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**The Influence of Situational Characteristics on Coping**

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### Abstract

The present study was designed to explore the influence that situational characteristics have on coping. Prior research demonstrated the relevance of personality, appraisal and types of situations. Beyond these, situational characteristics, such as controllability, severity, predictability and pervasiveness, were hypothesized to influence problem-based and emotion-based coping. The influence of these factors on coping was investigated with scenarios. One hundred and twelve subjects read three scenarios (i.e., one health, one financial and one interpersonal), each depicting moderate and low levels of the situational factors. After reading the scenarios, they completed questions to assess their appraisals, coping responses and self-efficacy. The present study was a 2 X 2 X 2 X 2 X 3 X 2 design with the final two variables repeated. This analysis included four situational manipulations, three types of situations and two types of coping. All the situational manipulations produced inconsistent effects, suggesting that it is difficult to manipulate these factors using scenarios. The severity and predictability manipulations increased coping. However, their effects could not be interpreted due to the problems with the manipulations. Further analysis indicated that appraisals, ranging from stressfulness to controllability, were related to coping behaviour. The scenario-based methodology appeared to be an effective approach for studying appraisals. The subjects' coping behaviour was also influenced by the type of situation (i.e., financial, health or interpersonal).

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## The Influence of Situational Characteristics on Coping

When dealing with stress, most individuals seek comfort or distraction while attempting to resolve the problem. Often they find the situation too stressful to resolve without attending to their emotional response. However, focusing on emotional distress without attempting to resolve the problem is associated with negative outcomes like depression (Vollrath, Alnaes & Torgersen, 1994).

An individual's coping response is determined by their interpretation of the problem, their personality and by the type of situation (Lazarus & Folkman, 1984). Beyond these, situational characteristics, such as controllability and severity, have been suggested as factors that influence coping (Folkman, 1984; Paterson & Neufeld, 1987; Zeidner & Ben-Zur, 1994). However, it is difficult to investigate situational factors using the traditional retrospective approach. With this design the investigator does not control the situation and it is difficult measure situational characteristics. An alternative to the retrospective approach is the use of scenarios (Lanza & Carifio, 1992).

The knowledge of how situational characteristics influence coping may be useful when working with large groups. For instance, the results of this study could be applied by corporations, governments or educational institutions. They may find it most efficient to modify their environment to promote adaptive coping. Altering the characteristics of an environment influences the individuals in that environment. However, other factors that influence coping (i.e., personality traits and appraisals) must be addressed one individual at a time. This study will explore several situational characteristics, namely controllability, severity, predictability and pervasiveness, that have been hypothesized to influence coping

behaviour. It will also evaluate the combined influences of situational factors, personality and appraisals on coping.

### Theories of Coping

There have been several attempts to define stress and coping. An early model of coping was conceptualized by Freud (1925-1926, trans. 1959). He defined coping as a set of defence mechanisms or mental strategies. These strategies were used to protect the ego from anxiety. For instance, an individual using denial refuses to acknowledge a distressing internal or external conflict. Other defence mechanisms included projection, sublimation, and repression. These strategies were assumed to be unconscious and outside the individual's control. Subsequent theories of coping (e.g., Menninger, 1963; Vaillant, 1977) organized Freud's defence mechanisms into hierarchies. Strategies were grouped on the basis of maturity. For example, Vaillant's (1977) hierarchical model consisted of four levels of defence mechanisms ranging from psychotic to mature. Psychotic mechanisms included denial, distortion and delusional projections, while mature mechanisms included, altruism, humour and sublimation. An individual using sublimation channels their unacceptable feeling or impulse into an acceptable feeling or behaviour (i.e., channeling aggression into sports activity).

Later approaches viewed coping as a series of stages (e.g., Main, 1977; Klinger, 1977; Shontz, 1975). This approach proposed that individuals progressed through a set of steps or stages when dealing with a stressor. For example, Klinger (1977) hypothesized that when individuals faced a stressful situation they initially concentrated on the problem. If the problem persisted, they became frustrated or angry. Then they protested and used

stereotypical actions to deal with the situation. Finally, if they were unable to resolve the situation they became depressed (Klinger, 1977). Current theories have shifted toward an emphasis on appraisals and cognitive aspects of coping.

Folkman and Lazarus (1980; 1985; Lazarus & Folkman, 1984; Folkman, 1984; Lazarus, 1966) developed a cognitive model in which the identification of a stressful situation involved three components: a primary appraisal, secondary appraisal and reappraisal. A “cognitive appraisal is an evaluative process that determines why and to what extent a particular transaction or series of transactions between the person and the environment is stressful” (Lazarus & Folkman, 1984, p. 19). The primary appraisal determines whether a situation is irrelevant, benign-positive or stressful. This appraisal is influenced by personality traits and the characteristics of the situation (Folkman, 1984; Lazarus & Folkman, 1984; Lazarus, 1966). An irrelevant situation requires no response. A benign or positive situation maintains or enhances the individual’s well-being. This appraisal results in emotions such as joy, love, happiness, exhilaration or peacefulness (Lazarus & Folkman, 1984). Finally, the situation could be appraised as stressful, taking the form of a harm or loss, a threat or a challenge. A harm or loss appraisal occurs when some form of stress has been experienced (e.g., an injury, illness, loss of a loved one, etc.). A threat appraisal occurs when a harm or loss had not occurred, but is expected. Finally, challenge appraisals occur when a stressful situation is impending, but includes the possibility of gain, growth or adaptation. If a situation is appraised as a threat or challenge, it requires further appraisal.

The primary appraisal is followed by a secondary appraisal and possibly a reappraisal. The secondary appraisal occurs when a threat or challenge is perceived. The goal of the secondary appraisal is to determine what can be done to cope with the situation. Several strategies are reviewed to determine which would be successful. The final form of appraisal is called reappraisal. This appraisal occurs when new information is available or the situation changes. The combination of the primary, secondary and reappraisal determines how the individual copes with stress.

To complement the appraisal process Folkman and Lazarus (1980; 1985; Lazarus & Folkman, 1984; Folkman, 1984; Lazarus, 1966) proposed a theory of coping. They defined coping as the:

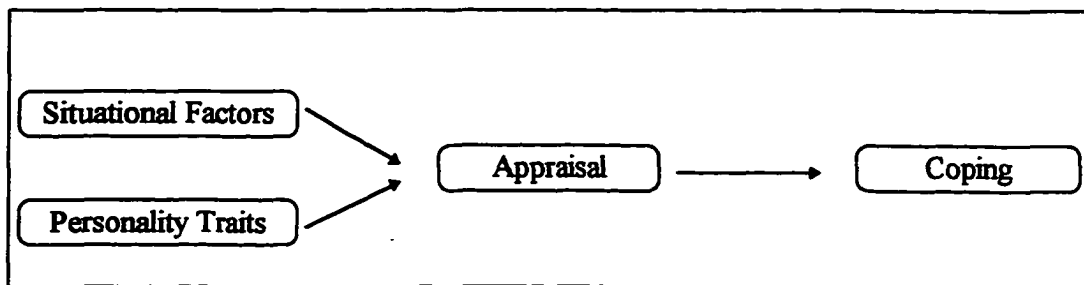
constantly changing cognitive and behavioural efforts to manage specific internal and external demands that are appraised as taxing or exceeding the resources of the person (Lazarus & Folkman, 1984, p. 141).

This definition was designed to address deficiencies in prior models of coping. It characterized coping as a process rather than a trait. This focused research on the actions individuals used to deal with stress. This definition also viewed coping as an active process rather than an automated response. Finally, it ignored outcome because using a coping strategy did not necessarily mean that the individual dealt successfully with the situation (Lazarus & Folkman, 1984). A simplified diagram of Folkman and Lazarus's (1980; 1985; Lazarus & Folkman, 1984; Folkman, 1984; Lazarus, 1966) model of stress and coping can be seen in Figure 1.

Folkman and Lazarus (1980; 1985; Lazarus & Folkman, 1984; Folkman, 1984; Lazarus, 1966) divided coping into two categories. Individuals can engage in problem-

based or emotion-based coping. Problem-based strategies are designed to resolve the stressful situation. These strategies include finding alternatives, creating a plan, taking action and refraining from competing activities. Examples of items that assess these strategies include “I knew what had to be done, so I doubled my efforts to make things work” and “I made a plan of action and followed it” (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986, p. 996).

**Figure 1: Simplified Model of Stress and Coping**



The second category of coping strategies is emotion-based. These strategies are designed to deal with the emotional consequences of a stressful situation. They are not intended to resolve the problem. Rather, they make the person feel better. The emotion-based strategies are sub-divided into those with a positive influence and those with a negative influence (Carver, Scheier & Weintraub, 1989). Positive strategies include seeking social support, positive reinterpretation, acceptance and using humour. Examples of items used to assess these strategies include “I talk to someone about how I feel” and “I try to get emotional support from friends or relatives” (Carver et al., 1989, p. 272). Coping strategies with a negative impact include denial, distancing, avoidance, minimization, self-blame and self-isolation. Examples of items used to assess these

strategies include “I refuse to believe that it has happened” and “I drink alcohol or take drugs, in order to think about it less” (Carver et al., 1989, p. 272).

The division into problem-based and emotion-based strategies has been applied to the study of psychopathology. Psychiatric patients were shown to use specific coping strategies. Depressed patients used more emotion-based strategies and fewer problem-based strategies (Endler & Parker, 1990a; 1990b; Larson, Piersel, Imao & Allen, 1990; Aldwin, 1991). A study conducted by Vollrath et al. (1994) investigated the coping patterns of a variety of psychiatric patients. Subjects with anxiety, somatoform, bipolar, dysthymic and depressive disorders were shown to use fewer adaptive emotion-based strategies and more maladaptive emotion-based strategies. Furthermore, subjects with thought disorders, delusional disorders or drug dependence used fewer problem-based and adaptive emotion-based strategies and more maladaptive emotion-based strategies.

### The Measurement of Coping

Several authors developed scales to measure coping behaviour. Folkman et al. (1986) created a scale that was used widely in research. Coping scales were also developed by Amirkhan (1990), Billings and Moos (1981; 1984), Carver et al. (1989) and Feifel and Strack (1989). These scales typically distinguished problem-based and emotion-based strategies. Two approaches to the measurement of coping behaviour evolved. Endler, Parker and Summerfeldt (1993) and Schaefer and Gorsuch (1993) observed that some scales were designed to measure state aspects of coping, while other scales measured trait aspects. State-based scales assessed coping responses to specific situations (e.g., Amirkhan, 1990; Billing & Moos, 1981; 1984; Folkman & Lazarus, 1980;

1985) while trait-based scales assessed stable coping patterns, regardless of the situation (e.g., Carver et al., 1989; Feifel & Strack, 1989). Though the items in these scales were similar, their instructions were different. The instructions either requested that the subjects indicate their coping responses to a prior event or their typical coping responses for most stressful situations.

The state-based approach to the measurement of coping assumed that individuals varied their coping responses depending on the situation. An example of this approach is Folkman et al.'s (1986; Folkman & Lazarus, 1980; 1985) Ways of Coping scale. This scale was designed to be used with past stressful events. It was consistent with their theory of stress and coping which emphasized the importance of appraising each situation. Several revisions were made during scale construction. Their most recent unpublished scale consists of a variety of problem-based and emotion-based subscales (Folkman et al., 1986). These subscales included confrontive coping, distancing, self-controlling, accepting responsibility, escape-avoidance, planful problem solving and positive reappraisal. The Ways of Coping scale also measured the tendency to seek social support which was considered a mixed emotion-based and problem-based scale. Examples of problem-based items include "Stood my ground and fought for what I wanted" and "Tried to get the person responsible to change his or her mind" (Folkman et al., 1986, p. 996). Examples of emotion-based items include "Made light of the situation; refused to get too serious about it" and "Didn't let it get to me; refused to think about it too much" (Folkman et al., 1986, p. 996). Adequate reliability was demonstrated for this scale (Folkman et al., 1986).



All state-based scales used variations on the same administration procedures. Before rating their use of specific coping strategies, subjects were asked to recall a recent stressful event. The time frame for the recalled event varied. Some scales requested stressful events from the prior week, while others asked subjects to recall events that were as much as one year old. The subjects were often asked to write down the situation so that it was fresh in their memory. Then they read a list of coping strategies and using a four-point Likert scale endorsed the ones they would employ. They indicated if they engaged in each strategy a lot, a medium amount, a bit or not at all. Emotion-based and problem-based scores were calculated along with subscales for specific strategies when needed.

In contrast to the state-based approach, trait-based scales were designed to assess general or stable coping responses that are used in most situations. These scales treated coping as a trait, similar to personality traits, that does not vary a great deal from situation to situation. An example of this approach was the scale developed by Carver et al. (1989). These authors generated a scale that assessed a wide range of problem-based and emotion-based strategies. Their scale measured active coping, planning, suppression of competing activities, restraint coping, seeking social support for instrumental reasons, seeking social support for emotional reasons, positive reinterpretation, acceptance, turning to religion, focus on and venting of emotions, denial, behavioural disengagement, mental disengagement and alcohol or drug disengagement. Examples of problem-based items include "I take additional action to try to get rid of the problem" and "I do what has to be done, one step at a time" (Carver et al., 1989, p. 272). Examples of emotion-based items

include “I get sympathy and understanding from someone” and “I learn to live with it” (Carver et al., 1989, p. 272). Each scale consisted of four items and demonstrated adequate reliability.

The administration procedures used with trait-based scales were similar to those used by state-based scales. A noteworthy distinction between the two approaches is that in trait-based research subjects are asked to indicate what they generally did or felt when faced with stressful events, without reference to a specific stressful event. The subjects read a list of coping responses and indicated if they engaged in each strategy a lot, a medium amount, a bit or not at all (i.e., using a four-point Likert scale). Then subscale scores were calculated. In coping research the choice of scale depends on the purpose of the study.

#### Methodological Approaches to the Study of Coping

Two procedures have been used to study variables that influence coping. The most common methodology is a correlational design where subjects are asked to report coping responses to prior stressful events. The alternative procedure, which has seen infrequent use, is an experimental design that requires subjects to respond to hypothetical scenarios. The correlational design was used by a variety of researchers (e.g., Valentiner, Jolahan & Moos, 1994; Heppner, Cook, Strozier & Heppner, 1991; Solomon, Regier & Burke, 1989; Aldwin, 1991; Billings & Moos, 1984; Roy-Byrne, Vitaliano, Cowley, Luciano, Zheng & Dunner, 1992; Folkman & Lazarus, 1980; Petrosky & Birkimer, 1991; Roberto, 1992). Correlational studies can be cross-sectional or longitudinal and use state-based or trait-based coping scales. All correlational studies used procedures similar to

those used with state-based or trait-based coping scales. Subjects are either asked to recall a prior stressful event or report the coping strategies they generally use. Then they read a list of coping strategies and endorse the ones they employ. Subjects were exposed to either single or multiple testing sessions depending on the design.

An example of a correlational study that employed a cross-sectional design was conducted by Roy-Byrne et al. (1992). They investigated the coping patterns of individuals with depressive and panic disorders. Subjects completed coping, depression and anxiety scales. Higher levels of distress (i.e., anxiety and depression) were shown to be associated with less problem-based coping and more emotion-based coping. An example of a correlational study that used a longitudinal design was conducted by Glyshaw, Cohen and Towbes (1989). They investigated the coping patterns of elementary school children. The students completed a coping scale and then a life events, anxiety and depression scale. Tests were completed in November and again in April of the same school year. These procedures allowed Glyshaw et al. (1989) to track changes in coping, anxiety and depression during the school year. Problem-based strategies emerged as the best predictor of depression at Time 2. The use of problem-based coping was shown to reduce the risk of future depression.

An alternative to the correlational approach is the use of scenarios in an experimental design. This approach has not been used as extensively. Coping studies with an experimental design generally use state-based coping scales. However, subjects are not asked to recall a past event. Rather, they read and responded to scenarios. Smith and Lazarus (1993) used an experimental design to examine the relationship between appraisal

and emotion. Their study was typical of others that used scenarios. The authors created scenarios that were designed to influence the subjects' appraisal. Subjects were asked to imagine themselves in the scenarios. Then they read a list of coping strategies and endorsed those that they would use. A perception check was performed to ensure that the scenarios appropriately manipulated the subjects' appraisals. Along with a coping scale these authors administered scales that assessed appraisal, relationship themes and emotions. The manipulation of the subjects' appraisals was shown to produce corresponding emotions of anger, guilt and anxiety.

Lanza and Carifio (1992) reported several advantages to the use of scenarios. Scenarios can be standardized, allowing the experimenter to administer consistent stimuli to subjects. The use of scenarios allows the manipulation of experimental variables, control of extraneous variables and the random assignment of subjects. With scenarios, the experimenter does not have to wait for a desired situation to occur. Scenarios can also be used repeatedly to facilitate longitudinal testing. Using scenarios rather than recalled events allows a larger number of variables to be studied. Numerous variables can be effectively manipulated with scenarios, while the observation of all possible combinations of three or more variables in naturally occurring situations would be less probable. These procedures can be used to conduct experimental studies and are well suited to populations with poor recall (i.e., psychiatric patients, children and the elderly). They can also be used to investigate phenomena that are unethical to produce in real-life situations (i.e., coping with abuse, discrimination, torture, etc.) or that occur relatively infrequently (i.e., coping with natural disasters, moral dilemmas, etc.).

Lanza and Carifio (1992) also acknowledged that scenarios have suffered from lingering questions about their validity and generalizability. Scenarios have been criticized because it is believed that they do not create the same impact or response generated by real events. Lanza and Carifio (1992) addressed this criticism with a validation study. They created three scenarios that varied in severity and validated them against external criteria. The subjects' appraisals of severity were found to be valid across all scenarios. Subjects were able to discriminate among the three levels of severity. The authors concluded that the use of scenarios was valid.

Researchers have used scenarios to explore the coping behaviour of a variety of populations. Barker, Child, Gallois, Jones and Callan (1991) studied the coping behaviour of overseas students to social and academic situations. The scenario-based format was also used to investigate coping strategies used by dieters (Drapkin, Wing & Shiffman, 1995), girls entering menarche (Moore, 1995), women dealing with inappropriate sexual behaviour in the work place (Matsui, Kakuyama, Onglatco & Ogutu, 1995), smokers dealing with relapse (Drobles, Meier & Tiffany, 1994), women dealing with sexual assault (Lefley, Scott, Llabre & Hicks, 1993), students coping with school problems (Brophy & McCaslin, 1992), children dealing with depression and suicidal ideation (Asarnow, Carlson & Guthrie, 1987) and teachers coping with student related problems (Brophy & Rohrkemper, 1981).

Bjorck and Cohen (1993) used scenarios to examine the influence of different types of situations on coping. Using the Ways of Coping scale they compared threat, loss and challenge situations. Scenarios were constructed to depict each of these situations.

Threat and challenge situations produced more problem-based coping. A scenario-based study that explored the influence of situational characteristics on coping was also completed by Schaefer and Gorsuch (1993). They constructed three scenarios to assess the use of religious coping strategies. The scenarios depicted threat, loss and challenge situations. Subjects rated the importance and controllability (among other variables) of the scenarios. Neither importance nor controllability were individually related to choice of coping strategy. However severity (i.e., importance), in combination with perceived stress, threat, challenge and loss, was shown to be positively related to the use of coping strategies that emphasized collaboration with God and negatively related to strategies that did not emphasize collaboration with God.

### Appraisal and Coping

Folkman and Lazarus (1980; 1985; Lazarus & Folkman, 1984; Folkman, 1984; Lazarus, 1966) proposed that coping responses are required when a situation is appraised as a threat. The recognition of a threat can result from appraising a situation as uncontrollable or severe (Folkman, 1984). The influence of appraised controllability on coping was investigated by Zeidner and Hammer (1992). They examined appraised controllability with a group of Israelis under SCUD missile attack during the Persian Gulf War of 1991. Subjects who appraised greater control used fewer emotion-based strategies (e.g., venting emotions) and experienced less fear and depression. They found no relationship between appraised controllability and problem-based coping. In further study of this population Zeidner and Ben-Zur (1993) again found a negative relationship between appraised controllability and emotion-based coping. Zeidner, Klingman and

Itskowitz (1993) found similar results with children. Individuals who appraised their situation as uncontrollable were more likely to use emotion-based strategies (i.e., dealing with one's emotional response to a situation).

The relationship between coping and perceived or appraised controllability was confirmed by Valentiner et al. (1994). They reported that subjects who appraised their situation as controllable were more likely to use problem-based strategies. Solomon et al. (1989) found that the best solution in a situation that was appraised as uncontrollable was emotion-based coping. Aldwin (1991) reported that taking control of, or taking responsibility for managing, a problem was associated with the use of problem-based strategies. An exception to this pattern was reported by Heppner et al. (1991) who found that women who appraised more control were more likely to use emotion-based coping. In general, events that are appraised as controllable are associated with the use of problem-based strategies.

The influence of appraised severity was discussed by Zeidner and Hammer (1992) and Zeidner (1993). They referred to appraised severity as the belief that a situation had extreme relevance, magnitude or importance. Zeidner and Hammer (1992) speculated that the severity of a situation influences the use of problem-based strategies. Billings and Moos (1984) incorporated this concept in their study. They reported that men who appraised their situation as more severe were more likely to seek additional information. Seeking information can take the form of either emotion-based or problem-based coping. The influence of severity was also investigated by Roy-Byrne et al. (1992). Using the Ways of Coping Checklist they examined the coping patterns of patients with panic and

major depressive disorders. Stressors that were appraised as severe produced more emotion-based coping and less problem-based coping. In general, subjects who faced a situation that was appraised as severe were more likely to deal with their emotional response.

### Personality and Coping

Folkman (1984; Lazarus & Folkman, 1984; Lazarus, 1966) proposed that personality influences appraisals and coping. Personality is reflected in the beliefs that individuals hold. These beliefs act as perceptual filters and affect how events are perceived or appraised and dealt with (Folkman, 1984; Lazarus & Folkman, 1984). Personality traits ranging from neuroticism to self-esteem have been shown to be associated with coping. Neuroticism has been shown to be negatively associated with problem-based coping and positively associated with emotion-based coping (i.e., wishful thinking and self-blame; Endler & Parker, 1990b; Bolger, 1990; Houtman, 1990). Extroversion was shown to be positively associated with problem-based coping and negatively associated with emotion-based coping (Endler & Parker, 1990b). Psychoticism was shown to be positively associated with emotion-based coping (Endler & Parker, 1990b). Emotion-based coping was also shown to be associated with hypochondriasis, depression, anxiety and self-deprecation (Endler & Parker, 1990b).

Locus of control refers to the relatively stable belief that events are either within (i.e., internal) or not within (i.e., external) an individual's control (Rotter, 1966; Lefcourt, 1976). An internal locus of control was shown to be positively associated with the use of problem-based strategies and negatively associated with the use of emotion-based



strategies (Petrosky & Birkimer, 1991; Amirkhan, 1990). The opposite pattern was shown for external locus of control. This relationship generalizes to older subjects (Roberto, 1992; Johnson & Barer, 1993), younger subjects (Hoffman & Levy-Shiff, 1994; Kliewer, 1991), undergraduates (Larson et al., 1990), student teachers (Sadowshi & Blackwell, 1987), patients suffering from chronic pain (Crisson & Keefe, 1988; Buckelew, Shutty, Hewart, Landon, Morrow & Frank, 1990) and patients with self-defeating personality disorder (Schill & Beyler, 1992).

Self-efficacy refers to the belief that one can master or be successful in various situations (Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs & Rogers, 1982; Bandura, 1982). Individuals with high self-efficacy also believe that they can control situations. Larson et al. (1990) investigated the relationship between self-efficacy and coping style. Self-efficacy was positively related to problem-based coping and negatively related to emotion-based coping. Jerusalem and Schwarzer (1989) also observed a relationship between coping patterns and self-efficacy. High self-efficacy was found to be positively related to the use of problem-based coping and negatively related to the use of emotion-based coping. In addition, Conway and Terry (1992) reported that the use of problem-based coping was associated with higher self-efficacy in situations appraised as controllable. In general, people with high self-efficacy were more likely to try to resolve their problems (problem-based coping), while people with low self-efficacy were more likely to try to deal with their emotional response (emotion-based coping). However, an exception to this pattern was observed by Martin, Holroyd and Rokicki (1993). For

subjects suffering from headaches, high self-efficacy was related to the use of emotion-based coping (i.e., disengagement).

### Situational Characteristics and Coping

Along with personality traits, Folkman (1984; Lazarus & Folkman, 1984; Lazarus, 1966) proposed that situational factors influence appraisal and coping. Folkman and Lazarus (1980) reported that work related stress was associated with more problem-based coping while health related stress was associated with more emotion-based responses. Petrosky and Birkimer (1991) found that interpersonal situations produced less problem-based coping than work-related situations. Roberto (1992) reported that elderly women with health problems were more likely to use emotion-based strategies. These studies suggest that work related problems are associated with attempts to resolve the situation (problem-based coping), while interpersonal and health problems are associated with attempts to deal with one's emotional response to the situation (emotion-based coping).

Carver et al. (1989) pointed out that the use of one consistent coping pattern across all situations would be counterproductive. Rather, flexibility and the ability to respond to the unique aspects of each situation determined success. The relevance of situational characteristics to coping was also suggested by Zeidner and Ben-Zur (1994). They examined individual differences in anxiety, coping and posttraumatic stress in the aftermath of the Persian Gulf war. Coping patterns and trait anxiety were found to be the most salient predictors of poor outcome. The authors speculated that characteristics of the stressful situation such as its controllability, severity, predictability and pervasiveness influenced coping. They felt that these variables would be "helpful in understanding the

relationship between disaster and psychological impairment” (Zeidner & Ben-Zur, 1994, p. 461). However, they were unable to manipulate them as they were investigating a naturally occurring phenomenon (i.e., the Persian Gulf war). Paterson and Neufeld (1987) noted that there is a lack of research on situational factors. They went on to indicate that:

the influence of appraisal at a later stage in the stress process places an upper bound on the amount that can be learned using this approach. Yet the emphasis on readily observed and manipulated stimuli reduces measurement difficulties and the danger of circularity (Paterson & Neufeld, 1987, p. 404).

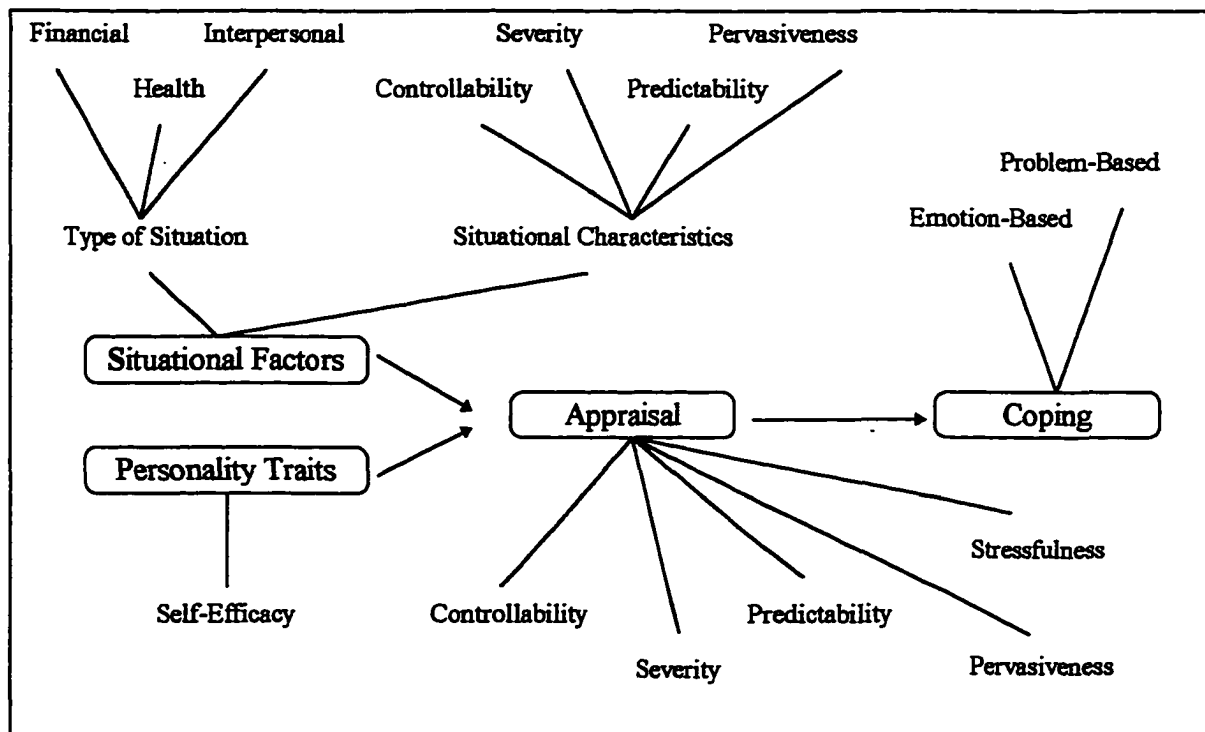
In a subsequent study Paterson and Neufeld (1995) investigated the influence of situational controllability by manipulating the number of choices the subjects had. Using a scenario-based methodology they found that number of choices in a stressful situation increased appraised control and stressfulness.

A review of the coping literature revealed a lack of articles that explore the influence of situational characteristics such as controllability, severity, predictability and pervasiveness. Yet the study of these situational characteristics may yield useful information about strategies that influence coping. For example, changing the characteristics of a stressful environment may alter coping behaviour. The study of situational characteristics may determine if such characteristics have a consistent influence on appraisals and coping responses. It can also clarify how situational factors, personality and appraisals combine to determine coping behaviour.

### The Present Study

The purpose of the present study was to explore the influence that situational characteristics, such as controllability, predictability, pervasiveness and severity, have on coping. Scenarios were used to depict all combinations of these variables in situations involving health, interpersonal relations and finance. The use of three types of situations provides evidence for the generality of the effects. Scores for problem-based and emotion-based coping were obtained for each scenario using a modified version of the Ways of Coping scale (Folkman et al., 1986). As a check on the effectiveness of the manipulations, ratings of appraised controllability, predictability, pervasiveness and severity were also obtained for each scenario. The final measure taken was the personality trait, self-efficacy (Sherer et al., 1982). A summary of the variables and measures is presented in Figure 2.

**Figure 2: Detailed Stress and Coping Model for the Present Study**



## Method

### Subjects

One hundred and twelve subjects were recruited from undergraduate psychology classes. The subjects' ages ranged from 18 to 51, with a mean of 20.8 and a standard deviation of 5.1. Thirty-six subjects were male and seventy-five were female (one subject did not provide their gender). Seven subjects were randomly assigned to each of the 16 groups (see p. 66).

### The Scenarios

The subjects read three scenarios, one interpersonal, one financial and one health. The interpersonal scenario depicted the ending of a relationship. The financial scenario dealt with the loss of Ontario Student Assistance Program (OSAP) funding and the health scenario involved the extraction of wisdom teeth. The scenarios depicted low or moderate levels of control, predictability, pervasiveness and severity. Controllability was manipulated by varying the number of options available to the subject (i.e., one or more than one option). Predictability was manipulated by varying whether the stressor was foreseeable or not foreseeable. Pervasiveness was manipulated by varying whether other areas of the subjects' life were affected by the stressor (i.e., no other areas or three other areas of their life). Severity was manipulated by varying the relevance or magnitude of the stressor.

In each scenario these variables were manipulated by changing the situation rather than the subject's interpretation or appraisal of the situation. For instance, controllability

was manipulated by describing the nature of the situation, not by indicating how the subject should appraise it. This reduced bias that may result from producing a scenario that demanded only one response. It allowed the subjects to interpret and respond to the situation as they saw fit.

The interpersonal scenario described the break-up of a relationship. In the controllable scenario the subjects break-up, but know where their ex-partner is if they chose to talk to him or her. In the uncontrollable scenario, their partner breaks-up with them and moves to an undisclosed location out of their province. In the predictable scenario the subjects' partner becomes distant, avoidant and spends time with another romantic interest before the break-up. In the unpredictable scenario there is no change in the partner's behaviour before the break-up. In the non-pervasive scenario the subjects continue to socialize at school, work and elsewhere. In the pervasive scenario the subjects do not continue to socialize at school, work and elsewhere. In the non-severe scenario the relationship is not important because it was not considered special or expected to last. In the severe scenario the relationship is important because it was considered special and expected to last a long time.

The financial scenario described the loss of OSAP funding. In the controllable scenario the subjects have the choice to reapply for funding because their OSAP is refused due to a lack of appropriate information. In the uncontrollable scenario the subjects' funding is refused because the government cut funding to OSAP. In the predictable scenario the subjects hear news reports that the government is considering changes to OSAP. In the unpredictable scenario the subjects hear no indication in the news of

changes to OSAP. In the non-pervasive scenario the subjects are still able to see friends from school and work because they prefer inexpensive activities. In the pervasive scenario the subjects are not be able to go out with their friends from school and work because they like to do expensive things. In the non-severe scenario the loss of OSAP was not important because the subjects' parents would pay for books and tuition. In the severe scenario the loss of OSAP was important because the subjects needed the money to pay for books and tuition.

The health scenario dealt with having wisdom teeth extracted. In the controllable scenario the dentist informs the subjects that they can choose to be unconscious or conscious when their teeth are removed. In the uncontrollable scenario the doctor informs the subjects they would be conscious when their teeth are removed. In the predictable scenario the subjects had been told when they were younger that they would eventually have to have their teeth removed. In the unpredictable scenario the subjects had not been told when they were younger that they would have to have their wisdom teeth removed. In the pervasive scenario, having their wisdom teeth out means they would not be able to attend school, work or socialize for up to a week and a half. In the non-pervasive scenario the subjects are still be able to attend school, work and socialize. In the severe scenario, the operation is painful because of the way the teeth are growing. In the non-severe scenario the operation is routine and not very painful.

### Measures

Coping responses were measured with a modified version of Folkman et al.'s (1986) Ways of Coping scale. The Ways of Coping scale was modified for use with

scenarios. Minor wording changes phrased each strategy in the present tense and phrased each strategy in reference to the scenarios. For example, the item “stood my ground and fought for what I wanted” was changed to “in the previous situation how likely is it that you would stand your ground and fight for what you wanted”. Subjects were asked to indicate, on a four-point Likert scale, how likely it was that they would use each coping strategy.

The Ways of Coping scale (Folkman et al., 1986) was also shortened so that it could be administered three times during one testing session. Two subscales with high internal consistency were selected from the problem-based scale. These items were taken from the “Confrontive Coping” (i.e., efforts to change the situation) and “Planful Problem-Solving” subscales (i.e., efforts to plan and overcome the problem). Due to the larger number of emotion-based items in the Ways of Coping scale, three subscales with high internal consistency were selected from the problem-based scale. These items were taken from the “Distancing” (i.e., the tendency to take a detached but positive outlook), “Escape-Avoidance” (i.e., the tendency to use wishful thinking and avoidance) and “Seeking Social Support” subscales. A copy of the modified version of the Ways of Coping scale can be found in Appendix A.

The subjects’ were also asked to appraise each scenario’s controllability, predictability, pervasiveness, severity and stressfulness. The first four questions provided a test of the effectiveness of the independent variable manipulations. The subjects responded using a four-point Likert format, where 1 = not at all, 2 = slightly, 3 =



moderately and 4 = extremely. The questions for the interpersonal, financial and health situations are listed below.

**Interpersonal:**

<b>In the previous situation how likely is it that you would:</b>	<b>Not at all Likely</b>		<b>Extremely Likely</b>	
1) you would be able to do something to influence your relationship?	1	2	3	4
2) you would have been able to foresee the break-up?	1	2	3	4
3) the break-up would affect many areas of your life?	1	2	3	4
4) the break-up would have a severe (large) impact on you?	1	2	3	4
5) you would find the break-up stressful?	1	2	3	4

**Financial:**

<b>In the previous situation how likely is it that you would:</b>	<b>Not at all Likely</b>		<b>Extremely Likely</b>	
1) you would be able to do something to influence the loss of funding?	1	2	3	4
2) you would have been able to foresee the loss of funding?	1	2	3	4
3) the loss of funding would affect many areas of your life?	1	2	3	4
4) the loss of funding would have a severe (large) impact on you?	1	2	3	4
5) you would find the loss of funding stressful?	1	2	3	4

**Health:**

<b>In the previous situation how likely is it that you would:</b>	<b>Not at all Likely</b>		<b>Extremely Likely</b>	
1) you would be able to something to influence your operation?	1	2	3	4
2) you would have been able to foresee needing your teeth out?	1	2	3	4
3) having you teeth out would affect many areas of your life?	1	2	3	4
4) having you teeth out would have a severe (large) impact on you?	1	2	3	4
5) you would find having your teeth out stressful?	1	2	3	4

Self-efficacy was assessed with the Self-Efficacy Scale by Sherer et al. (1982).

This scale provides scores for General Self-Efficacy and Social Self-Efficacy. The General

Self-Efficacy subscale contains 17 items which assess the belief that one can successfully perform a desired action regardless of the specific behaviour domain. The Social Self-Efficacy subscale contains six items which assess the belief that one can successfully perform in social situations. All items were answered using a four-point Likert scale. A copy of the Self-Efficacy Scale can be found in Appendix B.

### Procedure

The subjects were asked to read and respond to three scenarios. Each subject responded to one financial, interpersonal and health scenario. The scenarios depicted moderate or low levels of controllability, predictability, pervasiveness and severity. The combination of two levels of each of the four situational factors produced sixteen scenarios for each of the three types of situations. The scenarios were administered in a randomized format. Each subject was presented with three scenarios that depicted the same level of controllability, predictability, severity and pervasiveness. A list of the sixteen combinations of variables can be found in Appendix C. The instructions were as follows:

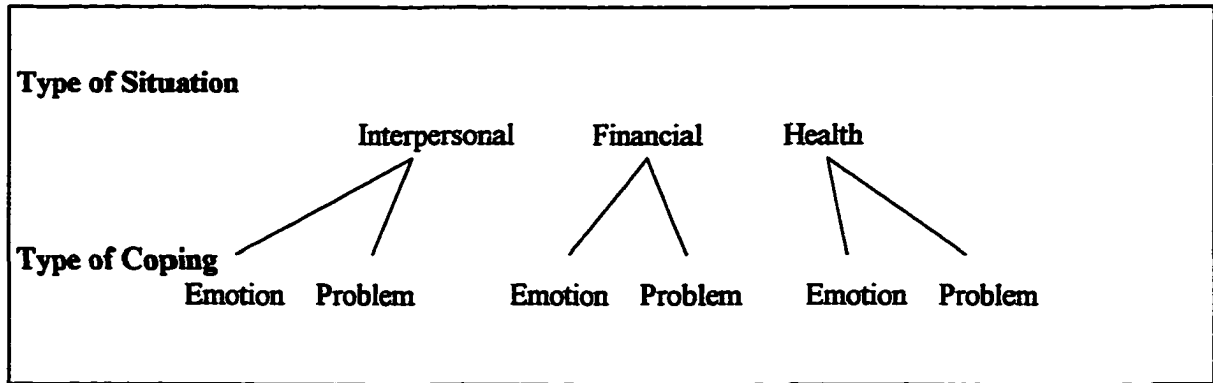
Read the following scenario and imagine yourself in the situation. Consider what you would be feeling, thinking and doing. Following the scenario is a set of questions that ask how you would respond if the situation was happening to you. Take the time to consider each question separately and respond to them as if they were unique and unrelated. Answer as truthfully as possible. If you feel that it is not at all likely that you would do it circle 1, if you feel that it is slightly likely that you would do it circle 2, if you feel it is moderately likely that you would do it circle 3 and if you feel it is extremely likely that you would do it circle 4.

After reading the first scenario and responding to the coping scale, the subjects indicated how they appraised the situational characteristics (i.e., controllability, predictability, pervasiveness and severity) and how stressful the situation was. Then they repeated these procedures for the second and third scenarios. Following this they completed the Self-Efficacy Scale.

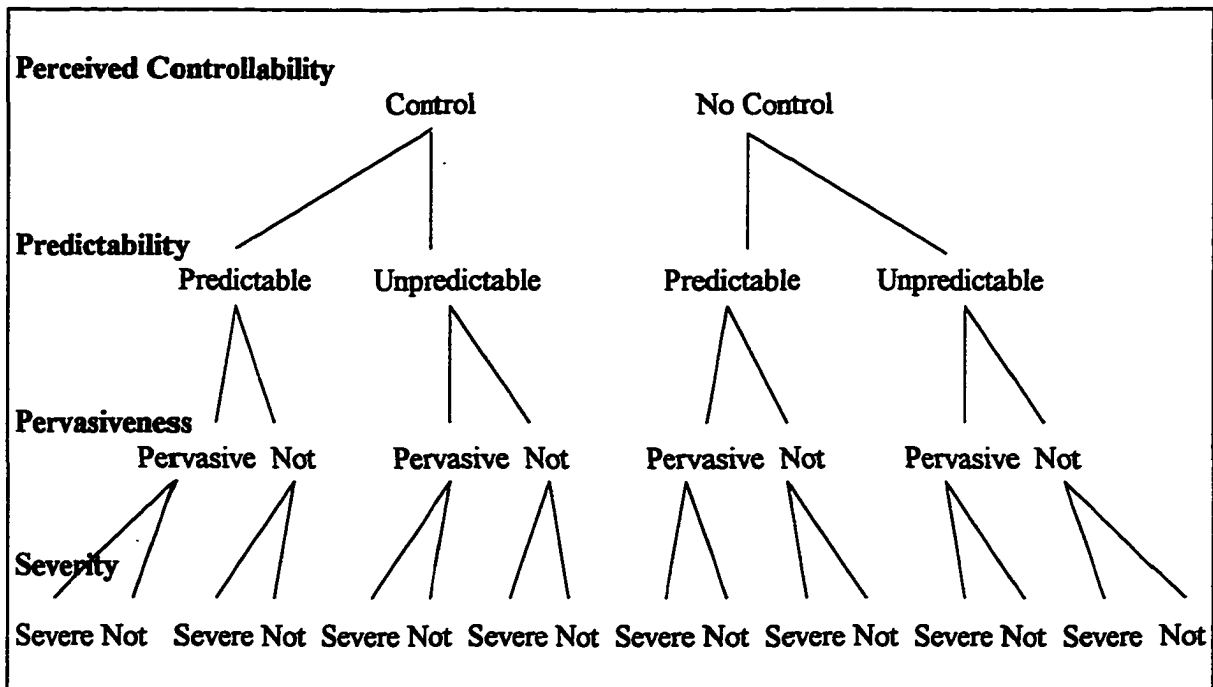
### Data Analysis

Scenarios were used in the present study to experimentally investigate the influence of situational characteristics on coping behaviour. The combination of four between-subject situational characteristics (controllability, predictability, pervasiveness and severity) and two within-subject factors (three types of situation and the two types of coping) produced a 2 X 2 X 2 X 2 X 3 X 2 ANOVA. This design is displayed in Figures 3 and 4. Due to the complexity of the design all three-way and higher interactions were suppressed, unless they involved the within-subjects factor coping (i.e., problem-based vs. emotion-based). This step was taken to limit the possibility of an inflated Type 1 error that would result from investigating the large number of factors included in the present study. Where main effects or interactions were significant, post-hoc comparisons and simple effects analyses were completed. A Bonferroni correction was used with multiple comparisons and for each table of correlations. Greenhouse-Geisser corrections were used for all within subject ANOVAs.

**Figure 3: Tree Diagram of Within Subject Factors**



**Figure 4: Tree Diagram of Between Subject Factors**



## Results

### Preliminary Analyses

#### Reliability of the Measures

Before addressing the main purpose of this study, several preliminary analyses were completed. Cronbach's alpha was used to test the internal consistency of the Modified Ways of Coping scale and Self-Efficacy scale. They demonstrated adequate reliability. A reliability of .89 was obtained for the General Self-Efficacy scale and .75 for the Social Self-Efficacy scale. Reliabilities across the financial, health and interpersonal scenarios, for the problem-based scale ranged from .80 to .85 and from .63 to .71 for the emotion-based scale (see Table 1). One problem-based item (i.e., "just concentrate on what you have to do next - the next step") was eliminated because it was not internally consistent with the other items. Further evidence of reliability was provided by correlating the subjects' coping responses across the three scenarios (see Table 2). Moderate consistency was found for the emotion-based items. Correlations ranged from .62 to .66. Lower reliabilities were obtained for the problem-based scale (i.e., correlations ranged from .23 to .39).

**Table 1: Reliability of Coping Scales**

Coping Scale	Number of Items	Financial Alpha	Health Alpha	Interpersonal Alpha
Problem-Based Coping	9	.82	.85	.80
Emotion-Based Coping	15	.63	.71	.71

**Table 2: Correlations Between the use of Coping Strategies Across Experimental Situations**

Type of Coping	Financial & Health	Financial & Interpersonal	Health & Interpersonal
Problem-Based	.27**	.38**	.23
Emotion-Based	.63**	.62***	.66**

\*\*  $p < .01$ ,      \*\*\*  $p < .001$

### Specificity and Consistency of the Situational Manipulations

The subjects were asked to read three scenarios depicting stressful situations with moderate or low controllability, predictability, pervasiveness and severity. The consistency and specificity of these manipulations was assessed with a series of 2 X 2 X 2 X 2 X 3 ANOVAs. These analyses examined the influence of the four situational manipulations on each appraisal, rated across the three scenarios. See Tables 3 through 8 for ANOVA summaries and means. The main effect of the pervasiveness manipulation on appraised pervasiveness was significant. However, subjects appraised the pervasive manipulation as more pervasive in the financial scenario,  $t(112) = -2.18$ ,  $p < .05$ , but not in the health,  $t(112) = -1.52$ ,  $p > .05$ , or interpersonal scenarios,  $t(112) = -.47$ ,  $p > .05$ , (see Figure 5). The main effect of the predictability manipulation on appraised predictability was significant, but it interacted with type of situation (see Figure 6). In the health,  $t(112) = 4.32$ ,  $p < .001$ , and interpersonal scenarios,  $t(112) = 2.02$ ,  $p < .05$ , subjects who faced the predictable stressor appraised it as more predictable than those who faced the unpredictable stressor. There was no difference in appraised predictability for the financial scenario,  $t(112) = .46$ ,  $p > .05$ . The main effect of the severity manipulation on appraised

**Table 3: Effects of the Situational Manipulations on Appraised Controllability**

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Partial $\eta^2$
Controllability	.76	1	.76	.75	.007
Pervasiveness	.30	1	.30	.29	.003
Predictability	4.30	1	4.30	4.24*	.038
Severity	7.44	1	7.44	7.34**	.064
Within + Residual	108.52	107	1.01		
Situation	8.33	2	4.16	5.68**	.050
Controllability by Situation	2.54	2	1.27	1.73	.016
Pervasiveness by Situation	1.54	2	.77	1.05	.010
Predictability by Situation	7.04	2	3.52	4.80**	.043
Severity by Situation	.36	2	.18	.25	.002
Within + Residual	156.85	214	.73		

\*  $p < .05$ , \*\*  $p < .01$ **Table 4: Effects of the Situational Manipulations on Appraised Pervasiveness**

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Partial $\eta^2$
Controllability	.07	1	.07	.08	.001
Pervasiveness	5.00	1	5.00	5.38*	.048
Predictability	1.57	1	1.57	1.69	.016
Severity	28.00	1	28.00	30.11***	.220
Within + Residual	99.51	107	.93		
Situation	69.60	2	34.80	51.43***	.325
Controllability by Situation	.67	2	.33	.49	.005
Pervasiveness by Situation	1.17	2	.58	.86	.008
Predictability by Situation	.38	2	.19	.28	.003
Severity by Situation	20.74	2	10.37	15.33***	.125
Within + Residual	144.79	214	.68		

\*  $p < .05$ , \*\*\*  $p < .001$

**Table 5: Effects of the Situational Manipulations on Appraised Predictability**

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Partial $\eta^2$
Controllability	2.33	1	2.33	2.43	.022
Pervasiveness	1.19	1	1.19	1.24	.011
Predictability	12.96	1	12.96	13.51***	.112
Severity	6.30	1	6.30	6.56*	.058
Within + Residual	102.69	107	.96		
Situation	17.54	2	8.77	13.29***	.110
Controllability by Situation	.43	2	.22	.33	.003
Pervasiveness by Situation	.93	2	.47	.71	.007
Predictability by Situation	6.91	2	3.46	5.24**	.047
Severity by Situation	4.29	2	2.15	3.25*	.029
Within + Residual	141.22	214	.66		

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 6: Effects of the Situational Manipulations on Appraised Severity**

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Partial $\eta^2$
Controllability	.19	1	.19	.21	.002
Pervasiveness	2.33	1	2.33	2.57	.023
Predictability	.05	1	.05	.05	.000
Severity	38.68	1	38.68	42.53***	.284
Within + Residual	97.31	107	.91		
Situation	79.14	2	39.57	58.64***	.354
Controllability by Situation	1.81	2	.90	1.34	.012
Pervasiveness by Situation	1.81	2	.90	1.34	.012
Predictability by Situation	.67	2	.33	.49	.005
Severity by Situation	31.50	2	15.75	23.34***	.179
Within + Residual	144.40	214	.67		

\*\*\*  $p < .001$



**Table 7: Table of Means and Standard Deviations for Corresponding Appraisals**

	Financial	Health	Interpersonal	Total
Controllable	2.36 (1.07)	1.98 (1.00)	2.57 (.85)	2.30 (.63)
Uncontrollable	2.20 (.92)	2.13 (.95)	2.30 (.76)	2.21 (.58)
Total	2.28 (1.00)	2.05 (.98)	2.44 (.81)	
Non-pervasive	2.62 (.93)	1.64 (.84)	2.60 (.98)	2.29 (.65)
Pervasive	3.00 (.89)	1.91 (1.01)	2.69 (1.01)	2.54 (.61)
Total	2.81 (.93)	1.78 (.94)	2.65 (.99)	
Predictable	2.29 (.80)	3.02 (.90)	2.96 (.85)	2.76 (.57)
Not Predictable	2.21 (.85)	2.25 (.98)	2.63 (.93)	2.36 (.59)
Total	2.25 (.82)	2.63 (1.01)	2.79 (.90)	
Not Severe	2.09 (.90)	1.68 (.97)	2.02 (.88)	1.93 (.59)
Severe	3.30 (.83)	1.50 (.66)	3.02 (.92)	2.61 (.51)
Total	2.70 (1.06)	1.59 (.83)	2.52 (1.03)	

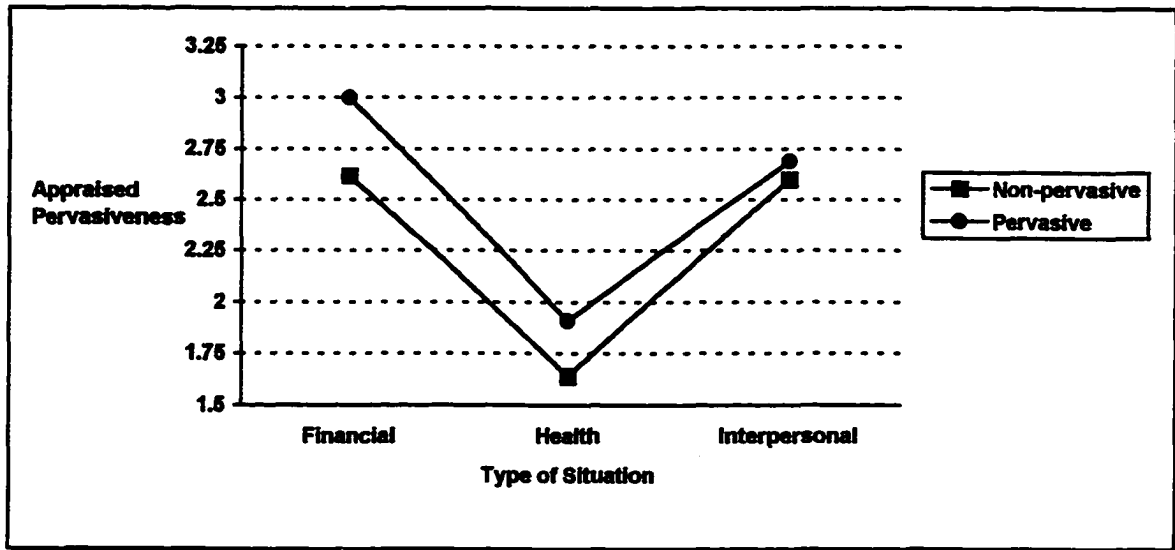
This table displays the means and standard deviations (in brackets).

**Table 8: Table of Means and Standard Deviations for Non-Corresponding Appraisals**

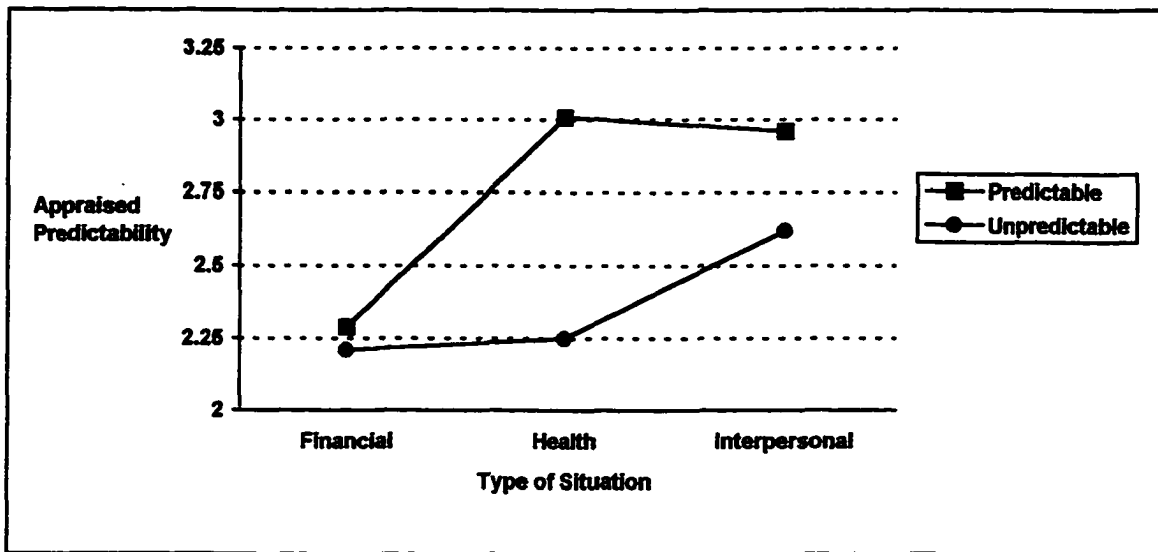
	Controllability	Pervasiveness	Predictability	Severity
Controllable	2.30 (.63)	2.40 (.64)	2.64 (.53)	2.24 (.66)
Uncontrollable	2.21 (.58)	2.43 (.63)	2.48 (.68)	2.29 (.64)
Not Pervasive	2.23 (.54)	2.29 (.65)	2.50 (.61)	2.18 (.69)
Pervasive	2.29 (.67)	2.54 (.61)	2.62 (.62)	2.35 (.59)
Predictable	2.14 (.56)	2.35 (.59)	2.76 (.57)	2.26 (.61)
Not Predictable	2.37 (.63)	2.48 (.67)	2.36 (.59)	2.28 (.68)
Not Severity	2.11 (.58)	2.12 (.58)	2.70 (.61)	1.93 (.59)
Severe	2.40 (.60)	2.70 (.56)	2.42 (.59)	2.61 (.51)

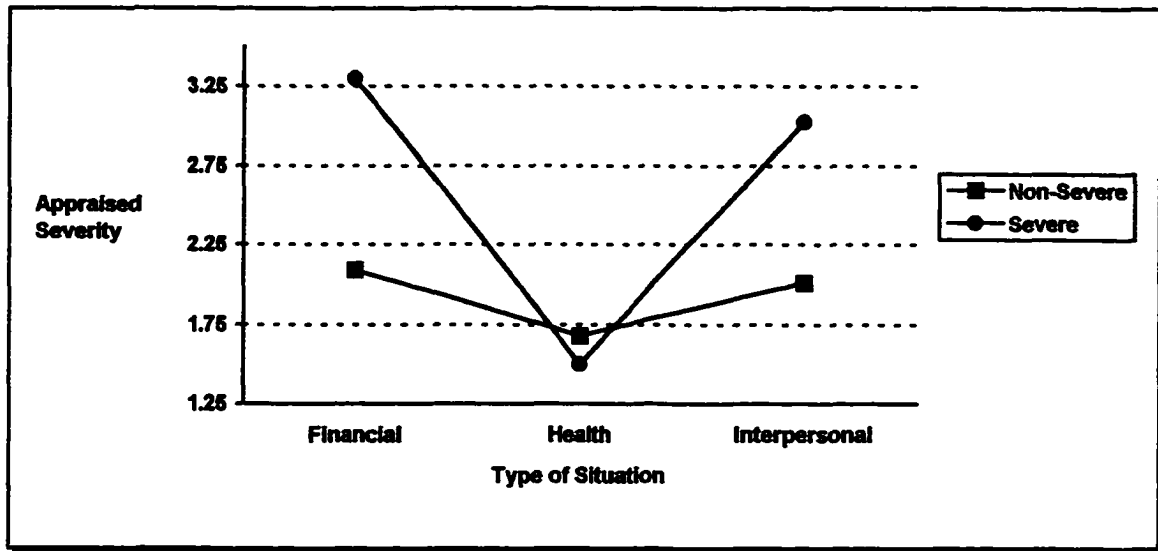
This table displays the means and standard deviations, in brackets, for each of the appraised variable (listed across the first row).

**Figure 5: The Interaction of Pervasiveness and Type of Situation on Appraised Pervasiveness**



**Figure 6: The Interaction of Predictability and Type of Situation on Appraised Predictability**



**Figure 7: The Interaction of Severity and Type of Situation on Appraised Severity**

severity was also significant, but again interacted with type of situation (see Figure 7). In the financial,  $t(112)=-7.42, p<.001$ , and interpersonal scenarios,  $t(112)=-5.85, p<.001$ , subjects appraised the severe stressor as more severe than the non-severe stressor. There was no difference in severity between the severe and non-severe health scenario,  $t(112)=1.14, p>.05$ . The controllability manipulation had no effect on appraised controllability. The lack of a significant effect suggests that this manipulation was not effective.

The specificity of the manipulations was assessed by examining their influence on corresponding and non-corresponding appraisals (see Tables 3 through 8 for ANOVA summary tables and means). The pervasiveness manipulations demonstrated a significant effect on appraised pervasiveness and no effect on other appraisals. The predictability manipulation had a significant effect on appraised predictability, but also influenced appraised controllability. The unpredictable scenario was appraised as more controllable

than the predictable scenario. The severity manipulation had a significant effect on appraised severity, but also influenced appraised controllability, pervasiveness and predictability. Subjects appraised the severe scenario as more controllable, more pervasive and less predictable. The controllability manipulation had no effect on appraised controllability, or any other appraisals. Thus, the results indicate that the pervasiveness manipulation was specific, but moderately consistent. The predictability manipulation was moderately consistent and specific. The severity manipulation was moderately consistent, but showed limited specificity and the controllability manipulation was not effective.

#### The Influence of Situational Manipulations on Coping

The focus of this study was to explore the influence that situational characteristics had on the relative use of emotion-based and problem-based coping. To evaluate this research question, the primary analysis was a 2 X 2 X 2 X 2 X 3 X 2 ANOVA. Included in this analysis were the four situational manipulations (each with two levels), the three situations (a repeated variable) and the two types of coping (a repeated variable). A summary of the results from this analysis is presented in Table 9.

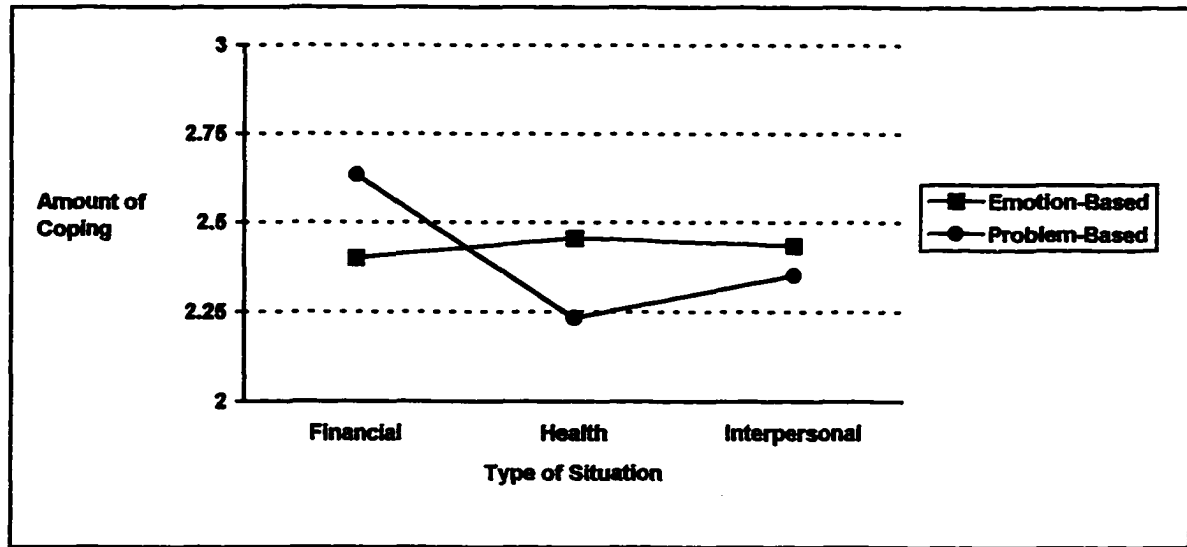
The interaction of type of situation and type of coping on amount of coping was significant (see Figure 8). Post-hoc testing indicated that when subjects faced the financial scenario they used more problem-based relative to emotion-based coping,  $t(112)=-3.99$ ,  $p<.001$ , and the opposite pattern when they faced the health scenario,  $t(112)=3.69$ ,  $p<.001$ . However, there was no difference in emotion-based and problem-based coping in the interpersonal scenario,  $t(112)= 1.52$ ,  $p>.05$ .

**Table 9: ANOVA Table for the Influence of Situational Factors, Type of Situation and Type of Coping on Amount of Coping**

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Partial $\eta^2$
Controllability	.06	1	.06	.11	.001
Pervasiveness	.03	1	.03	.06	.001
Predictability	2.38	1	2.38	4.51*	.040
Severity	14.75	1	14.75	27.99***	.207
Within + Residual	56.39	107	.53		
Coping	.09	1	.09	.34	.003
Controllability by Coping	.14	1	.14	.51	.005
Pervasiveness by Coping	.15	1	.15	.56	.005
Predictability by Coping	.41	1	.41	1.50	.014
Severity by Coping	.46	1	2.46	9.02**	.078
Within + Residual	9.14	107	.27		
Situation	3.56	2	1.78	10.70***	.091
Controllability by Situation	.53	2	.27	1.60	.015
Pervasiveness by Situation	.02	2	.01	.06	.001
Predictability by Situation	.36	2	.18	1.09	.010
Severity by Situation	1.16	2	.58	3.49*	.032
Within + Residual	35.62	214	.17		
Coping by Situation	6.16	2	3.08	24.90***	.189
Controllability by Coping by Situation	1.24	2	.62	5.02**	.045
Pervasiveness by Coping by Situation	.50	2	.25	2.03	.019
Predictability by Coping by Situation	.09	2	.05	.37	.003
Severity by Coping by Situation	1.95	2	.98	7.90***	.069
Within + Residual	26.47	214	.12		

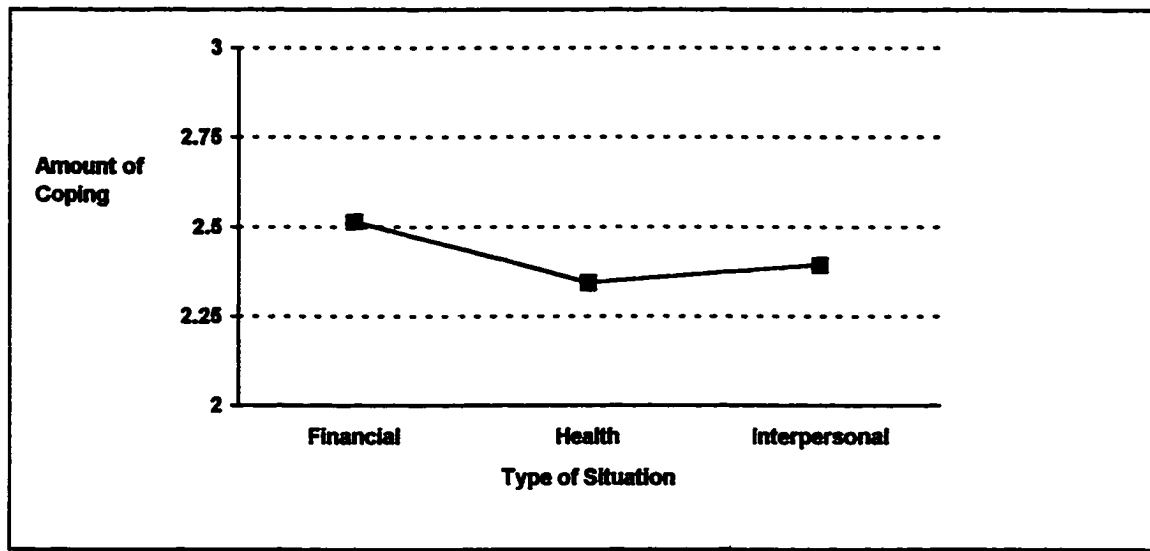
\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Figure 8: The Interaction between Type of Situation and Type of Coping on Amount of Coping**



The main effect of type of situation on amount of coping was also significant (see Figure 9). Individuals in the financial scenario used more coping strategies than individuals in the health,  $t(112)=4.58$ ,  $p<.001$ , or interpersonal scenario,  $t(112)=3.34$ ,  $p=.001$ . However, there was no difference in the amount of coping used in the health scenario compared to the interpersonal scenario,  $t(112)=-1.17$ ,  $p>.05$ . This main effect is secondary to the interaction between type of coping and situation. It was due to the difference in problem-based coping across the scenarios.

The primary focus of this study was to examine the influence of the situational manipulations on coping. The pervasiveness manipulation had no significant effects in any of the analyses. The predictability manipulation had a main effect on amount of coping. In the predictable scenario ( $M=2.76$ ,  $SD=.57$ ) individuals used more coping strategies than in the unpredictable scenario ( $M=2.36$ ,  $SD=.6$ ). The controllability manipulation

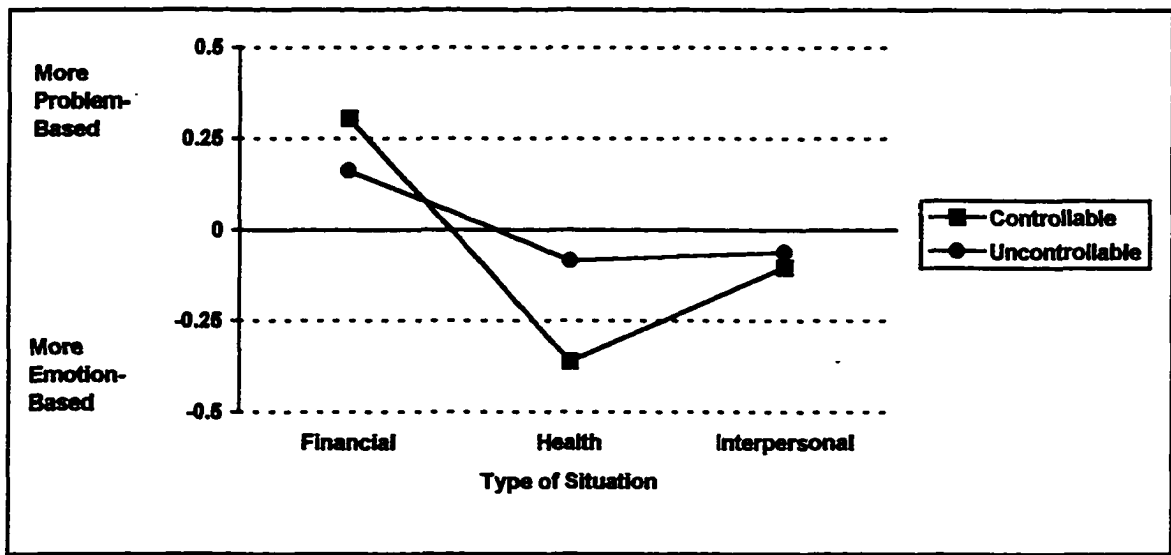
**Figure 9: The Main Effect of Type of Situation on Amount of Coping**

was only significant in a three-way interaction. It interacted with the type of situation and type of coping to produce a significant effect on the amount of coping (see Figure 10). To increase the clarity of this interaction the comparison between emotion-based and problem-based coping was graphed as a difference score. This allowed the three-way interaction to be depicted in a two-dimensional graph. A positive difference score represented the use of more problem-based relative to emotion-based coping and a negative score represented the opposite. Post-hoc testing was completed with a series of t-tests for related samples using a Bonferroni correction for six comparisons. Individuals in the controllable financial scenario used more problem-based than emotion-based coping,  $t(56)=-3.41, p<.001$ . In contrast, individuals in the controllable health scenario used more emotion-based relative to problem-based coping,  $t(56)=4.39, p<.001$ . However there was no difference in the amount of problem-based relative to emotion-based coping used in the controllable interpersonal scenario,  $t(56)=1.22, p>.05$ . There was also no difference in the

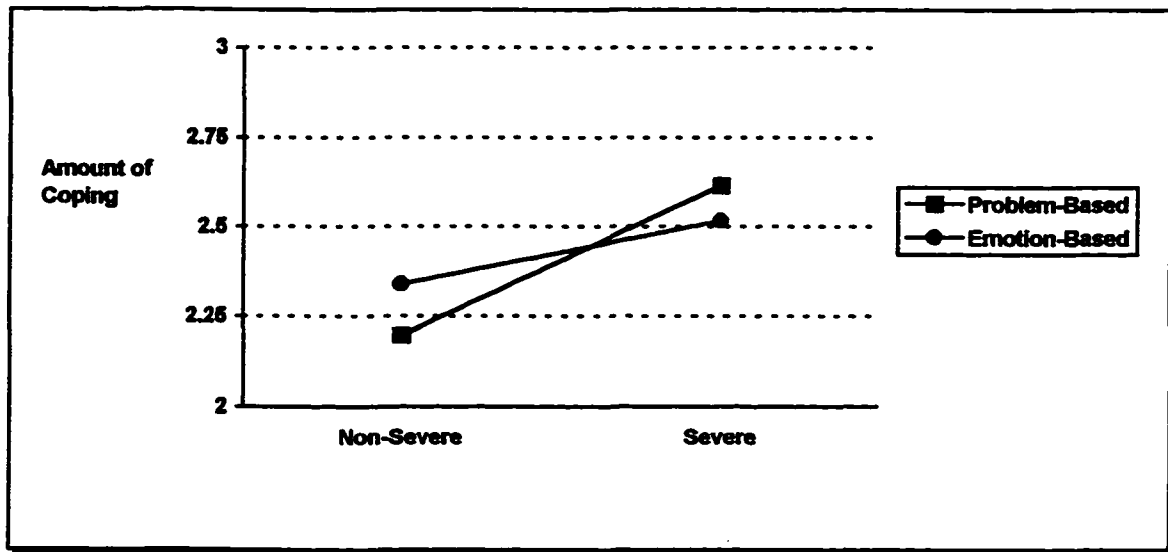
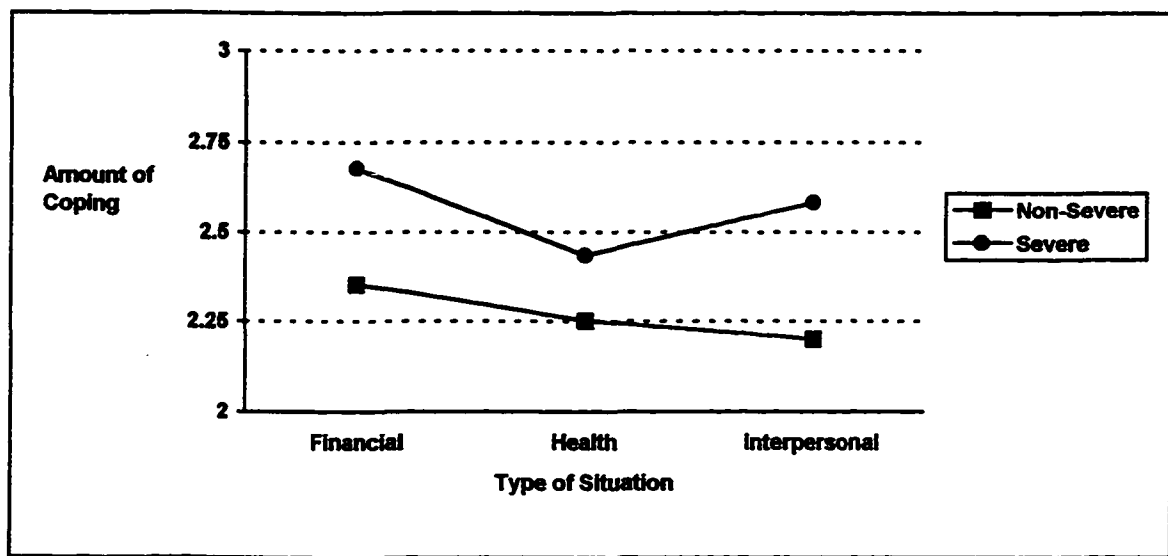
use of problem-based relative to emotion-based coping for the uncontrollable financial,  $t(56)=-2.16, p=.035$ , health,  $t(56)=.99, p>.05$  or interpersonal scenario,  $t(56)=.89, p>.05$ .

The severity manipulation had significant effects at all levels of the analysis. The main effect of the severity manipulation on amount of coping indicated that the severe scenario ( $M=2.57, SD=.30$ ) elicited more coping behaviour than the non-severe scenario ( $M=2.27, SD=.30$ ). The severity manipulation interacted with type of coping. In the severe scenario relative to the non-severe scenario, subjects used more problem-based,  $t(112)=-2.53, p=.01$ , and emotion-based coping,  $t(112)=-6.02, p<.01$  (see Figure 11). Further scrutiny of this effect revealed that problem-based relative to emotion-based coping increased when the scenario was severe ( $M=.1, SD=.3$ ) and decreased when the scenario was not severe ( $M=-.14, SD=.45$ ),  $t(56)=-3.01, p<.01$ . This t-test was calculated on difference scores between problem-based and emotion-based coping.

**Figure 10: The Interaction of Degree of Controllability, Type of Situation and Type of Coping on Amount of Coping**





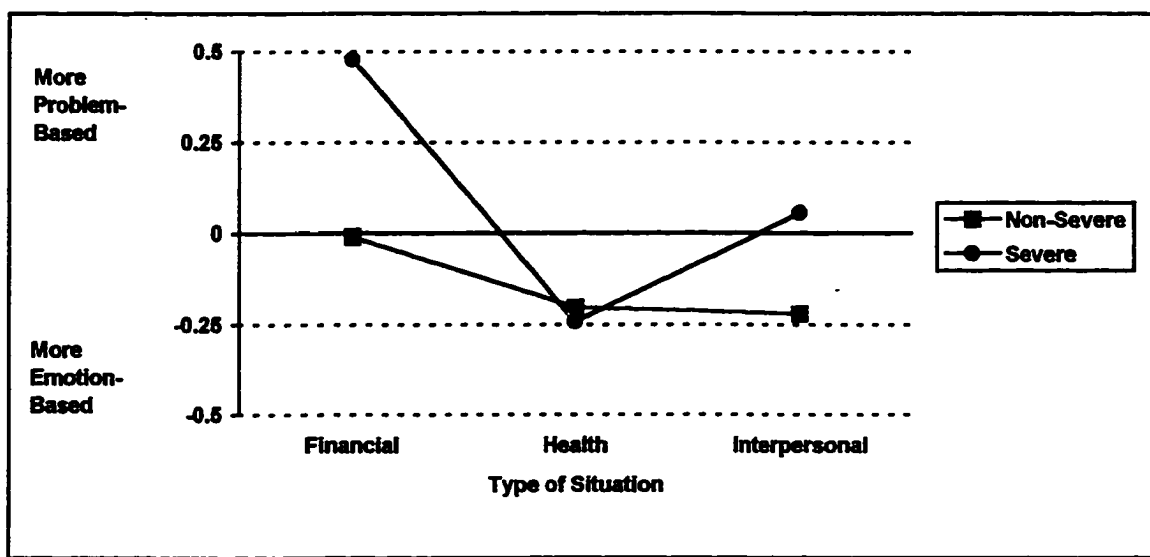
**Figure 11: The Interaction of Severity and Type of Coping on Amount of Coping****Figure 12: The Interaction of Severity and Type of Situation on Amount of Coping**

The severity manipulation also interacted with type of situation (see Figure 12).

After correcting alpha for three comparisons, simple effects testing of this interaction indicated that individuals used more coping strategies in the severe financial,  $t(112)=-4.95$ ,  $p<.001$ , and severe interpersonal scenario,  $t(112)=-5.35$ ,  $p<.001$ , than their non-severe

equivalents. However, there was no difference in the amount of coping strategies used in the severe compared to the non-severe health scenario,  $t(112)=-2.34, p>.02$ . The three-way interaction of the severity manipulation with type of situation and type of coping on amount of coping is presented in Figure 13. To improve the clarity of this interaction, the comparison between emotion-based and problem-based coping was graphed as a difference score. A Bonferroni correction was used for the six comparisons. With the low severity manipulation, individuals used more emotion-based relative to problem-based coping in the interpersonal scenario,  $t(56)=2.94, p<.01$ , but there was no difference in the financial,  $t(56)=.1, p>.05$ , or health scenario,  $t(56)=2.33, p=.023$ . With the severe manipulation, individuals used more problem-based relative to emotion-based coping in the financial scenario,  $t(56)=-6.96, p<.001$ , and the opposite pattern in the health scenario,  $t(56)=2.87, p<.01$ . There was no difference between the use of emotion-based and problem-based coping in the severe interpersonal scenario,  $t(56)=-.75, p>.05$ .

**Figure 13: The Interaction Between Degree of Severity, Type of Situation and Type of Coping on Amount of Coping**



Appraisals and Coping

The subjects were asked to appraise how stressful, controllable, pervasive, predictable and severe each scenario was. Correlations between these appraisals and problem-based and emotion-based coping are presented in Table 10. A Bonferroni correction was completed for multiple tests of significance. Appraised stressfulness and severity were positively correlated with problem-based and emotion-based coping in the financial and interpersonal scenarios. Appraised stressfulness was also correlated with problem-based coping in the health scenario. Appraised controllability was correlated with problem-based, but not emotion-based, coping in all three scenarios. Appraised pervasiveness was correlated with problem-based coping in the financial and interpersonal scenarios, and with emotion-based coping in the interpersonal scenario. Finally, appraised predictability was not correlated with coping in any scenario.

**Table 10: Correlations between Appraisals and Coping**

Appraisals	Financial		Health		Interpersonal	
	Emotion-based	Problem-based	Emotion-based	Problem-based	Emotion-based	Problem-based
Stressfulness	.48***	.45***	.28	.38***	.40***	.44***
Controllability	-.04	.37***	.04	.60***	.07	.40***
Pervasiveness	.25	.47***	.13	.30	.35***	.36***
Predictability	.00	.00	.01	.16	-.13	-.29
Severity	.33***	.49***	-.01	.28	.36***	.45***

\*\*\*  $p < .001$

**Self-Efficacy**

Correlations were calculated between self-efficacy and problem-based and emotion-based coping (see Table 11). A Bonferroni correction for multiple tests of significance was completed and only General Self-Efficacy was positively correlated with emotion-based coping in the financial scenario. Due to the reverse scoring of the Self-Efficacy scale, these results indicated that high levels of General Self-Efficacy were associated with decreased emotion-based coping. Self-efficacy was not correlated with coping in the health or interpersonal scenarios. Correlations were also calculated between personality factors, social and general self-efficacy, and the appraisals (see Table 12). None of these correlations were significant.

**Table 11: Correlations Between Self-Efficacy and Coping**

Self-Efficacy	Financial		Health		Interpersonal	
	Problem-Based	Emotion-Based	Problem-Based	Emotion-Based	Problem-Based	Emotion-Based
General	-.22	.36***	-.04	.16	.03	.22
Social	-.20	.13	-.02	.01	-.14	-.09

\*\*\* p&lt;.001

**Table 12: Correlations Between Self-Efficacy and Appraisals**

	Controllability	Pervasiveness	Predictability	Severity	Stressfulness
<b>Financial Scenario</b>					
General Self-Efficacy	-.08	.02	-.00	.09	.20
Social Self-Efficacy	-.11	-.07	.12	-.01	.01
<b>Health Scenario</b>					
General Self-Efficacy	.03	.09	-.04	.20	.28
Social Self-Efficacy	.02	.07	.16	.18	.17
<b>Interpersonal Scenario</b>					
General Self-Efficacy	-.00	.20	-.06	.23	.21
Social Self-Efficacy	-.06	.05	.14	.08	.04

## Discussion

### Evaluation of the Scenario-Based Methodology

This study investigated the influence of four situational manipulations on problem-based and emotion-based coping. Subjects read financial, health and interpersonal scenarios then completed a modified version of Folkman et al.'s (1986) Ways of Coping scale and the Self-Efficacy scale. The Ways of Coping scale was adapted from its retrospective design to one that could be used with hypothetical scenarios. The problem-based scale demonstrated moderate to high internal consistency, but low to moderate consistency across scenarios (i.e., financial, health and interpersonal). The emotion-based scale demonstrated moderate internal consistency and significant consistency across scenarios. These findings provide adequate support for the modified Ways of Coping scale.

There was mixed evidence for the effectiveness of the situational manipulations. The severe, predictable and pervasive manipulations were moderately consistent. The severity manipulation accounted for 28% of the variance in appraised severity. Subjects appraised the severe financial and interpersonal scenarios, but not the health scenario, as more severe. Eleven percent of the variance in appraised predictability was accounted for by the predictability manipulation. Subjects appraised the predictable health and interpersonal scenarios, but not the financial scenario, as more predictable. The pervasiveness manipulation accounted for 5% of the variance in appraised pervasiveness. Subjects appraised the pervasive financial scenario as more pervasive, but not the

pervasive health or interpersonal scenarios. The controllability manipulation was not effective. It accounted for only 1% of the variance in appraised controllability. Subjects appraised none of the controllable scenarios as controllable.

The pervasiveness manipulation was specific, influencing only appraised pervasiveness. The predictability and severity manipulations were moderately specific. The predictability manipulation influenced appraised predictability, but also accounted for 4% of the variance in appraised controllability (they appraised it as less controllable). The severity manipulation influenced appraised severity, but also accounted for 22% of the variance in pervasiveness and 6% of the variance in predictability and controllability. The severe situation was appraised as less predictable, more pervasive and more controllable. The controllability manipulation did not influence appraised controllability or any other appraisal.

#### Consistency Problems with the Scenario Manipulations

Consistency problems were initially detected in a pilot study. Using an earlier version of the scenarios, subjects were asked to appraise the four situational manipulations. Their responses indicated that only the severity and predictability manipulations were effective. Using these findings, several modifications were made to the manipulations. The controllability manipulation, in particular, was reworded to be more obvious. However, these modifications were insufficient as the controllability, predictability and severity manipulations continued to produce inconsistent effects. Regarding controllability, the subjects did not find “government cutbacks” as less controllable than a refusal due to “insufficient information”. In the predictable financial

scenario, reading that the government was considering “changes to OSAP” did not help the subjects predict that they would not be funded. Likewise, in the severe health scenario the subjects read that the “operation would be painful”, but rated this as being “not at all” or “slightly” severe.

The modifications from the pilot to the present study may not have been sufficiently extreme to produce the desired changes in appraisal. Perhaps manipulations that represent greater extremes of controllability, predictability and severity could be constructed. Nevertheless, the failure to demonstrate effective manipulations, in spite of a focused effort to do so, indicates that it is not easy to manipulate these variables using scenarios.

Another explanation for the inconsistency of the manipulations may be that the subjects' appraisals were influenced by an external variable. Folkman and Lazarus (1980; 1985; Lazarus & Folkman, 1984; Folkman, 1984; Lazarus, 1966) suggested that personality, along with situational factors, influences appraisal. In the present study, self-efficacy was not related to any appraisal. However, personality traits other than self-efficacy may have influenced the subjects' appraisals. For example, locus of control may have influenced appraised controllability (Rotter, 1966; Lefcourt, 1976). Smith (1989) measured locus of control before and after subjects participated in a coping skills training program. He expected that there would be “shifts toward a more internal locus of control” (p. 229). The results indicated that locus of control scores were unaffected, remaining constant despite his attempts to alter them.



As with Smith's study, the manipulations in the present study were unable to alter the subjects' perception of controllability. The subjects consistently appraised the controllable and uncontrollable scenarios as "slightly" to "moderately" controllable. These findings suggest that individuals may possess a stable locus of control that was not altered by the manipulations. This possibility could be explored in a study that measured locus of control before attempting to alter controllability with a situational manipulation. If appraised controllability was found to be correlated with locus of control scores, but not affected by the situational manipulation, it would suggest that appraised controllability was more readily influenced by locus of control than by situational controllability.

As with controllability, appraised predictability and severity may have been influenced by an external factor. They may have been influenced by a schema; a biased method for perceiving and organizing information. Anderson and Pichert (1978) reported that schemas influence interpretation and recall. After providing their subjects with a burglary scenario, they found that the subjects' recall was dependent on the schema they were asked to adopt. In the present study, subjects appraised the financial scenario as unpredictable and the health scenario as not severe. Students, due to their lack of financial security and inexperience with health problems, may possess a schema indicating financial situations are unpredictable and health situations are not severe. This hypothesis could be explored by recording the subjects' views on the importance of health and their ability to predict financial security before reading the hypothetical scenarios. These ratings could be used as covariates. Their influence could be removed to see if the subjects still appraise the financial scenario as unpredictable and health scenario as not severe.

### Specificity Problems with the Scenario Manipulations

The severity and predictability manipulations were not specific, influencing other appraisals. The severity manipulation, in particular, also affected appraised controllability, predictability and pervasiveness. In the severe financial scenario, reading that they needed the money for tuition and books lead the subjects to appraise the scenario as more controllable, more pervasive and less predictable. The influence of the severity manipulation on other appraisals shows that this manipulation was considered more than just “severity” by the subjects. Therefore, caution is required when interpreting any findings that involve the severity manipulation.

In order of strength, the “severity” manipulation explained 28% of appraised severity, 22% of appraised pervasiveness, 20% of appraised stressfulness and 6% of appraised controllability and predictability. The “severity” manipulation appears to have explained a large portion of appraised severity, pervasiveness and stressfulness, but comparatively less of appraised controllability and predictability. Its influence on stressfulness is not unexpected or undesirable. Rather, Folkman and Lazarus (1980; 1985; Lazarus & Folkman, 1984; Folkman, 1984; Lazarus, 1966) suggested that only situations that are appraised as stressful require coping. Situational severity’s influence on stressfulness adds validity to the manipulation. However, its influence on appraised pervasiveness decreases its specificity. The question used to assess severity referred to “a severe (large) impact” and the question that assessed pervasiveness referred to “[affecting] many areas” of the subjects’ lives. The subjects may not have distinguished between these

concepts. Further study is required to determine whether a severity manipulation can be designed which influences only appraised severity and not appraised pervasiveness.

### Situational Manipulations and Coping

The primary purpose of this study was to investigate the influence of four situational manipulations on problem-based and emotion-based coping. Only situational predictability and severity influenced coping behaviour. The predictability manipulation accounted for 4% of the variance in coping behaviour and severity accounted for 21%. The subjects used more coping strategies in predictable scenarios. In severe scenarios individuals increased problem-based coping more than they increased emotion-based coping. However, the interpretation of these findings must be tempered by the problems described in the previous section (i.e., their inconsistency and lack of specificity).

### Type of Situation and Coping

In the present study subjects read stressful financial, health and interpersonal scenarios. It was expected that the type of scenario they read would influence their coping behaviour. Type of scenario combined with the use of either emotion-based and problem-based coping accounted for 19% of the variance in amount of coping. The financial scenarios elicited more problem-based relative to emotion-based coping, while the health scenarios produced the opposite pattern. The interpersonal scenarios produced no difference in problem-based or emotion-based coping. Both degree of situational controllability and degree of situational severity modified the interaction between type of situation and type of coping. Higher levels of controllability or severity increased

problem-based coping in the financial scenario and increased emotion-based coping in the health scenario.

Though these results suggest that type of situation is important to coping; caution is recommended when interpreting the effects of the three scenarios. There was only one example of the financial, health and interpersonal scenarios. Therefore, it is possible that other financial, health and interpersonal stressors may produce different coping behaviour. It is unclear if these results would generalize to other financial, health and interpersonal situations. These concerns are partially assuaged by their consistency with prior research.

The patterns of problem-based and emotion-based coping produced by the financial, health and interpersonal scenarios are similar to those reported in prior research. Using a middle-aged community sample, Folkman et al. (1980), reported that work stress was associated with more problem-based coping, while health related stress was associated with more emotion-based coping. Similarly, Petrosky et al. (1991) found that interpersonal situations produced less problem-based coping than work situations and Roberto (1992) found health stress was associated with more emotion-based coping. The results of the present study confirm that financial situations produce more problem-based coping, while health situations produce more emotion-based coping. However, the interpersonal scenario elicited similar amounts of problem-based and emotion-based coping.

### Appraisal and Coping

The problems associated with the situational manipulations do not extend to the appraisal results. Appraised stressfulness and severity were positively related to problem-

based and emotion-based coping in the financial and interpersonal scenarios. In these scenarios subjects attempted to resolve the problem as well as deal with their emotional response to it. Appraised controllability was positively related to problem-based coping. In scenarios that were appraised as controllable individuals attempted to resolve the problem. In addition, appraised pervasiveness was related to increased problem-based coping in the financial and interpersonal scenarios, as well as emotion-based coping in the interpersonal scenario. Finally, appraised predictability showed no relationship with either problem-based or emotion-based coping.

The associations between appraisal and coping are generally consistent with Folkman and Lazarus's (1980; 1985; Lazarus & Folkman, 1984; Folkman, 1984; Lazarus, 1966) theory and with prior research. The use of problem-based coping in controllable situations was reported by Valentiner et al. (1994) for college students, by Zeidner et al. (1993), Zeidner et al. (1993) and Zeidner et al. (1993) for adults and children, and by Solomon et al. (1989) and Aldwin (1991) for elderly individuals.

The importance of situational factors to coping was suggested by Zeidner and Ben-Zur (1994) and Paterson and Neufeld (1987). Though scenarios have been effectively used in prior research, they produced inconsistent and non-specific effects in the present study. Due to this problem the central question of this study, whether situational factors influence coping, could not be resolved. The scenario-based methodology does not appear to be an effective approach for studying these factors. However, this methodology appears to be effective for studying the relationship between appraisals and coping.

The inclusion of four situational manipulations in the present study allowed for their specificity to be assessed. The results suggested that the manipulations produced generalized effects. This was particularly evident with the severity manipulation, which influenced appraised severity, stressfulness, pervasiveness and to a lesser degree predictability and controllability. Prior studies, that examined only one factor, may have suffered from the same problem. Their manipulations may have inadvertently influenced a number of other factors as well. Subsequent research should include several manipulations so that their specificity may be gauged. Beyond those used in the present study, Paterson and Neufeld (1987) suggest that imminence and probability of a problem may also influence the stress process.

### Summary

In the present study scenarios were used to manipulate controllability, predictability, pervasiveness and severity. There was mixed evidence for the consistency and specificity of these manipulations. The pervasiveness manipulation was inconsistent, but specific. The predictability and severity manipulations were effective but had moderate consistency and moderate to low specificity. The controllability manipulation was ineffective. The main purpose of this study was to explore the effects of situational manipulations on problem-based and emotion-based coping. Only the severity and predictability manipulations influenced coping behaviour. However, their interpretation is in doubt. The lack of specificity found for the severity manipulation suggests that the subjects appraised this manipulation as more than just "severity". They viewed this manipulation as the combination of severity, pervasiveness and stressfulness. These

results suggest that the scenario-based methodology may not be well suited to the study of situational characteristics.

Though the situational manipulation component of this study was not effective, the appraisals were. Appraised stressfulness and severity were associated with increased problem-based and emotion-based coping, while appraised pervasiveness was associated with problem-based coping. However, none of these relationships were consistent across all scenarios. Appraised controllability was associated with increased problem-based coping and appraised predictability showed no consistent relationship with either problem-based or emotion-based coping. The use of scenarios appears to be an effective method for studying the relationship between appraisals and coping. The type of scenario (i.e., financial, health and interpersonal) also influenced coping. The financial scenarios elicited more problem-based coping, while the health scenarios produced more emotion-based coping. The interpersonal scenarios elicited similar amounts of problem-based or emotion-based coping.

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## Appendix A: Modified Ways of Coping (Scenario Version)

1 = not at all, 2 = slightly, 3 = moderately, 4 = extremely

In the previous situation how likely is it that you would:

### Problem-Focused Coping

#### Confrontive Coping

- |   |               |
|---|---------------|
| 1) stand your ground and fight for what you wanted?                         | 1   2   3   4 |
| 2) try to get the person responsible to change their mind?                  | 1   2   3   4 |
| 3) express anger to the person(s) who caused the problem?                   | 1   2   3   4 |
| 4) do something which you don't think will work, but at least do something? | 1   2   3   4 |
| 5) take a big chance or do something risky?                                 | 1   2   3   4 |

#### Planful Problem-Solving

- |   |               |
|---|---------------|
| 1) know what should be done, so you would double your efforts to<br>make things work? | 1   2   3   4 |
| 2) make a plan of action and follow it?   | 1   2   3   4 |
| 3) just concentrate on what you have to do next - the next step?                      | 1   2   3   4 |
| 4) come up with a couple of different solutions to the problem?                       | 1   2   3   4 |
| 5) change something so things would turn out all right?                               | 1   2   3   4 |

### Emotion-Focused Coping

#### Escape-Avoidance

- |   |               |
|---|---------------|
| 1) wish that the situation would go away or somehow be over with? | 1   2   3   4 |
| 2) hope a miracle would happen?                                   | 1   2   3   4 |
| 3) fantasize about how things might turn out?                     | 1   2   3   4 |
| 4) refuse to believe that it has happened?                        | 1   2   3   4 |
| 5) take it out on other people?                                   | 1   2   3   4 |

#### Distancing

- |   |               |
|---|---------------|
| 1) make light of the situation, refuse to get too serious about it? | 1   2   3   4 |
| 2) go on as if nothing was happening?                               | 1   2   3   4 |
| 3) try to forget the whole thing?                                   | 1   2   3   4 |
| 4) go along with fate; sometimes you just have bad luck?            | 1   2   3   4 |
| 5) not let it get to you; refuse to think about it too much?        | 1   2   3   4 |

#### Seeking Social Support

- |   |               |
|---|---------------|
| 1) talk to someone to find out more about the situation?              | 1   2   3   4 |
| 2) ask a relative or friend you respect for advice?                   | 1   2   3   4 |
| 3) talk to someone about how you were feeling?                        | 1   2   3   4 |
| 4) accept sympathy and understanding from someone?                    | 1   2   3   4 |
| 5) talk to someone who could do something concrete about the problem? | 1   2   3   4 |

## Appendix B: The Self-Efficacy Scale

(1 = Strongly Agree, 2 = Agree, 3 = Disagree, 4 = Strongly Disagree)

General Self-Efficacy

- |   |   |   |   |   |
|---|---|---|---|---|
| 1. When I make plans, I am certain I can make them work.                                  | 1 | 2 | 3 | 4 |
| 2. One of my problems is that I cannot get down to work when I should.*                   | 1 | 2 | 3 | 4 |
| 3. If I can't do a job the first time, I keep trying until I can.                         | 1 | 2 | 3 | 4 |
| 4. When I set important goals for myself I rarely achieve them.*                          | 1 | 2 | 3 | 4 |
| 5. I give up on things before completing them.*   | 1 | 2 | 3 | 4 |
| 6. I avoid difficulties.*   | 1 | 2 | 3 | 4 |
| 7. If something looks too complicated, I will not even bother to try it.*                 | 1 | 2 | 3 | 4 |
| 8. When I have something unpleasant to do, I stick to it until I finish it.               | 1 | 2 | 3 | 4 |
| 9. When I decide to do something, I go right to work on it.                               | 1 | 2 | 3 | 4 |
| 10. When trying to learn something new, I soon give up if I am not initially successful.* | 1 | 2 | 3 | 4 |
| 11. When unexpected problems occur, I don't handle them well.*                            | 1 | 2 | 3 | 4 |
| 12. I avoid trying to learn new things when they look too difficult for me.*              | 1 | 2 | 3 | 4 |
| 13. Failure just makes me try harder.   | 1 | 2 | 3 | 4 |
| 14. I feel insecure about my ability to do things.*                                       | 1 | 2 | 3 | 4 |
| 15. I am a self-reliant person.   | 1 | 2 | 3 | 4 |
| 16. I give up easily.*  | 1 | 2 | 3 | 4 |
| 17. I do not seem capable of dealing with most problems that come up in life.*            | 1 | 2 | 3 | 4 |

Social Self-Efficacy

- |   |   |   |   |   |
|---|---|---|---|---|
| 1. It is difficult for me to make new friends.*   | 1 | 2 | 3 | 4 |
| 2. If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.              | 1 | 2 | 3 | 4 |
| 3. If I meet someone interesting who is hard to make friends with, I'll soon stop trying to make friends with that person.* | 1 | 2 | 3 | 4 |
| 4. When I'm trying to become friends with someone who seems uninterested at first, I don't give up easily.                  | 1 | 2 | 3 | 4 |
| 5. I do not handle myself well in social gatherings.*   | 1 | 2 | 3 | 4 |
| 6. I have acquired my friends through my personal abilities at making friends.  | 1 | 2 | 3 | 4 |

\* denotes items scored in reverse

**Appendix C: Independent Variable Combinations**

1. **No Control, Predictable, High Pervasiveness and High Severity**
2. **No Control, Predictable, High Pervasiveness and Low Severity**
3. **No Control, Predictable, Low Pervasiveness and High Severity**
4. **No Control, Predictable, Low Pervasiveness and Low Severity**
5. **No Control, Not Predictable, High Pervasiveness and High Severity**
6. **No Control, Not Predictable, High Pervasiveness and Low Severity**
7. **No Control, Not Predictable, Low Pervasiveness and High Severity**
8. **No Control, Not Predictable, Low Pervasiveness and Low Severity**
9. **Control, Predictable, High Pervasiveness and High Severity**
10. **Control, Predictable, High Pervasiveness and Low Severity**
11. **Control, Predictable, Low Pervasiveness and High Severity**
12. **Control, Predictable, Low Pervasiveness and Low Severity**
13. **Control, Not Predictable, High Pervasiveness and High Severity**
14. **Control, Not Predictable, High Pervasiveness and Low Severity**
15. **Control, Not Predictable, Low Pervasiveness and High Severity**
16. **Control, Not Predictable, Low Pervasiveness and Low Severity**

**Appendix D: Consent Form**

**Dealing with Stressful Situations**

by Trevor Deck

This study looks at the strategies individuals use to deal with stressful situations. The information gained in the study may lead to a better understanding of factors that influence how individuals deal with stress.

Participating in this study involves reading and responding to three scenarios. The scenarios deal with the break-up of a relationship, the loss of OSAP funding and having your wisdom teeth removed. You will be asked to answer questions about what you would do in each situation. You will also be asked to complete a self-efficacy scale.

You are under no obligation to participate in this study, and can withdraw at any time without consequence. Any information or data obtained will be strictly anonymous. To ensure confidentiality, the only place that your name appears is on this form, which will be stored separately from research data.

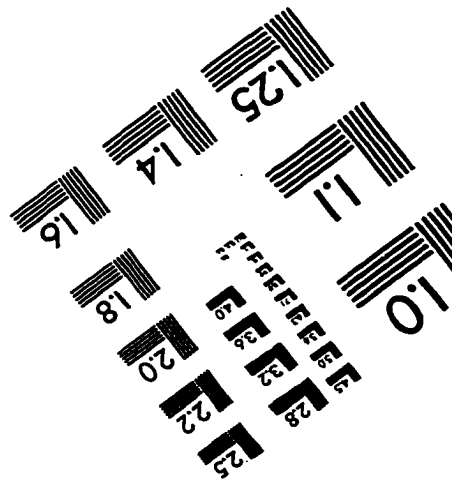
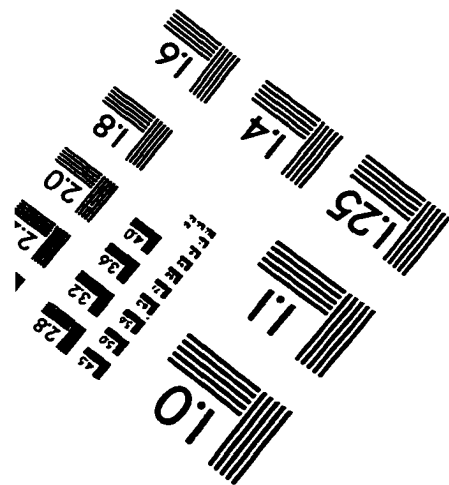
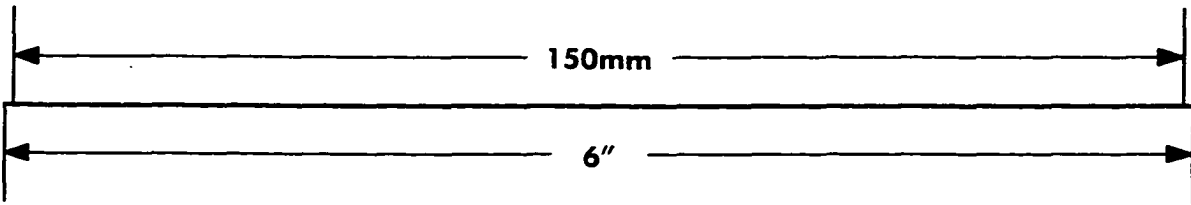
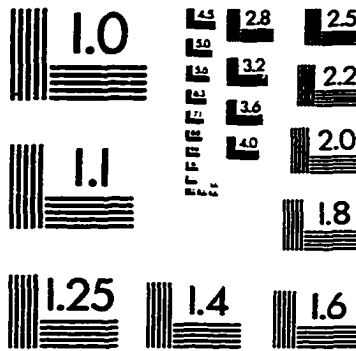
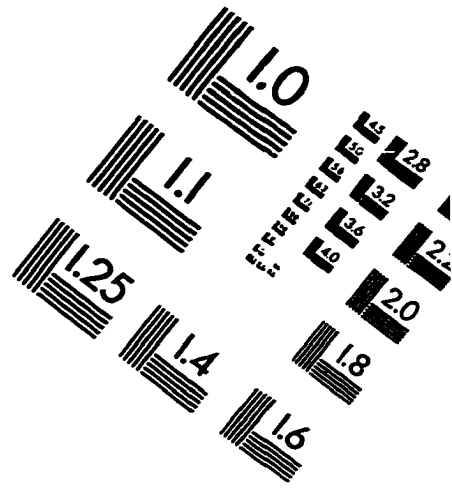
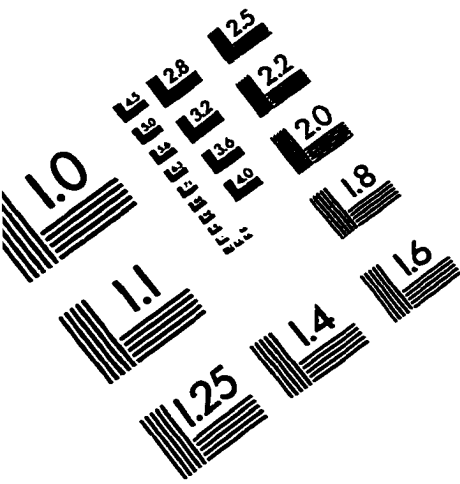
- There are no psychological or physical risks involved.
- There is no deception involved.
- Data generated in this experiment will be stored for seven years.
- When completed, a summary of the results can be obtained by contacting Trevor Deck through the Lakehead University psychology department.

\_\_\_\_\_  
Name (print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

# IMAGE EVALUATION TEST TARGET (QA-3)



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