- 3) It was also found that learners' attitude toward the target-language community was correlated with their awareness of some discourse markers ("well," "you know") used in the request discourse.
- 4) The pretest/posttest DCT data were further collected from the control group participants during the fall semester of 2009.

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Appendix

Motivation Questionnaire Items and Factor Loadings

Factor 1: Class Enjoyment
19. I like contents of this class: .888
43. I often feel lazy or bored when I study for this class: -.772
20. It is important to me to learn the course material in this class: .768
21. What I learn in this class will help me in other English classes: .736
2. My English class is a challenge that I enjoy: .644
3. When class ends, I often wish that we could continue: .617
6. I would take this class even if it were not required: .588
41. My teacher's opinion of me in this class is very important: .557
22. I am certain I can master the skills being taught in this class: .487
42. My relationship with the other students in this class is important to me: .465
Factor 2: Communicative Interaction
13. Studying English is important because it will allow me to communicate with NNS of English: .761
12. Studying English is important because it will allow me to communicate with NS of English: .737
14. I want to be more a part of the cultural group of native English speakers: .690
10. I am learning English to understand films, videos, or music in English: .565
15. I would like to learn several foreign languages: .555
16. I enjoy meeting and interacting with people from many cultures: .474
11. I am learning English because my future job or social activities may require higher proficiency in English: .472
18. English is important to me because it will broaden my world view: .445
Factor 3: Confidence
27. I have an uneasy, upset feeling when I take an exam: -.599
26. When I take a test, I think about how poorly I am doing: -.478
24. I am worried about my ability to do well in this class: -.477
35. In general, I am an exceptionally good language learner: .451
28. I don't worry about making mistakes when speaking in front of this class: .418
Factor 4: Competitiveness
8. Being able to speak English will add to my social status: .632
9. Increasing my proficiency in English will have financial benefits for me: .623
38. I learn best when I am competing with other students: .574
39. I want to do better than the other students in this class: .558

