Willingness to Communicate, Linguistic Self-confidence, and Language-use Anxiety: The Iranian EFL Context

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Abstract—Functioning as a mediating factor between having communicative competence in the target language and putting this competence to use, willingness to communicate (WTC) has enjoyed scholars’ attention in the field of second language acquisition (SLA). The present quantitative study examined the contribution of Iranian EFL learners’ linguistic self-confidence in their proficiency and language-use anxiety to their WTC level as well as the possible impact of age and gender on learners’ reported L2 WTC. 188 university students, who were randomly selected, filled in a questionnaire, and correlation analyses, one-way between-groups ANOVA, independent-samples t-test, and standard multiple regression were run to analyze the collected data. Results indicated that L2 self-confidence made a significant contribution to the prediction of L2 WTC. Moreover, it was found that learners’ age and gender did not make a statistical difference to their WTC. The findings could inform debates on the theory and practice of WTC and feed into further pertinent research in second language pedagogy.

Index Terms—willingness to communicate, language-use anxiety, linguistic self-confidence

I. INTRODUCTION

Making use of the target language (TL) is deemed to be essential to learners’ language learning success (Seliger, 1997). Moreover, one of the objectives of communicative approaches to language teaching is enhancing learners’ communicative competence in the TL (Dörnyei, 2005; Larsen-Freeman & Anderson, 2011). That is why a number of research have probed into variables that are either predictors of language proficiency or contributors to second language (L2) use (see MacIntyre et al., 1998; MacIntyre & Charos, 1996; McCroskey & Richmond, 1990; Philips, 1984). Given the importance that has always been attached to TL use in the history of language pedagogy and in view of the fact that cognitive views about language learning place a premium on psycholinguistic processes involved in learning the TL (see Richards & Rodgers, 2001), some researchers (e.g., Cao & Philip, 2006; MacIntyre, Baker, Clément, & Donovan, 2003; MacIntyre, Clément, Dörnyei, & Noels, 1998) hold that one of the principal objectives of language instruction should be the creation and enhancement of willingness to communicate (WTC) in the TL/L2. In fact, MacIntyre et al. (1998) conceive of L2 WTC as a thorough conceptual framework which describes, explains, and projects L2 communication behavior.

Informed by the multilayered pyramid model of WTC, devised by MacIntyre et al. (1998), L2 WTC subsumes a dozen of sociopsychological, communicative, and linguistic variables including personality, intergroup climate, intergroup attitudes, social situation, communicative competence, L2 self-confidence, intergroup and interpersonal motivation, desire to communicate with a specific person, and state communicative self-confidence. Among all variables, L2 self-confidence, also referred to as perceived communication competence, as well as language-use anxiety, also known as communication apprehension or communication anxiety, are recognized as the strongest predictors of WTC (Clément, Baker, & MacIntyre, 2003). Also, McCroskey and Richmond (1990) stated that individuals with low self-esteem are less willing to communicate, and they further pointed out that the influence of self-esteem is often exerted through other variables related to communication such as perceived communicative competence and communication apprehension. The present study, hence, examines Iranian EFL learners’ linguistic self-confidence in their proficiency and their language-use anxiety in an attempt to investigate which is a better predictor of L2 WTC and whether there are variations in learners’ reported WTC on the basis of their age and gender.

II. LITERATURE REVIEW

A. Willingness to Communicate

Being rooted in the field of speech communication, WTC is an aspect of individual differences in second language acquisition. As MacIntyre and Doucette (2010) put it, “being willing to communicate is part of being fluent in a second language, which is often the ultimate goal of L2 learners” (p. 161). In the literature, WTC has been conceived of as both a personality-based, trait-like orientation (Burgoon, 1976; MacIntyre & Clément, 1996; McCroskey, 1992; McCroskey & Baer, 1985; McCroskey & Richmond, 1991) and a situation-based variable (Cao & Philip, 2006; Kang, 2005;
MacIntyre, 2007). While in the former contention, the observed regularity in WTC level and individuals’ predisposition towards verbal communication are taken heed of, the latter point of view gives primacy to inter-group relations among interlocutors and the potential contextual and situational variations in language use.

MacIntyre et al. (1998) hold that in the development of the pyramid-shaped, heuristic model of L2 WTC, which is shown in Figure 1, psychological-affective antecedents, individual and social communication contexts, motivational propensities, as well as situated influences have all been taken into account. Bearing in mind both enduring and situational variables, MacIntyre et al. (1998) define L2 WTC as “readiness to enter into discourse at a particular time with a specific person, or persons, using a L2” (p. 547).

**Figure 1.** Heuristic model of variables influencing WTC (MacIntyre et al., 1998).

### B. Linguistic Self-confidence and Language Use Anxiety

In the related literature, linguistic self-confidence in one’s proficiency, also referred to as perceived communication competence or L2 self-confidence, as well as L2 anxiety, also known as communication apprehension, communication anxiety, or language-use anxiety, are reported to be directly related to WTC (Clément et al., 2003; MacIntyre, 1994; Yashima, 2002). Additionally, Peng (2007) moved one step further by setting forth that communication apprehension and self-perceived competence are “the most immediate antecedents of L2 WTC” (p. 34).

Perceived communicative competence could affect the frequency of L2 use (MacIntyre & Charos, 1996). MacIntyre et al. (1998) argued that high perceived communicative competence comes about when one possesses the required skills and knowledge to communicate efficiently and in case communication occurs in a previously encountered situation. Quite conceivably, uncertainty about one’s ability to deal with the difficulties of a given communication task would lead to a decrease in their perceived L2 self-competence.

Communication apprehension (CA) refers to an individual’s level of fear or anxiety associated with real or anticipated communication (McCroskey, 1997). Not only is foreign language anxiety regarded as a trait-like predisposition and probably the best predictor of WTC (McCroskey & Richmond, 1987), but also it is deemed situation-specific and is known to have three components: communication apprehension, test anxiety, and fear of negative evaluation (Horwitz, Horwitz, & Cope, 1986). The marked effect that anxiety could have on L2 learning is acknowledged by findings of a number of research (Gardner & MacIntyre, 1993; Horwitz, 2001; MacIntyre & Gardner, 1989; MacIntyre, Noles, & Clément, 1997). Language anxiety is reported to negatively correlate with learners’ performance on tasks focusing on vocabulary (MacIntyre & Gardner, 1989) and adversely affect language learners’ final grades (Horwitz, 1986). In addition, as Gardner and MacIntyre (1993) set out, anxious learners have a tendency to underestimate their abilities. CA is also linked to individuals’ perceived competence level (McCroskey & Richmond, 1990), and in the heuristic model of variables influencing WTC, proposed by MacIntyre et al. (1998), anxiety is capable of influencing learners’ perception of competence. Furthermore, according to Baker and MacIntyre (2000), anxiety and perceived language competence could make a prediction of both learners’ WTC level and their self-report frequency of L2 communication.

Competitiveness among learners, feeling a veiled threat to self-esteem, and fear of high-exposure levels have been considered as factors influencing L2 anxiety in the classroom (Donato & McCormic, 1994; Saint Léger & Storch, 2009; Young, 1990). It is also surmised that high levels of anxiety negatively correlate with class participation and motivation (Clément, Dörnyei, & Noels, 1994); moreover, demands of a communication situation bring about the sense of responsibility on the part of the learners, which affects language anxiety and WTC, accordingly (Kang, 2005). Also,
“(...) an environment generating such high anxiety is unlikely to be conducive neither to WTC nor indeed to learning (Saint Léger & Storch, 2009, p. 280).

Baker and MacIntyre (2000) found that language-use anxiety, positive or negative past communication experiences, and perceived communicative competence are among the major factors that determine learners’ reported WTC level, and findings of Yashima’s (2002) study revealed that a combination of a low level of anxiety and a high level of perceived L2 communicative competence result in a higher level of WTC. In addition, Hashimoto (2002) argued that L2 anxiety exerts a significant, negative influence on perceived competence. Such findings are in line with findings of MacIntyre and Charos’s (1996) research.

C. Differences in WTC Levels: Learners’ Age and Sex

Learners’ gender is reported to exert an influence on their level of L2 WTC (Baker & MacIntyre, 2000; MacIntyre et al., 2002). Donovan and MacIntyre (2004) investigated the impact of age and sex on WTC, communication apprehension, and self-perceived communicative competence. Relevant findings illustrated that communication apprehension was a major predictor of WTC among females in all age groups. Among males, however, self-perceived communicative competence was a significant predictor of WTC. Despite the observed variations of degrees to which communication apprehension and self-perceived competence predicted WTC with regard to age and sex, both variables showed a “consistent negative relationship that does not vary with age or sex” (p. 240). Investigating the influence of age on WTC, Lu (2007) found out that as people age, their level of WTC increases.

Taking heed of the Iranian EFL context, the present quantitative study delved into the contribution of learners’ L2 self-confidence and communication apprehension to WTC. It also examined possible differences in learners’ WTC in regard to their age and gender. Hence, the following research questions were formulated:

1. Is there any significant difference in the contribution of Iranian EFL learners’ linguistic self-confidence in their proficiency and language-use anxiety to WTC?
2. Are there significant statistical variations in Iranian EFL learners’ reported WTC levels on the basis of their age and gender?

III. METHOD

A. Participants

Participants of the present study were comprised of 188 university students (109 males & 79 females) within the 19-48 age range, with an average age of 27, studying at University of Tehran, Kish International Campus. They were studying at M.A., M.S., B.A., and B.S. levels and were all attending general English courses as one of the requirements of their final graduation. At the time of data collection, having a certain level of mastery of English (IELTS band scores of 5.5 or above, TOEFL PBT score of 550 and above, or TOEFL iBT score of 80 and above) was one of the requisite qualifications for taking the programs offered at University of Tehran, Kish International Campus. Those applicants who did not comply with such a requirement were obliged to take English language courses.

B. Instrument

The participants of the present study filled in a questionnaire. L2 WTC was measured through the administration of the WTC questionnaire developed and administered by MacIntyre, Baker, Clément, and Conrod (2001). The WTC Scale operationalized L2 WTC in all the four skills, that is, speaking, reading, writing, and listening, both inside and outside the classroom, and a very good internal consistency ($\alpha = .92$) has been allocated to its 27 items which elicit learners’ responses to the 5-point Likert scale. The Cronbach alpha internal consistency reliability of the entire sample of the present work was .87 though. The questionnaire was translated from English into Persian by the researcher and a Ph.D. candidate of TEFL separately. The two drafts were then compared, and the minor discrepancies were discussed.

C. Data Collection

A one-time questionnaire was administered at the end of a class session. It took the participants about 15 minutes to fill out the questionnaire, and it was made clear that their participation in the study would not influence their final evaluation, and the questionnaire would be treated anonymously. Therefore, writing names in the biographical information section was optional.

D. Data Analysis

A one-way between-groups analysis of variance was conducted to ascertain the possible impact of age on learners’ reported WTC level. In order to investigate whether a significant statistical difference exists between male and female learners in terms of their WTC levels, an independent-samples t-test was run.

To examine whether or not the correlation coefficient between learners’ linguistic self-confidence in their proficiency and WTC was statistically significantly different from that of language-use anxiety and WTC, as had been hypothesized by MacIntyre and Charos (1996), the statistical significance of the difference between correlation coefficients was tested. Furthermore, a standard multiple regression was conducted to a) find out how well communication apprehension
and linguistic self-confidence in one’s proficiency could predict WTC, b) dissect how much variance in WTC can be explained by the two antecedents, and c) explore which subscale is a better predictor of WTC.

IV. RESULTS

A. Learners’ L2 Self-confidence and L2 Anxiety: Predictors of WTC

In order to investigate whether a significant difference exists between the contribution of Iranian EFL learners’ linguistic self-confidence in their proficiency to their WTC level and that of language-use anxiety to the prediction of L2 WTC, as hypothesized by MacIntyre and Charos (1996), the statistical significance of the difference between the two correlation coefficients was tested. First, the r values were converted to z scores. The following equation, extracted from Pallant (2007, p. 140) was then used to calculate the observed values of z ($Z_{obs}$ value):

$$Z_{obs} = \frac{Z_1 - Z_2}{\sqrt{\frac{1}{N_1} + \frac{1}{N_2}}}$$

Next, it was determined whether or not the $Z_{obs}$ value was statistically significant. According to Pallant (2007), if the obtained $Z_{obs}$ value is between -1.96 and +1.96, one cannot claim that there is a statistically significant difference between the two correlation coefficients. However, $Z_{obs}$ values less than or equal to -1.96 and those greater than or equal to 1.96 indicate that coefficients are statistically and significantly different. The obtained $Z_{obs}$ value was -3.78. It was, therefore, concluded that the correlation coefficient between learners’ L2 self-confidence and WTC was significantly different from that of language-use anxiety and WTC.

The value given under the R Square heading in the output of standard multiple regression, as is shown in Table 1, was then used to see how much of the variance in WTC was explained by learners’ L2 self-confidence and their L2 anxiety.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.39</td>
<td>.16</td>
<td>.15</td>
<td>14.60</td>
</tr>
</tbody>
</table>

Informed by the data analysis procedures, learners’ linguistic self-confidence in their proficiency and their language-use anxiety explained 16 percent (to be exact, 15.7% before rounding the number up) of the variance in reported WTC.

To examine the statistical significance of the result, the ANOVA table was used. According to the information presented in Table 2, the contribution of the two independent variables reached statistical significance (Sig. = .000; which means $p < .0005$).

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>6953.33</td>
<td>2</td>
<td>3477.16</td>
<td>16.30</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>37326.28</td>
<td>175</td>
<td>213.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>44280.61</td>
<td>177</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To examine the contribution of the two independent variables, that is, learners’ L2 self-confidence and their language-use anxiety, to the prediction of the dependent variable (WTC), the beta values under standardized coefficients were made use of.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95% Confidence Interval for B</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>(Constant)</td>
<td>33.11</td>
<td>5.44</td>
<td></td>
<td>6.08</td>
</tr>
<tr>
<td>language-use anxiety</td>
<td>-.19</td>
<td>.25</td>
<td>-.06</td>
<td>-.77</td>
</tr>
<tr>
<td>linguistic self confidence</td>
<td>1.48</td>
<td>.30</td>
<td>.43</td>
<td>4.90</td>
</tr>
</tbody>
</table>

As it can be seen in Table 3, the beta value for learners’ L2 self-confidence was larger, which signified that this very variable made a stronger contribution to the explanation of WTC, while language-use anxiety made less of a contribution. To check whether each variable made a statistically unique contribution to the equation, the Sig. values were checked. It was concluded that L2 self-confidence (Sig. = .00) made a statistically significant unique contribution.
to the prediction of WTC. On the contrary, language-use anxiety (Sig. = .43) did not make a significant contribution to the prediction of the dependent variable. According to Pallant (2007, p. 159), “this may be due to overlap with other independent variables in the model”. With regard to the fact that squaring the partial correlation coefficients gives an indication of the contribution of the two independent variables to the total R square, it could be concluded that learners’ L2 self-confidence uniquely explained 11 percent of the variance in total reported WTC, and in the absence of linguistic self-competence, 11 percent of R square would drop.

B. Reported WTC and Learners’ Age and Gender

A one-way between-groups analysis of variance was run to explore the possible impact of age on learners’ reported L2 WTC. Subjects were divided into three groups according to their age (Group 1: 24 yrs or less; Group 2: 25 to 29 yrs; Group 3: 30 years and above).

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1: ≤ 24</td>
<td>62</td>
<td>62.22</td>
</tr>
<tr>
<td>Group 2: 25 - 29</td>
<td>67</td>
<td>59.35</td>
</tr>
<tr>
<td>Group 3: 30+</td>
<td>57</td>
<td>65.45</td>
</tr>
<tr>
<td>Total</td>
<td>186</td>
<td>62.18</td>
</tr>
</tbody>
</table>

Levene’s test for homogeneity of variances, which tests whether the variance in scores is the same for each of the three age groups, was used.

<table>
<thead>
<tr>
<th>Levene statistics</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.19</td>
<td>2</td>
<td>183</td>
<td>.82</td>
</tr>
</tbody>
</table>

As can be seen in Table 5, the significance value for learners’ total reported WTC was greater than .05. So, the assumption of homogeneity of variance was not violated. Informed by the information in Table 6, there was no statistically significant difference at the p < .05 level in learners’ reported WTC among the three age groups: $F(2, 183) = 2.3, p = .09$.

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1145.90</td>
<td>2</td>
<td>572.95</td>
<td>2.34</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44778.63</td>
<td>183</td>
<td>244.69</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45924.53</td>
<td>185</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An independent-samples t-test was conducted to compare the total reported WTC scores for male and female Iranian EFL learners.

<table>
<thead>
<tr>
<th>Group Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>Total Willingness to communicate</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
</tbody>
</table>

As it can be seen in Table 7 and Table 8, there was no significant difference between scores for males ($M = 62.61, SD = 15.70$) and females, $M = 62.10, SD = 15.50$; $t(179) = .21, p = .83$. The magnitude of the differences between the groups was estimated by calculating the eta squared value. The assessed effect size was .00022, which was very small according to Cohen’s (1988, pp. 284-287) guideline. Put another way, only .02 percent of variance in reported WTC is explained by sex.

<table>
<thead>
<tr>
<th>Levene’s Test for Equality of Variances</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances assumed</td>
<td>.06</td>
<td>.79</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>.21</td>
<td>179</td>
</tr>
<tr>
<td>t-test for Equality of Means</td>
<td>t</td>
<td>df</td>
</tr>
<tr>
<td>Total willingness to communicate</td>
<td>21</td>
<td>162.89</td>
</tr>
</tbody>
</table>

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V. CONCLUSIONS AND DISCUSSION

A number of conclusions can be drawn from the results of the present study, which could be of interest to researchers having expertise in reported WTC, linguistic self-confidence in one’s proficiency and language-use anxiety made significantly different contributions to L2 WTC. In fact, while L2 self-confidence made a statistically significant unique contribution to the prediction of WTC by explaining 11 percent of variance in its total level, communication apprehension did not make a significant contribution to the prediction of the dependent variable, that is, L2 WTC. This finding is line with results by Hashimoto’s (2002) study and those of Yu and Shen’s (2012) research. Nevertheless, it is in contrast with arguments made by a number of researchers whose publications focus on WTC (Hashimoto, 2002; MacIntyre, 1994; MacIntyre & Charos, 1996) who spelled out that both L2 self-confidence and language-use anxiety are capable of influencing WTC. In the related literature, it has also been posited that language-use anxiety is a predictor of perceived communicative competence (MacIntyre & Charos, 1996), and L2 anxiety has been found to be one of the immediate antecedents of WTC (Clément et al., 2003; Yashima, 2002). Such discrepancies could, in essence, be ascribed to disparate conceptions of the nature of WTC. That is, while some researchers take account of it as a global, enduring, personality-based orientation, which is not influenced by the presence or absence of anxiety in different communication contexts, others regard it as a situation-based/situational variable (see Cao, 2011; Cao & Philip, 2006).

As to the second research question, no significant statistical variations in Iranian EFL learners’ reported WTC on the basis of their age and gender were found. By contrast, findings of Donovan and MacIntyre’s (2004) study indicated that as males grow old, their WTC increases, and women become less willing to communicate as they age, which was explained by their higher level of communication apprehension and lower level of self-perceived competence. In the same study, it was also concluded that in general, women are more willing to communicate compared with men. The discrepancies observed in the findings of the present study and those of the above-mentioned quite similar research could be attributed to the differences in the range of the age groups, the number of participants within each age range, as well as contextual and cultural differences between the two populations from which samples were taken. That said, claiming that learners’ age and gender does not exert an influence on their WTC would be deemed to be unsubstantiated, and a body of knowledge has yet to be accumulated in this regard.

Within this line of research, future studies could look into the predictive power of other antecedents of WTC. Moreover, comparing learners’ self-report WTC and their actual WTC behavior in an L2 classroom could give venue for new research studies and flesh out the dual characteristics of L2 WTC. Future studies could also take account of the dynamic and situated nature of WTC in second language classrooms. Last but not least, given that learners’ WTC is known to be “socioculturally constructed as a function of the interaction of individual and environmental factors” (Peng, 2012, p. 203), adopting a qualitative approach to WTC, further studies could investigate other factors influencing Iranian learners’ WTC to enhance our ecological understanding of Iranian EFL learners’ L2 WTC.

REFERENCES


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