Learners’ Beliefs and Second Language Anxiety

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Many studies in second language acquisition have identified an association between self-efficacy and language anxiety, but few, if any, have explored the linkages among attributional styles, expectancy beliefs, and affect, as suggested in the literature of general motivation research (Pintrich & Schunk, 1996). An exploration of the linkages among these variables may shed light on how the cognitive-emotional dynamics work, leading to a better understanding of the nature and sources of second language anxiety. This study was therefore designed to investigate the relationships among language learning self-efficacy, belief in giftedness for language learning, and language anxiety. One hundred and sixty-two EFL students enrolled in four sections of freshman English courses at one university in Taiwan were surveyed concerning their beliefs and anxiety about English learning. Findings of this study not only supported the significance of self-efficacy in learners’ experience of language anxiety but also suggested the potential deleterious role of giftedness belief in language learning, especially among low self-efficacy learners.

Keywords: second language anxiety, self-efficacy, giftedness belief

1. Introduction

An issue of increasing importance in the study of second language acquisition is the role of second language anxiety. For the past three decades, a growing body of research has been devoted to examining learners’ self-reported anxiety in relation to second language achievement or performance. However, as pointed out by Gardner and Maclntyre (1993) and Scovel (1978), studies conducted in the 1970s were difficult to interpret because of contradictory results. For example, in their study of English-speaking French immersion children, Swain and Burnaby (1976) found a significant negative correlation between anxiety and one measure of the children’s proficiency in French, but no significant correlation with any other measures of proficiency. Chastain (1975) reported that the correlation between test anxiety and course grades was significant and negative for the audio-lingual French class, significant and positive for the traditional
Spanish class, marginally positive for the traditional German class, and not significant for the traditional French class. No significant correlation was found between trait anxiety and course grades for the audio-lingual French class, traditional French class, and traditional German class although a small but significant positive correlation was found for the traditional Spanish class. Many researchers have attributed the discrepant findings in part to the use of general measures of anxiety and to the inadequate conceptualizations of second language anxiety, which did not take into consideration the unique nature of second language learning (Horwitz, Horwitz, & Cope, 1986; MacIntyre & Gardner, 1989).

Since the mid 1980s, most researchers have adopted a situation-specific approach to second language anxiety and conceptualized it as a distinct form of anxiety expressed in response to second language learning rather than a manifestation of other more general types of anxiety (Horwitz et al., 1986; MacIntyre & Gardner, 1991a). Gardner and MacIntyre (1993:5) further defined second language anxiety as a stable personality trait and more specifically, “as the apprehension experienced when a situation requires the use of a second language with which the individual is not fully proficient.” Several anxiety measures developed in correspondence with this situation-specific perspective have been widely used among second language anxiety researchers, including Gardner and his colleagues’ French Class Anxiety Scale and French Use Anxiety Scale (MacIntyre & Gardner, 1988), and Horwitz et al.’s (1986) Foreign Language Classroom Anxiety Scale.

With advances in measurement and theory of second language anxiety, the deleterious role of anxiety in second language acquisition has been established. Many studies have shown a negative correlation of second language anxiety with second language achievement and performance (e.g., Aida, 1994; Cheng, 1994; Cheng, Horwitz, & Schallert, 1999; Gardner et al., 1987; Horwitz, 1986; Phillips, 1992; Truitt, 1994; Trylong, 1987; Wu, 1994; Ying, 1993; Young, 1986). Furthermore, the interfering effect of second language anxiety on the processes of second language learning has been supported by several experimental investigations that have tried to induce anxiety in a controlled environment (Steinberg & Horwitz, 1986; MacIntyre & Gardner, 1991b; MacIntyre &
Gardner, 1994a; 1994b). Because anxiety may have a debilitating effect on the acquisition of a second language, it is important to help learners to cope with and reduce second language anxiety.

In order to reduce second language anxiety, there is a need to identify factors that lead to this anxiety. Young (1991) reviewed the literature and summarized six possible sources of second language anxiety: (1) personal and interpersonal issues, (2) instructor-learner interactions, (3) classroom procedures, (4) language testing, (5) instructor beliefs about language learning, and (6) learner beliefs about language learning. Among these factors, learner beliefs seem to be the most important to consider because they may be among the most susceptible to teacher invention (Horwitz, 1987) and be accessible to change by the learner (Truitt, 1995). Moreover, theory and research in cognitive and educational psychology have indicated the relative importance of beliefs in learners’ experience of anxiety. An association between anxiety and beliefs have been identified in such areas as values (Meece, Wigfield, & Eccles, 1990; Pajares & Valiante, 1997; Pekrun, 1992), attributions (Dweck & Leggett, 1988; Goldberg, 1983; Sarason & Sarason, 1990; Turk & Sarason, 1983; Weiner, 1986), and especially self-efficacy (Bandura, 1982; 1986; Cooper & Robinsons, 1991; Hackett, 1985; Pajares & Valiante, 1997; Pintrich & De Groot, 1990). In the field of second language acquisition, many studies have also suggested a negative relationship between second language anxiety and self-perception of competence in the second language, akin to the concept of self-efficacy (Cheng, Horwitz, & Schallert, 1999; Onwueggbuzie, Bailey, & Daley, 1997; Price, 1991; Truitt, 1995). Nevertheless, little research has directly examined the interactions of second language anxiety with different learner beliefs, an area that has important implications for understanding the nature and sources of second language anxiety. Hence the purpose of this exploratory study was to investigate how second language anxiety was related to two different kinds of learner beliefs: second language learning self-efficacy belief and belief in giftedness for second
language learning, one entity view of intelligence. The relationship between the two learner beliefs was also examined.

2. Method

2.1 Participants

The participants were 167 (96 male, 65 female, 6 unknown sex) EFL students enrolled in four sections of a freshman English course at one university in northern Taiwan. The majority of the students were majors of natural and applied sciences including chemistry (29%), biology (28%), earth sciences (19%), mathematics (3%), and physics (3%), in addition to some majors of civic and moral education (6%), physical education (2%), home economics education (4%), and music and fine arts (3%). The ages of the participants ranged from 17 to 29 (M = 18.7, SD = 1.52). All of the students were required to take the English course as part of their degree program.

2.1 Instruments and procedure

The researcher designed a Chinese-language questionnaire that consisted of an English Classroom Anxiety Scale (ECAS), an English Learning Self-Efficacy Scale (ELSES), a Belief in Giftedness for Foreign Language Learning Scale (BGFLLS), and a background demographic form. With the help of the instructors of the individual sections, the questionnaires were distributed to the participants to complete in class. Participation was voluntary.

The ECAS is a 33-item instrument adapted from Horwtiz et al.’s (1986) Foreign Language Classroom Anxiety Scale, which assesses the degree to which learners feel anxious during English class. English learning self-efficacy belief involves individuals’ judgement of their competence in learning English and was measured by the ELSES. Assessed by the BGFLLS, belief in giftedness for foreign language learning refers to the belief that the ability to learn a foreign language well is a gift, that is, an innate ability with which only a few people are born and on which no amount of practice can improve. Both
of the ELSES and the BGFLLS (see Appendix) are 5-item self-report measures developed by the researcher mainly based on the Beliefs About Language Learning Inventory (Horwitz, 1987) and several measures used in the self-efficacy research.

All of the three instruments were scored on a 5-point Likert Scale, ranging from “strongly agree” (5 points) to “strongly disagree” (1 point). After the negatively worded items in each of the three scales were reverse scored, a higher score on the ECAS, the ELSES, and the BGFLLS each corresponds to more English class anxiety, greater English learning self-efficacy, and stronger belief in giftedness for foreign language learning. Alpha reliabilities for the ECAS, the ELSES, and the BGFLLS in the present study were .91, .86, and .73 respectively, indicating respectable internal consistency for these instruments (DeVellis, 1991).

3. Results

A Pearson product-moment correlation analysis was first employed to examine the associations among second language anxiety, second language learning self-efficacy belief and belief in giftedness for second language learning. The results revealed that students’ level of anxiety about English class was positively and moderately correlated with their belief in the notion of giftedness, but was negatively and strongly correlated with their English self-efficacy. In other words, students who had higher levels of second (here foreign) language class anxiety tended to believe more strongly that the ability to learn a second language well is a gift and to have lower self-assessments of their second language ability. A negative and moderate correlation was also found between English self-efficacy and belief in giftedness. That is to say, students with less confidence in their second language competence tended to have a stronger belief in giftedness. The results of the correlation analysis are presented in Table 1.

Table 1. Correlations among Anxiety, Self-efficacy, and Giftedness Belief

\[ \text{Several participants did not report their majors, resulting in 3% missing data.} \]
Because second language learning self-efficacy accounted for a good amount of variance in second language class anxiety (around 46%), it seems interesting to investigate how the strength of association between giftedness belief and second language class anxiety differs between students with high self-efficacy and those with low self-efficacy. Therefore, a further correlation analysis was conducted using self-efficacy as a grouping factor. Students whose English self-efficacy scores fell one standard deviation above or below the mean of the group were classified as high self-efficacy (n = 28) or low self-efficacy (n = 30) learners. This analysis showed that the positive correlation between second language class anxiety and giftedness belief, albeit non-significant, was much stronger for the low self-efficacy group than for the high self-efficacy group. The correlation was .26 (p = .168) for students with relatively low assessments of their English ability, but only .05 (p = .798) for students with relatively high assessments of their English competence. The results indicated that belief in giftedness accounted for a higher amount of variance in second language anxiety for low self-efficacy learners than for high self-efficacy learners.

A MANOVA was then used to test group differences on second language anxiety and giftedness belief. Table 2 compares the means and standard deviations of the high and low self-efficacy students on English class anxiety score and giftedness belief score. Wilks’ Lambda was significant at the .001 level (Wilks’ Lambda = .38; F(2, 55)= 45.29; p=.000), indicating a significant effect for second language self-efficacy. Because of the unequal sample size, a Box’s M test was performed. The results showed that there was insufficient evidence to indicate that the assumption of homogeneity of variance-covariance matrices was violated (Box’s M = 2.04, F(3, 672164) = .65, p = .58).
Table 2. Means and Standard Deviations on Anxiety and Giftedness Belief by Self-Efficacy Level

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<th>English Class Anxiety</th>
<th>Giftedness Belief</th>
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<tr>
<td></td>
<td>M</td>
<td>SD</td>
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<tr>
<td>High Self-Efficacy</td>
<td>89.57</td>
<td>16.59</td>
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<tr>
<td>Low Self-Efficacy</td>
<td>126.70</td>
<td>13.52</td>
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Follow-up group comparisons using an ANOVA procedure revealed that the two groups of students differed significantly both in level of English class anxiety and level of belief in the notion of giftedness. Students of low English learning self-efficacy had (1) a significantly higher level of belief in the notion of giftedness \( (F(1, 56) = 11.89; p = .001) \) and (2) a significantly higher level of English class anxiety \( (F(1, 56) = 87.82; p = .000) \) than their peers with a relatively high level of self-efficacy. The direction of the relationship between self-efficacy and second language anxiety, as well as that between self-efficacy and belief in giftedness, was consistent with the results of the correlation analyses reported above.

As revealed in the first correlation analysis, belief in giftedness explained a small amount of variance in students’ second language anxiety and second language learning self-efficacy (approximately 10% for each). To further explore the effects of giftedness belief on the level of second language anxiety and second language learning self-efficacy, an additional MANOVA was conducted. Using giftedness belief as a grouping factor this time, students whose giftedness belief scores fell one standard deviation above or below the mean of the group were classified as strong believers \( (n = 25) \) or weak believers \( (n = \)
in the notion of giftedness. It is noteworthy that in this sample weak believers of language learning giftedness were more than double the number of strong believers and in fact constituted approximately one third of the whole sample. This skew distribution of scores on giftedness belief suggests that a relatively small number of language learners in this study held a strong belief in giftedness for language learning. Table 3 reports the means and standard deviations of the strong and weak believers of giftedness on English class anxiety score and English self-efficacy score.

Table 3. Means and Standard Deviations on Anxiety and Self-Efficacy by Giftedness Belief Level

<table>
<thead>
<tr>
<th></th>
<th>English Class Anxiety</th>
<th>English Self-Efficacy</th>
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<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Strong Believer in Giftedness</td>
<td>119.40</td>
<td>18.22</td>
</tr>
<tr>
<td>Weak Believer in Giftedness</td>
<td>101.24</td>
<td>19.32</td>
</tr>
</tbody>
</table>

Although belief in giftedness explained only a small amount of variance in students’ second language anxiety and second language learning self-efficacy, yet a significant effect was found for giftedness belief on second language anxiety and second language learning self-efficacy (Wilks’ Lambda = .80; F(2, 84) = 10.23; p = .000). Despite the unequal sample size, the results of the Box’s M test indicated that the assumption of homogeneity of variance-covariance matrices was not violated (Box’s M = 1.60, F(3, 39569) = .51, p = .67). Post hoc ANOVAs showed that there were group differences on level of English class anxiety and level of English learning self-efficacy. As foreshadowed by the results of correlation analyses, students who had a stronger belief in giftedness had (1) a significantly higher level of second language class anxiety (F(1, 85) = 16.25; p = .000) and (2) a significantly lower level of second language learning self-efficacy (F(1, 85) = 18.03; p=.000) than did those with a weaker belief in the notion of giftedness.
4. Discussion

This study is an initial attempt to explore the interaction of a constellation of learner beliefs with second language anxiety that has gone unacknowledged in discussions of second language acquisition. Specifically, two types of learner beliefs, second language learning self-efficacy and belief in giftedness for second language learning, were investigated in this study. The results of the present study suggest a significant association between second language anxiety and these two learner beliefs. In particular, the results reinforce previous research that indicates a close relationship between second language anxiety and learners’ self-efficacy or self-perceived competence in learning a second language. A strong negative correlation ($r = -0.68$) was found between English class anxiety and English learning self-efficacy. Furthermore, self-efficacy was found to have an effect on learners’ level of second language anxiety. As expected, students of low English self-efficacy reported having experienced a significantly higher level of English class anxiety than those of relatively high English self-efficacy.

In fact, several studies have shown that what a learner believes with regard to his/her second language competence may be more important in his/her experience of second language anxiety than what he/she actually achieves in learning a second language. For example, Gardner, Smythe, and Lalonde (1984) found that second language class anxiety correlated the most with the factor related to self-perception of second language competence rather than actual achievement. Similarly, Cheng, Horwitz, and Schallert (1999) reported that learners’ self-rated second language proficiency level was correlated more highly with their anxiety level than their actual course grades in language classes. Together with the findings of previous research in other academic areas such as L1 writing and mathematics, these studies by second language researchers seem to lend support to Bandura’s (1982, 1986) claims that self-efficacy can influence helpful or debilitating thought patterns and affective reactions. More importantly, these findings suggest that low self-efficacy could be a source of second language anxiety. The principal implication for
concerned second language teachers is that self-perception of second language competence should be explored for learners who are experiencing second language anxiety. Once evidence shows that a learner has underestimated his/her ability to learn a second language, altering these inaccurate self-judgements might be helpful in reducing anxiety. In addition, it is important to explore methods of providing a non-threatening and supportive instructional environment that could lead to a learner’s increased sense of second language self-efficacy.

On the other hand, the results of this study indicate that the association between second language anxiety and belief in giftedness for language learning is not as substantial as that between second language anxiety and second language self-efficacy \( (r = .31 \text{ vs. } r = -.68) \). This finding seems to suggest the indirect influence of attribution beliefs or “theories of intelligence” on affective reactions, as proposed in Dweck and Leggett’s (1988) social-cognitive theory of motivation and personality. According to Dweck and Leggett’s theoretical model, learners may have one of two implicit conceptions of intelligence: an incremental theory of intelligence and an entity theory of intelligence. Learners with an incremental theory of intelligence believe that intelligence is a malleable, increasable, and controllable quality. In contrast, learners with an entity theory of intelligence believe that intelligence is an inherent, fixed, and uncontrollable trait. It is hypothesized that learners’ implicit theories of intelligence influence goal orientations, which in turn influence cognition, affect, and behavior. Applied to the area of second language learning, the theory would predict that the influence of learners’ belief in giftedness for language learning, one entity view of intelligence, on anxiety would be mediated by individuals’ goal orientations. The moderate correlation between second language anxiety and belief in giftedness found in this study could be a reflection of the mediated relationship between learners’ theory of intelligence and affective reactions. Accordingly, it seems prudent to hypothesize that belief in giftedness alone does not lead to increased second language anxiety despite the finding of a significant effect for level of giftedness belief on anxiety level. Nevertheless, the giftedness belief might make an
important contribution to the expectations, attitudes, and particularly motivation of second language learners, which would in turn influence how they go about learning a second language.

The role of belief in giftedness is perhaps best illustrated in the comparisons of students whose responses placed them at the far ends of the continuum of second language self-efficacy. A high level of belief in giftedness was more strongly correlated with a high level of second language anxiety for learners of low self-efficacy than for those of high self-efficacy. This finding indicates that belief in giftedness may be educationally damaging for learners of low self-efficacy. When combined with doubts about one’s ability in learning a second language, the belief that the ability to learn a second language well is a gift, an innate ability that can not be improved upon, might create great anxiety about learning the second language. Such anxiety might subsequently prevent some learners from performing successfully in a second language class. More importantly, this finding suggests that learners who may be most in need of additional instruction and practice may fail to seek them out. Learners who believe that they lack a requisite gift for learning a second language may avoid enrolling in second language classes if the situation permits, or may choose not to put forth the effort needed to improve their competence in a required second language course. For they believe that the ability to learn a second language well is fixed and can never be improved upon. Pedagogically, the finding encourages a serious consideration of the deleterious role giftedness belief might play in the process of second language learning, especially for learners of low self-efficacy. Careful language teachers may deem it worthwhile to persuade their students that the ability to learn a second language well can be learned and taught so that they can get on with the difficult task of learning a second language in the face of failure and obstacles.

When interpreting the results, readers are cautioned to some limitations of this study. First, the nature of this study does not permit making causal claims about the relationships among self-efficacy belief, belief in giftedness, and second language anxiety. Moreover,
the generalizability of the findings is limited by the inclusion of only non-English majors at one university. Notwithstanding these limitations, the findings of this study provide important insights into the interactions among two learner beliefs and second language anxiety, thereby contributing to a better understanding of second language anxiety. Studies on learner beliefs and second language anxiety appear to offer a particularly promising avenue of research for informing second language instruction. A replication of this study with English majors or language learners in a different learning context would be a reasonable next step. In addition, future research may investigate the relationships between second language anxiety and other learner beliefs as well as the relationships among learner beliefs themselves. Further efforts should also be made to develop and test the causal links among various learner beliefs, second language anxiety, and second language performance and achievement.

References


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APPENDIX

A. English Learning Self-Efficacy Scale (ELSES)
1. 我相信自己有能力把英文學好。
   (I believe that I have the ability to learn English well.)
2. 我覺得自己一直都學不好英文。
   (I feel that I am always unable to learn English well.)
3. 我覺得英文不是我擅長的科目。
   (I don’t think that I am good at English.)
4. 我覺得學好英文對我而言是一件容易的事。
   (I think that it is easy for me to learn English well.)
5. 我相信自己具有英文方面的天份。
   (I believe that I have the talent for English.)

B. Belief in Giftedness for Foreign Language Learning Scale (BGFLLS)
1. 我相信優異的外語學習者是天生的，而不是靠後天塑造的。
   (I believe that outstanding foreign language learners are born, not bred.)
2. 我相信要把外語學好，一個人必須具有外語方面的天分。
   (I believe that a gift for foreign languages is prerequisite to successful foreign language learning.)
3. 我相信優異的外語能力可以靠後天培養。
   (I believe that exceptional foreign language ability can be cultivated.)
4. 我相信不論是否具有外語方面的天份，人人皆可以學好外語。
   (I believe that everyone can learn a foreign language well, with or without a gift for foreign languages.)
5. 我相信有些人天生具有外語方面的特殊才能，所以外語學得頂呱呱。
   (I believe that some people are born with a special gift for foreign languages so they can learn a foreign language very well.)