The Relationship Between Two Temporal Dimension Anxieties and Defensive Strategies in Second Language Learning

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Abstract

Recent studies have revealed that confidence will prevent defensive pessimists, who account for more than 20% of the whole, from learning. Defensive Pessimism is a sub-classification of defensive strategies involved in anxiety. Educational individualization demanded more knowledge concerning the exact relationship between defensive strategies and anxiety, which was not well unraveled. In addition, the scales of anxiety along the temporal dimension were not constructed, though each type of defensive strategy was predicted to possess a different liminal zone of anxiety toward their prospects. This study aimed to construct the scales of anxiety along the temporal dimension and to reveal the relationship between defensive strategy and anxiety. Two hundred sixty 10th graders responded to a questionnaire on anxiety and protective strategies. As main results, first, the constructed scales of anxiety and defensive strategies had a reliability coefficients from .67 to .82. Second, all types of defensive strategies were positively related to Imminent Anxiety. Third, procrastinators were negatively related to Long-term Prospect Anxiety and Anxiety about Scholastic Marks of English Classes. Fourth, defensive pessimism was positively related to Long-term Prospect Anxiety.

1. Introduction

Today’s success and failure will have a strong chance of being tomorrow’s success and failure (Martin, 2010). This can be understood from the viewpoint of motivation as well as ability. Success will sometimes generate confidence and pomposity. Failure will also sometimes generate apprehension, anxiety and fear of failure. Many theories of motivation focused much on confidence, such as competence (White, 1959), intrinsic motivation and self-determination (Deci & Ryan, 1985), and self-efficacy (Bandura, 1997). In this standpoint, teachers tend to attach much value to showing approval to their students and enhancing the students’ confidence. Recent studies have shown, however, that confidence will discourage defensive pessimists from learning (Norem, 2001; Norem, & Cantor, 1986a). The incidence of defensive pessimism is more than 20 percent of all students in Japan. For example, the incidence was 54 out of every 230 in Toyama & Ichihara (2008). Educational individualization should shed more light on this type of students today.

Defensive pessimism is in the category of defensive strategies, which are involved with anxiety
and fear of failure. Self-handicapping is also included in defensive strategies. Procrastination is a subordinate concept of self-handicapping. The incidence of procrastination was as high as 75 percent of college students (Burka & Yuen, 2008). Some teachers have difficulty dealing with procrastination, such as overdue reports. Thus, procrastination should be distinguished from self-handicapping as an independent concept to explore facts about defensive strategies for more educational suggestions.

Defensive pessimism is a strategy which involves setting unrealistically low expectations in a risky situation in an attempt to harness anxiety so that performance will be unimpaired (Norem & Cantor, 1986b) and also be related to competence (Oleson, Poehlmann, Yost, Lynch, & Arkin, 2000). The relation between perceived academic competence and performance is different in each subject, such as Japanese and mathematics (Toyama, 2007). This indicates that characteristics of subjects are among the factors that should be taken into consideration in examining defensive pessimism.

Anxiety and fear of failure are involved with defensive strategies, such as defensive pessimism, self-handicapping and procrastination. On the one hand, for defensive pessimists, anxiety and fear of failure are regarded as an important driving force (Norem & Cantor, 1986a). On the other hand, generally, language anxiety has been found to have a negative effect on learning (Ellis, 2008). How are anxiety and fear of failure in learning second languages related to defensive pessimism? When teachers have enough knowledge about the relationship between types of anxiety and types of defensive strategies, they will be able to manage defensive strategies by controlling anxiety or apprehension.

2. The background of this study

As stated above, it is found that defensive strategies include defensive pessimism, self-handicapping and procrastination. It is argued that anxiety is mainly composed of state anxiety, trait anxiety and situation-specific anxiety. The relationship between defensive strategies and anxiety, however, has not been well explained yet. Therefore, first, it is necessary that each basic type of defensive strategy and anxiety is defined in operational semantics. Next, it is also necessary to be considered which types of anxiety other than them are needed, with a view to identifying the characteristics of each type of defensive strategies, in terms of anxiety. Last, it is still also be necessary to clarify what remains to be revealed thus far and what research significance this study has, concerning the relationship between defensive strategies and anxiety.

2.1 Defensive strategies

Convington (2000) argued that the defensive mechanism to deal with anxiety could be divided into two main strategies; (a) self-handicapping, including (b) procrastination, and (c) defensive pessimism. The definitions of the terms are as follows.

(a) Self-handicappers’ strategies involve creation and choice of some impediment or obstacles to their successful performance that enables them to deflect the cause of failure away from their ability and thrust the responsibility on the impediment. In doing so, they will be able to avoid disconfirmation of a
desired self-concept (Rhodewalt & Davison, 1986), and it includes procrastination (McCown & Johnson, 1991).

(b) Procrastination is defined as purposeful postponement or delay of performance of a task or a decision-making (Ferrari & Tice, 2000; Milgram, Mey-Tal, & Levison, 1998), or, a strategy employed when one is supposed to and perhaps even wanting to complete an academic task but failing to perform the activities within the expected or desired time frame (Senecal, Koestner, & Vallerand, 1995). It is argued that procrastination is one of the self-handicapping syndromes (Ferrari, 2010). In real school situations, however, procrastination is one of the important educational problems for teachers to deal with. It is reasonable to distinguish procrastination from the other general self-handicapping behaviors.

(c) Defensive pessimism is defined as a strategy harnessing anxiety as motivation, in which individuals try to maintain unrealistically low expectations for succeeding or to discount the importance of an assignment, in an effort to minimize feelings of anxiety that might otherwise overwhelm them if they took it seriously (Norem, 2001, 2003; Norem & Cantor, 1986a, 1986b; Norem & Illingworth, 1993).

It has been indicated that these three types of defensive strategies are involved with anxiety. To examine the relationship between defensive strategies and anxiety, it is necessary to reveal what kinds of anxiety are involved in second language learning.

2.2 Language anxiety

Many studies argued that anxiety had an effect on language leaning and its performance. It was reported that anxiety could affect language learning positively or negatively (Tóth, 2010). Many of the studies argued the negative relationship between anxiety and learning in educational settings, but some studies revealed that anxiety facilitated performance (Clément, Gardner, & Smythé, 1980; Clément & Kruidenier, 1985; Gudy & Spielberger, 1971; MacIntyre, Noels, & Clément, 1997).

2.3 The relationship between language anxiety and defensive strategies

Writing and speaking, as well as reading and listening are integral to daily second language learning activities. They usually require every learner to communicate with other people, which can arouse more anxiety (MacIntyre & Gardner, 1994). Language anxiety is defined as subjective feelings of apprehension and fear associated with language learning and use (Richards & Schmidt, 2010). It is known that language anxiety ranks high among factors influencing language learning (Oxford, 1999). Anxiety, which can be classified into three categories; (a) trait anxiety, (b) state anxiety, (c) situation-specific anxiety, is one of the affective factors that have been found to affect L2 acquisition (Ellis, 2008).

The defensive strategies, such as self-handicapping, procrastination and defensive pessimism are related to anxiety. Defensive Pessimists will feel anxiety and out of control as they anticipate their future situation with worst-case scenarios in their mind, and repeat their rehearsal. This strategy will help some learners to employ their anxiety as a motivation for making more effort to prepare for their success (Norem & Illingworth, 2004). Lim (2009) supported the theory that defensive pessimists could quell their anxiety by initiating a planning process to direct their efforts toward their betterment.
Gregersen & Horwitz (2002) and Horwitz, Horwitz, & Cope (1986) indicated that language anxiety impacted attitudes toward language learnings for students, and some of them have a tendency to avoid foreign language learnings, procrastinate in doing homework and avoid speaking in class. Convintiong (1984) disserted that perceived abilities are critical in the self-protective process and procrastination will sometimes be used as a failure-avoidance strategy. Onwuegbeuzie (2004) revealed that academic procrastination was positively correlated with anxiety in graduate statistics class. Milgram & Toubiana (1999) indicated that students with anxiety about taking examinations and writing papers had tendency to avoid them, and that they similarly procrastinated on doing homework and preparing for examinations, but that they felt far less anxious about the homework than about the examinations. Rothblum, Slomon, & Murakami (1986) revealed that procrastination was negatively correlated with grade points and that high procrastinators were significantly more likely to report more test anxiety and weekly state anxiety.

Smith, Snyder, & Handelsman (1982) also indicated that high test-anxious subjects reduced effort as an alternative self-protective strategy. Zuckerman, Kieffer, & Knee (1998) argued that high self-handicappers tended to perform less well in school, and that they had difficulty adjusting themselves to the environment.

Educational individualization demands for highlighting the difference between defensive pessimism, self-handicapping, and procrastination in terms of anxiety.

2.4 Comparison between defensive pessimism, self-handicapping and procrastination in terms of anxiety: “Temporal dimension”

To compare the symptoms of procrastination and those of self-handicapping in terms of anxiety, individual difference in sensitivity for anxiety will loom out. Procrastinators, on the one hand, tend to discount the value of delayed rewards and to respond less to anxiety-provoking situations till the deadline is pressing (Howell, Watson, Powell, & Buro, 2006). Self-defensive pessimists, on the other hand, feel anxiety about the examinations and tests far in advance (Norem, 2001).

There is an interesting frame of reference in unraveling the characteristics of anxiety. First, Gilovich, Kerr, & Medvec (1993) indicated that there might be a systematic relationship between our confidence that desired outcomes would be achieved and temporal proximity to the “moment of truth.” Second, it was argued that test anxiety represented the vulnerability of anxiety as a personality disposition (Spilberger, Anton, & Bedell, 1976). Third, it was argued that test anxiety consisted of a number of distinct temporal phases (Zeidner, 1998). Fourth, studies about anxiety disorders and depression showed that each individual had a different level of interoception and sensitivity toward anxiety (Paulus & Stein, 2010).

From a comprehensive viewpoint, it is predicted that self-defensive pessimists possess different threshold level of test anxiety or homework anxiety. In other words, it is forecast that self-defensive pessimists are more sensitive about tests and examinations than procrastinators. It is also predicted that it is possible to differentiate Imminent Anxiety from Long-Prospective Anxiety, considering their difference on the temporal dimension with a view to manifesting and definitizing differences between
types of anxiety. Thus, it is forecast that this classification will show clearly the similarity and difference between defensive pessimism, procrastination and the other self-handicapping symptoms. When we can understand the relationship between types of anxiety and types of defensive strategies, it is expected that we can acquire educational suggestions and measures to deal with the problems concerning defensive pessimism, procrastination and the other self-handicapping symptoms.

2.5 Types of protective strategies to consider

It is argued that procrastination is one of the self-handicapping syndromes (Ferrari, 2010). In real school situations, however, procrastination is one of the important educational problems for teachers to deal with, as mentioned above. It is reasonable to distinguish procrastination from the other general self-handicapping behaviors. In addition, it is reasonable that three types of defensive strategies are presumed to have different mechanisms in terms of a liminal zone of anxiety toward their prospects. In the case of defensive pessimists, it is presumed that defensive pessimism will start to function as a strategy long before an event where they should deal with a type of anxiety, based on judgment from a long-term prospective. On the other hand, in the case of self-handicappers, such as procrastinators, it is presumed that self-handicappers will handle imminent anxiety just before the event or the deadline. Thus, it is forecast that anxiety should be classified from a temporal point of view in recognizing the relationship between defensive strategies and anxiety.

However, there have been few studies that have investigated the relationship between the three types of defensive strategies and the temporally different types of anxiety, especially in second language learning. There have also been few studies that have examined the relationship between three types of defensive strategies and anxiety in second language learning.

3. The aims of this study

The first purpose of this study was to construct different types of anxiety scales on the temporal dimension: an imminent type of anxiety and a long-term prospect type of anxiety. The second purpose was to investigate the relationship between types of defensive strategies and types of anxiety.

4. Method

4.1 Respondents

Respondents consisted of two hundred and sixty 10th graders in the general course of a Japanese public high school. Approximately 43% (n = 113) were boys and 56% (n = 147) were girls. They ranged 15 to 16 years of age. The level of their English proficiency, roughly, ranged from the pre-level 2nd grade to 3rd grade in the Society for Testing English Proficiency. Most of the high school students hoped to go to college, junior college, or technical college.

4.2 Questionnaire and scale construction

The questionnaire was composed of three parts: (a) state anxiety, (b) temporal dimension types of
anxiety, and (c) self-protective strategies. The questionnaire was conducted after school by homeroom teachers. Ratings were made on 5-point likert scales, ranging from 1 “disagree” to 5 “agree”.

4.2.1 State anxiety

(1) Items: Items were collected and made on the basis of antecedent studies about three categories: (a) Test Anxiety, (b) Learning Activities Anxiety in English Class, (c) Anxiety about Scholastic Marks of English Classes (Cizek & Burg, 2006; Gaudry & Spielberger, 1971; Horwitz, Horwitz, & Cope, 1986; Spielberger & Sarason, 1975). They were translated into Japanese and modified, taking general situations in Japanese high school into consideration. Finally, nine items were selected from the items.

(2) Scale construction: Confirmatory factor analysis was conducted, using principal factor analysis with preliminary estimates of communalities obtained from the square of the multiple correlation coefficient (SMC) of each variable with all the other variables. Principal factor analysis was selected as an extraction method because it did not assume normal distributions, in contrast to maximum likelihood method. The number of the factors, three, was determined, based on the comprehensive conditions, such as cumulative proportion of eigenvalues of the reduced covariance matrix and its factor structure, the item’s standard deviations, the content of the items, and Cronbach’s alpha coefficients. Then the orthogonal varimax rotation was applied to them.

4.2.2 Imminent Anxiety and Long-term Prospect Anxiety

(1) Items: Ten items about anxiety which were found in people, especially high school students, with self-handicapping, procrastination, and defensive pessimism, were made under the condition that the items can be classified into two categories: Imminent Anxiety and Long-term Prospect Anxiety along the temporal dimension, which are frequently seen in high school life.

(2) Scale construction: Confirmatory factor analysis was conducted, using principal factor analysis with preliminary estimates of communalities obtained from the square of the multiple correlation coefficient (SMC) of each variable with all the other variables. Principal factor method was selected as an extraction method because it does not assume normal distributions, in contrast to maximum likelihood method. The number of the factors, two, was determined, based on the comprehensive conditions, such as cumulative proportion of eigenvalues of the reduced covariance matrix and its factor structure, the item’s standard deviations, the content of the items, and Cronbach’s alpha coefficients. And then the orthogonal varimax rotation was applied to it.

4.2.3 Self-protective strategies: Defensive pessimism, self-handicapping, procrastination

(1) Items: (a) Nine out of the original twelve items concerning defensive pessimism: Defensive Pessimism Questionnaire (Norem, 2001), (b) three items about academic procrastination (Ferrari, 2010; Scher & Osterman, 2002), (c) five items of academic self-handicapping (Higgins, Snyder, Berglas, 1990). The items concerning self-protective strategies were translated non-literally and freely into Japanese.

(2) Scale construction: Confirmatory factor analysis was conducted, using principal factor analysis with preliminary estimates of communalities obtained from the square of the multiple correlation coefficient (SMC) of each variable with all the other variables. Principal factor analysis was selected as...
an extraction method because it does not assume normal distributions, in contrast to maximum likelihood method. The number of the factors, three, was determined, based on the comprehensive conditions, such as cumulative proportion of eigenvalues of the reduced covariance matrix and its factor structure, the item’s standard deviations, the content of the items, and Cronbach’s alpha coefficients, with regard to self-protective strategy. Then the orthogonal varimax rotation was applied to it.

4.2.4 Analysis

To examine the independent relations between the three types of self-protective strategies (Self-handicapping, Procrastination, Defensive Pessimism) and the five types of anxiety (Learning Activities Anxiety in English Class, Anxiety about Scholastic Marks of English Classes, Test Anxiety, Imminent Anxiety, and Long-term Prospect Anxiety), three separate multiple regression analyses were conducted with the five types of anxiety as predictors of each self-protective strategies.

5. Result

5.1 Questionnaire and scale construction

5.1.1 State anxiety

To reduce the 9 items to an internally and factorially consistent set, a principal factor analysis was conducted with varimax rotation. Three factors emerged with the rotated factors highly distinct in factor loading and with the content of the items in the same factor conceptually consistent. Thus, three scales were constructed and named “Learning Activities Anxiety in English Class,” “Anxiety about Scholastic Marks of English Classes” and “Test Anxiety.” Cronback’s alpha coefficients, internal consistency estimates of reliability of the test score, are .67 for “Learning Activities Anxiety in English Class,” .78 for “Anxiety about Scholastic Marks of English Classes” and .73 for “Test Anxiety.” (see Table 1)

As shown in the table, the internal consistencies are not high, but the alpha coefficients are within an acceptable range of .60 and above.

5.1.2 Imminent Anxiety and Long-term Prospect Anxiety

In the same way as (a)state anxiety, to reduce the 10 items to an internally and factorially consistent set, a principal factor analysis was conducted with varimax rotation. Two factors emerged with the rotated factors highly distinct in factor loading and with the content of the items in the same factor conceptually consistent. Thus, two scales were constructed and named “Imminent Anxiety,” and “Long-term Prospect Anxiety.” Cronback’s alpha reliability coefficients are .78 for “Imminent Anxiety,” and .82 for “Long-term Prospect Anxiety.” (see Table 2) As shown in the table, the internal consistencies are good.

5.1.3 Self-protective strategies: Defensive pessimism, self-handicapping, procrastination

In the same way as the scale-construction of (a) Imminent Anxiety and (b) Long-term Prospect Anxiety, to reduce the 17 items to an internally and factorially consistent set, confirmatory principal factor analysis was conducted with varimax rotation. Three factors emerged with the rotated factors highly distinct and with the content of the items in the same factor conceptually consistent. Thus, three
Table 1 The scales of the state anxiety about the English lessons and Text Anxiety

<table>
<thead>
<tr>
<th>Scale</th>
<th>Item</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>SMC</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety about Scholastic Marks of English Classes</td>
<td>I am worried if I can achieve good marks in English classes.</td>
<td>.64</td>
<td>-.02</td>
<td>.39</td>
<td>.57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am worried if I have developed my English competence and skills.</td>
<td>.72</td>
<td>.18</td>
<td>.21</td>
<td>.60</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>I am worried if my English grades are good in school report and so on.</td>
<td>.64</td>
<td>.15</td>
<td>.30</td>
<td>.52</td>
<td></td>
</tr>
<tr>
<td>Test Anxiety</td>
<td>I feel uneasy and anxious when I am taking an examination.</td>
<td>.11</td>
<td>.75</td>
<td>.15</td>
<td>.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am looking around when I am taking an examination.</td>
<td>-.04</td>
<td>.56</td>
<td>.10</td>
<td>.33</td>
<td>.73</td>
</tr>
<tr>
<td></td>
<td>I feel my heart beating fast when I am taking an examination.</td>
<td>.29</td>
<td>.73</td>
<td>.04</td>
<td>.62</td>
<td></td>
</tr>
<tr>
<td>Learning Activities Anxiety in English Classes</td>
<td>I feel uneasy and anxious when English is used in English lessons.</td>
<td>.15</td>
<td>.14</td>
<td>.51</td>
<td>.30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel uneasy and anxious because I can't remember English words and phrases in English lessons.</td>
<td>.38</td>
<td>.09</td>
<td>.56</td>
<td>.47</td>
<td>.67</td>
</tr>
<tr>
<td></td>
<td>I am worried if I can speak English well in English lessons.</td>
<td>.40</td>
<td>.10</td>
<td>.58</td>
<td>.51</td>
<td></td>
</tr>
</tbody>
</table>

The scales were constructed and named “Self-handicapping,” “Procrastination” and “Defensive Pessimism.” Cronbach’s alpha reliability coefficients are .73 for “Self-handicapping,” .72 for “Procrastination” and .80 for “Defensive Pessimism.” (see Table 3) As shown in the table, the internal consistencies are not high, but the alpha coefficients are within an acceptable range of .60 and above.

5.1.4 Multiple regression analysis of protective strategies

Multiple regression analysis (see Table 4) revealed characteristic relationship between defensive strategies and anxiety. First, it was revealed that procrastination was negatively related to Long-term Prospect Anxiety and Anxiety about Scholastic Marks of English Classes, and was positively related to Imminent Anxiety. Second, it was revealed that self-handicapping was positively related to Imminent Anxiety and Test Anxiety. Third, it was revealed that defensive pessimism was positively related to Long-term Prospect Anxiety and Imminent Anxiety. Fourth, it was also found that the positive-negative pattern of the predictor’s partial coefficients in procrastination and self-handicapping were completely
### Table 2 Imminent Anxiety and Long-term Prospect Anxiety

<table>
<thead>
<tr>
<th>Scale</th>
<th>Item</th>
<th>F1</th>
<th>F2</th>
<th>SMC</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term Prospect Anxiety</td>
<td>I cannot help feeling uneasy about my duty in an early period.</td>
<td>.59</td>
<td>.31</td>
<td>.44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel uneasy about the examination and tests well in advance.</td>
<td>.80</td>
<td>-.10</td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I will feel somehow anxious about studying for tests and examinations far in advance.</td>
<td>.79</td>
<td>.05</td>
<td>.62</td>
<td>.82</td>
</tr>
<tr>
<td></td>
<td>Somehow I feel worried about a test or an examination though it is not close to them.</td>
<td>.61</td>
<td>.24</td>
<td>.43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel somehow uneasy about my duty though I have plenty of time left before the deadline.</td>
<td>.63</td>
<td>.16</td>
<td>.42</td>
<td></td>
</tr>
<tr>
<td>Imminent Anxiety</td>
<td>I will scramble to study just before the examination.</td>
<td>-.12</td>
<td>.60</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I suddenly feel uneasy to have no preparation for the examination when it is close at hand.</td>
<td>.37</td>
<td>.55</td>
<td>.44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I abruptly feel anxious about the preparation for an event, such as a travel and so on, at the last minutes.</td>
<td>.09</td>
<td>.53</td>
<td>.29</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>I keep smiling just before an event but I will unexpectedly feel uneasy as it demands on time.</td>
<td>.16</td>
<td>.74</td>
<td>.58</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I will suddenly start to feel uneasy when my duty is right down to the wire.</td>
<td>.36</td>
<td>.75</td>
<td>.69</td>
<td></td>
</tr>
</tbody>
</table>

Different from that of the predictor's partial coefficients in defensive pessimism. Fifth, it was found that Long-term Prospect Anxiety was a key anxiety, which could distinguish accurately between defensive pessimism, self-handicapping, and procrastination: Defensive pessimism was positively related to Long-term Prospect Anxiety, and procrastination was negatively related to Long-term Prospect Anxiety, self-handicapping lay midway between defensive pessimism and procrastination in terms of Long-term Prospect Anxiety. Finally, it was found that the three types of self-protective strategies had significant positive relation to Imminent Anxiety.
Table 3. Self-defensive strategies

<table>
<thead>
<tr>
<th>Scale</th>
<th>Item</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>SMC</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Defensive Pessimism</strong></td>
<td>I imagine how I would feel if things went badly.</td>
<td>.55</td>
<td>.14</td>
<td>.08</td>
<td>.33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I try to picture how I could fix things if something went wrong.</td>
<td>.55</td>
<td>.19</td>
<td>.12</td>
<td>.35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I often start out expecting the worst, even though I will possibly do OK.</td>
<td>.62</td>
<td>.16</td>
<td>.01</td>
<td>.41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I worry about how things will turn out.</td>
<td>.47</td>
<td>.23</td>
<td>.10</td>
<td>.29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I carefully consider all possible outcomes.</td>
<td>.54</td>
<td>.08</td>
<td>.03</td>
<td>.30</td>
<td>.80</td>
</tr>
<tr>
<td></td>
<td>I often worry that I won't be able to carry through my intentions.</td>
<td>.53</td>
<td>.34</td>
<td>.14</td>
<td>.41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I spend lots of time imagining what could go wrong.</td>
<td>.67</td>
<td>.27</td>
<td>.19</td>
<td>.56</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I spend a lot of time planning when one of these situations.</td>
<td>.51</td>
<td>.03</td>
<td>.12</td>
<td>.28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In these situations, sometimes I worry more about looking like a fool than doing really well.</td>
<td>.43</td>
<td>.29</td>
<td>.14</td>
<td>.29</td>
<td></td>
</tr>
<tr>
<td><strong>Self-handicapping</strong></td>
<td>When I experience bad times about tests and so on, I tend to blame my parents, teachers, club activities and so on.</td>
<td>-.04</td>
<td>.41</td>
<td>-.08</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I tend to make excuses without reflecting my conducts when I get a warning from my parents, teachers and so on.</td>
<td>.11</td>
<td>.62</td>
<td>.16</td>
<td>.42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I have got mad at others and things outside myself when I absorb a setback.</td>
<td>.31</td>
<td>.40</td>
<td>-.02</td>
<td>.26</td>
<td>.73</td>
</tr>
<tr>
<td></td>
<td>I tend to make such an excuse as &quot;I haven't had enough preparation for it.&quot; before or after the test.</td>
<td>.21</td>
<td>.64</td>
<td>.31</td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I tend to make excuses like &quot;I couldn't do very well on my test because I had a thing to do.&quot; before or after the test.</td>
<td>.05</td>
<td>.71</td>
<td>.23</td>
<td>.56</td>
<td></td>
</tr>
<tr>
<td><strong>Procrastination</strong></td>
<td>I tend to leave my homework or things to do until I face the deadline.</td>
<td>.01</td>
<td>.05</td>
<td>.68</td>
<td>.46</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I rarely get prepared for my homework, duty and so on ahead of time.</td>
<td>-.01</td>
<td>.03</td>
<td>.83</td>
<td>.69</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>I delay finishing my homework and duty unnecessarily even though they are important to do.</td>
<td>.03</td>
<td>.23</td>
<td>.51</td>
<td>.32</td>
<td></td>
</tr>
</tbody>
</table>
6. Discussion

6.1 Common characteristic among defensive strategies: Imminent Anxiety.

The three types of defensive strategies are strategies to deal with anxiety and fear of failure to protect self-esteem (Harris, Snyder, Higgins, & Schrag, 1986). This study revealed that three types of defensive strategies were related to Imminent Anxiety. In other words, it was found that those who did not experience Imminent Anxiety tended not to resort to these types of defensive strategies.

6.2 Learning Activities Anxiety in English Class & defensive strategies

Norem & Cantor (1986a) argued that defensive pessimists would employ defensive pessimism as a strategy to deal with situations which presented the possibility of their failure and potential threats to their self-esteem. This study, however, indicated that defensive strategies were not significantly related to Learning Activities Anxiety in English Class. Anxiety caused by learning activities in English class was not indicated to have any adverse effect on the mindset involved in defensive strategies, especially defensive pessimism.

6.3 The relationship between self-handicapping and procrastination

This study partially supported the argument that self-handicapping included procrastination (Ferrari, 2010). The multiple regression analysis indicated that the positive-negative patterns of the predictors were almost the same between procrastination and self-handicapping but the positive-negative pattern of the predictor's partial coefficients in procrastination and self-handicapping were completely different from that in defensive pessimism. This partially indicated that self-handicapping and procrastination had a similar mechanism of defensive strategies against anxiety, but that defensive pessimism had a completely different kind of mechanism to deal with anxiety for protecting self-esteem and self-worth.

6.4 Test Anxiety and self-handicapping

It was argued that Test Anxiety was related to self-handicapping (Smith, Synder, & Handelsman, 1982), and procrastination (Rothblum, Solomon, & Murakami, 1986). This study indicated that only self-handicapping
was positively related to Test Anxiety. Test Anxiety was argued to be one of personality traits (Spilberger, Anton, & Bedell, 1976); therefore, it was supposed that self-handicapping was more involved in personality factor.

6.5 Types of defensive strategies and Long-term Prospect Anxiety

This study revealed that types of defensive strategies, defensive pessimism, self-handicapping, and procrastination, could be differentiated in terms of Long-term Prospect Anxiety. It was revealed that procrastination was negatively related to Long-term Prospect Anxiety, but that defensive pessimism was positively related to Long-term Prospect Anxiety. Furthermore, it was also revealed that procrastination lay halfway between defensive pessimism and self-handicapping and was not related to Long-term Prospect Anxiety. Thus, this study indicated that Long-term Prospect Anxiety was a cornerstone of anxiety in segmenting and characterizing types of defensive strategies. In other words, it was indicated that the difference of temporal threshold level of examinations and tests could influence which type of defensive strategies could be adopted.

6.6 Procrastination and Anxiety about Scholastic Marks of English Classes.

This study revealed that procrastination was negatively related to Anxiety about Scholastic Marks of English Classes. This was consistent with the argument by Burka & Yuen (2008). They argued that procrastination allowed people to take comfort in believing that their ability was greater than their performance indicated. This indicated that procrastinators tended to feel less anxious about their real performance, such as scholastic marks.

6.7 Types of defensive strategies

This study revealed that each type of defensive strategies, defensive pessimism, self-handicapping and procrastination, was concerned in different types of anxiety. By distinguishing anxiety into two different types of anxiety along the temporal dimension, Imminent Anxiety and Long-term prospect anxiety, it was revealed that the defensive strategies were all related to Imminent Anxiety, but that there were differences in Long-term Prospect Anxiety between defensive pessimism, self-handicapping and procrastination. Thus, it was found that it was important to distinguish anxiety into two different types of anxiety along the temporal dimension, Imminent Anxiety and Long-term prospect anxiety, especially in exploring defensive strategies. In particular, defensive pessimists had a distinguishing characteristics of high-sensitivity for long-term prospects. Furthermore, it was also revealed that each type of state anxiety characterized types of defensive strategies. Self-handicappers tended to suffer Text Anxiety. Procrastinators tended to experience less Anxiety about Scholastic Marks of English Classes. Therefore, it was forecast that teachers could manage each type of defensive strategies by controlling different types of anxiety of the learners.

7. Educational implications

The following five suggestions can be made on the basis of this study. First, this study revealed that defensive strategies were not related to Learning Activities Anxiety. Therefore, it is indicated that teachers need not take special care of anxiety which learners with defensive strategies feel in their
English learning activities.

Second, this study revealed that learners with procrastination had low-sensitivity for Long-term Prospect Anxiety and Anxiety about Scholastic Marks of English Classes, and that they had high-sensitivity for Imminent Anxiety. It is presumed that procrastinators will not be in any mood for studying English even though teachers recommend the best long-term study plan. It is suggested, however, that the procrastinators can improve their attitudes toward learning English if teachers set a short-term deadline for submission and arouse their Imminent Anxiety. It is also suggested that teachers should conduct an interview to reveal what causes them to feel indifferent to the scholastic score and that teachers should counsel them to recognize the influence of the scholastic score on their future.

Third, this study revealed that the procrastinators tended to lack Anxiety about Scholastic Marks of English Classes. Therefore, it is suggested that teachers counsel the procrastinators to understand the value and importance of marks in English so that they will pay more attention to their marks and feel anxiety about their marks.

Fourth, this study revealed that defensive pessimism was positively related to Long-term Prospect Anxiety. It was widely known that defensive pessimists could employ the Long-term Prospect Anxiety to study harder. They have a habit of rehearsing mentally or reflecting extensively on what might happen. The strategy seems to help them gain a feeling of control and to harness their anxiety as a driving force (Norem, 2001). Therefore, it is suggested that teachers understand that anxiety does not always have a negative effect on all English learners and that increasing confidence will not necessarily motivate all learners to learn English. It is also suggested that some instruction about meta-cognitive strategies can provide the defensive pessimists with more effective methods of learning English.

Fifth, this study revealed that self-handicappers tended to feel greater anxiety about tests. It was indicated that Test Anxiety was related to self-handicapping. Therefore, it is suggested that teachers give them many positive, successful experiences in practice tests and things like that so that they can alleviate their excessive Test Anxiety, and that teachers counsel them to allay excessive Test Anxiety.

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References


