Willingness to Communicate in Japanese as a Third Language among International Students in Japan

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Abstract
The present study examined the relationship between willingness to communicate (WTC) in English as second language (L2) and Japanese as third language (L3), and explored how some Japanese context-specific variables relate to WTC. The participants were 103 international students in Japan. Statistical analysis confirmed the hypothesis of a mutual negative relation between WTC in English and WTC in Japanese. That means that students who are more willing to communicate in English tend to be less willing to communicate in Japanese, and vice versa. An analysis of Japanese context variables and WTC discovered significant correlations. However, structural equation modeling (SEM) revealed a significant regression weight not from Japanese contexts to WTC as we hypothesized, but in the opposite direction. Japanese context variables seem to be not the antecedents but consequences of WTC. The implications of those findings are further discussed.

Key words: WTC, Japanese as L3, English as L2, International students in Japan

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1. Introduction

The present study examined the relationship among social and psychological factors that contribute to students’ willingness to communicate (WTC) in Japanese as a third language, in the target language environment, among international students in Japan.

Among international students who live in Japan for more than a few years, low Japanese language proficiency is a common feature. In spite of the fact that living in the target language speaking country would imply quick acquisition of the language, as an inevitable social and cultural requirement, a vast number of foreign students avoid using Japanese, and use English as a substitute. Japan is essentially a monolingual context, and the native population does not support communication in any language other than Japanese. However, many foreign students remain kanji illiterate, while acquiring only basic communicational skills, after having spent several years in Japan. This research will try, at least partially, to explain why this is the case.

The present study is part of a series of surveys about Japanese L3 communication among international students in Japan.

In our previous study about the influence of the Japanese context on the communication of international students (Simic, Tanaka & Hasegawa, 2006), an interview survey with 20 students discovered facts about the costs and benefits, daily use and personal importance of Japanese L3 and English L2. Generally, English was seen as providing more benefits and as costing less than Japanese, therefore English was considered as more important. Among the participants, the average daily usage of English was 56.5%, of the native language 24.8%, while the use of Japanese was lowest among the three, 18.1%. The most important factor that influenced the low frequency of Japanese use was that, in fact, students were not required to use Japanese for the main purpose of their being in Japan - academic study. Qualitative analysis of the results revealed that “Harmony with society” and “Future benefit” arose as important benefits of using Japanese. Conversely, “Japanese language features”, some emotional (“Anxiety”) and social factors (“Reactions of Japanese people” (e.g., shyness; don’t expect foreigners to speak Japanese) came up as disadvantages of using Japanese. “Smooth communication” (with other foreigners and English speaking Japanese), and the “Usefulness for academic purposes” were rated as the most important benefits of
English. "Unsatisfactory acculturation" was shown as the main cost of using English in Japan.

However, as mentioned earlier, international students came to Japan for a different reason than to learn the language. They came to pursue their major study, and although there are differences dependent on the department or supervisor’s requirements, most students are expected to satisfy their academic obligations using English, not Japanese. English, as a practical alternative, was shown to be a very powerful factor in delaying the acquisition of Japanese.

Based on the results of this survey, our next step was to quantitatively examine the relation between English L2 and Japanese L3 among foreign students. As a theoretical frame, the willingness to communicate (WTC) model was used, a pyramid model, originally created by MacIntyre, Clement, Dornyei and Noels (1998). Willingness to communicate (WTC) is defined as the probability that an individual will choose to initiate a conversation given the opportunity to do so, and is used to explain individual and contextual factors that affect the volitional act.

Some factors typical of the Japanese language and social context are revealed and extracted from the previous interview survey. These factors, recognized as cost and benefits, together with the personal importance of language use, are combined with the WTC model. Our plan was to apply an old, well established model to a completely new setting - Japanese as third language, in the target language environment.

The objectives of the present study are:

1. To determine the relationship between English L2 and Japanese L3 through the WTC model; and
2. To explore how the language and social context of Japan is related to WTC in Japanese and in English.

Depending on the results from our previous study (Simic et al., 2006), we hypothesized that for international students in Japan, English L2 and Japanese L3 will negatively relate to each other - those who have high willingness to communicate in Japanese are likely to have low willingness to communicate in English, and vice versa. Furthermore, we assumed that Japanese context-specific variables, extracted from our previous study, strongly influence WTC in both languages.
1.2 Literature review

1.2.1 Anxiety and Communicational competence in Japanese L2

Psychological research in Japanese L2 is mainly focused on two notions - anxiety and communicational competence.

It has been shown that anxiety has a large influence on the L2 learning of Japanese (Horwitz, 1986; Horwitz, Horwitz, & Cope, 1986; Saito & Samimy, 1996; Samimy & Tabuse, 1992). Horwitz et al. (1986) identified foreign language anxiety as a situation specific anxiety which consists of communication apprehension, test anxiety, and fear of negative evaluation. Kitano (2001) found that an individual student’s anxiety was higher when the fear of negative evaluation was stronger. Aida (1990) revealed that more anxious students of Japanese are likely to receive lower grades than less anxious students. These studies were conducted in a Japanese foreign language context, in US and Australian universities.

Differently, Motoda (2000) investigated how anxiety is demonstrated inside and outside the classroom among learners of Japanese in Japan. Furthermore, Smith (1996) explored the difficulties of independent learning of Japanese in Japan by English native speakers. He emphasized that feelings of disempowerment and marginalization, which are the focus of his study, may strongly obstruct not only participants’ language acquisition, but also to their adaptation to life in Japan.

Communicational competence in the Japanese language has not been very widely studied, but several studies have given important contributions to this area. Yoshida (2003) compared evaluations of the competence in Japanese by learners themselves with evaluations of native Japanese speakers. He found that native speakers were highly aware of the strategic and social competence of the learners, while the learners were not aware of these kinds of competence.

Since foreign language education now involves "communicative competence" methods, the emphasis is widened from merely linguistic skills to include socio-cultural aspects. (Neustupny, 1991, 1996; Okazaki & Okazaki, 1990). It was acknowledged that culture and language are inseparable, and that every interaction with a speaker of another language reflects a cultural act (Chen, 1999).

Psychological research of Japanese L2 tends to focus on anxiety and communicational competence. The present study is the first that takes into consideration the
mutual effect of anxiety and communicational competence in Japanese, explained through the willingness to communicate model.

1.2.2 Willingness to Communicate (WTC)

Willingness to communicate (WTC) refers to the probability of engaging in communication when the opportunity is given (McCroskey, 1997). Whether one decides to communicate is a volitional choice that involves cognition. WTC was originally introduced with reference to L1 communication, and it was considered to be a fixed personality trait that is stable across situations (McCroskey, 1992; McCroskey & Richmond, 1990). WTC was extended to L2 communication situations by McIntyre et al. (1998). McCroskey and Richmond (1990) postulated that WTC originates from two variables - anxiety and perceived competence, as empirically confirmed by McIntyre (1994). This means that people are willing to communicate when they are not anxious and perceive themselves as a competent communicator.

McIntyre et al. (1998) conceptualized WTC in L2 in a theoretical model in which the social and individual context, affective-cognitive context, motivational propensities, situated antecedents, and behavioral intention are interrelated in influencing WTC in L2 and in L2 use. Furthermore, McIntyre, Babin and Clement (1999) examined the hypothesized antecedents such as self-perceived competence and communication apprehension to WTC using a structural equation model with a good fit to the data.

One of first communication apprehension studies in a L2 context was performed on a Japanese population. McCroskey, Gudykunst and Nishida (1985) found that Japanese students had extremely high communication anxiety in both Japanese and English.

As a modification of McIntyre (1994), McIntyre and Charos (1996) applied the same path model to the WTC in a L2 situation. They tested a hybrid of Gardner’s socio-educational model (1985) and McIntyre’s (1994) WTC model to predict the frequency of using the L2 in interactions of Anglophone students of French. The results confirmed that students with greater motivation for language learning report using the language more frequently and students who are more willing to communicate are more likely to do so.

McIntyre et al. (1998) improved McIntyre and Charos’ model of L2 WTC into the heuristic model of L2 WTC, which contains 12 variables in a layered pyramid. The
model has basically two structures: situational factors and enduring factors. Situational factors are more immediate in initiating communication but they are situational and may vary in a given context. These are: communication behavior, behavioral intention (WTC), and situated antecedents. Therefore, WTC is measured via these factors. On the other hand, enduring factors are supposed to be stable across contexts. They include motivational propensities, affective-cognitive context and societal and individual context.

As the heuristic model of MacIntyre et al. (1998) indicates, the motivational structure such as habits and cultural traditions must be taken into account when researching WTC. Wen and Clement (2003) argued that the WTC model is based on research mainly conducted in the western cultures. They proposed modifications according to the Chinese traditional social orientation, such as face-protected orientation.

Besides the conceptual development of the model, WTC had been applied in numerous empirical studies. Some communication experts have investigated WTC from cross-cultural perspectives (e.g., Barranclough, Christophel, & McCroskey, 1988).

McCroskey, Fayer and Richmond (1985) investigated Puerto Rican college students' WTC, while McCroskey and Richmond (1990) compared those results to WTC values among Australian, Micronesian, Swedish and USA students. Sallinen-Kuparinen, McCroskey, and Richmond (1991) compared Finish participants to other populations. Results from all these studies showed that substantial differences in communication orientation exist among the countries of the world.

Baker and Macintyre (2000) examined the effects of an immersion versus a non-immersion program, and it was found that anxiety and perceived competence were key factors in predicting WTC. Yashima (2002) discovered that WTC is directly and indirectly influenced by attitudinal construct called “international posture”. Subsequently, Yashima, Zenuk-Nishide and Shimizu (2004) investigated the effect of home-stay experience on WTC in the L2. They revealed that WTC results in more frequent communication in the L2 and that the international posture leads to WTC and communication behavior.

In spite of the great interest of educational specialists in the WTC construct and its recent popularity, most studies that questioned WTC in L2 were concerned with
learning English. A few studies that investigate WTC in some other languages, mainly French in a Canadian bilingual environment, have been conducted.

The present research is the first that examines WTC in Japanese language, and in the target language environment.

1.2.3 Third language acquisition studies

One of the most investigated factors involving cross-linguistic influence is the role of the typological distance between L1 and L2. When dealing with L3 acquisition this relationship becomes ever more complex, as each language system can influence the other. Typological distance is considered as one of the most important factors in transfer. Ringbom (1987) claims that “knowledge of a non-native language related to the target language can be expected to be more relevant than knowledge of an unrelated language” (p. 113).

A number of studies have concluded that the cross-linguistic influence from L2 is favored if the L2 and L3 are typologically similar, especially if the L1 is typologically distant (Cenoz, 2001; Williams & Hammarberg, 1998).

So far, researchers haven’t paid much attention to psychological aspects of L3 acquisition. Since this research is concerned with the relationship between English L2 and Japanese L3, it is very important to investigate the role of factors explaining how the learner’s native and English L2 influence the acquisition of Japanese as L3. Grammatically and typologically, English and Japanese are very different languages, and those who study Japanese as a L3, having English as a L2, often experience great difficulties.

2. Method

2.1 Participants

103 international students from a mid-sized national university participated in this study. To fulfill the goal of this research, the target population needed to have satisfactory experience in using English and Japanese. Participants were required to have lived and studied in Japan for at least 1 year, to have English as a L2 and Japanese as L3 and not to have Japanese language as their major of study.
2.2 Instruments
Survey was administered during September and October 2005. The data were collected using an 89-item questionnaire.

Scales for WTC, perceived competence, anxiety and frequency of communication were borrowed from previous research. Measurements of Japanese context variables were mainly developed for the purpose of the present study. On the basis of Simic et al. (2006) a new instrument was constructed. It assessed the attitudes (evaluation of costs and benefits) toward using English and Japanese language and the personal importance of using Japanese for international students in Japan. All items were given in both Japanese and English with back-translation to assure linguistic equivalence.

The origin of each scale used in this study is shown in Figure 1.

2.2.1 Demographic informations
We obtained following information: age, gender, origin, student status, time spent in Japan, time spent learning Japanese and self-estimation of English and Japanese language ability.

2.2.2 Communication-related variables
Every scale (a total of 56 items) presents 12 communication situations that occupy 4 communication contexts: (a) public speaking, (b) formal meetings, (c) small groups, and (d) dyads, and each of these is concerned with 3 types of receivers (strangers, acquaintances, and friends). Questions are modified for the estimation of English L2 and
Japanese L3 use.

1. **WTC in English L2 (α = .94) and Japanese L3 (α = .95).** This study used the WTC scale from McCroskey (1992). On the 0-100% scale, 20 items evaluated the average percentage of time that participants would choose to communicate in English L2 and Japanese L3 when completely free to initiate or to avoid communication, in a variety of situations (e.g. “talk in a large meeting of friends”). Eight items are fillers (dummy).

2. **Perceived competence in English L2 (α = .99) and Japanese L3 (α = .95).** Twelve items from MacIntyre and Charos (1996) evaluated the average percentage of time (scale 0 - 100%) that participants felt competent in using English as L2 and Japanese L3 to speak in 12 situations.

3. **Communication anxiety in English L2 (α = .96) and Japanese L3 (α = .96).** Twelve items from MacIntyre and Charos (1996) were used in this study. They evaluated the average percentage of anxiety (0% to 100%) that participants felt in communicating in English L2 and Japanese L3 in 12 situations.

4. **Frequency of communication in Japanese (α = .93).** Items measuring perceived competence and anxiety (MacIntyre & Charos, 1996) were adapted to measure the frequency of communication in Japanese L3 for each of the 12 situations using a 7-point scale, with the anchors “never” and “many, many times”.

2.2.3 **Japanese context-specific variables**

24 items measured 6 context-specific variables. For every item participants were asked to rate, on a 7-point scale, the extent to which they agreed with the claims.

1. **Benefits of using English.** Based on the Simic et al. (2006) study, 3 items were chosen to measure the benefits of English L2 use (Cronbach’s α = .67). (For example “Using English is necessary for my study”, “English is the most important language in the world because of the international usage”).

2. **Costs of using English.** Four items are extracted for this variable (α = .65). (e.g. “Using English hinders me learning Japanese,” “If I speak English all the time instead of Japanese I can hardly make friends among Japanese people.”).

3. **Benefits of using Japanese.** Advantages of Japanese L3 use were assessed with 3 items (α = .57). (e.g. “Using Japanese language makes me feel independent in Japan”; “If I speak Japanese, I can have more friends in Japan”).

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4. Costs of using Japanese. Two items \( (\alpha = .60) \) measured this variable - "Because of limited Japanese ability I cannot express myself properly" and "Japanese is too difficult and requires too much time to learn it appropriately."

Regarding reliability scores it must be mentioned that, although alpha should be at least .70 for a satisfactory scale, in exploratory research a lenient cut-off of .60 is common (Garson, 2006). Although items for Japanese-Benefits \( (\alpha = .57) \) must be thoroughly investigated and adjusted, we decided to keep them for the exploratory statistical analysis.

5. Personal importance of Japanese language use. Seven items \( (\alpha = .78) \) indicated to what extent Japanese L2 use is functional for participants of this study. (e.g. "If I were to evaluate how important it is for me to know Japanese for managing daily life in Japan, I would say..."; "If I were to evaluate how important it is for me to know Japanese for my future, I would say...").

6. Attitude/Motivation Index. A short version of Gardner’s (1985) Attitude/Motivation Test Battery (mini-AMTB) was used for this study (adapted from Hashimoto, 2002).

Some of the measuring constructs and items from the existing version of the scale were deliberately omitted, and questions were adapted for the evaluation of attitudes toward learning Japanese. Two of Five original subscales were employed:

a. Integrativeness \( (\alpha = .62) \) measures the degree to which respondents were learning Japanese for the purpose of interacting and communicating with members of the L2/L3 community. Integrativeness was evaluated with 2 item measures of integrative orientation ("If I were to evaluate my feelings about learning Japanese in order to interact with members of the Japanese community, I would say it is...") and attitude toward the target language group ("If I were to evaluate my attitude toward Japanese people, I would say that it is...").

b. Motivation \( (\alpha = .75) \). Motivation was assessed with 3 item measures of the desire to learn Japanese, ("If I were to evaluate how hard I work at learning Japanese I would characterize it as...") motivational intensity ("If I were to evaluate my desire to learn Japanese, I would say that it is...") and attitude toward learning Japanese ("If I were to evaluate my attitude toward learning Japanese, I would say that it is...").
3. Results

SPSS version 10.0 was used for the descriptive statistics, reliability and correlational analysis. Amos version 4.0 was used to test the hypothesized model using structural equation modeling.

3.1 Demographic characteristics

Of 103 participants, 58 (56.3%) were male and 45 (43.7%) female. 24.3% were from East Asia (China and Korea), 18.4% from Southeast Asia, 9.7% from Middle Asia, 4.9% from West Asia, 17.5% from Europe, 11.7% from Africa, 12.6% from Middle and South America and 1.0% from Australia & Oceania.

Graduate students constituted 72.8% of the sample, research students 12.6%, undergraduates 7.8% and 6.8% were classified as others.

The time spent in Japan at the time of performing this survey was between 1 and 2 years for 42.7% of the sample, 2 to 3 years for 27.2%, 3 to 4 years for 19.4%, 4 to 5 years for 8.7% and 5 to 6 years for 1.9% of participants. Regarding the time spent learning Japanese, 22.3% participants took classes for less than 1 year, 22.3% from 1 to 2 years, 12.6% from 2 to 3 years, 10.7% from 3 to 4 years, 3.9% from 4 to 5 years, and 28.2% had taken classes for a period of 5 to 6 years.

Concerning the self-evaluation of English competence, 9.7% of the sample estimated themselves as beginners, 25.2% as intermediate and 65.0% as advanced. Self-estimation of Japanese language competence was as follows - 47.1% estimated their knowledge as beginners, 40.2% as intermediate and 12.6% as advanced.

3.2 Correlational analysis

The Mean, SD and Pearson correlation coefficients among the observed variables were calculated, and the correlation matrix is shown in Table 1.
3.2.1 Correlations between communication-related variables for L2 and L3

WTC in English positively correlates with the perceived competence in English (r = .57, p < .01), and negatively with anxiety in English (r = -.33, p < .01). We obtained similar results for the Japanese language. McCroskey and Richmond (1991) discussed that WTC is relatively consistent across contexts and receivers, which has been supported by many studies. In different contexts strong correlations among measures of WTC were found, which was also verified in the present study.

As hypothesized, the communication variables between English L2 and Japanese L3 were rather complementary. Strong negative intercorrelation is discovered between WTC in English and WTC in Japanese (r = -.45, p < .01). All variables assessing English L2 have a significantly negative correlation with all variables assessing Japanese L3.

These crossed results support our hypothesis that communication variables for English L2 and Japanese L3 negatively relate to each other. This “seesaw” relationship demonstrates that where WTC in English increases, WTC in Japanese decreases, and vice versa.

Previous WTC researches (e.g., Baker & MacIntyre, 2000; McCroskey, Gudykunst & Nishida, 1985) had compared communicative variables between L1 and L2, and their results illustrated positive correlations between L1 and L2 WTC. Conversely, the present study is the first that considered L3, related not to the native but to the sec-

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<tr>
<th>Variables</th>
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<tbody>
<tr>
<td>1. WTC in English (L2)</td>
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<td>2. WTC in Japanese (L3)</td>
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<td>3. Perceived competence in English</td>
<td>59.86 (25.13)</td>
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<td>4. Perceived competence in Japanese</td>
<td>43.38 (27.59)</td>
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<td>5. Anxiety in English</td>
<td>27.33 (26.45)</td>
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<td>6. Anxiety in Japanese</td>
<td>43.06 (26.31)</td>
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<td>7. Frequency in Japanese</td>
<td>4.22 (1.28)</td>
<td>-17 -48**-23**-54**-23**-40** 1.00</td>
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<td>8. English – Benefits</td>
<td>5.99 (1.30)</td>
<td>30**-21**-41**-34**-15**-16-22** 1.00</td>
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<td>9. English – Costs</td>
<td>4.63 (1.30)</td>
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<td>10. Japanese – Benefits</td>
<td>5.30 (1.21)</td>
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<td>11. Japanese – Costs</td>
<td>5.15 (1.52)</td>
<td>32**-35**-27**-54**-12 48**-39**-32** 39**-34 1.00</td>
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<td>12. Personal Importance</td>
<td>5.44 (0.96)</td>
<td>0.0 24**-18 36**-11-22** 39**-21** 17 38**-18 1.00</td>
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<td>13. Attitude/Motivation index</td>
<td>4.92 (1.13)</td>
<td>16 1.7 0.0 34**-1.2 29** 32**-1.1 0.8 33**-2.1 35** 1.00</td>
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Note: N=103; *p<.05, **p<.01.
ond language, and rather opposite results are obtained - a negative correlation between L2 and L3 WTC.

3.2.2 Japanese context-specific variables and their correlation with WTC

Significant correlations between Japanese context-specific variables and communication-related variables were also found.

The benefits and costs of English use, and the benefits and costs of Japanese use, revealed strong correlations with WTC in English and in Japanese, in a manner that supports the hypothesis about mutual negative relations between English L2 and Japanese L3 (see Table 1).

Japanese-Benefits are positively correlated only with Frequency in Japanese \( (r = .28, p < .01) \). This suggests that students who price using Japanese over English will more frequently communicate in Japanese.

Among attitudinal variables, the only significant correlation was found between Using English - Costs and Using Japanese - Benefits \( (r = .37, p < .01) \). This connection also supports the “seesaw” hypothesis.

Positive correlations are found between personal importance of Japanese and the following variables: WTC in Japanese \( (r = .24, p < .05) \), perceived competence in Japanese \( (r = .35, p < .01) \), frequency in Japanese \( (r = .39, p < .01) \) and benefits of Japanese use \( (r = .38, p < .01) \). All these relations support our hypothesis that students for whom Japanese language use is of high significance will be more positive toward Japanese, and will be more willing to, and consequently will more often communicate in Japanese.

3.3 Structural equation modeling (SEM)

SEM is a statistical methodology that takes a confirmatory hypothesis-testing approach to theoretical analysis. The hypothesized model can be tested statistically to establish the degree to which it is dependable on the data (Byrne, 2001). The models were tested using Amos version 4.0. A model generating approach was used for this study.

We investigated the relationship between English L2 and Japanese L3 among international students in a Japanese environment. Furthermore, we attempted to investigate the role of situational factors unique to Japanese language and society
(Japanese context-specific variables) in relation to WTC in English L2 and Japanese L3.

Considering that SEM, in order to achieve stable results, requires a considerably larger sample than ours, especially if we are testing complex models like this one (many hypotheses and numerous paths to be investigated), we constructed two separate models, in which the relation of WTC with other communication variables is examined separated from Japanese context-specific variables.

3.3.1 SEM for Communication variables for English L2 and Japanese L3

The purpose of the first analysis was to verify the hypothesized “seesaw” relationship between communication variables in English L2 and Japanese L3.

The proposed model did not initially produce a good fit to the data (see Table 2).

Table 2: indices of fitness for the AMOS Model 1 - Relations among communication variables for English L2 and Japanese L3

<table>
<thead>
<tr>
<th>Model 1</th>
<th>χ2</th>
<th>df</th>
<th>χ2/df</th>
<th>GFI</th>
<th>AGFI</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Model 1: Communicative variables for English L2 and Japanese L3</td>
<td>57.230</td>
<td>13</td>
<td>4.40</td>
<td>0.882</td>
<td>0.745</td>
<td>0.836</td>
<td>0.183</td>
</tr>
<tr>
<td>Model 1A (Revision): Added path from Perceived competence in English to Perceived competence in Japanese</td>
<td>23.731</td>
<td>12</td>
<td>1.98</td>
<td>0.946</td>
<td>0.874</td>
<td>0.957</td>
<td>0.098</td>
</tr>
</tbody>
</table>

Note. χ2=chi-square; df=degrees of freedom; GFI=goodness of fit index; AGFI=adjusted goodness of fit index; CFI=comparative fit index; RMSEA=root mean square error of approximation index

The chi-square (χ²) for the base model was 57.230 with 13 degrees of freedom which was significant (disc/df = 4.40). In this case, a non-significant result is an indication of goodness-of-fit.

Since χ² is considered to be of limited value with small samples, other fit indices are also provided. All indices of goodness of fit, generally formulated to range in value from 0 (no model fit) to 1.0 (perfect fit) showed poor fit to the data.

For GFI (goodness-of-fit index) and AGFI (adjusted goodness-of-fit index), values
close to 1.00 indicate a good fit. For the base model, both GFI (0.882) and AGFI (0.745) are indicative of a poor fit of the model to the data. For the fit index CFI (comparative fit index), values larger than .95 are considered representative of a well-fitting model. RMSEA represents the root mean square approximation. Values less than .05 indicate a good fit. In this model, the CFI value is 0.836 and RMSEA is 0.183, also indicative of an ill-fitting model. Therefore, all the fit statistics indicate a poor fit for the base model.

An assessment of the modification indices suggested adding one new path to improve the model - from personal competence in English to personal competence in Japanese. This added path is illustrated by a dotted line in Figure 2. After this correction, goodness-of-fit indexes were considerably improved (Table 2).

Notes: ** p<.01; Path added to the model is represented by dotted line; disc/df: 1.978; GFI=0.946; AGFI=0.874; CFI=0.957; RMSEA: 0.098

Figure 2 - Schematic presentation of the AMOS output
Relations among communication variables for English L2 and Japanese L3

Seven out of 9 proposed paths were shown as significant. The largest parameter coefficients shown in the model were from perceived competence to WTC, for both
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Japanese (\( \beta = .66, p < .01 \)) and English (\( \beta = .63, p < .01 \)). The next two largest regression weights were from perceived competence to anxiety for English and Japanese (\( \beta = -.59 \) and \( \beta = -.50 \) respectively; \( p < .01 \)). The path from WTC in Japanese to Frequency is strong and positive (\( \beta = .48, p < .01 \)).

The proposed model confirmed theoretically based assumptions regarding the relationship between WTC and perceived competence in both languages.

Paths from anxiety to WTC were not significant either for English or Japanese language.

A strong negative path from perceived competence in English to perceived competence in Japanese (\( \beta = -.50, p < .01 \)) and a significant negative path from WTC in English to WTC in Japanese (\( \beta = -.23, p < .01 \)) are the most important findings of the present research. They confirm that among international students in Japan, English L2 and Japanese L3 are negatively related to each other - high competence and WTC in English cause low competence and WTC in Japanese, and vice versa.

### 3.3.2 SEM for Japanese context-specific variables and WTC

Initially, we hypothesized paths from Japanese context-specific variables to WTC in English L2 and Japanese L3. However, no significant regression weight was found. In spite of the strong correlations between these variables, the proposed SEM model did not support our hypothesis that Japanese context-specific variables influence WTC. Several trials to make a model with the best fit to the data showed that the influence in fact goes in the opposite direction. Consequently, we changed our hypotheses and thus the direction of the paths - from WTC in English L2 and Japanese L3 to the Japanese context-specific variables (see Figure 3).
The anticipated model did not initially produce a good fit to the data. The assessment of the modification indices suggested adding 4 new paths in order to improve the model fitness: from benefits of using Japanese to costs of using English, importance and attitude/motivation, and from importance to frequency in Japanese. These added paths are illustrated by dotted lines in Figure 3. This revision of the model significantly improved the fit to the data (see Figure 3, note). Most of the paths were significant. Benefits of using Japanese were shown to be important for this model. This result indicates that a person, who values Japanese language use as positive, also thinks that using Japanese is important, which results in higher frequency of communication in Japanese.

4. Discussion
This study examined the relationship between communication in English L2 and
Japanese L3 for international students in Japan, using the WTC model as a theoretical base. Furthermore, we explored how some Japanese context-specific variables are related to WTC in Japanese and English.

MacIntyre’ model (1994) postulates that WTC is based on a combination of greater perceived competence and lower communication anxiety. Numerous studies, mainly investigating English L2 WTC, verified this model (e.g., Charos, 1996; Hashimoto, 2002; MacIntyre, 1994; MacIntyre & Charos, 1996; Yashima, 2002). Our results too show strong positive influence of perceived competence on WTC, and a negative influence of anxiety on perceived competence. We obtained similar results for both the English and Japanese languages.

However, anxiety did not show an important influence on WTC, as previous studies suggest. According to some WTC studies (Baker & MacIntyre, 2000; MacIntyre, Clement, & Donovan, 2002), in L1 communication or in full-immersion situations with experienced learners, anxiety is the most important factor for WTC, while in non-immersion situations WTC is mainly influenced by perceived competence. Our population seems to be different. Lee (2004) obtained similar results - no significant effect of anxiety on language proficiency was found in her study. Therefore, in the present study, the perceived competence, rather than anxiety, is an essential factor that influences WTC in both L2 and L3 languages.

The next finding is that English L2 and Japanese L3 are in a rather complementary relationship. All communicational variables in English L2 negatively correlate with all variables in Japanese L3. The most important, WTC in English and WTC in Japanese, have a significant negative correlation ($\beta = -.43$ in SEM). This finding confirmed our hypothesis that students who are more willing to communicate in Japanese are less willing to communicate in English, and vice versa. Finding that L2 English and L3 Japanese act as a seesaw, negatively influencing each other is a very new and therefore important discovery.

Regarding the relationship between the Japanese context-specific variables and the WTC in Japanese and English, strong correlations were found. Students who value using English more than Japanese are those who perceive their English competence as higher than Japanese, they are less anxious in English conversation. Consequently, they are more willing to communicate in English, and less in Japanese, and vice versa.
We assumed that Japanese context-specific variables are antecedents of WTC. Initially, we hypothesized paths from Japanese context-specific variables to WTC. However, SEM rejected this model. Several trials to make a model with the best fit to the data showed the influence actually going in the opposite direction. The possibility that we made the hypothesis based on wrong assumptions must be taken into consideration. In a previous survey (Simic et al., 2006) about the costs and benefits of using the L2 and L3, we might have overlooked the fact that we actually questioned the consequences of use, not the antecedents. To realize disadvantages and advantages, students must have experience in using languages, and according to the WTC model, language use is the logical result of WTC. That means that we in fact measured effects and not influencing factors, and SEM recognized that. This is one possible explanation as to why there is a satisfactory fit of the model in which we hypothesized that WTC is an influencing and not a resulting factor. The results of this research suggest that WTC has more power than only on frequency of communication - it also creates attitudes and influences motivation.

This part of the research is mainly exploratory, and since SEM is a hypothesis testing device and not exploratory, it is crucial to have a hypothesis based on theories. For this purpose we made a hypothesis that didn’t have a strong theoretical background. We must mention that all hypothesized paths are based on speculation about the variables and have not been tested before. However, given that there is no previous research on WTC in Japanese language, we could not make a hypothesis based on previous findings, but only assume potential relations. That is what makes this research original and worth doing. It’s innovative and it needs a lot of work and modeling until we discover what the real antecedents and consequences of WTC in Japanese language are.

There were some limitations with respect to the analysis and data that may affect the accuracy of the results. The discriminativity and reliability of the instrument are unsatisfactory, and need to be improved. Due to the restriction of participants acceptable for this study (see section Method - Participants) the population is rather homogeneous and sample bias probably occurred. As for the selected statistical analysis, SEM is for larger samples. Possibly using some other regression analysis would be more suitable, but SEM was chosen to make clear comparisons with previous WTC
studies. However, the insufficient number of participants prevents gaining stable results.

Despite these limitations, the results of this survey provided us unique information about Japanese L3 communication for international students. Those findings could be briefly summarized as follows:

1. As for our sample, the perceived competence is a vital factor that influences WTC in L2 and L3, rather than anxiety.
2. L2 English and L3 Japanese act as a seesaw - students who are more willing to communicate in Japanese are less willing to communicate in English, and vice versa.
3. Japanese context-specific variables strongly correlate with WTC.
4. Japanese context-specific variables are not antecedents but consequences of WTC.

Our intention is to continue this series of studies. After a necessary revision of the instrument, its application on a large, more heterogeneous sample could bring results that reveal novel features of international students’ communication in Japanese. Re-conceptualization of the WTC construct is one of the implications for further study. In order to do this, some questions should be answered: Is there a difference between WTC in English and WTC in Japanese, and if so, what creates it? What represents WTC in Japanese and in English in a Japanese language environment? Does the original concept of WTC actually serve the purpose of measuring the same concept in a Japanese environment? Answering all these questions would shed new light on WTC construct studies and possibly create new implications.

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