The effects of metamotivational dominance and perceived control on mood, telic and paratelic state, coping styles, and persistence after experiencing academic failure.

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The Effects of Metamotivational Dominance and Perceived Control on Mood, Telic and Paratelic State, Coping Styles, and Persistence After Experiencing Academic Failure.

by

Parveen Kaur Grewal

A Thesis
Submitted to the Faculty of Graduate Studies and Research through Psychology in Partial Fulfillment of the Requirements for the Degree of Master of Arts at the University of Windsor

Windsor, Ontario, Canada

2002

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Abstract

Reversal theory posits that individuals reverse between being in a telic state (serious-minded) and a paratelic state (playful). Individuals can also be dominant in one of the two states, and thus telic and paratelic dominance was investigated in the present study. One hundred and forty-two undergraduate students volunteered to participate in the study. All participants were exposed to failure feedback on an initial test, and then half were informed it was possible to change their score on the subsequent test while the other half were told that due to high correlations between the two tests, it was typically impossible to improve their scores on the second test. Although strong effects of perceived control were not observed and the hypotheses were not confirmed, additional analyses revealed that telic and paratelic dominance influenced mood, telic and paratelic state and coping styles. Overall, telic dominant individuals expressed more negative mood, were more likely to be in a telic state, and engaged in more emotion-oriented and avoidance-oriented coping, while paratelic dominant individuals expressed more positive mood, were more likely to be in a paratelic state, and engaged in more problem-focused coping. Although most of the results are supported by reversal theory, the findings for coping styles appear to contradict the literature. A plausible explanation is provided for the inconsistent results observed with coping styles.
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Chapter I

Introduction

In a competitive world, in which we live, dealing with various forms of failure is inevitable. However, the manner in which this failure is dealt with varies from person to person. School is one such system that places both social and academic demands on its individuals (Mantzicopoulos, 1990). Students routinely face the fear of academic failure during their school career. After facing some form of academic failure, some students get very discouraged, some get depressed, and sadly, some even drop out. However, other students use the same setbacks as motivation to do better in the future. Why is there such a difference in the way one experiences failure? Individuals are known to switch from being, in one moment, very serious and goal-oriented and then very playful and carefree in the next, and these transitions may determine how failure is perceived and dealt with.

Reversal theory, proposed by K. C. P. Smith and M. J. Apter (1975), provides a framework for understanding the different ways in which individuals may experience failure. The theory posits that there are a number of identifiable and discrete ways of experiencing the world, known as metamotivational modes or states. The most fundamental pair of these metamotivational states in reversal theory is the telic-paratelic pair, and only one state, either telic or paratelic, is operating at a time. The telic state is goal-oriented, while the paratelic state is activity-oriented. Pleasure in the telic state then comes primarily from movement towards achieving a goal and from the achievement of the goal itself, while in the paratelic state, one is engaged in activity for its own sake, and pleasure is obtained simply through engaging in the activity. A person may be dominant in either the telic or paratelic state, referring to an innate bias or tendency on the part of
an individual to be more often in one mode than the other (Lafreniere, 1993). The main purpose of this study is to investigate whether telic or paratelic dominance affects how individuals perceive and deal with academic failure. Specifically, the relationship between failure and telic and paratelic dominance will be examined considering effects on mood, telic or paratelic state, coping skills adopted, and degree of persistence employed. Academic failure will be further investigated by analyzing the effects of perceived control, or the degree to which a person feels he or she can control and change his or her current status on a particular dimension in the future (Testa & Major, 1990).

Basic Concepts in Reversal Theory

Reversal theory was developed by Smith and Apter almost thirty years ago and is defined as a theory of motivation, emotion and personality (Apter, 1982). The theory is based on the premise that individuals are inherently inconsistent (Kerr, Murgatroyd, & Apter, 1993). The theory posits that there are a number of metamotivational modes or states that determine how the world is experienced (Apter, 1982). These states are referred to as “metamotivational” because they are not about motivation itself, but more about how certain motivational variables (e.g. arousal) are interpreted (O’Connell, Gerkovich, Bott, Cook, & Shiffman, 2000). These universal metamotivational states are associated with their own range of emotions and each involves seeing the world in their own unique manner (Apter, 1997). These states occur in pairs of opposites, and change consists of movement between pair members of opposing metamotivational states (Apter 1982). Since the switches between pair members are between opposites, they can be considered “reversals” (Apter, 1997). Apter identified four pairs of modes: telic-paratelic, negativism-conformist, mastery-sympathy, and autocentric-allocentric. Only
one of the fundamental states within each pair is “operative” at a given time. The theory holds that people frequently reverse between the two states in a given pair, and one state can last anywhere from several seconds to as much as several hours (Kerr, Murgatroyd, & Apter, 1993). Reversal theory recognizes that individuals may tend to be dominant in one mode as opposed to its opposite, and therefore, people may spend more time (or at least prefer to spend more time) in that particular mode over the opposite (Apter, 2001).

The most fundamental pair of the metamotivational states in reversal theory is the telic/paratelic pair. The telic mode is goal-oriented, while the paratelic mode is activity-oriented (Apter, 1982). The telic state is a serious-minded state in which the individual sees himself or herself as engaged in some purposeful activity in order to attain his or her goal (Apter, 1982). In the telic mode, if an individual finds that an activity is failing to meet the goal effectively, he or she is likely to replace that activity with another so that it will lead to the desired goal instead (Lafreniere, 1993). Because individuals are focused on a goal in the telic mode, they are future-oriented and are planning ahead (Potocky & Murgatroyd, 1993). Pleasure in the telic mode comes primarily from movement towards achieving a goal and from the achievement of the goal itself (Apter, 2001). In the paratelic mode, one is engaged in activity for its own sake, and thus failure to attain the goal will result in either shifting to a new goal that also provides an excuse for the activity or will abandon the idea altogether (Lafreniere, 1993). When people are in the paratelic state, their goals are in the background rather than the focus, and thus, this state is more sensation-oriented (Potocky & Murgatroyd, 1993). The paratelic mode is characterized by playfulness, and in this mode, individuals are focused on the “here and now” (Lafreniere, 1993). During the paratelic mode, pleasure is derived from the activity
itself, the immediate sensual gratification, and the present satisfaction of skilled performance (Apter, 1982).

Events are experienced in different ways depending on which of the two states is operative. For example, people who are in the telic mode experience states of arousal in nearly opposite ways than do people in the paratelic mode. High arousal is unpleasant in the telic mode and low arousal is preferred (Apter, 2001). Unpleasant high arousal leads to anxiety, and thus, the telic mode is an anxiety-avoidance mode (Apter, 2001). In the paratelic state, however, low arousal is experienced as boredom (unpleasant) and high arousal is experienced as excitement (pleasant) (Apter, 2001). Thus, the paratelic mode is excitement seeking and in this mode, one prefers to maintain high levels of arousal (Apter, 2001).

Studies have also been conducted examining telic and paratelic dominance as a stress-moderating variable (Martin, Kuiper, Olinger, & Dobbin, 1987). The results have shown that paratelic-dominant individuals flourish on moderate levels of stress, but mood disturbances were higher when the individuals were under either low or very high stress (Apter, 2001). However, individuals who were telic-dominant were negatively affected by stress, even low levels of stress, and seemed to function better in the absence of stress (Apter, 2001). Based on these results, the investigators suggested that telic-dominant individuals might perceive arousal-related situations as threats, while paratelic-dominant individuals are inclined to regard these situations as challenges (Martin et al., 1987).

Most of us strive for the joy of accomplishment, but this is true more for some than for others. The need for achievement is a striving for accomplishment and excellence (Kalat, 1996). Individuals with high needs for achievement are also likely to
persist at a task for a long time. The core motivational value of the telic state is that of achievement (Apter, 2001). Satisfaction, then, comes from achievement itself or the feeling of movement and progress toward achievement (Apter, 2001). In contrast, the core motivational value of the paratelic state is that of fun and "enjoyment" in the moment (Apter, 2001).

Although reversals are considered involuntary, reversals between states have been known to arise in certain circumstances. Some factors that elicit psychological reversals are contingent events, satiation, and frustration. Contingent events include both environmental events and psychological events (Laflreneire, 1993). Although switches between the telic and paratelic states also occur when the environment is unchanging (Laflreneire, Cowles & Apter, 1988), certain situations may demand an either telic or paratelic state. For example, after a hard day’s work in the telic state, one may go to a bar where the noise, the witty conversation and the alcohol increases the likelihood of a reversal to the paratelic state. During final exam weeks, a student may have to create an environment to facilitate a more telic state, which may include avoiding the company of other people, clearing study areas of clutter, and avoiding all other distractions, such as the television and the telephone. In fact, Tacon and Kerr (1999) showed that academic settings tend to be likely to induce telic states. They found that two settings, the university library and a lecture theatre just prior to a lecture, induced telic states in participants, while the university sports centre and a party at the student union building induced paratelic states.

Satiation can also facilitate reversals. Satiation refers to an innate process that builds up over time in the absence of any contingent factors (Apter, 2001). As a result, a
person reaches the threshold of being in one state, and consequently, he or she reverses into the other state. But once again, satiation will start to build in that state, making the individual increasingly vulnerable to changing into the opposite state (Apter, 2001). The cyclical pattern resembles the sleeping-waking cycle; that is, if one has been asleep for long enough, one will wake up, even though nothing has occurred to wake one up and the opposite is true after one has been awake for long enough, that individual will go to sleep, despite the fact that nothing in particular has happened to make one sleepy (Apter, 2001).

Frustration has also been found to produce reversals. Frustration in achieving satisfaction in one mode may induce a switch to the other mode (Lafreniere, 1993). Furthermore, it has been shown that frustration in the telic state is more easily engendered than frustration in the paratelic state, at least in situations where a task is unsolvable (Barr, McDermott, & Evans, 1993). Frustration, in turn, has an impact on persistence. One study showed that paratelic starters (participants who started in a paratelic state, as determined through self-report measures) reported their reason for ending trials in an experiment as boredom, and their telic counterparts reported their reason as being frustration (Barr et al., 1993). In fact, the paratelic starters spent over twice as much time in trying to solve an unsolvable puzzle, as did their telic counterparts (Barr et al., 1993). The authors concluded that this might have occurred because those starting in the paratelic state perceived the task as “playing” with the puzzle and just got bored with not being able to solve it, while the telic starters were trying to complete what they saw as a task and became frustrated when they were unable to solve the puzzle. The authors concluded that frustration is prompted quickly, whereas boredom must happen slowly, and thus one persists longer when just bored with a task than frustrated (Barr et
al., 1993). However, task persistence and its relation to solvable tasks and telic and paratelic dominance has been neglected in the literature.

In stressful or frustrating circumstances, one may engage in either problem-focused coping or emotion-focused coping. Coping is defined as a process that an individual undertakes to manage demands that are perceived as taxing his or her resources (Lazarus & Folkman, 1984). Coping styles employed also vary depending on whether one is in a paratelic state or a telic state. Telic-dominant individuals are more likely to perceive the arousal associated with stressors as unpleasant and are therefore likely to engage in more strenuous efforts directed at eliminating or pacifying the cause of the stress, thus employing problem-focused strategies (i.e., management of the problem that is causing distress) (Martin & Svebak, 2000). Problem-focused coping categories include strategies similar to problem solving (Lazarus & Folkman, 1984). Telic-dominant individuals are also more likely than paratelic-dominant individuals to use problem-focused coping strategies involving direct action against the source of stress (Baker, 1988). On the other hand, paratelic-dominant individuals are more likely to experience stress-related arousal as challenging, and may be less concerned about efforts to eliminate the source of the stress. Studies show that paratelic-dominant individuals tend to use a variety of other strategies, such as wishful thinking or distraction, forms of emotion-focused coping efforts (i.e., regulation of the emotional distress) (Martin & Svebak, 2001). Emotion-focused coping is directed at lessening emotional distress and may include strategies such as blaming others, selective attention, and placing positive value on negative events (Lazarus & Folkman, 1984). Furthermore, studies have also shown that fewer coping strategies are employed in the paratelic state (O'Connell,
Gerkovich, Bott, Cook, & Shiffman, 2000). It would appear that engaging in coping strategies requires a serious-mindedness that is uncharacteristic of the paratelic state. In fact, O’Connell et al. (2000) illustrated that smoking cessation failed more frequently during the paratelic state than in the telic state, suggesting that the paratelic state makes one particularly vulnerable to the urges of smoking due to the fewer coping strategies employed.

There are many practical implications for reversal theory, especially in therapy situations. Impaired mental health may be engendered when people are unable to reverse fluidly and appropriately between any of the metamotivational modes, or when people fail to use appropriate and effective strategies for achieving satisfaction within a particular mode (Lafreniere, Ledgerwood, & Murgatroyd, 2001). Apter (1982) has suggested that chronic anxiety generally reflects inhibited reversal, in which a person seems to be trapped in the telic state, and therefore experiences high arousal as anxiety rather than excitement (Lafreniere et al., 2001). In addition, Apter (1990) has suggested that depression results from inhibited reversal, or being “stuck” in one mode or another, and then using strategies that are functionally inappropriate to achieve satisfaction and to avoid dissatisfaction in that mode. Therapeutic interventions guided by reversal theory can teach clients to engage in appropriate telic-paratelic reversals, which will then enhance their ability to integrate appropriate information and develop increasing skill and flexibility (Lafreniere et al., 2001). As a result, reversal theory has been used in specific treatment contexts, including the treatment of criminal behaviour and psychopathy (Apter & Smith, 1987; Thomas-Peter, 1993), family therapy (Apter & Smith, 1979), marital therapy (Wilson & Wilson, 1999), and crisis counselling (Murgatroyd, 1981).
Academic Failure

Western culture places a lot of importance on academic achievement and engenders negative consequences for failure. In fact, test anxiety is a common problem among students in western academic situations, rooted in a fear of failure. Students often face large numbers of tests in which they are judged on various skills, and thus, students face potential for failure on an almost daily basis. Some educators provide failing academic feedback in hopes that it will motivate the student to try to do better in the future, and to provide direction as to how to do so. Unfortunately, some students fall into a trap of experiencing feelings of low self-worth, sadness and helplessness as a consequence of failure, which then has the opposite effect as intended. Motivational research suggests that students who view ability as a malleable trait are not likely to experience negative feelings and are more likely to engage in effective coping strategies (Mantzicopoulos, 1997).

In order to understand the fundamentals of failure, one might examine failure in terms of how it stimulates or impairs motivated behaviour. The effects of failure can be significantly affected by perceived control, the degree to which a person feels he or she can control and change his or her current status on a particular dimension in the future (Testa & Major, 1990). Some dimensions may be seen as relatively changeable (e.g. one might improve one's health or tennis playing), while other dimensions may be seen as relatively stable and hence, difficult to change (e.g. intelligence or beauty). Some situations allow for the possibility of change and/or evoke feelings of control, while others provide little opportunity for change or control (Major, Testa, & Bylsma, 1991). Research indicates that perceived control is associated with decreased stress level (Israel,
House, Schurman, Heaney, & Mero, 1989). In addition, research has shown that low control produces negative emotions, such as anxiety (Bandura, 1977). Furthermore, low perceived control is known to prevent individuals from performing at the peak of their capacities, to increase the chances of failure, and to prevent individuals from attempting a task at all (Skinner, 1995). When perceived control is low, people tend to avoid challenges, and in turn, individuals prefer easy and familiar tasks (Skinner, 1995). Under these circumstances, individuals decline opportunities to exercise or expand competencies (Skinner, 1995). However, the opposite is true for situations of high perceived control (Skinner, 1995).

Failure is also intimately related to coping styles. After failure, one may engage in either problem-focused coping or emotion-focused coping. It has been found that the most effective coping style in one situation is not necessarily the most effective style in another situation, and that the amount of control one has is an important variable in determining the coping style employed (Folkman, 1984). People with high perceived control actively prevent the changeable threat or failure from occurring, thus applying problem-focused strategies (Skinner, 1995). These individuals have more of their resources available for focusing on the current situations, and they deploy them more readily to increase the contingencies in the context (through information-seeking or planning) or to increase the resources of the self (through strategizing problem solving and learning) (Skinner, 1995). In short, the failure feedback may serve as a means of improving one’s current situation (Skinner, 1995). In fact, emotion-focused coping (i.e., regulation of the emotional distress) in controllable situations is maladaptive (Conway & Terry, 1992). In contrast, when people perceive the threat as unalterable and/or not
personably controllable, they will respond with feelings of distress and helplessness, and will attempt to divert more resources managing that distress using emotion-focused coping efforts (i.e., regulation of the emotional distress) (Skinner, 1995). Consequently, persons with low perceived control employ emotion-focused coping more often than problem-focused coping (Endler, Speer, Johnson & Flett, 2000). Research has indicated that although emotion-focused strategies may be effective regulators of stress, overall these strategies do not result in adaptive outcomes (Cohen & Lazarus, 1979). However, under some circumstances, such as situations of chronic and terminal illness, emotion-focused strategies aid in maintaining emotional balance and are more beneficial than problem-focused coping (Mikulincer, 1989, Kausar & Akram, 1998, Alonzo & Reynolds, 1998).

Additional literature has also shown that persistence varies after academic failure. Kroll (1991) examined the effect of failure on subsequent persistence on an achievement task. Participants were led to believe that the two tasks were either easy or difficult. Despite identical failure feedback on the first task, participants who were led to believe the second task was easier persisted for a longer period of time on the second task than participants who were told the two tasks were difficult (Kroll, 1991). Carver, Blaney, & Scheier (1979) also showed that participants who had high expectancy of being able to complete a second task after an initial failure experience persisted longer than participants who had negative expectancies.
Chapter II

Current Study

Rationale for the Present Study

A central aim of the present investigation is to disentangle the complex effects of academic failure and perceived control on telic and paratelic states. While the literature on reversal theory is extensive, the effects of failure have been neglected in the research. The present study will further investigate the consequences of academic failure (failing feedback based on an outlining test) on mood, state (telic or paratelic), coping styles (emotion-focused or problem-focused), and persistence. Identical failing feedback will be given to all participants on the first outlining test, using two different levels of control (high perceived control and low perceived control), and a second test will be used to analyze persistence. This investigation will determine whether or not the two types of control, in combination with telic/paratelic dominance, will affect the type of coping strategies adopted, mood, state (telic or paratelic), and persistence.

The methodology employed by Testa and Major (1990) appeared very fitting to meeting the methodological needs for the present study. The procedure involved analysis of mood and behaviour following failure that was moderated by perceived control (Testa & Major, 1990). Participants who failed an initial test were led to believe that it was either possible or impossible to improve performance on a second test (Testa & Major, 1990). Since this methodology appeared to be very suitable to the goals for the present study, it was employed with a few minor modifications.

Persistence was operationally defined as time spent on the second test and the number of examples listed on the second test. As suggested by the literature, paratelic
dominant individuals were expected to persist longer and list more examples on a second test than telic dominant individuals in the low perceived control condition. However, the opposite was expected for the high control conditions, such that telic dominant individuals would persist longer and list more examples than paratelic dominant individuals. Furthermore, high perceived control was expected to induce longer persistence than low perceived control.

Based on existing research and theory, the following predictions were made:

**Metamotivational Dominance**

<table>
<thead>
<tr>
<th>Perceived Control</th>
<th>Telic</th>
<th>Paratelic</th>
</tr>
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<tbody>
<tr>
<td>High</td>
<td>Positive Mood</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>Telic State</td>
<td>Telic State</td>
</tr>
<tr>
<td></td>
<td>Problem-focused Coping</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>High Persistence</td>
<td>Moderately High Persistence</td>
</tr>
<tr>
<td>Low</td>
<td>Negative Mood</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>Paratelic State</td>
<td>Paratelic State</td>
</tr>
<tr>
<td></td>
<td>Emotion-focused Coping</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>Low Persistence</td>
<td>Moderately Low Persistence</td>
</tr>
</tbody>
</table>

**Specific Hypotheses**

1. Telic dominant participants with high perceived control were hypothesized to have more positive mood state than telic dominant participants in the low perceived control condition.

2. It was predicted that regardless of whether the participant was high in telic or paratelic dominance, when perceived control was high, these participants would be in the telic state.
(3) It was expected that regardless of whether participants were high in telic or paratelic dominance, low perceived control would lead one to shift into a paratelic state.

(4) It was expected that participants who were high in telic dominance should use problem-focused coping styles when perceived control is high.

(5) Furthermore, participants high in telic dominance with low perceived control were expected to use emotion-focused coping styles.

(6) In situations of low perceived control, it was expected that participants who were high in telic dominance would persist for less time on the second test than participants who were paratelic dominant.

(7) In the high perceived control condition, it was expected that telic dominant participants would persist longer than paratelic dominant participants.

(8) In situations of high perceived control, telic dominant participants were expected to persist longer than telic dominant participants with low perceived control.

(9) Paratelic dominant participants in the high perceived control condition were expected to persist longer than participants high in paratelic dominance but low in perceived control.
Chapter III

Method

Design and Overview

This study employed a 2 (telic vs. paratelic dominance) X 2 (high vs. low perceived control) factorial design. Participants filled out an initial measure assessing telic and paratelic dominance. After this point, all participants were led to believe that they had failed on the first outlining test. The participants were informed that the ability to change their performance on a subsequent test was either high or low. Mood measures were obtained after the initial failing feedback and then after the perceived control manipulation. A state telic and paratelic measure and a coping style measure were also provided after the perceived control manipulation. A second test was then given, and the time spent working on the second test and the number of points listed on the second test was used to assess persistence. A manipulation check was administered after the second test was completed.

Participants

One hundred and forty-two undergraduate students were recruited from the Psychology Department Participant Pool. One hundred and twenty of the participants were female and twenty-two were male, ranging from ages 18 to 45. Each participant was awarded two bonus marks for his or her participation in the study. The participants were then assigned to one of the two perceived control conditions in a quasi-random fashion according to the day they participated. Participants read and signed a consent form (see Appendix A). Participants were assured that their responses would remain confidential.
**Measures**

Several questionnaires were used in the present study and copies of all are included in the appendices.

**Demographic Information.**

The demographic sheet required information pertaining to the age, sex, year of study at the university, and major area of study (See Appendix B).

**Paratelic Dominance Scale.**

The Paratelic Dominance Scale (PDS) is a 30-item scale consisting of three subscales, Playfulness, Spontaneity, and Arousal Seeking, each containing 10 items (See Appendix C). The PDS was utilized to identify telic and paratelic dominance and was administered before the control manipulation. These subscales do not represent orthogonal dimensions of telic/paratelic dominance. Instead, they represent three aspects of being paratelic-dominant: means-end, temporal, and intensity (Apter, 1989). According to reversal theory, being paratelic dominant implies that a person would score high on all three subscales. Alternatively, being telic dominant implies that a person would score low on each of the subscales. Because the subscales are inter-correlated, analyses using paratelic dominance were performed using the PDS in its entirety and not using individual subscales. The combination of all three subscales provides an overall paratelic dominance score. The internal reliability, as measured by Cronbach’s alpha, of the Playfulness, Spontaneity, and Arousal Seeking subscales have been reported to be .78, .83, and .84 respectively (Cook & Gerkovich, 1993). The items consisted of simple statements that the respondent was asked to judge as true or false as a self-description.
Examples of the items are "I regularly think of the future" (a telic response), and "I often take risks" (a paratelic response).

Tests.

The first test involved having the participants outline arguments for and against Canada's involvement in the war against terrorism. The participants were provided with a new University of Windsor examination booklet to write in. The second test involved listing examples of media portrayals of people in very stereotypical roles. Once again, a new examination booklet was provided. Written feedback was provided on how persuasive the arguments were in the first test, but of course, this feedback was false and did not reflect the actual substance or the content of what was written by the participant.

The Positive and Negative Affect Scale.

(PANAS; Watson, Clark, & Tellegen, 1988). The PANAS is a 20-item mood measure that includes two subscales, Positive Affect (PA) and Negative Affect (NA), both consisting of ten adjectives (See Appendix D). The Positive Affect scale reflects the extent to which a person feels enthusiastic, active and alert, whereas the Negative Affect scale is a general dimension of subjective distress that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness (Watson, Clark, & Tellegen, 1988). The adjectives were scored using a scale from very slightly or not at all, a little, moderately, quite a bit, to extremely. The alpha coefficients range from .86 to .90 for PA and from .84 to .87 for NA. Examples of adjectives on the PA scale include "excited" and "active" whereas the NA scale consisted of "distressed" and "hostile". The PANAS was administered for the first time after failure feedback was provided and was also administered a second time after the perceived control
manipulation but the presentation of the adjectives was rearranged (see Appendix E). This was intended to mask the transparency of the mood scale and to minimize the possibility that the participants remembered how they rated the adjectives in the past. Extra caution was taken despite the knowledge that when the scale is used with short-term instructions, e.g. right now or today, it is very sensitive to fluctuations in mood (Watson, Clark, & Tellegen, 1988). In addition to the adjectives in the PANAS, the adjectives “bored” and “frustrated” were added, since these represent mood states relevant to reversal theory constructs.

**Telic/Paratelic State Instrument.**

(T/PSI; O’Connell & Calhoun, 2001). The T/PSI is a 12-item scale, consisting of a 7-item Serious-minded/Playful subscale and a 5-item Arousal-avoidance/Arousal-seeking subscale, and was administered to identify state telic and paratelic modes (See Appendix F). The 5-item arousal-avoidant/arousal-seeking subscale has an alpha coefficient of .83, and the 7-item serious-minded/playful subscale has an alpha of .93. The items were rated on a continuum from 1 to 6. Sample items from the T/PSI include, “Trying to accomplish something...Just having fun” (serious-minded/playful subscale) and “Wanting peace and quiet...Wanting adventure” (arousal-avoidant/arousal-seeking subscale).

**Coping Inventory for Stressful Situations – Situation Specific Coping.**

(CISS-SSC; Endler and Parker, 1994). The CISS-SSC is a 21-item modified version of the CISS that assesses situation-specific coping responses for adults (See Appendix G). Participants were asked to fill out the measure with the first test (the first outlining test) in mind. The CISS-SSC assesses Task/Problem, Emotion, and Avoidance-
oriented coping responses and contains seven items per scale. The items are scored using a Likert scale ranging from (1) “Not at all” to (5) “Very Much”. The alpha coefficients for the Task-Oriented subscale ranged from .78 to .87, for the Emotion-Oriented subscale from .83 to .86, and for the Avoidance-Oriented subscale from .70 to .80. Sample items from the CISS-SSC scale include, “Focus on the problem and see how I can solve it” (task-oriented coping), “Become very upset” (emotion-oriented coping) and “Take some time off and get away from the situation (avoidance-oriented coping).

Manipulation Check.

The manipulation check included items that assessed how believable the failure feedback was (see Appendix H). Other items also assessed how well the participants believed the perceived control manipulation and how the relationship between Test 1 and Test 2 was perceived. The items were to be rated on a scale of 1 (disagree slightly) to 7 (agree strongly), using the scale to indicate agreement or disagreement with the items. Examples of items on the scale include “It was not possible for me to do better on the second test” and “There was a strong relationship between the two tests”. This scale was created specifically for the present study.

Procedure

Participants were tested in groups, with a maximum of four participants, for about 60 minutes. The following procedure had been derived from Testa and Major (1990). Participants were told, prior to participation, that they were taking part in a study involving evaluation of performance of university students on a series of tests. The experiment was called “Performance Evaluation.” Upon their arrival in the lab, the female experimenter escorted the participants inside and told the participants to sit at one
of four isolated desks. The experimenter further explained that the experiment involved evaluating the performance of students on a series of tests. Participants were told that after they had completed each test, their work would be evaluated and written feedback would be provided. After participants had signed the consent form and had indicated agreement to participate, they filled out a form requiring demographic information, such as age. At this point, the Paratelic Dominance Scale (PDS) was also administered.

After the demographic sheet and the PDS were filled out, the experimenter gave the participants the first experimental test. This first test consisted of an outlining test, which was described as an assessment of communication and reasoning skills (Testa & Major, 1990). Participants were asked to list arguments in favour of and against Canada’s involvement in the war against terrorism. Participants were told that their arguments would be evaluated for their clarity, quality of reasoning, and persuasiveness according to a set of criteria that had been developed previously. Participants were told that they would have 10 minutes to list their arguments. The experimenter collected the outlining tests after the time was up and took them into another room to be evaluated. She then returned a few minutes later to provide the participants with written feedback on their performance. Each participant was given an identical scoring/feedback sheet indicating that he or she had failed on the test. Brief personalized comments were written and conveyed that the participant didn’t do very well and that the points the participant provided were not clear and were not persuasive. The last sentence stated that the overall reasoning of the arguments was weak. The scoring/feedback sheet also indicated that according to the criteria, the participant only received 11 out of 20 points. At this point,
the participants were asked to fill a measure of the first dependent variable, mood, which was assessed using the Positive and Negative Affect Scale (PANAS).

At this point, the control manipulation was given. The experimenter either gave feedback with low perceived control or high perceived control, depending on the condition to which the participant had been randomly assigned. Participants in the high perceived control condition were told: “The second test that you’re about to take next is only modestly correlated with the test you just took. That is, it’s possible to do poorly on one test but very well on the other and vice versa. There’s really not a very strong relationship between the two tests. In fact, we generally find that it’s possible to improve your scores from one test to the next through practice and studying” (Testa & Major, 1990). Participants in the low perceived control condition were told: “The second test that you’re about to take is very highly correlated with the test you just took. That is, if you do poorly on one test you’re very likely to do poorly on the second as well. There is really a very strong relationship between the two tests. In fact, we generally find that it’s impossible to improve your scores from one test to the next through practice or studying” (Testa & Major, 1990).

The experimenter then administered the PANAS #2, the Telic/Paratelic State Instrument (T/PSI), and the Coping Inventory for Stressful Situations (CISS-SSC). Participants were directed to use the first test, on which they received failure feedback, as the designated stressful situation for the CISS-SSC.

At this point, the second test was administered. Participants were asked to list examples of media portrayals of people in very stereotypical roles. Participants were told that they would be evaluated on the quality and quantity of arguments that they generate.
They were told that they would have as much time as they would like to work on the test. They were informed that other participants had been generating approximately 40–50 examples for this test in the past. The experimenter remained in the room and the participants were told to put their hands up when they were finished. The time spent from when the participant started the second test to when the participant put his or her hand up constituted the time measure of persistence.

The experimenter pretended to evaluate the test at her own desk, and in the meantime, she left the participant with the manipulation check questionnaire. The manipulation check included questions assessing how well the participant believed he or she had performed on the first test, and the perceived relationship between Test 1 and Test 2, using a seven-point scale, ranging from no relationship to strong relationship. Participants were told to put their hands up once they had completed the manipulation check. Participants were told to remain seated until all the tests were marked.

Once every participant completed his or her test and the manipulation check, the experimenter informed the participants that the study was in fact complete and the participants were debriefed fully as a group. A detailed oral debriefing took place, during which the nature of the deception and the purpose of the present research were explained. An information form was given for participants to take home, but included less specific details about the experimental manipulation to prevent feed-forward effects that might contaminate subsequent participants (see Appendix I).
Chapter IV

Results

All data were analyzed using the SPSS program for Windows Version 10.0. After the data had been cleaned and screened, descriptive statistics were computed for the demographic variables as well as for all scale and subscale measures. To determine the internal consistency of each scale and subscale, Cronbach’s alpha coefficients were calculated. A series of independent samples t-tests were executed on the manipulation checks (the degree to which one believed the failure feedback and the perceived control manipulation). Repeated measures analyses of variance (ANOVAs) and paired samples t-test were executed on mood. Correlations, chi-square tests and t-tests were conducted on telic and paratelic dominance, telic and paratelic state, coping styles adopted and persistence. Analyses of variance were also executed to compare extreme telic (bottom 30%) and paratelic (top 30%) dominant scores with mood, coping styles adopted, and persistence assessed by the time spent on the second test and the number of points listed on the second test. Further analyses of variance were conducted comparing telic and paratelic state with coping styles adopted and persistence. Alpha coefficients ranged from .66 for the Arousal-avoidant/Arousal-seeking subscale of the T/PSI scale to .91 for the Positive Affect Subscale of the PANAS. All alpha coefficients indicated adequate reliability for research purposes and are displayed in Table 1.

Manipulation Checks

A series of t-tests were executed on the manipulation checks to determine the degree to which one believed their level of performance on the subsequent test could be changed and the degree of correlation they believe existed between the two tests.
### Table 1

*Subscale Means, Standard Deviations and Reliability Coefficients*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Alpha</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PDS Scale</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.85</td>
<td>12.39</td>
<td>5.87</td>
</tr>
<tr>
<td>Spontaneity Subscale</td>
<td>.82</td>
<td>2.15</td>
<td>2.43</td>
</tr>
<tr>
<td>Playfulness Subscale</td>
<td>.68</td>
<td>5.26</td>
<td>2.44</td>
</tr>
<tr>
<td>Arousal Seeking Subscale</td>
<td>.79</td>
<td>4.97</td>
<td>2.79</td>
</tr>
<tr>
<td><strong>T/PSI Scale</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.82</td>
<td>40.51</td>
<td>9.61</td>
</tr>
<tr>
<td>Serious-Minded/Playful</td>
<td>.78</td>
<td>22.82</td>
<td>6.25</td>
</tr>
<tr>
<td>Arousal-avoidant/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoidance-seeking</td>
<td>.66</td>
<td>17.69</td>
<td>4.59</td>
</tr>
<tr>
<td><strong>CISS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Oriented</td>
<td>.83</td>
<td>22.05</td>
<td>5.90</td>
</tr>
<tr>
<td>Emotion Oriented</td>
<td>.82</td>
<td>15.09</td>
<td>5.86</td>
</tr>
<tr>
<td>Avoidance Oriented</td>
<td>.82</td>
<td>11.63</td>
<td>5.32</td>
</tr>
<tr>
<td><strong>PANAS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Mood: Time 1</td>
<td>.88</td>
<td>22.01</td>
<td>7.57</td>
</tr>
<tr>
<td>Negative Mood: Time 1</td>
<td>.83</td>
<td>15.24</td>
<td>5.23</td>
</tr>
<tr>
<td>Positive Mood: Time 2</td>
<td>.91</td>
<td>22.85</td>
<td>7.99</td>
</tr>
<tr>
<td>Negative Mood: Time 2</td>
<td>.82</td>
<td>14.20</td>
<td>4.91</td>
</tr>
</tbody>
</table>
**Perceived Control.** The most important significant effect was found for the statement "The two tests were highly correlated," \( t(140) = 2.21, p = .029 \). Individuals in the low perceived control condition agreed more strongly (\( M = 3.96, SD = 1.74 \)) with the statement than individuals in the high perceived control condition (\( M = 3.31, SD = 1.75 \)). Another significant effect was found for the statement "I believe my performance will remain the same on the second test," \( t(140) = 2.74, p = .007 \). Individuals in the low perceived control condition agreed with the statement more strongly (\( M = 4.15, SD = 1.53 \)) than individuals in the high perceived control condition (\( M = 3.44, SD = 3.44 \)). These results were consistent with the instructions given to the participants in accordance to the control condition to which they were assigned.

**Persistence.** Time spent on the second task also supported the effectiveness of the control manipulation. The analysis revealed a nearly significant effect for time spent on the second task \( t(140) = -1.77, p = .080 \), such that individuals in the high perceived control condition persisted for a longer period of time measured in minutes (\( M = 17.80, SD = 7.50 \)) than individuals in the low perceived control condition (\( M = 15.89, SD = 5.23 \)).

**Other Items on the Manipulation Check.** A number of items on the manipulation check did not reach significance. However, this may be explained by the fact that participants were aware of the contents of the second test and were aware of how hard they tried by the time the manipulation check was administered. In fact, a significant negative correlation was seen between the amount of time participants persisted on the second task and the degree to which they agreed with the statement "It was not possible for me to do better on the second test" \( r = -.212, p = .011 \). In addition, persistence
determined by the time spent on the second test was positively correlated with the statement "I believe I did improve on the second test" ($r = .242, p = .004$). The above two statements were also correlated with the number of points participants listed on the second test, another measure for persistence. As participants jotted down more points, the less they agreed with the statement "It was not possible for me to do better on the second test" ($r = -.214, p = .011$). Furthermore, individuals who had listed more points for the second test agreed increasingly with the statement "I believe I did improve on the second test" ($r = .368, p < .001$). Thus, some of the items on the manipulation check did not show effects of the control manipulation, but these items may have been influenced by one’s persistence on the second task.

**Telic/Paratelic State and Telic/Paratelic Dominance**

*T:PSI.* Scores on the T/PSI were positively correlated with the Paratelic Dominance Scale ($r = .215, p = .010$) and positively correlated with the Arousal-Seeking subscale of the Paratelic Dominance Scale ($r = .218, p = .009$).

A chi-square analysis was used to compare telic and paratelic dominance to telic and paratelic state, $X^2 (1, N = 79) = 12.07, p = .001$. The results indicated that participants who were telic-dominant were more frequently in a telic state (69%) rather than a paratelic state (31%). Participants who were paratelic-dominant, in contrast, were in a more paratelic state (70%) than a telic state (30%). Thus, participants were found to be in the state (telic or paratelic) corresponding to their dominance (telic or paratelic) more frequently than the state contrary to the dominance (see Table 2).

A second chi-square test was conducted to compare high and low perceived control, telic and paratelic dominance, and telic and paratelic state. For the low
Table 2

*Relationship Between Telic and Paratelic Dominance and Telic and Paratelic State.*

<table>
<thead>
<tr>
<th></th>
<th>Telic State</th>
<th>Paratelic State</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Telic Dominant</strong></td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>N = 25</td>
<td>N = 11</td>
<td></td>
</tr>
<tr>
<td><strong>Paratelic Dominant</strong></td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>N = 13</td>
<td>N = 30</td>
<td></td>
</tr>
</tbody>
</table>
perceived control condition, $X^2 (1, N = 36) = 6.61, p = .01$ (see Table 3), results indicated the proportion of telic-dominant individuals in the telic state (76%) was higher than telic-dominant individuals in the paratelic state (24%). For this condition, more paratelic-dominant participants were in the paratelic state (67%) than in the telic state (33%). For the high control condition, $X^2 (1, N = 43) = 4.02, p = .045$, results indicated the proportion of telic-dominant individuals in the telic state was higher (60%) than telic-dominant individuals in the paratelic state (40%). For the high control condition, more paratelic-dominant individuals were in the paratelic state (71%) than in the telic state (29%).

The Serious-Minded/Playful subscale in the T/PSI was also positively correlated with the Paratelic Dominance scale ($r = .255, p = .002$), in addition to the arousal subscale ($r = .216, p = .010$) and playful subscale ($r = .207, p = .013$) within the Paratelic Dominance Scale. A t-test analysis revealed a significant effect [$t (77) = -3.40, p = .001$] for extreme telic and paratelic dominance, such that paratelic-dominant individuals were in a more playful state ($M = 24.77, SD = 6.26$) after the failing feedback was given while telic-dominant individuals were in a more serious-minded state ($M = 20.08, SD = 5.91$).

Dependent Variables

Mood: PANAS

Positive Mood: Time 1 and Time 2. A repeated measures ANOVA was executed on the Positive Affect subscale but did not reveal significant results. A series of independent group t-tests, however, revealed a significant difference in positive mood for individuals in the telic state and the paratelic state, but this was only seen at Time 1 [$t (140) = -2.06, p = .041$]. Individuals in the paratelic state had more positive mood.
Table 3

Relationship Between Telic and Paratelic Dominance and Telic and Paratelic State for Participants in the Low Perceived Control Condition

<table>
<thead>
<tr>
<th></th>
<th>Telic State</th>
<th>Paratelic State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telic Dominant</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>N = 16</td>
<td>N = 5</td>
</tr>
<tr>
<td>Paratelic Dominant</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td>N = 5</td>
<td>N = 10</td>
</tr>
</tbody>
</table>

Relationship Between Telic and Paratelic Dominance and Telic and Paratelic State for Participants in the High Perceived Control Condition

<table>
<thead>
<tr>
<th></th>
<th>Telic State</th>
<th>Paratelic State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telic Dominant</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>N = 9</td>
<td>N = 6</td>
</tr>
<tr>
<td>Paratelic Dominant</td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td></td>
<td>N = 8</td>
<td>N = 20</td>
</tr>
</tbody>
</table>
(M = 24.27, SD = 8.64) than participants in the telic state (M = 21.69, SD = 5.92) and is displayed in Figure 1.

Negative Mood: Time 1 and Time 2. A repeated measures ANOVA revealed a significant interaction of time and perceived control for negative mood, F (1,142) = 6.51, p = .013, displayed in Figure 2. Individuals in the low perceived control group decreased in their negative mood from (M = 14.90, SD = 4.93) to (M = 14.31, SD = 5.13) over time along with individuals in the high perceived control condition, where negative mood decreased from Time 1 (M = 15.55, SD = 5.51) to Time 2 (M = 14.08, SD = 4.71). This change in negative mood, however, was stronger in individuals in the high perceived control condition, [t (140)= 3.75, p = .013].

The interaction of time and telic/paratelic dominance for mood approached significance, F (1, 79) = 2.90, p = .093, and is shown in Figure 3. At Time 1, negative mood was higher (M = 15.89, SD = 5.77) than at Time 2 (M = 14.22, SD = 4.91) for telic-dominant individuals. At Time 2 (M = 14.56, SD = 4.77), paratelic-dominant individuals did not decrease as much from Time 1 (M = 15.51, SD = 5.27) as the telic-dominant individuals. As a result, this relationship was stronger for telic-dominant individuals [t (35) = 3.27, p = .002] than for paratelic-dominant individuals [t (42) = 2.25, p = .030].

There was a significant main effect of telic or paratelic state on negative mood, F (1,142) = 9.07, p = .003. Individuals who were in a telic state had higher negative moods at both Time 1 and Time 2 (M = 16.29, SD = 5.92; M = 15.57, S.D. = 5.79) than did individuals in the paratelic states (M = 14.24, SD = 4.92; M = 12.93, SD = 3.51). T-tests
Figure 1. Overall Positive Mood At Time 1 for Participants in Telic and Paratelic State.
Figure 2. Overall Negative Mood From Time 1 to Time 2 as a Function of Perceived Control.
Figure 3. Negative Mood at Time 1 and Time 2 as a Function of Telic and Paratelic Dominance.
revealed that for both Time 1 \[ t(140) = 2.38, p = .019 \] and Time 2 \[ t(140) = 3.32, p = .001 \], the differences between the two states were significant. These results are displayed in Figure 4.

A repeated measures ANOVA was executed on negative mood analyzed at Time 1 and Time 2 and is presented in Figure 5. A significant effect of time was seen for negative mood, \( F(1,142) = 15.38, p < .001 \), such that in general, negative mood decreased from Time 1 (\( M = 15.23, SD = 5.22 \)) to Time 2 (\( M = 14.20, SD = 4.91 \)).

**Frustration and Boredom**

*Frustration: Time 1 and Time 2.* A significant effect was found for perceived control with respect to frustration, \( F(1,142) = 7.83, p = .006 \). Individuals in the high perceived control group showed a decrease in their degree of frustration from Time 1 (\( M = 1.89, SD = 1.08 \)) to Time 2 (\( M = 1.58, SD = 0.87 \)), while individuals in the low perceived control condition showed an increase in the degree of frustration from Time 2 (\( M = 1.73, SD = 1.00 \)) to (\( M = 1.86, SD = 1.06 \)). These results are presented in Figure 6. Further analysis showed the effect was significant only for individuals in the high perceived control group \[ t(70) = 3.05, p = .003 \].

There was a significant main effect of telic and paratelic state, \( F(1,142) = 10.27, p = .002 \), shown in Figure 7. Individuals in a telic state were more frustrated at both Time 1 (\( M = 2.09, SD = 1.17 \)) and Time 2 (\( M = 1.93, SD = 1.01 \)) than individuals in a paratelic state at both times (\( M = 1.55, SD = 0.83; M = 1.53, SD = 0.91 \)).

*Boredom: Time 1 and Time 2.* A significant 3-way interaction was found for time, perceived control and dominance with respect to the adjective "bored", \( F(1,79) = 4.43, p = .039 \) and is demonstrated in Figure 8. Paratelic-dominant individuals in the low
Figure 4. Negative Mood at Time 1 and Time 2 for Participants in a Paratelic and Telic State.
Figure 5. Negative Mood In All Participants At Time 1 and At Time 2.
Figure 6. Frustration at Time 1 and Time 2 as a Function of Perceived Control.
Figure 7. Frustration at Time 1 and Time 2 for Participants in the Telic and Paratelic State.
Figure 8. Boredom Assessed at Time 1 and Time 2 for Telic- and Paratelic-Dominant Participants in the Low Perceived Control Condition.

Figure 8. Boredom Assessed at Time 1 and Time 2 for Telic- and Paratelic-Dominant Participants in the High Perceived Control Condition.
perceived control condition decreased in the degree of boredom they felt from Time 1 (M = 3.00, SD = 1.13) to Time 2 (M = 2.67, SD = 1.23). On the other hand, telic-dominant individuals in the low perceived control group expressed an increase in boredom from Time 1 (M = 2.33, SD = 1.24) to Time 2 (M = 2.38, SD = 1.16). Conversely, in the high perceived control condition, the opposite results were seen. Paratelic-dominant individuals had an increase in their level of boredom from Time 1 (M = 2.11, SD = 0.96) to Time 2 (M = 1.93, SD = 0.90) while telic-dominant individuals had a decrease from Time 1 (M = 2.40, SD = 0.74) to Time 2 (M = 2.13, SD = 0.74). These results were significant for paratelic-dominant individuals in the low perceived control condition, [t (14) = 2.09, p < .055].

Coping Styles – CISS:SSC

Task/Problem-Oriented Coping. A t-test analysis revealed a nearly significant effect [t (77) = -1.90, p = .061] for extreme telic- and extreme paratelic-dominant individuals (top and bottom 30% scores on the Paratelic Dominance Scale). Paratelic-dominant individuals engaged in more task-oriented coping (M = 23.58, SD = 5.91) than extreme telic-dominant individuals (M = 21.17, SD = 5.38), and is exhibited in Figure 9.

Emotion-Oriented Coping. Results showed that emotion-oriented coping was negatively correlated with total T/PSI (r = -.220, p = .034), the Serious-Minded/Playful subscale of the T/PSI (r = -.173, p = .040), and the Arousal-avoidance/Arousal-seeking subscale of the T/PSI (r = -.266, p = .007).

A t-test analysis revealed a significant effect [t (140) = 2.20, p = .029] for emotion-oriented coping with individuals in either a telic or paratelic state, as seen in Figure 10. Individuals in the telic state were found to utilize more emotion-oriented
Figure 9. Degree of Task-Oriented Coping Utilized by Telic- and Paratelic-Dominant Participants.
Figure 10. Degree of Emotion-Oriented Coping Utilized by Participants in the Telic and Paratelic State.
coping with respect to the second test (M = 16.21, SD = 5.65) than individuals in the paratelic state (M = 14.07, SD = 5.92).

Moreover, emotion-oriented coping was positively correlated with the Spontaneous subscale within the Paratelic Dominance Scale (r = .187, p = .026), such that individuals who scored high on the spontaneity subscale also scored high on emotion-oriented coping subscale.

**Avoidance-Oriented Coping.** Results showed that CISS:SSC avoidance-oriented coping was negatively correlated with total T/PSI (r = -.178, p = .034) and negatively correlated with the Arousal-avoidance/Arousal-seeking subscale within the T/PSI (r = -.196, p = .020). Participants who were in a more telic state and those who scored high on anxiety-avoiding characteristics engaged in more avoidance-oriented coping.

A t-test analysis revealed a significant effect [t (140) = 2.50, p = .013] for avoidance-oriented coping with individuals in either a telic or paratelic state. Displayed in Figure 11, individuals in the telic state were found to utilize more avoidance-oriented coping with respect to the second test (M = 12.78, SD = 6.01) than individuals in the paratelic state (M = 10.58, SD = 4.39).

**Specific Hypotheses**

The results did not support hypothesis 1. Positive and negative mood did not vary as a function of perceived control for telic-dominant individuals. However, as listed above, subsequent statistical analyses revealed that individuals in a paratelic state were in a more positive mood and in less of a negative mood than participants in a telic state. Furthermore, telic-dominant individuals displayed a greater decrease in negative mood.
Figure 11. Degree of Avoidance-Oriented Coping Utilized by Participants in the Telic and Paratelic State.
than paratelic-dominant individuals from Time 1 to Time 2, although negative mood was higher for telic-dominant individuals than paratelic-dominant people at Time 1.

Hypothesis 2 and 3 were also not confirmed. Telic state was not induced by the high perceived control condition, nor was paratelic state induced in those participants in the low perceived control condition. In fact, the results revealed that the best predictor of which state a participant was in was dominance, such that more paratelic-dominant individuals were in a paratelic state, and more telic-dominant individuals were in a telic state.

Both hypotheses 4 and 5 were also not confirmed. Telic-dominant individuals did not utilize more emotion-focused coping than paratelic-dominant people when the perceived control condition was low, and equally, telic-dominant individuals were not engaging in a higher frequency of problem-oriented coping when they were in the high perceived control condition. Results revealed that despite the control condition, paratelic-dominant individuals engaged in more problem-focused coping than telic-dominant participants, indicating an overall effect of dominance. Further results revealed, regardless of whether perceived control was high or low, individuals in a telic state utilized more emotion-oriented and avoidance-oriented coping than those in a paratelic state. These results were contrary to the original hypotheses.

All hypotheses related to persistence, hypotheses 6, 7, 8, and 9 were, in addition, not confirmed. Persistence did not vary as a function of perceived control and dominance. However, participants in the high perceived control condition did persist for some time longer than participants in the low perceived control group.
Chapter V
Discussion

To review, none of the findings reported in this study completely conformed to the predictions made earlier. In fact, some results were counter to the hypotheses made previously.

It was predicted that perceived control after academic failure should moderate the degree of positive and negative mood experienced by dominant individuals, especially telic-dominant individuals. However, the perceived control conditions did not influence mood, although differences in mood between telic- and paratelic-dominant individuals were observed. In accordance with previous literature, telic-dominant individuals enduring the false failing feedback experienced more unpleasant moods than paratelic-dominant individuals (Martin, 1985). Martin suggested that since telic-dominant individuals are likely to remain in the telic state for a longer period of time, feelings of anxiety, dysphoria, and distress are likely to predominate in these individuals when they experience the arousal associated with stressors. On the other hand, when faced with moderate stress, paratelic-dominant people experience an increase in excitement and exhilaration as the intensity and frequency of the stressors increase (Martin, 1985). Thus, the results of the present study supported the findings of the previous studies.

Moreover, Robinson (1961) analyzed the need for achievement and demonstrated that high telic dominance was associated with fear of failure while low telic dominance scores (i.e. the more paratelic dominant) were associated with the hope of success, and thus, ultimately the paratelic-dominant individuals in the present study may have been more optimistic, thus experiencing less negative mood, than the former prior to initiating
the second test in the experiment. The literature supports the findings that paratelic-dominant individuals were viewed as being happy when they had a degree of stress and problems, whereas telic-dominant people were seen as becoming more disturbed by the failure (Martin & Svebak, 2000).

The results also demonstrated, as reversal theory would suggest, that the metamotivational state of the individuals might be an important factor in determining whether the effects of arousal are positive or negative. Individuals in the present study who were in a telic state of mind experienced the negative experimental situation more adversely than individuals in a paratelic state. This coincides with the notion that an event or situation which is associated with an increase in arousal (i.e. one that would typically be perceived as a “stressful” event) is likely to be experienced as stressful only when one is in the telic state, but may be viewed as an exciting challenge in the paratelic state (Martin, 1985).

Additionally, it was predicted that the state, telic or paratelic, would be determined by the perceived control condition. However, perceived control effects were not observed. This is counter to research by Svebak, Storjell, and Dalen (1982), which suggested that most individuals are likely to reverse into the telic state of mind (if they are not already in it) and experience an increase in arousal upon first being confronted by a stressful situation, such as failure on an exam. Svebak and his colleagues found that participants’ self-ratings shifted significantly in the telic direction and revealed significantly higher levels of felt arousal when they were placed in a typical laboratory stress situation. However, in the present research, states were not investigated at the
onset of the stressful situation, but rather halfway into the stressful experiment. The past findings, as a consequent, do not necessarily directly contradict the outcome of this study.

The findings of the present study are, conversely, more in line with predictions reversal theory makes that some individuals (e.g. extreme paratelic dominant ones) are much less likely to reverse into the telic state than others following the onset of the stressful event (Martin, 1985). Literature indicates those who remain in the telic state following the onset of the stressful event are likely to be telic dominant individuals, whereas those who remain in or who reverse more readily into the paratelic state would be paratelic dominant people (Martin, 1985). The results of the present research support that state was more dependent on the dominance of individuals than contingencies in the false feedback experiment.

The results obtained for frustration were in line with the literature presented by Barr, McDermott & Evans (1993). As would be expected, frustration greatly decreased when perceived control was high but increased when participants were informed they could not do better on the second test. In addition, individuals in a telic state were more frustrated than were individuals in paratelic states both after receiving failing feedback and after receiving knowledge of perceived control. This finding is supported by research conducted by Barr and his colleagues, results of which demonstrated that frustration is more easily engendered in the telic state than in the paratelic state.

Boredom was also investigated in this study. In the low perceived control condition, paratelic-dominant individuals did indeed express more boredom initially but it decreased after learning they had a lack of control, while telic-dominant individuals demonstrated a slight increase with respect to boredom after receiving low perceived
control instructions. On the other hand, in the high perceived control group, paratelic-dominant individuals were less bored than telic-dominant individuals. These paratelic-dominant individuals demonstrated a decline in boredom after learning that they had high perceived control but it was not as great of a decline as that viewed in telic-dominant individuals. The two paratelic-dominant groups (high and low perceived control) indicated differences in the degree of boredom experienced before the control manipulation, which was unexpected. The reason for the unwanted differences between these two groups is unknown, but it may be that random assignment failed to randomly distribute this specific characteristic.

Intriguingly, the predictions for problem- and emotion-focused coping were not supported at all, and in fact, the opposite results were found. Instead of telic-dominant individuals engaging in more problem-focused coping in cases of high perceived control as the literature would suggest, these individuals utilized less problem-focused coping than did paratelic-dominant individuals in both perceived control groups. Martin, Kuiper, Olinger, and Dobbin (1987) examined telic dominance as a stress-moderating variable and showed that telic-dominant individuals seem to be adversely affected by even low levels of stress but that paratelic-dominant people do well under higher levels of stress. Their results led these authors to speculate that telic-dominant individuals might evaluate arousing situations as threats and paratelic-dominant individuals might see the same situations as challenges. Paratelic-dominant individuals, thus, thrive on stress, which may then entice them to approach the task on as a challenge, and thus engage in more problem-focused coping. However, the results of the present study indicate that the telic-dominant individuals may have perceived the first experimental test on which they
received failing feedback as more threatening, leaving them feeling extremely unpleasant, and thus, instead of engaging in problem-focused coping, they may have attempted to regulate their emotions. Previous literature has demonstrated that emotion-focused coping is associated with higher levels of distress, coinciding with the results of the present research (Sanders, Neva, Larry & Chaney, 2001).

People may also respond to ongoing stressors differently than resolved stressors, which proposes an alternative explanation for the contradictory findings of this study. In the present research, the stress was ongoing because although the participants had already received negative feedback from the first test, they were still required to complete the second test. Specifically, telic- and paratelic-dominant individuals appear to respond to ongoing stressors in a different manner such that telic-dominant participants are more disturbed by the ongoing stressor than paratelic-dominant individuals. Previous literature has shown that telic-dominant individuals are most distressed when their most stressful recent event is ongoing, and thus may attempt to alleviate their distress rather than utilize problem-focused coping strategies, while paratelic-dominant individuals are most distressed when the event is resolved (Apter, 1989). This also helps to explain the differences in coping styles adopted.

As indicated, individuals in a telic state engaged in more emotion-oriented coping and more avoidance-oriented coping than their paratelic counterparts. Previous research has indicated that individuals in a telic state respond to a stressful situation with anxiety, avoidance, resistance, and a variety of defensive “coping” strategies (Martin, 1985). This state of mind is thought to lead to a higher utilization of emotion-focused coping styles, which is consistent with the obtained results. In addition, avoidance-oriented coping
results were also in line with previous literature. Murgatroyd (1983) discovered that when extreme groups of telic- and parateelic-dominant individuals were compared in terms of the ways of coping they used when faced with the stress of a degree examination, telic-dominant individuals looked to detachment (e.g. “I am waiting to see what is happening before I do anything”) as one of their major strategies while parateelic-dominant individuals did not. Since the concept of dominance refers to the relative amount of time people tend to spend in one or the other metamotivational state within a pair, describing telic-dominant individuals is comparable to the characteristics of a person in a telic state, and so, these results can be generalized to describe people in telic and parateelic states. In fact, like the results of this study suggest, telic-dominant persons use denial and detachment when faced with arousal and experience arousal as unpleasant (Murgatroyd, 1983).

Thus, it may be that the findings of this study and literature from the past are not contradictory, but only that they investigate coping at different times during a stressful situation. Murgatroyd (1983) showed that parateelic-dominant individuals engaged in wishful thinking (e.g. “I hope a miracle will happen”) and in focusing upon the positive (e.g. “Looking for the silver lining...”) as their predominant coping styles, while telic dominant persons looked to problem-focused coping (e.g. “I go over in my mind what I say or do”) and detachment as their major strategies when faced with the stress of a degree examination. This would thus indicate that telic-dominant individuals are less optimistic than parateelic-dominant persons, and are more likely to anticipate failure than hope for success when faced with some task (Murgatroyd, 1985). The anticipation of failure leads telic-dominant individuals to engage in a higher level of planning and
rehearsal than paratelic-dominant individuals, and thus, engage in more problem-focused coping (Murgatroyd, 1985). These were not the findings of the present research, but the present study also did not investigate coping styles at the onset of the stressful situation. However, once one is immersed in a stressful situation and it is not resolved, one may respond in accordance with the findings of this study. Past research indicates telic-dominant individuals have been the most distressed when the stressful event is ongoing, which may have been the case in the present study, and thus, regulating the distressing emotion may have taken priority over problem-focused coping (Martin, 1985).

Many expected effects for perceived control moderating the experience of failure, such as for persistence, were not seen. The absence of effects involving this dimension may have occurred because the manipulation was not strong enough, despite the fact that it was believed to a certain degree. Participants in the low perceived control condition believed their performance would remain the same on the second test directly due to the information they received about low control, contrary to those in the high perceived control group. However, the perceived control effects may have been too small to impact the dependent variables. Another possible explanation is that extraneous variables existed which had an impact on participants' degree of believing the study. Many of the students who participated in this study had recently learned of false negative feedback given to participants in an experimental situation in their classes. As was later discovered, the methodology provided to the students as an example was almost identical to the methodology of the current study. This may have greatly affected the degree to which one believed the feedback given and the perceived control manipulation.
There were several limitations in the present study. In retrospect, it appears that some of the predictions were not warranted, such as those related to coping specifically. It would have been beneficial to investigate coping styles at different time intervals during the experimental situation to thoroughly investigate its relationship to dominance. Another limitation for this study was obtaining effects of the perceived control manipulation. For whatever reasons, individuals did not display great effects from the manipulation. Other limitations related to the dependent variables. Participants were knowledgeable that the study would only last one hour, and thus, placed a limitation on the amount of time they could spend on the second task and the amount of time they thought they should spend on the second task. Thus, persistence needs to be investigated in an environment where no time restrictions exist.

Much of the research on reversal theory is in its early stages, and the theory needs to be empirically tested further. In fact, the present study expresses contradiction to already existing literature with respect to coping styles utilized when an individual is telic- or paratelic-dominant and when an individual is in a telic or paratelic state. Further analyses are required to disentangle the results from the present study that contradict already existing research.

The relationship between reversal theory, specifically telic and paratelic dominance, and coping styles is definitely in need of further exploration. In fact, coping styles should be examined at various different points during the experiment in order to differentiate differences in the coping style adopted prior to a stressful situation, when one is in anticipation of it, during the unresolved stressful situation, and after the situation is over. This method will clarify the confusion between the results of the present research
and research conducted in the past. Furthermore, it would be useful to pre-select participants, based on extreme telic and paratelic dominance scores to get a clearer understanding of the effects of dominance.
Chapter VI

Conclusion

Although none of the nine hypotheses were confirmed, the results revealed interesting findings for mood, telic and paratelic state, and coping styles adopted after academic failure. The results show some effects of dominance for mood, state and coping.

Mood was investigated after failing feedback was provided, and after the perceived control feedback was given. Although it was expected that dominance in combination with the perceived control manipulation would influence mood, strong effects were only seen for dominance. Telic-dominant individuals were in a more negative mood than their counterparts, paratelic-dominant individuals, at least directly after failing feedback. These findings are consistent with reversal theory predictions that demonstrate telic-dominant people are more distressed and threatened in a stressful situation when compared to paratelic-dominant individuals, who perceive stressful situations as challenges and exciting. Furthermore, individuals in the telic state also expressed more negative mood than those in a paratelic state, once again in line with the previous literature.

Telic state and paratelic state were also investigated, and although contingencies were hypothesized to play a role in determining the state, only strong effects of dominance were observed. As reversal theory would suggest, more telic-dominant individuals were in a telic state, and more paratelic-dominant individuals were in a paratelic state, despite the degree of perceived control related to future failure.
Moreover, no effects for persistence were observed. Results for frustration, nonetheless, were in accordance to the previous literature. Individuals in a telic state were more frustrated than individuals in a paratelic state, indicating frustration was more engendered by the former than the latter.

The most interesting findings were related to coping styles. Similar research concluded that individuals in a telic state are arousal-avoidant, and thus, they utilized more avoidant-focused coping. However, the assumptions that telic-dominant individuals and those in a telic state would utilize more problem-focused coping were not supported. In fact, in the current study, paratelic-dominant individuals engaged in more problem-focused coping than did telic-dominant individuals, and individuals in a telic state utilized more emotion-focused coping than those in a paratelic state. Although on the surface it appears the results contradict the existing literature, it may actually extend it. The results bring attention to the different coping styles utilized at the onset of a stressful situation, as analyzed by previous literature, and to the coping styles adopted during the stressful situation, as investigated in the present research. These findings warrant further investigation into coping styles, assessed over time to better understand their relationship to dominance.
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Open University.


Appendix A
University Participant Consent Form
Department of Psychology, University of Windsor

The primary purpose of this study is to examine the performance of university students on several tasks. During the experiment, you will be asked to do a number of things. First, we will ask you to answer some demographic questions about yourself. Next, you will complete a performance test that will involve listing arguments for a certain topic. Later in the study you will receive feedback regarding your performance on this test - that is, you will discover how good or how poor your performance was is in this domain. You will then complete another performance test in which you will generate examples for a certain issue. Finally, at several points during the procedure you will fill out several other measures, including some measures of your personality styles and reactions. The duration of this experiment is approximately one hour. This study may not be of direct benefit to you, but you will receive two bonus points towards a psychology course for participating.

You are free to refuse to complete any questionnaire or to answer any particular question. You are also free to withdraw your consent at any time and terminate your participation without prejudice. In addition, you are free to request a summary of the results of the study. A code number will be assigned to your data to preserve your anonymity. The data gathered in this study will be used for research purposes and no one besides the investigators directly involved in this study will have access to these records. There are no identifiable risks involving this study.

You may ask any questions you might have before beginning and are free to ask any additional questions that arise at any time during the course of the study. Please do not discuss the specific nature of the study with other potential participants, including friends and classmates, until the data collection has been completed.

The University of Windsor Ethics Committee has cleared this study. If you have any questions or concerns about the ethics or procedures of this study, you may contact the Office of Research Services at the University of Windsor by telephone (253-3000 ext. 3916) or by e-mail (ethics@uwindsor.ca). If you have any other questions relating to the study, the researchers can be contacted at the phone number that appears below.

Parveen Grewal or Kathryn Lefreniere, Ph.D.
Psychology Dept. Psychology Dept.
University of Windsor University of Windsor
Windsor, Ontario Windsor, Ontario
N9B 3P4 N9B 3P4
253-3000 ext. 2233

I hereby volunteer to participate in a study conducted by Parveen Grewal under the supervision of Dr. Kathryn Lefreniere, Department of Psychology, University of Windsor. I acknowledge that the research procedures have been explained to me and that any questions that I have asked have been answered to my satisfaction. I know that I may ask now, or in the future, any questions that I may have about the study or the research procedures. I understand that I may withdraw from the research without penalty at any time. I have been assured that records relating to me will be kept confidential and that no information will be released or printed that would disclose my personal identity.

Date: __________________________

Name Of Participant (Please Print): ___________________________________

Signature: ____________________________________

Signature Of Investigator: ____________________________________
Appendix B

DEMOGRAPHIC INFORMATION

AGE: ______________________
SEX: ______________________
YEAR OF STUDY AT U. OF W.: _____________
MAIN AREA OF STUDY: ______________________
## Appendix C

**Paratelic Dominance Scale (PDS)**

Please read each statement carefully and decide whether the statement is TRUE or FALSE as it applies to you. Then indicate your decision by circling either a T or F.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>T</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>I think we should let the future look after itself.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>02.</td>
<td>I usually make decisions based on my long-term goals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>03.</td>
<td>I have long-term life ambitions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>04.</td>
<td>I regularly think of the future.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05.</td>
<td>If I have extra time, I prefer to spend it accomplishing something important.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.</td>
<td>I often take risks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>07.</td>
<td>I usually make decisions based on the way I feel at the time.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08.</td>
<td>I like being in unpredictable situations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>09.</td>
<td>I usually do things just for fun.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>I generally do not take anything too seriously.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>I am an adventurous sort of person.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>I usually enjoy thinking about my long-term goals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I almost never like to take chances.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>I usually like to have peace and quiet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>I am a serious-minded person.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Usually, my leisure activities have no specific purpose.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>I often do things just for fun.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>I like to take each day as it comes.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(continued)

19. I usually take life seriously. T F
20. I think it is important to plan for the future. T F
21. I prefer leisure activities that have a serious purpose. T F
22. I seldom make long-term plans. T F
23. I prefer my life to be predictable and orderly. T F
24. I prefer a peaceful, quiet environment. T F
25. I make decisions based on what I expect my future needs to be. T F
26. In my free time, I prefer activities with no serious purpose. T F
27. I would rather think about the present than the future. T F
28. I prefer to go through life safely. T F
29. I tend to be impulsive. T F
30. I prefer to think in the long term. T F

(Cook & Gerkovich, 1993)
Appendix D

The Positive and Negative Affect Scale (PANAS) – Time One

This scale consists of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way, RIGHT NOW, that is, at the present moment.

<table>
<thead>
<tr>
<th></th>
<th>Very slightly or not at all</th>
<th>A little</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Interested</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Distressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Excited</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Guilty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Scared</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Hostile</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Enthusiastic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Proud</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Irritable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Alert</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Ashamed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Inspired</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Nervous</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Determined</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Attentive</td>
<td></td>
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</tr>
<tr>
<td>18.</td>
<td>Jittery</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>19.</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>20.</td>
<td>Afraid</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>21.</td>
<td>Bored</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>Frustrated</td>
<td></td>
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</tr>
</tbody>
</table>
Appendix E

The Positive and Negative Affect Scale (PANAS) – Time Two

This scale consists of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way, RIGHT NOW, that is, at the present moment.

<table>
<thead>
<tr>
<th></th>
<th>Very slightly or not at all</th>
<th>A little</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nervous</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Strong</td>
<td></td>
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<td></td>
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<tr>
<td>3. Irritable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. Bored</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Determined</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Guilty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Frustrated</td>
<td></td>
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<tr>
<td>8. Interested</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Afraid</td>
<td></td>
<td></td>
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<tr>
<td>10. Excited</td>
<td></td>
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<td></td>
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<tr>
<td>11. Attentive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Hostile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Alert</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Scared</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Enthusiastic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>17. Ashamed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Jittery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Proud</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>21. Inspired</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Distressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F

Telic/Paratelic State Inventory (T/PSI)

Below are 12 pairs of words that are opposites. Please circle the number that is located BETWEEN each pair of words that best indicates how you were feeling in the LAST FEW MINUTES, just before you started filling out this questionnaire. For example, if the pair were

Happy  1 2 3 4 5 6  Sad

And you were definitely feeling happy, you would circle the “1.” If you were definitely feeling sad, you would circle the “6”. If you were feeling just a little bit sad, you would circle the “4.”

<table>
<thead>
<tr>
<th>1. Feeling playful</th>
<th>1 2 3 4 5 6</th>
<th>Feeling serious-minded</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Wanting peace and quiet</td>
<td>1 2 3 4 5 6</td>
<td>Wanting adventure</td>
</tr>
<tr>
<td>3. Trying to accomplish something</td>
<td>1 2 3 4 5 6</td>
<td>Just having fun</td>
</tr>
<tr>
<td>4. Doing activity just for the fun of it</td>
<td>1 2 3 4 5 6</td>
<td>Doing activity because it may affect my future</td>
</tr>
<tr>
<td>5. Wanting to feel excitement</td>
<td>1 2 3 4 5 6</td>
<td>Wanting to feel calm</td>
</tr>
<tr>
<td>6. Wanting to be serious</td>
<td>1 2 3 4 5 6</td>
<td>Wanting to be playful</td>
</tr>
<tr>
<td>7. Concerned about the future effects of my current activity</td>
<td>1 2 3 4 5 6</td>
<td>Not concerned about the future effects of my current activity</td>
</tr>
<tr>
<td>8. Wanting to just have fun</td>
<td>1 2 3 4 5 6</td>
<td>Wanting to accomplish something</td>
</tr>
<tr>
<td>9. Wanting to feel less aroused</td>
<td>1 2 3 4 5 6</td>
<td>Wanting to feel more aroused</td>
</tr>
<tr>
<td>10. Living for the moment</td>
<td>1 2 3 4 5 6</td>
<td>Focusing on the future</td>
</tr>
<tr>
<td>11. Feeling serious</td>
<td>1 2 3 4 5 6</td>
<td>Feeling playful</td>
</tr>
<tr>
<td>12. Feeling adventurous</td>
<td>1 2 3 4 5 6</td>
<td>Not feeling adventurous</td>
</tr>
</tbody>
</table>
Appendix G

**CISST: SSC**

The following are ways people react to various difficult, stressful, or upsetting situations. Please circle a number for each item. Indicate how much you engaged in these types of activities during the specific situation that was most difficult, stressful, or upsetting to you during the past month. Please describe the situation in the line below.

The situation was: __________________________________________________________

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Take some time off and get away from the situation.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. Focus on the problem and see how I can solve it.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. Blame myself for having gotten into this situation.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. Treat myself to a favourite food or snack.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. Feel anxious about not being able to cope.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. Think about how I solved similar problems.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. Visit a friend.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. Determine a course of action and follow it.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9. Buy myself something.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>10. Blame myself for being too emotional about the situation.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>11. Work to understand the situation.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>12. Become very upset.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>13. Take corrective action immediately.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>14. Blame myself for not knowing what to do.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>15. Spend time with a special person.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>16. Think about the even and learn from my mistakes.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>17. Wish that I could change what had happened or how I felt.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>18. Go out for a snack or meal.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>19. Analyze the problem before reacting.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>20. Focus on my general inadequacies.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>21. Phone a friend.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Appendix H

Perspectives on Performance

Indicate the extent of your agreement or disagreement with the following statements by circling a number from 1 to 7.

1 = disagree strongly
2 = disagree moderately
3 = disagree slightly
4 = neither agree nor disagree
5 = agree slightly
6 = agree moderately
7 = agree strongly

1. It was possible to acquire the ability to do better on subsequent performance tests.  1 2 3 4 5 6 7

2. It was not possible for me to do better on the second test.  1 2 3 4 5 6 7

3. There was no relationship between the two tests.  1 2 3 4 5 6 7

4. The factors involved in performing successfully on writing tests were not under people's control.  1 2 3 4 5 6 7

5. It was easy for me to control how I perform on performance tests.  1 2 3 4 5 6 7

6. The two essay writing tests were highly correlated.  1 2 3 4 5 6 7

7. Performance on one test did not reflect performance on another.  1 2 3 4 5 6 7

8. I feel that I had no control on how I performed on the tests.  1 2 3 4 5 6 7

9. I believe I did improve on the second test.  1 2 3 4 5 6 7

10. I believe my performance will remain the same on the second test.  1 2 3 4 5 6 7

11. There was a strong relationship between the two tests.  1 2 3 4 5 6 7

12. My performance on the first outlining test was...
   1 - extremely poor
   2 - fairly poor
   3 - poor
   4 - average
   5 - good
   6 - fairly good
   7 - extremely good  1 2 3 4 5 6 7
Appendix I

University Participant Information Form

Department of Psychology, University of Windsor

The primary purpose of this study is to examine the performance of university students on several tasks. During the experiment, you will be asked to do a number of things. First, we will ask you to answer some demographic questions about yourself. Next, you will complete a performance test that will involve listing arguments for a certain topic. Later in the study you will receive feedback regarding your performance on this test - that is, you will discover how good or how poor your performance was in this domain. You will then complete another performance test in which you will generate examples for a certain issue. Finally, at several points during the procedure you will fill out several other measures, including some measures of your personality styles and reactions. The duration of this experiment is approximately one hour. This study may not be of direct benefit to you, but you will receive two bonus points towards a psychology course for participating.

You are free to refuse to complete any questionnaire or to answer any particular question. You are also free to withdraw your consent at any time and terminate your participation without prejudice. In addition, you are free to request a summary of the results of the study. A code number will be assigned to your data to preserve your anonymity. The data gathered in this study will be used for research purposes and no one besides the investigators directly involved in this study will have access to these records. There are no identified risks involving this study.

You may ask any questions you might have before beginning and are free to ask any additional questions that arise at any time during the course of the study. Please do not discuss the specific nature of the study with other potential participants, including friends and classmates, until the data collection has been completed.

The University of Windsor Ethics Committee has cleared this study. If you have any questions or concerns about the ethics or procedures of this study, you may contact the Office of Research Services at the University of Windsor by telephone (253-3000 ext. 3916) or by e-mail (ethics@uwindsor.ca). If you have any other questions relating to the study, the researchers can be contacted at the phone number that appears below.

Thank you for your help!

Parveen Grewal or Kathryn Lafreniere, Ph.D.
Psychology Dept. Psychology Dept.
University of Windsor University of Windsor
Windsor, Ontario Windsor, Ontario
N9B 3P4 N9B 3P4

253-3000 ext. 2233

Signature of Investigator: ____________________________
VITA AUCTORIS

<table>
<thead>
<tr>
<th>NAME:</th>
<th>Parveen Kaur Grewal</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLACE OF BIRTH</td>
<td>Toronto, Ontario</td>
</tr>
<tr>
<td>YEAR OF BIRTH</td>
<td>1976</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>Chinguacousy Secondary School, Brampton, Ontario 1990-1995</td>
</tr>
</tbody>
</table>