Speaking Anxiety: More of a Function of Personality than Language Achievement

WANG Tianjian
Guizhou College of Finance and Economics;
Suranaree University of Technology, Thailand

Abstract

The present study investigated the speaking anxiety of Chinese EFL learners as well as the relationships of speaking anxiety with other variables, including trait anxiety, unwillingness to communicate, language achievement, speaking self-efficacy, language class risk-taking, and language class sociability. The data were analyzed with SPSS and Amos. The results revealed that (a) over 50% of the students reported experiencing moderate or high levels of speaking anxiety; (b) speaking anxiety did not differ significantly over gender, but differed significantly over groups (lower proficiency groups reported a higher mean level of anxiety); (c) speaking anxiety had a complicated relationship to the other variables; (d) personality factors were found to be the primary causes of speaking anxiety; and (e) mutual influences existed between language achievement and speaking anxiety.

Key words: speaking anxiety; gender; groups; personality; language achievement

1. Introduction

Learner differences in second or foreign language learning can be interpreted not only in terms of cognitive factors such as language aptitude and learning style, but also affective factors, such as motivation and anxiety. Scholarly interest in the relationships of anxiety to second language learning began in the 1960s (Djigunovic, 2006). Early research produced confusing results. Some studies revealed positive correlations between anxiety and language achievement, others revealed negative ones, and there were still others which revealed neither positive nor negative relationships (Scovel, 1978). The confusing findings made
researchers unable to establish a clear picture of how anxiety is related to language learning. A clarification was provided by MacIntyre and Gardner (1991a). After reviewing relevant literature, they suggested that in studies of the relationship of anxiety to language learning, researchers adopted different perspectives: “Some have taken a trait anxiety approach, some are concerned with state anxiety, and others employed situation specific measures. It seems plausible to suggest that the more meaningful and consistent results have emerged from the latter group” (p. 92). This suggestion was further supported by Horwitz (2001), who reviewed relevant studies and found consistent negative correlations between foreign language anxiety (investigated by using situation specific measures, especially the Foreign Language Classroom Anxiety Scale) (Horwitz, Horwitz & Cope, 1986) and foreign language achievement (typically final grades).

Apart from the relationship between language anxiety and language achievement, many studies have also investigated the relationship of language anxiety with other factors. Horwitz (1991) found that language anxiety was positively correlated with trait anxiety. Liu and Jackson (2008) found that language anxiety was positively correlated with unwillingness to communicate, but negatively with language class risk-taking, and language class sociability. A significant amount of research supports the idea that belief is related to anxiety. Kitano (2001) found that students’ anxiety levels were positively correlated with a perception of low ability in the language they were learning. Gardner, Tremblay and Masgoret (1997) found that confident learners reported a lower level of anxiety and a higher “Can Do” rating of proficiency, while less confident learners reported a higher level of anxiety and a lower “Can Do” rating of proficiency. Moreover, low self-confidence has been discovered to be one of the two components of the FLCAS scale (Matsuda & Gobel, 2004). Gender-related research on language anxiety has yielded conflicting results. One inconsistency is whether gender is related to language anxiety, and another is whether males or females are more liable to experience language anxiety. Matsuda and Gobel (2004) investigated first-semester English (required) classes at a Japanese university, and gender was not found to have a significant effect on the overall general/reading anxiety or on the subcomponents of either anxiety. Kitano (2001) investigated the anxiety of college learners of Japanese and reported a correlation between anxiety and self-perception (measured by “Can Do” rating) in male students. Male students felt a higher level of anxiety when they perceived their spoken Japanese less advanced than that of others, while such a relationship was not observed among female students. Some investigations, on the contrary, discovered that females were more prone to language anxiety (Mejías, Applebaum, Applebaum & Trotter, 1991). The inconsistency could be caused by unknown variables.

All the studies to date have greatly deepened our understanding of the construct of language anxiety, yet knotty points and issues still exist. First, findings on the relationships between language anxiety and various factors have not always been consistent. Second, researchers still can not agree on whether language anxiety is primarily a cause or “side effect” in the process of second language learning (Horwitz, 2001; MacIntyre, 1995; Sparks & Ganschow, 2007). The disagreement could be attributed to the fact that most studies on language anxiety are correlational in nature, the results of which cannot be validly used for inferences about causal relationships. The present study focused on the speaking anxiety
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a primary type of language anxiety experienced by Chinese EFL learners. The relationships (especially the causal relationships) of speaking anxiety with several other variables were simultaneously explored. The research questions included:

(1) To what extent do Chinese EFL learners experience speaking anxiety (SA) in English language classrooms? Does the speaking anxiety they experience differ significantly in terms of gender or groups (the lower vs. the upper)?

(2) What are the relationships of speaking anxiety (SA) with trait anxiety (TA), unwillingness to communicate (UTC), speaking self-efficacy (SSE), language class risk-taking (LCR), language class sociability (LCS), and language achievement (LACH)?

2. Methodology

Participants
A total of 240 (112 males, 128 females) first-year non-English majors at Guizhou College of Finance and Economics participated in the study. They were divided into three lower groups (composed of less proficient English learners: 83 males, 54 females) and two upper groups (composed of more proficient English learners: 29 males, 74 females). All of them were investigated with regard to SA. Those from the upper groups were also investigated with regard to TA, UTC, SSE, LCR, LCS, LACH, besides SA. The ages reported had a mean of 19.39 years, ranging from 17 years to 24 years. All the students were enrolled in college English courses, which were credit-bearing and compulsory. The average group size was 60 students. Though speaking was a skill particularly emphasized by the college English teaching requirements, the actual chances of speaking in the class for each learner were limited due to the large group sizes.

Instruments and materials
The instruments used in the study included two questionnaires, with one containing only items related to SA, the other containing items related to SA, TA, UTC, SSE, LCR, LCS, and LACH. The former was only intended to examine SA, while the latter was expected to examine the relationships between SA and other constructs. Both the questionnaires were administered in the participants’ native language, Mandarin Chinese.

Speaking Anxiety (SA) Scale
This was a 15-item 5-point Likert scale of agreement (with choices ranging from Strongly Agree to Strongly Disagree). Thirteen items were adapted from the FLCAS, and two were developed by the present researcher. The adapted items were all designed to measure speaking anxiety. In the adaptation, the specific term of “English” or “English class” replaced the general term “foreign language” or “(foreign) language class” so that the new scale was more appropriate for the present study with the English language learners. The newly developed items were: “I feel relaxed when I am speaking English in the class”, and “I feel relaxed when the English teacher asks questions that I have not prepared for in advance”. They were employed because most of the adapted items tapped the degree of
the presence of speaking anxiety, rather than the absence of it.

**Trait Anxiety (TA) Scale**

This was a 10-item 4-point Likert scale (including choices of Not At All, Somewhat, Moderately So, Very Much So), adapted from the trait scale of the State-Trait Anxiety Inventory (Spielberger, 1983). The adaptation was based on a pilot study, in which the trait scale was found to have two principal components: the worry dimension and the mood dimension. It was the mood dimension that was significantly correlated with language anxiety. Therefore, the 10 items which had loadings over .40 on the mood dimension were selected and composed the Trait Anxiety Scale.

**Unwillingness to Communicate (UTC) Scale**

This was a 20-item 5-point Likert scale of agreement (with choices ranging from Strongly Agree to Strongly Disagree), adopted from Burgoon (1976). The scale has two principal components: the avoidance dimension (UTCA), as measured by the first 10 items on the scale, and the reward dimension (UTCR), as measured by the last 10 items on the scale. According to Burgoon and Koper (as cited in Liu & Jackson, 2008: 74), the former “represents an individual’s tendency to avoid or participate in interpersonal and small group interactions” (typical symptoms of the presence or absence of communication apprehension), while the latter “reflects attitudes toward communication—whether one considers it a valuable, honest, and personally rewarding enterprise or feels socially isolated and regards communication as a deceptive, manipulative, or unprofitable activity”. In the present study, UTCA and the UTCR were treated as separate constructs so as to achieve a precise understanding of their relationships with SA.

**Language Class Risk-taking (LCR) Scale**

This was a 6-item 5-point Likert scale of agreement (with choices ranging from Strongly Agree to Strongly Disagree) adapted from Ely (1986). The word Spanish in the original scale was changed to English to suit the present study.

**Language Class Sociability (LCS) Scale**

This was a 5-item 5-point Likert scale adapted from Ely (1986). The adaptation and choices involved were the same as those for the LCR scale.

**Speaking Self-efficacy (SSE) Scale**

This was a 7-item 5-point Likert scale. Six of the items were adapted from the self or mutual rating scales for speaking ability, attached to the College English Requirements (general) (2004). In the adaptation, this researcher followed the original statements of the rating items (with slight modification of a few words to make the expressions clearer). One additional item was developed for this study: “The integrated level of my English speaking ability was ____.” This item was intended to examine the overall rating of one’s own speaking proficiency. The choices ranged from 1 to 5, with bigger numbers representing higher degrees of competence on the described criteria.
Indicators of Language Achievement (LACH)
Two indicators of language achievement were obtained: the self-reported English score on the college entrance test (CET: with a total of 150 points), and the English score on the final-term test (FTT: with a total of 100 points).

Procedures
The survey was conducted in the 3rd month of the first semester of the 2009-2010 academic year. The questionnaire containing the single scale for SA was administered to the three lower groups, while the questionnaire containing the multiple scales for SA, TA, UTC, SSE, LCR, and LCS was administered to the two upper groups. Both were administered at the beginnings of normal English classes, with the former taking about 5 minutes on average, while the latter about 15 minutes. The CET was required on the questionnaire ("My English score on the college entrance test was ___.") The FTT was collected from the relevant language teachers at the end of the semester.

Data analysis
For Research Question 1, descriptive analyses were provided to demonstrate the general levels and the distribution of the levels of SA for the total sample, and ANOVA was employed to test the difference of the levels of SA in terms of gender and groups. For Research Question 2, Pearson correlation was used to show the interrelationships between the variables in question, stepwise regression was conducted to examine the best predictors of SA, and Structural Equation Modeling (SEM) with Amos software was used to explore the causal relationships between the variables involved.

3. Results

3.1 Results for Research Question 1
Research Question 1 concerned the levels of SA Chinese EFL learners experience. Since SA was measured by both questionnaires, the data collected from the three lower groups and two upper groups were combined for answering this question. The coefficient Alpha yielded was .897, which was an acceptable index of the internal consistency. Table 1 displayed the descriptive statistics of the levels of SA corresponding to the total sample. The level of SA for each participant was represented by the average score he or she got on each item (the sum of one’s score on all the items divided by the number of items), and the possible range was 1 to 5.

Table 1. Descriptive statistics for speaking anxiety (SA) for the total sample

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Std.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>240</td>
<td>1.40</td>
<td>4.67</td>
<td>3.04</td>
<td>.667</td>
</tr>
</tbody>
</table>

To interpret the implications of the statistics, the possible levels of SA were classified into three categories: low, moderate, and high levels. Following the criteria of Liu and Jackson
(2008), the means falling within the interval of 3 to 4 were moderate levels, those below 3 were low levels, and those above 4 were high levels. In the present study, the mean (3.04) signified a moderate level of SA.

To examine the distributions of the levels of SA, the frequency of the scores of SA falling within each category was calculated. The result showed that 115 (47.9%) of the cases fell in the low level, 109 (45.4%) in the moderate, and 16 (6.7%) in the high level (See Figure 1). The distribution suggested that over half of the participants reported moderate or high levels of SA.

![Figure 1. The distribution of the levels of speaking anxiety (SA)](image)

To further examine whether the mean levels of SA differed significantly in terms of gender or groups, Two-Way ANOVA was employed. The descriptive statistics from the ANOVA (Table 2) suggested that the mean levels of SA were quite similar between males and females (3.03, 3.04), but the mean level of SA was obviously higher for the lower group than for the upper group (3.14, 2.91). The mean level of SA differed significantly in terms of groups ($F = 7.29$, $p < .01$), but not in terms of gender ($F = .77$, $p > .05$). Moreover there was no significant interaction effect between gender and groups ($F = .245$, $p > .05$). The results suggested that the more competent learners had lower levels of SA, and the tendency was not influenced by gender.

Table 2. Descriptive statistics for the speaking anxiety (SA) related to gender and group

<table>
<thead>
<tr>
<th>Gender</th>
<th>Group</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>males</td>
<td>upper</td>
<td>2.88</td>
<td>.566</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>lower</td>
<td>3.09</td>
<td>.667</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.03</td>
<td>.646</td>
<td>112</td>
</tr>
<tr>
<td>females</td>
<td>upper</td>
<td>2.92</td>
<td>.656</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>lower</td>
<td>3.21</td>
<td>.700</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.04</td>
<td>.688</td>
<td>128</td>
</tr>
<tr>
<td>Total</td>
<td>upper</td>
<td>2.91</td>
<td>.629</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>lower</td>
<td>3.14</td>
<td>.680</td>
<td>137</td>
</tr>
</tbody>
</table>
3.2 Results for Research Question 2
Research Question 2 concerned the relationships of speaking anxiety (SA) to trait anxiety (TA), unwillingness to communicate (UTC), speaking self-efficacy (SSE), language class risk-taking (LCR), language class sociability (LCS), and language achievement (LACH). Preliminary analysis revealed acceptable Cronbach’s Alpha coefficients for all the rating scales (see Table 3).

Table 3. Characteristics of the instruments (N = 103)

<table>
<thead>
<tr>
<th></th>
<th>TA</th>
<th>UTC</th>
<th>UTCA</th>
<th>UTCR</th>
<th>LCR</th>
<th>LCS</th>
<th>SSE</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N of Items</td>
<td>10</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Response (%)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>96.1</td>
<td>100</td>
</tr>
<tr>
<td>Alpha</td>
<td>.783</td>
<td>.811</td>
<td>.782</td>
<td>.842</td>
<td>.664</td>
<td>.595</td>
<td>.893</td>
<td>.893</td>
</tr>
</tbody>
</table>

The modest reliability for LCS (.595) was due to the length (only 5 items), because “other things being equal, the longer the test, the greater its reliability” (Ary, Jacobs, Razavieh & Sorensen, 2006: 265). Liu and Jackson (2008) obtained a reliability of .60 for the LCR. All the Alpha coefficients were “acceptable” “for research purposes” (> .50; See Ary et al., 2006: 267).

For Pearson correlation and stepwise regression analysis, the CET, the FTT, and the average of the two (LACH = (CET × 100 ÷ 150 + FTT) ÷ 2) were all employed. Correlation analysis (see Table 4) revealed that SA was positively correlated with TA, UTC, UTCA and UTCR, and negatively correlated with CET, FTT, LACH, LCR, LCS, and SSE. The correlations suggested, on the one hand, that learners who had a tendency to experience negative moods, to avoid communication with others, or to consider communication as unrewarding were liable to experience high SA. On the other hand, the correlations implied that higher SA was related to lower English achievement and a lower tendency to risk using English for learning or for socialization in the classroom.

Table 4. Pearson correlations between variables involved (N = 95–103; * 0.05, ** 0.01)

<table>
<thead>
<tr>
<th></th>
<th>CET</th>
<th>FTT</th>
<th>LACH</th>
<th>TA</th>
<th>UTC</th>
<th>UTCA</th>
<th>UTCR</th>
<th>LCR</th>
<th>LCS</th>
<th>SSE</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTT</td>
<td>.25*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFT</td>
<td>.71**</td>
<td>.86**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA</td>
<td>-.24*</td>
<td>-.16</td>
<td>-.24*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UTC</td>
<td>-.30**</td>
<td>-.15</td>
<td>-.28**</td>
<td>.50**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UTCA</td>
<td>-.17</td>
<td>-.13</td>
<td>-.20</td>
<td>.36**</td>
<td>.80**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UTCR</td>
<td>-.31**</td>
<td>-.11</td>
<td>-.24*</td>
<td>.42**</td>
<td>.74**</td>
<td>.19</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LCR</td>
<td>.22*</td>
<td>.16</td>
<td>.26**</td>
<td>-.30**</td>
<td>-.41**</td>
<td>-.37**</td>
<td>-.26**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LCS</td>
<td>-.05</td>
<td>-.06</td>
<td>-.07</td>
<td>-.20*</td>
<td>-.28**</td>
<td>-.26**</td>
<td>-.17</td>
<td>.27**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSE</td>
<td>.29**</td>
<td>.35**</td>
<td>.41**</td>
<td>-.31**</td>
<td>-.34**</td>
<td>-.27**</td>
<td>-.25*</td>
<td>.23*</td>
<td>.16</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td>-.29**</td>
<td>-.26**</td>
<td>-.36**</td>
<td>-.34**</td>
<td>.58**</td>
<td>.57**</td>
<td>.30**</td>
<td>-.54**</td>
<td>-.33**</td>
<td>-.38**</td>
<td></td>
</tr>
</tbody>
</table>
To select the best model for the prediction of the SA, the variables involved in the correlational analysis were further submitted to stepwise regression analysis. Table 5 shows the results. The model could be expressed as: \[ SA = .42 \times UTCA - .33 \times LCR - .18 \times LACH \] (R² = .46), suggesting that the first best predictor for SA was UTCA, the second was LCR, and the third was LACH, with 46% of the variance of SA capable of being accounted for by the predictors.

### Table 5. Regression coefficients for the prediction of SA (R² = .46)

<table>
<thead>
<tr>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTCA</td>
<td>.42</td>
<td>5.251</td>
</tr>
<tr>
<td>LCR</td>
<td>-.33</td>
<td>-4.029</td>
</tr>
<tr>
<td>LACH</td>
<td>-.18</td>
<td>-2.332</td>
</tr>
</tbody>
</table>

As neither the correlation nor the regression analysis could reveal causal relationships, analysis with SEM was conducted. SEM is different from an experiment for examining causal relationships. In an experiment, the researcher manipulates the independent variables and observes the effects on the dependent variables, while in the SEM the researcher specifies or partly specifies one or more models based on knowledge or theories and examines whether the data support the model(s).

To conduct the SEM, several steps were followed. First, the measurement models were constructed. The measurement model specifies how the observed variables depend on the unobserved or latent variables. In the present study, the observed variables included FTT, CET, and all the items on the scales involved. The latent variables were SA, TA, UTC, UTCA, UTCR, LCR, LCS, SSE, and LACH. They no longer took the same values as those used in the correlation or regression analysis, because errors were to be estimated in the SEM. Therefore, the LACH \( \neq \frac{(CET \times 100 \div 150 + FTT) \div 2} \). Since UTC is not a unidimensional construct, it was excluded from the SEM analysis. No information was lost, because both of its principal components (UTCA and UTCR) were present in the SEM. Except for the LACH, each latent variable was related to many observed variables, and parceling was necessary (Zhang, Yang, Liang, Wang & Shao, 2008). Two parcels were constructed for each latent variable and were signified by “_1” and “_2” (for example, TA_1, TA_2: see Figure 2). Subsequent to the constructing of the measurement model was the establishing of the structural model.

The present study was more explorative than confirmative. In other words, the few theoretically sound relationships were specified by the author, as symbolized by the solid lines, with arrows indicating the directions of influence (see Figure 2). Many other relationships that the author could not be confident of are symbolized by dotted lines, suggesting that they were suspected by the author and were to be verified by specification search. No lines connect variables which were not significantly correlated. The hypotheses for the relationships specified by the author were:

(a) “TA®UTCA/UTCR® SA ®LCR/LCS”
TA is a tendency to experience anxiety in various situations, UTCA/UTCR is the tendency to experience anxiety in communication situations, and SA is the tendency to experience anxiety in second language communication situations (classrooms). Therefore, the more general disposition is likely to influence the more specific disposition (transference). SA could further influence LCR/LCS. When a learner is fearful about speaking the language itself, he or she is likely to be more fearful about speaking the language when the additional risks of committing mistakes exist, and is unlikely to speak the language for socialization.

(b) “TA ®LACH ®SSE”

Anxiety is likely to distract the attention or occupy the cognitive resources which could otherwise be used for learning. Learners suffering from anxiety are likely to have a lower efficiency of learning, and consequently a lower achievement (LACH) in the long run. The achievement, whether indicated by the CET or FTT, is an objective mirror of one’s level, which is likely to influence one’s self-rating (SSE).

Figure 2. Hypothesized relationships

The output of the specification search was further adjusted with reference to the fitness measures, and ultimately two satisfactory models were obtained: Model A and Model B (see Figures 3 and 4). The differences between them were the directions of the arrow between LACH and SSA, and some of the parameters. They were based on standardized estimations. The directions of the single-headed arrows signified the directions of causation, with the number near the midpoint of the arrow representing the regression weights or direct factor effects. The double-arrowed lines indicated correlations, with the number showing the coefficients. The regression weights and correlation coefficients all achieved statistical significance, except for the coefficient between e14 and e20, which was quite near the level of significance (p = .065 in Model A, .062 in Model B), and could plausibly be included in the model. The number near the upper right side of a rectangular
or elliptical figure signified the squared multiple correlation, indicating the percentage of variance of the variable accounted for by the other variables directly or indirectly related to it. The fitness measures (Chi-square, df, etc.) were displayed on top of the path diagrams, all indicating acceptable goodness of fit (Note: GFI could not be estimated because there were missing values in the data).

Both models indicated that the SA was directly influenced by UTCA, and it could further affect LCR as well as LCS. TA had direct or indirect influences on all the other latent variables. SSE and UTCR had no significant influence on other variables. The two models together showed that SA and LACH had mutual influences. The squared multiple correlations suggested that a total of 54% of the variance of SA could be accounted for by the directly or indirectly related variables in Model A, and 41% in Model B. Moreover, most of the latent variables were also indirectly related to each other through the intermediary of the error variables which were correlated.
4. Discussion

Developed from widely accepted instruments, and with satisfactory internal reliabilities, the scales employed seemed valid for measuring the constructs involved.

With a moderate mean level, SA is worthy of concern by language teachers. The mean (3.04) revealed in the present study appeared to be a little higher than that discovered by Liu and Jackson (2008), who assessed speaking anxiety (“FLCAS2”) with seven items selected from a slightly adapted FLCAS, and yielded a mean of 2.85 for the score on each item (calculated by the author on the reported data: 19.98 ÷ 7 = 2.85; see Liu & Jackson, 2008: 78). The finding that learners in upper groups reported a lower mean level of SA was consistent with most other studies which discovered negative correlations between language anxiety and language achievement. The non-significant difference of the mean levels of SA in terms of gender conformed to the results of some investigations, but conflicted with those of others. The confusion is still beyond definite explanation, because various factors could be responsible for it. However, it is useful information for language teachers in better understanding the learners in the present population or populations similar to the present one. The result is also theoretically significant, because the accumulation of individual findings could ultimately lead to the clarification of the truth.

As to the relationships between SA and other variables, the results were complicated. To further examine the validity of the measurement, the correlation coefficients yielded in the present study were compared with those yielded by Liu and Jackson (2008). Table 6 shows that the results were quite similar (Note: Some of the labels used by Liu and Jackson were different from those used by the present author, though the constructs were the same. The different labels by Liu and Jackson are inside the brackets).

<table>
<thead>
<tr>
<th>Correlated factors (Labels by Liu and Jackson)</th>
<th>Present study (N= 103)</th>
<th>Liu &amp; Jackson (N= 547)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA (FLCAS2) → UTC (UCS)</td>
<td>.58**</td>
<td>.525**</td>
</tr>
<tr>
<td>SA (FLCAS2) → UTCA (UCS1)</td>
<td>.57**</td>
<td>.582**</td>
</tr>
<tr>
<td>SA (FLCAS2) → UTCR (UCS2)</td>
<td>.30**</td>
<td>.257**</td>
</tr>
<tr>
<td>SA (FLCAS2) → LCR</td>
<td>-.54**</td>
<td>-.457**</td>
</tr>
<tr>
<td>SA (FLCAS2) → LCS</td>
<td>-.33**</td>
<td>-.368**</td>
</tr>
<tr>
<td>UTC (UCS) → UTCA (UCS1)</td>
<td>.80**</td>
<td>.850**</td>
</tr>
<tr>
<td>UTC (UCS) → UTCR (UCS2)</td>
<td>.74**</td>
<td>.791**</td>
</tr>
<tr>
<td>LCR → LCS</td>
<td>.27**</td>
<td>.265**</td>
</tr>
<tr>
<td>UTCA (UCS1) → LCR</td>
<td>-.37**</td>
<td>-.425**</td>
</tr>
</tbody>
</table>

The size of the correlation coefficient between TA and SA (.34**) in the present study was also similar to that between trait anxiety and foreign language classroom anxiety (.29**) found by Horwitz (1991). Those similarities seemed to support the validity of the present findings.

Though correlation analysis showed that UTC was more closely related to SA (r =
than UTCA (r = .57), the stepwise regression resulted in UTCA being included in the model for predicting SA, while UTC being excluded, which suggested that, of the two components of UTC, it was UTCA, rather than UTCR, that could actually account for the variation of SA. In the regression model, LACH had a much weaker weights (-.18) for the prediction of SA, while in SEM, the regression weights of LACH sharply rose to -.40, as can be explained by the statistical feature of SEM, which estimated the measurement error.

Both Models A and B confirmed all the original hypotheses with which the author had specified the structural model, except that about the influence of UTCR on SA. The findings also seem to be supported by other research. For example, the influence of TA on LACH was consistent with the views of Tobiase and Eysenck (as cited in MacIntyre & Gardner, 1991b; 1994), who explained the effects of anxiety on learning in terms of cognitive interference. The influence of LACH on SSE was supported by MacIntyre, Noels, Clément (1997: 274), who suggested that “those who are more proficient tended to perceive themselves as more proficient”. The mutual influences between the LACH and SA do not seem to support the extreme views which consider language anxiety merely as “side effects” of poor learning (MacIntyre, 1995: 90). The effect of UTCA on SA can also find echoes in the literature. The items measuring UTCA were actually tapping communication apprehension, which could transfer to second language speaking situations. Horwitz, Horwitz and Cope (1991: 30) insisted that “people who typically have trouble speaking in groups are likely to experience even greater difficulty speaking in a foreign language”. The findings about the influences of SA on both LCR and LCS were consistent with those of Samimy and Tabuse, who suggested that anxiety could affect risk-taking (as cited in Matsuda & Gobel, 2004), and consistent with Young (1991) who insisted that some students may become so fearful of speaking in class that they refuse to participate at all.

The insignificant influence of UTCR on SA conforms to common sense or intuition: the attitude toward communication in general does not necessarily lead to fear or fearlessness about speaking English in the class.

The variables related to SA in the present study can be placed in two categories: personality features, and non-personality features. The former include UTC (UTCA, UTCR) and TA, while the latter include LACH, SSE, LCR, and LCS. To compare the strengths of influence of the two types of factors on SA, the correlation coefficients, regression weights, and factor effects in the SEM are demonstrated in Table 7 (TA had indirect effects on SA: see Zhang et al., 2008 for the calculation).

<table>
<thead>
<tr>
<th></th>
<th>CET</th>
<th>FTT</th>
<th>LACH</th>
<th>TA</th>
<th>UTC</th>
<th>UTCA</th>
<th>UTCR</th>
<th>LCR</th>
<th>LCS</th>
<th>SSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cor.</td>
<td>-.29**</td>
<td>-.26**</td>
<td>-.36**</td>
<td>.34**</td>
<td>.58**</td>
<td>.57**</td>
<td>.30**</td>
<td>-.54**</td>
<td>-.33**</td>
<td>-.38**</td>
</tr>
<tr>
<td>Reg.</td>
<td>.184</td>
<td>.424</td>
<td>.331</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Eff. A</td>
<td>-.404</td>
<td>.404</td>
<td>.541</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eff. B</td>
<td>.258</td>
<td>.643</td>
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</tr>
</tbody>
</table>

*Cor. = Correlation coefficient, Reg. = regression weight; Eff. A = standardized total factor effect in Model A, Eff. B = standardized total factor effect in Model B.*
All the parameters suggested that SA was primarily a function of personality features among the variables involved. UTCA played a central role in SA.

5. Conclusion

The SA experienced by the learners was alarming, as can be seen by the mean level and the distribution of the levels of anxiety. The mean level of SA did not differ significantly in terms of gender, but differed significantly in terms of groups, with the upper groups experiencing a lower mean level of SA.

SA was positively correlated with TA, UTCA, and UTCR, and negatively with LACH, SSE, LCR, and LCS. Of all those variables, UTCA, LCR, and LACH were the best predictors of SA. SA and LACH had mutual influences, rather than being merely a side-effect of poor LACH. SA was primarily a function of personality factors, especially the UTCA. In other words, learners were liable to experience unhappiness, discontent, insecurity (high TA), and who fear communication in general (high UTCA) are inclined to suffer from apprehension when speaking the second language.

6. Pedagogical implications

The levels of SA experienced by the learners deserve the attention of educators. Since SA has negative effects on learning and speaking performance, it is important to control the levels of SA. Due to their central roles in the arousal of SA, personality features should be taken into consideration for the control of SA. The following strategies can be tried by language teachers:

1. Teachers may create a cheerful atmosphere in the language classroom, because the mood dimension of trait anxiety (TA) is an influential factor on speaking anxiety. In the state of positive moods, the learners are less likely to experience anxiety. Happy learners are comfortable learners.

2. Teachers may give learners consistent rewards or positive reinforcement for their speaking performance. Fear of communication (high UTCA) could result from painful experiences related to communication. The effect of positive reinforcement or reward can be justified by behaviorism. Research has shown that pleasant consequences following a behavior are most likely to facilitate the behavior.

3. Teachers may help learners develop skills for communication, because communication apprehension can originate from inadequacy in skill acquisition.

4. Teachers may provide learners with sufficient chances for speaking, especially in formal, new or conspicuous situations, which are likely to cause anxiety for most learners. Practice can make an individual become desensitized to those situations.

5. Teachers may modify the rigid beliefs held by some learners about acceptable speaking performance, because rule rigidity could become a source of communication apprehension. Perfectionism, a root of anxiety, should be modified.
These strategies are expected to remedy the defects in personality features responsible for speaking anxiety.

References


(Copy editing: Don Snow)