

**Fear in the Workplace: The Relationships among Sex, Self-efficacy, and Coping
Strategies**

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(ABSTRACT)

This study adopts the components of protection motivation theory to examine the differences between coping strategies used by males and females when dealing with four unique work-related fearful situations: fear of separation, fear of punishment, fear of embarrassment and fear of harm. Specifically, the components that are referenced include coping appraisal (self-efficacy) and threat appraisal (severity and vulnerability). Four different vignettes and a series of questions related to each of the fearful situations were presented to individuals willing to participate in the study. A total of 235 working professional graduate students and a group of full time professionals representing industries such as telecommunications, health care, and retail contributed to the study. While the first group (graduate students) was presented with the traditional paper-pencil questionnaire, the latter group was solicited to participate in the study via a sophisticated web-based instrument. Once the responses were received, the Chi-square, t-test, and a series of ANOVA tests with post hoc testing were computed to investigate where there were differences across all the dependent measures, which includes severity of threat, vulnerability to threats, and self efficacy. Sex was mainly applied as an independent variable in most analyses. The findings suggest that among the three coping strategies, problem solving is the most dominant strategy used by males and females across all situations as a group. However, females prefer seeking support as a coping strategy more than males do regardless of type of fears. In contrast, males prefer avoidance coping strategies to deal with situations that provoke fear of punishment.

With regard to severity of the four fearful situations, both males and females perceived that the fear of harm scenario is the least severe while the remaining fearful scenarios are perceived as having a similar level of severity. In terms of vulnerability to the four fearful

situations, males feel slightly more vulnerable to the fear of punishment scenario. Besides, males and females have comparable levels of self-efficacy.

There are weak negative relationships between self-efficacy and seeking support, and avoidance strategies. However, self-efficacy has a positive correlation with problem solving strategies in both males and females. Research found that, the Asian ethnic group prefers to use seeking support strategy over the Black/African American and Caucasian ethnic groups. When comparing the latter two ethnic groups, Caucasians favor seeking support strategies.

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CHAPTER I

OVERVIEW OF THE RESEARCH

Background of the Problem

Fear in the workplace has been a challenging issue that has captured the attention of researchers and practitioners for almost a century. The topic is of special interest in light of the recent unforeseen fearful events that have impacted many organizations. For example, the tragedies associated with the September 11th terrorist attacks coupled with cases of anthrax scares were compounded by the manifestation of unfavorable economic events, ongoing of terrorist threats, and several wars.

Obviously, the September 11, 2001 catastrophe has had a profound impact on individuals across the United States, especially in the workplace. A large number of people who were impacted by these traumatic events may encounter dealing with issues such as the loss of loved ones, the loss of belonging, the loss of emotional and physical security, and job loss. A year later, the U.S. Department of Labor's Bureau of Labor statistics (2002) reports that:

Reports for the weeks ended September 15, 2001 through March 30, 2002, show that there were 462 events involving 128,765 workers, directly or indirectly attributed to the attacks. The impact of September 11th attacks was most pronounced during the month immediately following the attacks, when 62 percent of the events and 68 percent of the worker separations occurred. Thirty-three states reported extended mass lay off activity related in some way to the September 11 incidents... In the first quarter of 2002, employer reported 1,669 mass layoff actions that resulted in the separation of 301,181 workers from their jobs for more than 30 days (OSHA, 2002).

Additionally, economic setbacks such as the unexpected collapse of Enron, the bankruptcy of WorldCom (Mandel et al, 2002), and the series of aggressive acquisitions among competing organizations, have proven to be additional contributors in triggering fears.

Fears that have resulted from these traumas may include fear of working in tall buildings, fear of flying, fear of opening postal-delivered mail, fear of job insecurity or income loss, fear of being unable to keep pace with an accelerated competitive business environment, fear of technological and socioeconomic changes, fear of strangers, and so forth.

Although the preceding list does not capture all of the fearful feelings experienced by individuals, once any of these fears becomes chronic, Goldsmith (2002) believes that "Fear

effects our productivity, our communications, our ability to create and our emotional well being”(p.39). Consequently, an understanding of how individuals experience and cope with work-related fear has become a critical subject.

Why do some people have a difficult time dealing with work-related fears when others do not? There are many factors that contribute to discrepancies in coping strategies among individuals such as personality, job status, marital status, level of education, and years of experiences (Kirkcaldy & Furnham, 1999; McCrae and Costa, 1986; Fleishman, 1984). Sex is also one of those factors that effect how individuals experience as well as cope with work-related fears (Siegler & George, 1983; Billings & Moos, 1984). Several studies have placed emphasis on the role of sex on work-stress or coping strategies. (Greenglass, 1995; Spielberger& Reheiser, 1995; Trocki & Orioli, 1994, Kohlmann, 1993b). Given the premise that sex plays a considerable role during a coping period, a study examining sex differences in coping strategies when dealing with work-related fear was initiated.

Background of Fear and Coping

English & Sutton (2001) convey the notion that, despite the positive knowledge, skills, and experience of those managers who work in a rapidly changing work environment, those qualities alone will not be sufficient to perform their job effectively if they are unable to cope with their own fears. Though having the ability to perform at an acceptable level is admirable, they express, “an individual’s ability to work with courage and face up to their own fears is central to their effectiveness at work” (p.211). Hence, a manager’s ability to perform effectively is undeniably influenced by how well the coping strategies adopted aid individuals in handling those fears that are present.

Without introducing the concepts of fear and coping, a sound understanding how both phenomena negatively impact the workplace is not promising. The Gale Encyclopedia of Psychology states, “Fear generally refers to feeling elicited by tangible, realistic dangers... Fear may be provoked by exposure to traumatic situations, observation of other people exhibiting fear, or the receipt of frightening information” (Anonymous, 2001). This definition explains why fears emerge when individuals experience adverse events. Additionally, how individuals adjust their behaviors to reduce their fears, known as coping, becomes questionable.

What is coping? Many definitions have been suggested for the concept of coping. Among numerous definitions of coping, Folkman et al (1986) considers the previous study of Lazarus & Folkman (1984b) and explains, “Coping is defined as the person’s constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person’s resources”(p.993).

Although the above definition of coping serves as a foundation that enables one to understand what is meant by coping, researchers and practitioners currently pay more attention to what happens when individuals in organizations cannot cope or do not have effective coping strategies. “Coping strategies are those actions taken on the basis of the analysis and evaluation of the stressor, especially its importance and associated uncertainty”, said Schuler (1985). Moreover, since individual experiences are unique, and there is no exclusive list of stressors that apply to all individuals, the studies of coping strategies have become quite broad.

One of the most substantial studies on coping references the work and life-stressors that largely emphasize classifying the dimensions of coping strategies. For example, Lazarus (1991) came up with problem-focus solving and emotion-focus solving coping strategies.

Additionally, Billings and Moos (1981) added appraisal-focused coping as another function of coping strategy. Avoidance-oriented coping was another dimension that several researchers noted (Endler & Parker, 1990a, 1990b; Krohne, Schuhmacher, & Egloff, 1992; Carver et al., 1989).

Shaw & Barrett-Power (1997) conclude that two strategies, adaptive and maladaptive, may be applied with coping. Adaptive strategies are concerned with solving the actual problem caused by stress such as problem-focused coping, seeking social support, and seeking emotional support, (Stone & Neale, 1984; Carver et al., 1989).

In contrast, maladaptive strategies deal with the withdrawal from stressful situations such as avoidance, mental disengagement, distancing, turning to religion, and daydreaming (Carver et al, 1989). While the various studies mentioned previously have touched upon many aspects of coping strategies, there are other well-known studies that should not be overlooked.

Among other leading studies, Amirkhan (1990) developed the Coping Strategy Indicator, a self-report inventory that shows good internal consistency and construct validity. The instrument assesses what type of the three coping strategies (problem solving, seeking support, and avoidance) individuals use in response to the stressful situations.

Theoretical Overview

Assessing what strategies individuals use to cope with stressful situations caused by work-related fears becomes problematic without a clear understanding of the concept of fear. Several frameworks have been proposed to contribute to the understanding of the fear phenomenon. Although these frameworks may describe or define fear from different points of views, generally, fear generates uneasiness and that feeling may be varied among individuals (Argyris 1990). As such, different individuals can experience countless work-related fears.

Even though several studies draw attention to discovering the categories of work-related fears, a common set of criteria that researchers can apply to categorize fears does not exist. Nonetheless, after a through investigation, there are a few criteria that have been found to be connected among the existing literature. These criteria include: basic needs of humans (Ralston, 1995; Murray, 1983; Walters, 1998; Buchholz, 2001), outcome expectation (Caruth, Middlebrook & Rachel, 1985; Ralston, 1995; Gray, 1999; Suarez, 1996), and perception of a threat (Caruth, Middlebrook & Rachel, 1985; Gray 1999). While there is no clear relationship between the three criteria, understanding the concept of each criterion is necessary when investigating those fears in the workplace. Respectively, each criterion will be discussed in the following sections.

Basic Human Needs Perspective

Though there are multiple types of needs that fall under the first criterion, the basic needs of humans, only those needs that address work-related fears will be discussed. Based upon the first criterion, basic needs of humans, some researchers have divided work-related fear into two categories, while others choose to mention several types of fears. For instance, Buchholz (2000) claims that fear can be grouped into “ three broad categories: Threats to or Needs for Identity (who I am), Love (relationships), or Safety (physical and psychic integrity).”

Similarly, Gilly (1998) classifies work-related fears into two categories including *subtle fear* and *not-so-subtle fears*. In the first category are superficial fears such as fear of committing mistakes, loss of money or reputation, loss of job, fear of not meeting deadlines, and fear of getting in trouble. Unlike the not-so-subtle fear, recognizing subtle fear is challenging, as this

type of fear is more universal and destructive. Subtle fears that are associated with this category include the fear of not being able to survive, the fear of power and responsibility, and the fear of not being able to maintain something that he/she has initiated (Gilly, 1998).

Perception of Threat perspective

Another approach to categorizing work-related fears has been done by Gray (1999). His view is that threats have two dimensions labeled as *purposive threat* and *environment threat*. Purposive threat deals with those threats where a condition in a work environment lessens the responsibility, control, or power of the individual. For example, career stagnation, or even worse, career dismissal falls under purposive threats.

In contrast, environment threat concerns those threats that are caused by drastic changes in the organizational climate that may be disruptive such as resource conflicts, takeover/merger concerns, physical hazards, and the risks associated in using leading-edge technology.

Outcome Criterion Perspective

In the book "*Hidden Dynamics*", Ralston (1995) claims that the list of fears in the workplace is infinite. The number of fears in the workplace will differ, but typically includes fear of confronting authority, fear of reprisal, fear of being vulnerable, fear of appearing ineffective or powerless, fear of not being accepted, fear of alienating others, fear of looking incompetent, and fear of losing control. However, he narrows them down into three main categories including fear of authority, fear of confrontation, and fear of conflict. Respectively, those three major categories are consistent with the outcome criterion.

Despite the fact that outcome criterion has been categorized into three key groups, there are researchers who have added more entries having no criteria, yet fall under outcome criterion. Although these fears have no clear criteria, they are frequently experienced in the workplace. Lowe, & McBean (1989) point out fear of providing information, fear of not knowing, fear of giving up control, and fear of change are pervasive in the workplace and can lead to negative behaviors. Similarly, Suarez (1996) developed a list of seven fears: (1) fear of reprisal or a poor appraisal; (2) fear of failure; (3) fear of success; (4) fear of change; (5) fear of speaking up; (6)

fear of not making a mark on one's "watch"; and (7) fear of new knowledge (Suarez, 1996). Fear of speaking up is also shown in the study of Argyris (1986, 1990), Ryan & Oestreich, (1995, 1998) and Premeaux (2001).

Furthermore, Messina & Messina (2002) mention fear of taking risks, which they believe can lead to a number of fears such as fear of rejection, fear of incompetence, fear of failure, and fear of hurting others. The preceding lists of fears may be applicable to most occupations in the workplace. An additional typology developed by Reiss (1991) in a clinical study is broader and not necessarily workplace specific.

The fear outcome expectancy theory developed by Reiss represents the three categories of common fear based on different expectations. The aforesaid theory calls for expectations of danger/injury from the physical environment, expectations of anxiety, and expectations of negative social evaluation (Reiss, 1991)

Above all, these typologies of fears overlap to a degree and only reflect a fraction of the infinite lists associated with work-related fears. In other words, the types of fears mentioned throughout this chapter at this point associated with the workplace is not a mutually exclusive list of fears that exist in the workplace. In fact, as any organization continues to exist and evolve, so do the fears that currently exist in the organization. The evolution of the organization may create new fears or alter the fears that already exist.

Although the three proposed criteria, which are basic human needs, outcomes, and perception of threat, deal with considerable types and combinations of fear, distinguishing which criterion is most appropriate for every case of fear may occasionally be unclear. In addition, the abundant examples of fear that are grouped under the dimensions of each criterion may even at times appear blurry if there are overlapping descriptions that involve more than one fear. As a result, these conditions call for an effort that concentrates on eliminating ambiguity.

A study that focuses on reducing the dimensions of these types of work-related fears establishes the major typologies that should assist in building a comprehensive understanding about fear in the workplace

A Comprehensive Framework

Another attribute of fear that can be found is the emphasis on potential negative consequences. However, these consequences may manifest themselves two-fold with initial negative consequences, and ultimate negative consequences. The initial negative consequences of fear deal with those negative consequences that strike before those types of fears that resulted in ultimate negative consequences. For example, fear of failure, fear of speaking up, fear of the unknown, fear of taking risks, fear of losing face, and so forth are initial negative consequences of fear. In contrast, the latter fear concerns those fears that involve the ultimate negative consequences, which are preceded by the initial negative consequences of fear.

Four Types of Work-related Fears

In this study, I propose that the dimension of work-related fears can be grouped into four typologies. Specifically, these groups are fear of punishment, fear of separation, fear of embarrassment, and fear of physical and emotional harm. These groups of fear may be determined by studying the ultimate negative consequences, and also follow the assumption that regardless of the type of fear experienced by individuals, that fear will eventually lead to one of the four types of fears described. An example of the relationship between initial negative consequences and ultimate negative consequences of fear is explained in numerous studies (Argyris 1986, 1990; Ryan & Oestreich, 1998; Harvey, 1974; De Becker, 1999, Premeaux, 2001). For example, Ryan & Oestreich (1998) provide cases of people in all levels of organizations who are afraid to raise their concerns about certain topics because they are afraid of some type of *repercussion* such as punishment or embarrassment. Similarly, Argyris (1990) elaborates the case of a consultant that shunned providing honest feedback to his client because he was afraid of some negative reaction. Argyris labeled this behavior as the *easing-in approach*, which is a part of *defensive routines* (Argyris, 1990, p80, 81).

The examples of ultimate negative consequences are varied where an individual may be punished by looking unskillful, being humiliated by others, being separated or not connected to the majority or to receiving physical or emotional harm.

This study focuses on the ultimate negative consequences given the presumption that intimate knowledge of such consequences is practical in understanding why definite types of fear occur in the workplace. Correspondingly, each dimension comprising the ultimate negative consequences was obtained through the literature and is described in Table 1.1

Table 1.1: Four Types of Work-related Fears

Fear of punishment	Superior’s application of a negative consequence of the removal of a positive consequence following a subordinate’s undesirable behavior, with the intention of decreasing the frequency of that behavior (Butterfield, Trevino, and Ball, 1996)
Fear of separation	Not being connected engaged or related with other individuals in the organization. (Harvey, 1974)
Fear of embarrassment	Being embarrassed or humiliated in front of others, particularly one’s peer or powerful people in the organization and fear of looking ignorant or unskillful (Ryan & Oestreich 1998, p 93)
Fear of harm	Any physical assault, threatening behavior, or verbal abuse occurring in the work setting. (OSHA, 2002)

There is evidence that these four types of fear listed in Table 1.1 are pervasive in the workplace. Bowlby (1973) claims that separation is a foundation of fear. Among the many types of fears, Johnson (1999) claims that the most ubiquitous fear includes “the fears of rejection, embarrassment, and failure”, and validates these fears by using a SUDS (Subjective unit of discomfort scale) model based on a 100-point scale ranging from “100 (highest) to 0 (lowest)”. Butterfield, Trevino, and Ball (1996) conducted a qualitative study demonstrating that the fear of punishment plays a major role in the work atmosphere. Appelbaum, Bregman & Moroz, (1998) also discuss negative effect and impact of fear of punishment in organizational context. Additionally, fear of workplace harm has been a concern and was pinpointed in several studies (Gutek, 1985; De Becker, 1997; Neuman, 1998). Last but not least, fear of embarrassment appeared to be important in the several studies (Zytka, 2001; Ryan & Oestreich 1995, 1998,)

Protection Motivation Theory

Four dimensions of work-related fears serve as the first theoretical construct of this study. A second construct, a Protection Motivation Theory (PMT) introduced by Rogers (1975/1983), was used to understand how fear of negative outcomes could influence the discrepancies of coping strategies among individuals. The PMT model is a convergence of a number of theories that have been influenced by expectancy- value theory, decision-making theory, decision-making and field theory, purposive behaviorism, and social learning theory, parallel response model, and drive-reduction model (Rogers, 1974, p.96).

Rogers exclusively compared and contrasted Leventhal's parallel response model and Janis' drive-reduction model, and applied the knowledge gap between the two models to develop the PMT model. That effort in bridging the knowledge gap between the former models in developing the PMT was revolutionary, and from that point forward the resulting PMT model has been extensively used in professional fields such as psychology & health, advertising, marketing, and health communication.

The original framework of the protection motivation theory is comprised of three factors: the first one is called components of a fear appeal, which includes magnitude of noxiousness, probability of occurrence and efficacy of recommended response. Then, there are cognitive mediating processes that contain three components, which include the appraised severity of threat, the expectancy of exposure (probability of occurrence), and the belief in the efficacy of coping *responses*. PMT was later revised by Rogers & Moddus (1983) with the inclusion of *self-efficacy* as one of components added to the cognitive processes. The addition of self-efficacy was justified from the realization that belief in efficacy as a coping response *per se* would not be sufficient for individuals to adopt the response. Validity of the model is supported by the reasoning that individuals have to believe their own ability to cope as well.

The premise of this theory is that once individuals experience any kind of threat or danger through communication channels, those individuals will appraise those threats. Appraisal of the threats entails evaluating the severity, the probability that they may be exposed to that threat, and the weight with their own ability known as self-efficacy before finally judging if they will be able to perform coping behavior to deal with those threats.

During the appraisal process, fear will occur as a response to that threat and then the protection motivation will be elicited which will influence change in attitude or behaviors. Therefore, according to the PMT theory, the more severe a person perceives the present danger, the more likely he will feel vulnerable to the occurrence of the threats. Also, the greater the perception in their ability to deal with harm, the stronger is their motivation to engage in a coping response. Witte (1992) draws a conclusion about the PMT as follows:

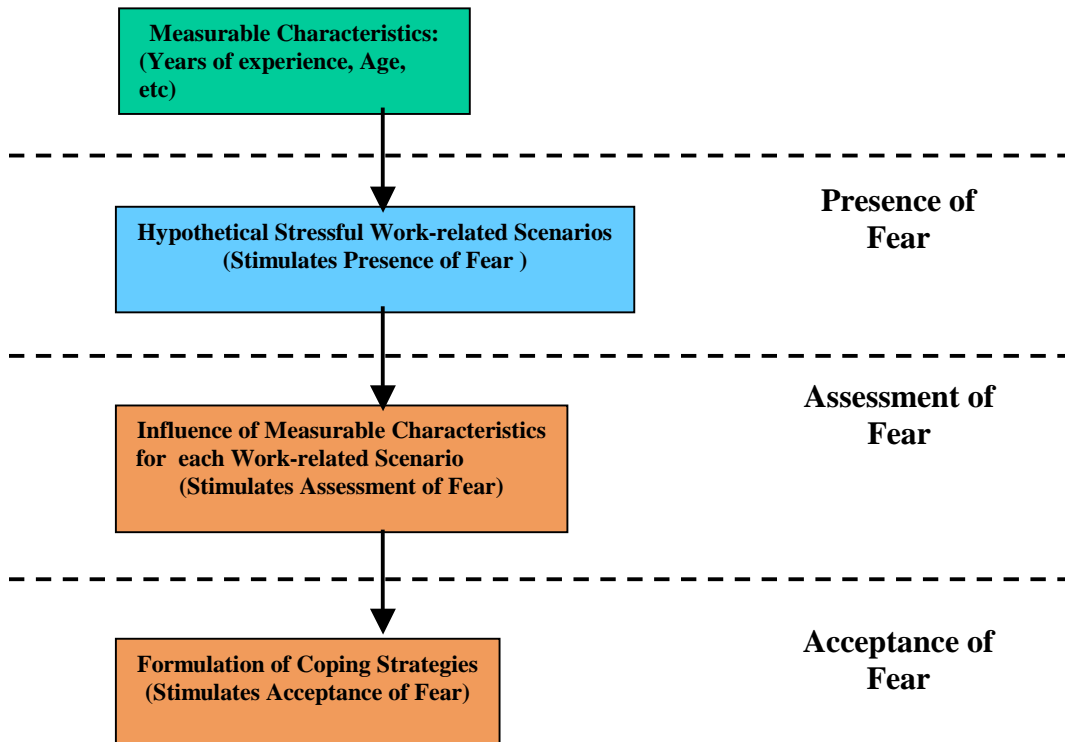
When each of the four PMT variables is a high level, then maximum protection motivation, and subsequent message acceptance, is proposed to occur. PMT studies have most consistently found two-way interactions between one of the threat variables (i.e. severity or susceptibility) and one of the efficacy variables (i.e. response efficacy or self-efficacy) (e.g., Kleinot & Rogers, 1982; Maddux & Rogers, 1983; Rogers & Mewborn, 1976). However, specific interactions between the four variables have proven difficult to predict (e.g., Rogers, 1985). For example, sometimes susceptibility interacts with response efficacy (Rogers & Mewborn, 1976, smoking experiment), while other times severity interacts with self-efficacy to influence behaviors (Wurtele & Maddux, 1987) (p, 335).

Cognitive Mediating Processes of PMT

In this study, the cognitive mediating processes are our primary concern. The aim of this study is to investigate the extent to which threat appraisal and coping appraisal affects the individuals' coping strategies when presented with different work-related fearful situations as fear is accepted (See Figure 1.1).

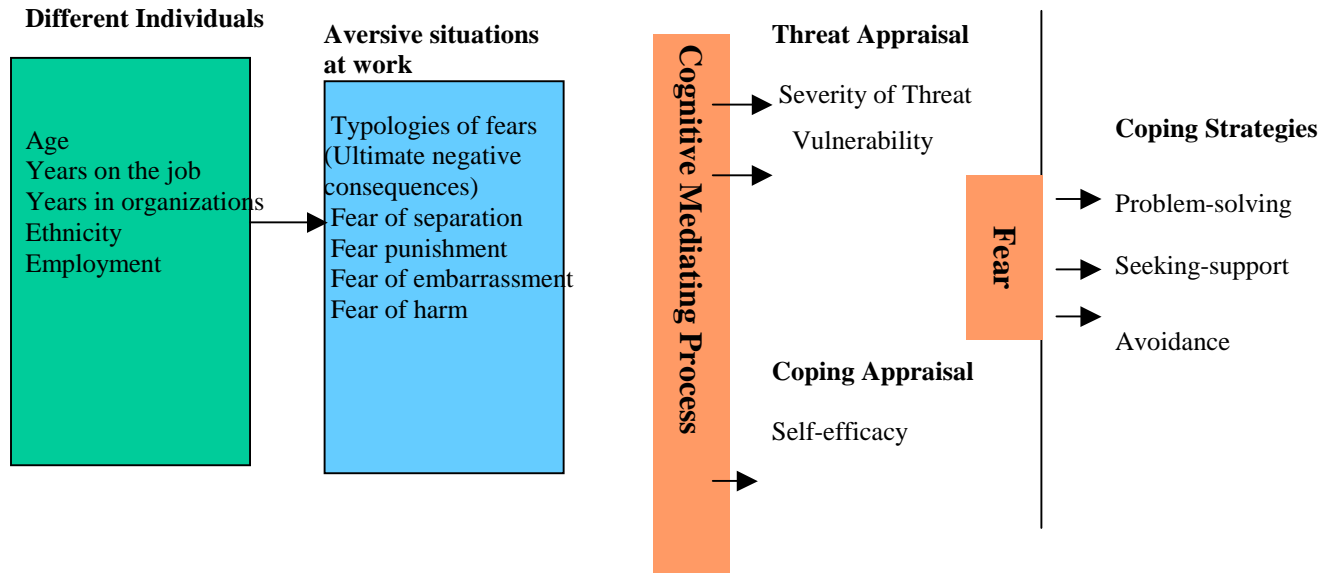
Figure 1.1 assumes a boundary between the presence of fear and the assessment of fear. Of course, realistically there is neither a consistent indication as to when all individuals begin to experience fear, nor is there a uniform approach as to how each fear-inducing scenario is assessed. However, in all cases, the purpose of the High-Level Conceptual Framework depicted by Figure 1.1 serves to point out that the presence of fear must be stimulated prior to the assessment of fear, which invokes the motivation for this study described by the Conceptual Framework in Figure 1.1.

Figure 1.1 High-Level Conceptual Frameworks of Fear and Coping



In contrast to Figure 1.1, Figure 1.2 denotes that although there could be any number of unknown factors present that may govern the coping strategies for each respondent, individual characteristics such as sex, age, years of experience, types of jobs, employment status and ethnicity may prove useful. Thus, the said measurable characteristics will be explored for each respondent with the objective of finding their influence on the relationship between work-related fears and coping strategies.

Figure 1.2: Modified PMT Framework



Adapted from “Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change,” by J.Maddux and R. Rogers, 1983 *Journal of Experimental Social Psychology*, 19. Reprinted with permission of the author.

The proposed conceptual framework above shows that when individuals with different demographic backgrounds face different fearful situations, the cognitive process begins to branch out into two main areas: threat appraisal, which includes severity of threat, and vulnerability to threat and coping appraisal, which include self-efficacy. Each individual will be different in the degree severity of threat, vulnerability to threat and self-efficacy, which will manifest in the different perception of fear.

The differences in individual experiences in fear will result in three different strategies of coping which can either be problem-solving strategy, seeking support, or avoidance. Lazarus (1988) elaborates on the concept as follows:

There appears to be a relationship between the degree of threat and the tendency of the individual to employ more primitive, desperate, or regressive type of defenses. More adaptive and reality-oriented forms of coping are most likely when the threat is comparatively mild; under severe threat, pathological extremes become more prominent. (p.162)

Statement of the Problem

Organizations that adapt to changes in modern society encounter many internal situations that may be perceived as threats. Within the workplace, these threats may stimulate the presence of various types of fears, which requires the capability of dealing with them. When employees cannot cope with any type of work-related fearful situation, this incapacity can become long-term. Therefore, if an employee remains unable to cope over the long-term, those work-related fearful situations that are being experienced may eventually affect not only their physical and mental health, but also their productivity level. Schwarzer (2002) concludes, “A host of research conducted during the last two decades has found that poor adjustment to demanding or adverse work environments can lead to illness, in particular to high blood pressure and cardiovascular disease” (p.2).

It is interesting to note that there is a difference between males and females regarding how they handle work-related fears. Correspondingly, there are numerous studies that suggest coping strategies and experiences of work-related fears differ by sex (Gutek, 1985; Betz & Serling, 1993; Piltch, Walsh, Mangione, & Jennings, 1994; Gianakos, 2000; Algoe & DeLamater, 2000; Bijttebier & Vertommen, 1997; Utsey, Ponterotto, & Reynolds, 2000). For example, Krohne (1996) investigated several studies and drew the conclusion that males and females experience and cope with work-related fears differently. Males tend to perceive fewer work-related fears due to a greater sense of social support while females tend to experience greater amount of work-related stress lacking a sense of social support.

He further expresses, “In general, the relationships among gender, coping, and outcomes variables (such as health status) are very complex (for an overview, see Miller & Kirsch, 1987; Weidner & Collins, 1993). This fact calls for the inclusion of men and women in studies of coping so that all data can be analyzed for gender differences” (p.401).

Therefore, a study that provides an additional understanding of how males and females differ in handling work-related fears will prove beneficial in developing specialized approaches that deal with occurrences of any maladaptive behaviors. Additionally, an applicable and comprehensible framework that offers an understanding of its occurrences is necessary. Unfortunately, those applicable frameworks that can explain the ability for individuals to cope with fear successfully or disastrously have not been applied as yet to the field of HRD.

Therefore, a study that applies a useful and practical framework in examining sex differences for adopting coping strategies should be initiated to address all aforesaid issues.

Purpose of the Study

The main idea of this study is to apply protection motivation theory to better understand the relationships between work-related fear and coping strategies of individuals in organizations.

This study will employ the proposed framework to explore several perspectives:

1. Explore if variables from the cognitive mediating processes known as threat appraisal (severity of threat, perceived vulnerability) and coping appraisal (self-efficacy) from the protection motivation theory can be applied to predict coping strategies that are related to workplace fear.
2. Explore to what extent, severities of threat, self –efficacy, perceived vulnerability and coping responses vary between males and females across different fearful situations.
3. Attempt to understand the differences in coping strategies under different fearful situations based on demographical factors including age, sex, ethnicity, management status, and years of experience.

Significance of the Study

The findings of this study should provide a clearer understanding of how males and females differ when deciding on coping strategies. The differences are based on self-efficacy, perceived vulnerability, and perceived severity of threat. Once these factors have been examined as to how the sexes differ in their coping strategies, the findings may prove beneficial to organizations that are proactively refining or creating employee development programs. For instance, conclusions drawn from this study may assist HR professionals and practitioners plan or design effective training, policy, or assistance programs that help employees develop the ability to remain productive in a threatening and ever-changing work environment.

Research Questions

This study aims to answer the following question:

To what extent do males and females respond differently to the following variables under different representations of a fearful situation in the workplace?

Response variables are:

1. Threat appraisal of the represented situation, as measured by:
 - a. Perceived severity of the hypothetical fearful work situation
 - b. Their perceived vulnerability to the threat in the hypothetical situation
2. Their assessment of coping strategies that the person in the situation should adopt, based on three types of strategies:
 - a. Problem solving strategies
 - b. Social support strategies
 - c. Avoidance strategies
3. A coping appraisal measure based on respondents' self-efficacy in dealing with work related problems.

Additionally, the relationships between selected demographic variables (such as age, years of experience, and race/ethnicity) and responses to the different scenarios can be explored to the extent that such comparisons may be made.

Definition of the Terms

Several terms referred to throughout the study are described below:

Threat: Threat is an external stimulus variable (e.g., an environmental or message cue) that exists whether a person knows it or not. If an individual holds a cognition that a threat exists, then he or she is *perceiving* a threat (Witte, 1992, p. 330)

Severity of Threat: the magnitude of harm expected from a threat, the significance or seriousness of a threat, the degree of physical, psychological or economic harm that can occur (Witte, 1999)

Susceptibility/ Vulnerability to Threat: the likelihood that a threat will occur to a given person or audience. The degree of vulnerability, personal relevance, or risk of experiencing a threat (Witte, 1999)

Fear: A high level of emotional arousal caused by perceiving a significant and personally relevant threat. Fear motivates both protective and maladaptive action, depending on the circumstances (Witte, 1999)

Threat Appraisal: the process of evaluating components of fear appeal that are relevant to an individual's perception of how threatened he or she feels (Milne, Shereen, and Orbell, 2000, p.108).

Coping Appraisal: an individual's assessment of the recommended coping response to the appraised threat (Milne, Shereen, and Orbell, 2000, p.109)

Self- efficacy: individual's beliefs about whether he or she is able to perform the task (Milne, Shereen, and Orbell, 2000, p.109)

CHAPTER II

LITERATURE REVIEW

This chapter provides an in-depth literature review that is pertinent to work-related fears and coping strategies. The chapter organization is divided into eight parts with the initial section describing the preparation of the review for the evolution of the present study and is followed by a brief introduction.

The third section introduces a departure from research on fear, and is supported by the fourth section, which clarifies its definition, concepts, and discusses how those related terms that are drawn from different disciplines establish an understanding of the phenomenon.

The following two sections elaborate on the four main areas about the study of fear in the organizational context that have impacted previous studies, and are supplemented by a demonstration on how sex influences individual dissimilarities in fearful experiences.

The seventh section covers the existing studies of coping and its strategies where not only the definitions and dimensions of coping strategies will be discussed, but also the differences in coping strategies based on sex.

The final portion of the chapter discusses the existing research on protection motivation theory, and will exhibit why the model is a useful framework that can be used to understand an occurrence of fear in the workplace and the adaptive behaviors of employees.

Preparation of the Review

For nearly a century, countless studies of fear have been conducted and revisited comprehensively across a wide range of disciplines. For example, neuro-psychology (LeDoux 1990, Lang, Davis & Ohman, 2000), health psychology (Witte, 1992; Forbe & Roger, 1999;), communication (clinical psychology (Reiss, 1987; Reiss, Peterson, & Gursky, 1988; Gursky & Reiss, 1987, 1991; Zoellner, Echieverri, & Griske , 2000), developmental psychology, neurophysiology (LeDoux, 1996), political field (Ahmed, 2002;), architecture (Ellin, 1997) , psychophysiology(Heldman, Scherer, Pauls, & Stemmler, 2001), Adult Learning(Daloz, 1988) ,and sociology (Rachman, 1974, 1978,1980) have embraced the said subject, resulting in many specialized studies about fear.

Because there have been an increasing number of studies about fear from the aforementioned disciplines, the study of fear in the organizational context has also been growing dramatically in the past decade. Due to the large body of existing studies of fear in such fields, in order to prepare the literature review, several voluminous databases were inspected.

Certainly, information needed to conduct effective research relies upon the integrity of the information source. The following databases have a well-established reputation for providing readily available information: ABI inform, Business & Management Practices, LexisNexis Academic, Web of Science, Medline, Wilson Business, ERIC, Dow Jones Interactive, PsycINFO, Health and Wellness Resource Center, General Business File ASAP, Dissertation Express, ProQuest Digital Dissertations, and Internet search engines such as Google, Northernlight, and Excite.

The initial statements of this section show that fear is a universal topic that touches multiple disciplines. Given the notion that not only is fear such a widespread topic of interest, but also the awareness that the information returned from databases will be overwhelming, it was necessary to narrow down the potential result sets from information repositories by carefully determining how to query the databases.

After much trial and error, several combinations of terms were performed as a keyword search for the literature review of work-related fears, for example, fear, organizational fear, fear in the workplace, work anxiety, anxiety sensitivity, threat, challenges, emotions, occupational stress, management by intimidation, workplace violence, mobbing at work, bullying at work, fear as motivation, and worry.

Introduction

In an attempt to understand human development one sometimes has to study things, which, to some appear to be or perhaps are unattractive and even frightening, said Lipper (1989, p.187). Undeniably, the perception of fear is certainly unique across individuals, and it is these inconsistencies that fuel how unattractive or frightening fear is considered for each person. However, fear does play a major role in human lives and its capacity to manipulate emotions, beliefs, and actions without reservation should not go unnoticed.

The influence of fear is especially apparent in today's workplace, where it plays a major role in provoking some undesired behaviors. These behaviors may be gradual or sudden, but is

certainly determined by the amount of fear that is present. For example, fear may slowly demolish trust or corrode any enjoyment from working. On the other hand, fear is powerful enough to suddenly invoke avoidance behavior when individuals perceive emotional and physical threats. Regardless of the behavior that fear motivates, the negative side effects that may be realized when fear becomes resident should be pointed out. Although there are many possible combinations of side effects that may be present at any given time, it is important to note that prolonged fear can produce dissatisfaction, tiredness, disturbance, counterproduction, or depression that thwart employees from performing at their best.

How individuals within an organization react to work-related fears in order to reduce the feeling of discomfort have gradually become perceptible. When one cannot handle his or her discomfort appropriately, it reflects on his maladaptive behaviors that may negatively affect his work life on occasion. Seeking effective coping strategies may not be attainable without being able to acknowledge the existence of fear and understand it.

Therefore, concepts and impacts of fear along with constructive knowledge of coping strategies should be thoroughly elaborated in order to assist developing a better understanding of how individuals cope with stressful situation in organizational context.

History of Fear Studies

Previous studies of fear have received considerable attention from researchers in several fields that have made attempts to understand the many idiosyncrasies that have been recorded. These efforts have created an enormous pool of viewpoints describing the many causes, developments, and consequences that are connected to fear. The catalog of investigations of the fear phenomenon has become so extensive that researchers representing physiological, sociological, and psychological fields continue to offer opinions.

The approaches from the studies of fear are diverse, and range from simple to sophisticated research methods. For example, uncomplicated research approaches include conducting a self-report survey (Chambless & Gracely, 1989), observing human or animal behaviors under fearful conditions externally (Maren, 1999), investigating how body responses to fear, using simulators to provoke fears internally (Regenbrecht, Schubert, & Friedmann, 1998), and conducting experiments on animals in the laboratory and applying the results to

human's fear (Barros, Boere, Huston & Tomaz, 2000; Mishkin, 1978). Eventually, as emerging technologies are applied in research efforts, it is possible to perform sophisticated techniques such as using computational modeling to explore how a brain processes fears (LeDoux, 1995; Armony, Servan-Schreiber, Cohen, & LeDoux, 1997).

Why do studies about fear gain a great deal of attention from researchers coming from such a wide variety of disciplines? For one thing, the definition of fear remains disputable, yet the beliefs linked to fear continue to be indispensable because of its frequent occurrences that are observed in people's lives. In addition, fear may cause uncomfortable experiences while playing a significant role in motivating us to avoid dangerous situations.

In other words, when fear is encountered from either internal or external conditions a physical response, which is known as the "fight or flight" response, is activated. At that point, the hypothalamus, which is an area of the brain, becomes stimulated, and prepares the body to run or fight. Once the body completes preparation, the Sympathetic Nervous System (SNS) becomes sensitive to threats.

Although the preceding steps describing how fear invokes a physical response in an individual, there are several internal changes that our body undergoes while it prepares for the fight or flight response. These essentials may be described as behavioral symptoms and may be commonly observed as having an increasing heart rate and blood pressure, increasing perspiration, heightened sensitivity in hearing and vision, cold hands and feet, etc. (Cannon, 1929)

His study arises from questioning James' theory, which focuses on "whether feelings cause emotions or emotions cause feelings?" James' study has been a blueprint of substantial research on how a human's body responds to fear afterward (Taylor, Koch, Woody, & McLean, 1996; Taylor, Koch, & Crockett, 1991; Wardle, Ahmed, & Hayward, 1990; Chambless, Caputo, Bright, & Gallagher, 1984)

The study of fear has been conducted throughout history, according to the claim of Ellin (1997) with a starting point in the history of fear emerging in 1789 during the French revolution. During that time, Ellin claims that the emergence of new social power structures and the new perception of the world, and new source of fear was driven by humans' fear (Ellin, 1997)

Subsequent to the French revolution, "The Expression of the Emotions in Man and animals" by Charles Darwin (1872) showed an innovative technique for studying fear. He

presented pictures of fearful men and women to people across cultures and questioned his audiences on whether they agreed that the people in the pictures were fearful. In addition, he concludes that humans and animals are similar in expressing fear (Darwin, 1872).

His study was a departure from a line of research that uses facial expressions in recognizing fear in Neuroscience research (e.g., Broks, Young, Maratos, Coffey, Calder, Isaac, Mayes, Hodges, Montaldi, Cezayirli, Roberts, & Hadley, 1998; Scott, Young, Calder, Hellowell, Aggleton, Johnson, 1997; Sprengelmeyer, Young, Schroeder, Grossenbacher, Federlein, Büttner, & Przuntek, 1999)

Another study that has had a great impact on the countless studies of fear conditioning come from Pavlov, a Russian psychologist. Pavlov's (1927) work was a conducted experiment that used a bell and some pieces of meat as props to describe the behavior of his dog's salivation in three situations. One of the cases involves feeding a piece meat to the dog without any condition, while another case entails ringing the bell while feeding the meat to the dog.

The remaining case is described as ringing the bell without offering meat to the dog. He found that the dog associated the sound from ringing the bell as an event that offers meat as food. Although the meat was not given to the dog, if the dog heard the bell ringing, the dog would salivate. This conclusion led to the emerging notions of conditioned stimulus (CS), unconditioned stimulus (US), and conditioned response (CR), which impact the recent innumerable experiments of conditioned fear (e.g., Rescorla & Wagner, 1972; Reiss, 1987)

Among a number of researchers, LeDoux (1990) and his colleagues conduct a series of experiments by pairing noise, flash, and foot shock to stimulate the conditioned fear in rats to better understand what causes fear in humans by looking at its process from physiological and psychological perspectives altogether. The focus of his studies is to examine how the amygdala, which is a small, almond-shaped structure inside the brain, plays a role in the fear conditioning process.

LeDoux's research provides a better understanding of certain mental illnesses (e.g., anxiety disorder, agoraphobic) that have resulted from the amygdala being damaged. Detecting when the amygdala might be impaired is linked to symptoms such as the inability to judge the trustworthiness of others or lacking the awareness to avoid dangerous situations.

These researchers sketched the pathway of learning about fear, which will be discussed later in terms of how fear is articulated in different disciplines. Besides, learning about the

history of fear without exploring how other people define fear would be unreasonable. As such, the following section will be devoted to the definition of fear from different perspectives to establish an understanding of fear.

Definition of Fear

The word “fear” adopted from the old English term "faer", which means sudden calamity or danger, now embrace the possibility that something dreaded or unwanted may occur (Kindel, 2000). The previous remarks apply fear in the context that describes perilous events or the presence of unsafe conditions. In addition, fear may also be used to characterize emotional states, the possibility of unsafe events, and the potential acts that create fear. According to Webster’s Dictionary, fear is described as “an unpleasant often strong emotion caused by anticipation or awareness of danger (1): an instance of this emotion (2): a state marked by this emotion” (Webster, 2002).

Similarly, Zimmerman (2001) defines fear as “A painful emotion or passion excited by the expectation of evil, or the apprehension of impending danger; apprehension; anxiety; solicitude; alarm; dread. The degrees of this passion, beginning with the most moderate, may be thus expressed, -- apprehension, fear, dread, fright, terror” (Zimmerman, 2001)

Rachman (1990) extends the concepts by stating that “fear describes feelings of apprehension about tangible and predominately realistic dangers” (p.3). He further describes that fear can be acquired through conditioning processes, vicarious experiences and a misinterpretation of information.

Robin (1999) defines fear as the “uneasiness of the mind, upon the thought of future evil likely to befall us”(p.6.) while Lazarus (1966) explains that fear is the emotional state that responded to a located fear and regarded as an overpowering threat stimulus (p.323).

Moving further to the neurophysiology of fear, Lang et al. (2000) explain clearly how our brain is operated when fearful experiences have occurred:

A small, almond-shaped structure located deep within the temporal lobe—**amygdala**— to be at the center of a defense system involved in both the expression and acquisition of conditioned fear (Gloor, 1960; Kapp et al., 1984; Starter and Markowitsch, 1985; Kapp and Pascoe, 1986; Ledoux, 1987; Gray, 1989; Davis, 1992). The amygdala receives highly processed sensory information from all modalities through its lateral and basolateral nuclei. In turn, these nuclei project to the central nucleus of the amygdala, which then projects to a

variety of hypothalamic sites, the central gray, and brainstem target areas that directly mediate specific signs of fear and anxiety (cf. Davis, 1992). (p.138-9).

Similarly, in the study of nursing, Yeager (2001) defines fear as a mild to severe feeling of apprehension about some perceived threat related to the present that is caused by a result of discrete physical or psychological entity. The marketing research perspective offers a slightly different definition when Rogers (1975) considers fear as “a rational construct, aroused in response to a situation that is judged as dangerous.”(p.96)

In the book “*Toward a General Theory of Action*”, Parson (1962) defines the concept of fear in the context of being a mechanism of defense as follows:

Fear is the cognition and cathexis of a negatively cathected fact in the external world. Since all cognition-cathexes have a temporal dimension (that is, they are expectancies) we can say that fear is the cognition of an expected deprivation. The negatively cathected object (that is, expected deprivation) is placed phenomenologically in the external world (p.131).

At a glance, the meaning of “fear” is loosely defined across several research fields, and is subject to numerous interpretations. However, while there are some similarities that may overlap when interpreting fear, those vague definitions may not apply to fear described in the organizational context. As such, learning how fear is compounded and compared with closely related terms should be useful.

Fear and Related Terms

The concept of fear is relatively nebulous and has been subsumed under several terms. To facilitate an understanding of fear in organizational context, a distinction between the term fear and a number of related terms such as anxiety, stress, worry, and threat should be described clearly.

Fear& Anxiety

Some researchers (Basovitx, Persky, Korchin, and Grinker, 1955) do not find any rational justification to differentiate between the terms anxiety and fear (Lazarus, 1966). Geer (1965) supports the above notion by expressing that the, “Theories of personality differ in the way they

describe fear and anxiety. Some theories use the concepts interchangeably while others draw distinctions between the terms” (p.45).

Unlike Geer, Lazarus (1988) argues that the difference between anxiety and fear necessitates clarification because it will indicate different cognitions and processes of coping (p.234). Although the preceding descriptions of fear and anxiety present valid points, the concept of fear and its link to anxiety remain controversial. As a result, research efforts have exploited the use of stimuli as an attempt to discriminate between fear and anxiety.

The specificity of the eliciting stimulus can differentiate between fear and anxiety. While anxiety responds to broader or all-encompassing stimulus, fear responds to a specific stimulus. (Geer, 1965) Similarly, Lazarus (1988) sustains, “anxiety thus a threat reaction when no clear action tendency is generated” (p.310).

Interestingly, Bay & Algase (1999) analyze what characteristics that the can be used to clearly draw the demarcation between fears an anxiety described in table 2.1

Table 2.1: Characteristics of fear and anxiety

Definition of fear		A sufficiently potent, biologically driven, motivated state wherein a single, salient threat guides behavior. It is a defensive response to perceived threat of the result of exposure to a single cue presented in an environment reminiscent of the original fear experience.
Definition of Anxiety		A heightened state of uneasiness to a potential nonspecific threat that is inconsistent with the expected event and results when there is a mismatch between the next likely event and the actual event.
Feeling of fear		Immediate dread; scared and frightened
Feeling of anxiety		Vague; uneasiness or increasing tension
Source of fear		Known and specific
Source of anxiety		Unknown and nonspecific
Fear Responses	Subjective	Behavioral responses are evident: frightened; apprehensive in order to perform risk assessment
	Objective	Fight, flight, or freeze behaviors present; cardiovascular excitation to enhance cardiac output; frightened; focus on threat
Anxiety Responses	Subjective	Worried, Jittery, nonspecific fright; rising apprehension
	Objective	Restlessness; trembling and voice quivering; cardiovascular excitation to enhance arousal; arousal; focus on self
Antecedents of fear		<ul style="list-style-type: none"> • Sudden threat to biological integrity • Change in environment • Threatening facial expression • Certain innate conditions • Neutral event paired with innate fear pathways
Antecedents of anxiety		<ul style="list-style-type: none"> • Perceived threat to homeostasis • Presence of impeding change: loss of economic status, source of loss of economic change in career, retirement, change induced by motor of sensory loss
Critical attributes of fear		<ul style="list-style-type: none"> • Obvious behavioral change: fright, fight, flight, or freeze • Focus on source of threat • Sudden onset of threat • Apprehensive in order to perform risk assessment • Cardiovascular excitation
Critical attributes of anxiety		<ul style="list-style-type: none"> • Mostly subjective: uneasiness or rising apprehension • Transformation into relief behaviors: restlessness • Anxiety may not be known or identifiable
Consequences of fear		<ul style="list-style-type: none"> • Avoids danger • Survives • May develop long-lasting fear memory.
Consequences of anxiety		<ul style="list-style-type: none"> • Personal growth • Physical illness • Acting out behavior

From “ Fear and Anxiety: A simultaneous Concept Analysis,” by E. J. Bay and D. L. Algase, 1999, *Nursing Diagnosis*, 10, p.103. Copyright 1999 by Margo Neal publisher. Adapted with permission of the author and publisher.

In addition, Lang et al. (2000) proposes the distinct definitions of fear and anxiety as follows:

- Fear is generally held to be a reaction to an explicit threatening stimulus, with escape or avoidance the outcome of increased cue proximity.
- Anxiety is usually considered more general state of distress, more long lasting, prompted by less explicit or more generalized cues, involving physiological arousal but often without organized functional behavior. (P.144)

Similarly, Spielberger (1976) states, “the traditional distinction between fear and anxiety is based on the assumption that similar emotional reactions result from the operation of different mediating process” (p.6).

Stress

Amidst these topics, stress is an area of research that continues to be studied extensively. In fact, the topic of stress is so universal that a vast amount of literature is available to those practitioners and scholars who are seeking to apply stress-related research in their relevant field. Accordingly, the number of studies that document stress far exceeds the number of studies that specialize in fear. Stress can be a stimulus, a transaction, and a response, which can result in physiological, emotional, intellectual, and spiritual responses among individuals (Yeager, 2001). Dr Hans Selye (1956, 1976), a pioneer of stress studies, defines stress as the non-specific response of the body to any demands made upon it. He posits that there are two different forms of stress: Eustress (pleasant stressor), and Distress (unpleasant stressor).

He further explains that optimal level of stress (Eustress) can stimulate individuals to perform effectively while the high stress (distress) will affect lower performance of individuals as shown below. (Selye, 1976)

Figure 2.1 Stress and Performance

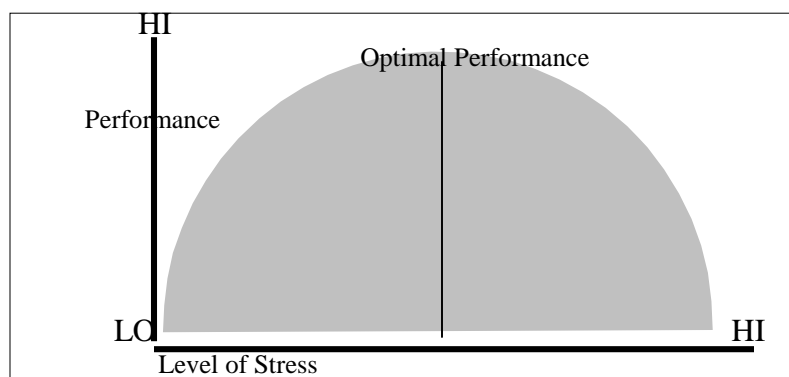


Figure 2.1 portrays a solid distinction between the two stress type, and necessitates unique perspectives when describing fear. As depicted above, individual productivity and work performance levels may reach a desirable plateau as suggested by Optimal Performance, and is determined by the amount of stress handled by the individual or group of individuals being studied.

In addition, the illustration vividly indicates that while achieving Optimal Performance levels is possible, stress levels that are either almost non-existent or too high delivers ordinary, if not mediocre, performance. In effect, when a moderate amount of stress is tied to an individual, productivity levels increase until Optimal Performance is realized. Nonetheless, the thought of retaining a certain level of stress constantly on a daily basis is not realistic.

For instance, stress levels tend to rise sharply when deadlines to complete a project draw near, and where the amount of work needed to ensure success seems impossible. Hence, the conceptual relationship between Eustress and Distress reveals that although Optimal Performance is achievable while there is a modest amount of stress, the suggestion that fluctuating levels of stress across individuals will produce favorable performance levels only for the duration that the amount of stress remains moderate. Thus, a firm understanding of the views linked to Eustress and Distress, and their influence on work performance levels is critical when maximizing the ability to cope with fear.

Worry

Another term that has caused misinterpretations among the fear-related terms is worry.

Borkovec, Robinson, Pruzinsky, & DePree (1983) defined **worry** as

A chain of thoughts and images, negatively affect-laden and relatively uncontrollable... The worry process represents an attempt to engage in mental problem solving on an issue whose outcome is uncertain but contains the possibility of one or more negative outcomes. Consequently, worry relates closely to fear process. (p.9)

According to the provided definition, worry should be very useful when explaining the fear process.

Threat

Finally, without a firm understanding of the concept of threat, successful attempts to learn about fear in the workplace would be unattainable. The inability to learn about fear is especially evident where the perception of threat in the workplace is needed to elicit those fears that may be studied.

Schwarzer (2001) articulates that threat takes place when individual experience not only creates the perception of being in the present danger but also anticipation of future danger. Lazarus (1988) explains that the concept of threat contains two main characteristics “(1) it is anticipatory of future oriented, and (2) it is brought about by cognitive process involving perception, learning, memory, judgment, and thought”(p.30). He further defines, “Threat implies a state in which the individual anticipates a confrontation with a harmful condition of some sort” (p.25)

Fear is a construct that may be closely related to numerous terms. The significance in linking the related terms to fear is apparent when the terms are used in concert to solidify the concepts in understanding fear. However, while there is an obvious notion that fear may be characterized by associating those terms that might be perceived as related to fear, there is no conventional agreement on how these terms are articulated. Indeed, there are different disciplines that may interpret and define these terms in dissimilar fashions. In effect, having a loose understanding of these terms would necessarily affect a grasp of the impact of fear in the workplace in the following section.

Fear in the Workplace

Fear in the workplace is defined as "feeling threatened by possible repercussions as a result of speaking up about work-related concerns. These feelings of threat may come from four sources: actual experience, stories about others' experiences, assumptions and interpretations of others' behavior, and negative, culturally based stereotypes about those with supervisory power (Ryan, 1991, p. 21)." Prolonged fear can possibly cause “maladaptive behavioral psychological, and somatic responses to stressors” which is labeled as “strain” (Wofford, Goodwin, & Daly, 1999, p.688).

Most studies about fear in the workplace are seen in four main areas; (1) the studies of the implementation of fear (2) the studies of eliminating fear; (3) the studies of how fear influences organizational behaviors and learning, and (4) the studies of how to manage or cope with fear.

The Studies of the Implementation of Fears

Most people associate fear as a negative emotion that unnecessarily creates obstacles against individual and organizational developments. Nevertheless, many researchers claim that fear may inspire immediate actions by different individuals. Additionally, it may positively help individuals be more pragmatic and confine them to examine all issues to ensure well-informed decisions are made. The application of fear is most notable during the decision-making process when the consequences are serious, and when the factors that influence the final decision are driven by that emotion. Fear stimulates individuals to be alert, and provides a motivational outlet to deal with problems.

Douglas McGregor with his book “*human side of enterprise*”, which was published in 1960, proposed two sets of assumptions about two distinctive views of human behavior in the organizational context called Theory X and Theory Y. From the theory Y perspective, he postulated that employees are likely to work if they are satisfied with their basic human physical and psychological needs, such as recognition, appreciation and other positive motivation. In contrast, Theory X promotes the concept that managers believe that employees naturally do not like to work. As such, when employees are given the opportunity, they will gladly avoid working. McGregor further recommends that employing negative motivations such as physical force, authoritative power, and issuing threats as form of punishment, would stimulate those employees described by Theory X to be more productive.

Similarly, Blake & Mouton (1961) developed a managerial grid that is based on a three-dimensional model concerning the three measurable dimensions, X, Y, and Z. Respectively, X represents the productivity dimension, whereas Y and Z denote the concern of people and motivation dimensions. Correspondingly, the above said dimensions allow the managerial grid to be used as a tool to assert that individuals can be widely motivated by fear through desire. They further express, “The other side of motivation is fear of disapproval. Fear is an intense emotional reaction, and fear of being personally rejected is one of the strongest” (p.41).

Sforza (1997) maintains that a certain amount of fear can be implemented in the organizations to increase the bottom line between employees and employers. He believes employees and employers periodically use fear as a motivator. Employers use fear to maintain authority and decrease disproportionate levels of comfort of employees. In turn, unsupervised employees experience fear from the freedom created by the work environment of their employers (Sforza, 1997).

In some critical situations, fear can be a great short-term motivator to improve individual performance in organizations. For instance, Chief Executive Ferdinand Piech applied fear as a motivator that saved Volkswagen from losing \$1.1 billion in 1993. The approach taken by Piech is personal, and involved his attraction to "surprising" his employees by randomly visiting corporate offices unannounced. In fact, when Piech had decided to visit such company sites like the VW technical center, or the vast Wolfsburg factory arbitrarily, employees from other Volkswagen office locations had gradually become anxious and alert. As a result, the random office visits by Piech directly caused Volkswagen employees, who realized that their ultimate boss might decide to observe them, to work more effectively although tentatively.

Similarly, since 1997, Thailand has been struggling to overcome the dismal economic problems lingering in Southeast Asia. The economic conditions have grown so critical that, along with its neighboring countries, more than one million people living in Thailand have lost their jobs.

Predicting when the economic job market for those individuals who have been unemployed after losing their job remains uncertain since more individuals continue to lose their jobs from the slumping economy. Therefore, those individuals who remain employed after their company downsizes are trying their best to retain their positions. They have to remain highly productive to stay employed in organizations, especially if the performance levels of their peers are competitive. They are driven by fear of dismissal, which is stirred by the fear of being unemployed.

Amaret Sila-On (1997), a chairman of the Financial Sector Restructuring Authority of Thailand states, "Well, the most powerful motivator in Thai society is fear... You have to use fear as the motivation. The bankers have to use fear to get the debt restructuring when they are in a work out session; to point out the alternative option if the debt is not restructured" (Sila-on, 1999). In short, as the levels of unemployment increases, the fear of potentially being dismissed

is conveyed to the working population. Hence, as the fear of dismissal propagates throughout the region, those individuals who remain employed take precautions to retain their position by working more effectively as a means to bolster their performance levels.

Lerner (1996) mentions the fear of destructiveness and the fear of separateness in her book, "*Dance of anger*". She presents a case where Karen, an employee, has carefully organized and presented some work-related ideas to her manager. At the end of her presentation, Karen naturally follows up with her manager to receive approval in going forward with the ideas suggested. Unfortunately, after discussing the benefits of the proposals communicated, Karen was denied approval from her manager, and had become furious. Although Karen believed that her ideas were organized and conveyed coherently, she controlled her anger for the sake of maintaining a solid personal relationship with her supervisor. The fear of being fired coupled with the fear of being uncomfortable interacting with her boss prevented Karen from starting a personal confrontation (p. 95-96)

Lipper (1989) looks at several positive aspects of fear and how fear can be useful in the workplace. He believes that an entrepreneur needs to understand the types of fear their business competitors, whom they partner with and against, are experiencing because they will reflect the way they do business. He explains the:

The fear of being controlled by others, who almost by definition will be thought of by the person having entrepreneurial tendencies as being less competent than themselves, is that which drives many to become self employed. The fear of being overtaken by competitors is a constructive prompt of progress. The fear of losing key employees is responsible for many constructive programs. The fear of product obsolescence is a goad to continuing research and development (p.191)

Last but not least, Bergman & Wigblad (1999) chronologically observed several case studies and searched for available literature about the positive results of the Horndal Effect and the Close-Down Effect on increasing the productivity of employees. The Horndal Effect stands for "the surprising increase of productivity displayed in a Swedish steelworks during a period of 15 years where there was no longer a budget for investment"

A threat of a steel plant close-down was prevalent during all those years. Similarly, the Close-Down Effect shares the same characteristics, but is distinct in that "productivity increases during the period of final countdown" (p.345).

Their study clearly explains how fear of being unemployed could substantially impact productivity where an organization might close down due to budget restrictions, or is in the process of being closed down.

In all cases, when either Effect is taken as a whole, fear is applied as a management tool among researchers in this group. Most researchers in this group share the same objective of modifying the behaviors of individuals in the immediate short-term, which may lead to enhancing organizational performance. Interestingly, Senge, Kleiner, Roberts, Ross and Smith (1994) reinforce the notion as follows:

Other managers have spent years using fear and desperation (“the doom and gloom talk”) to motivate people. They always have a bit of bad news to share, about the difficult environment around them and the wolves at the door. People indeed respond to incentives for a short time, and they may respond to difficult times even more heartily, pulling together with extra effort, as long as they feel the difficulty is real (p.200).

The statements above suggest that fear is only a short-term motivator. In contrast, the following group of researchers observes that the results may be negative when fear becomes pervasive in the workplace over time. Once fear does become an all-encompassing feeling in the work environment, those researchers believe that fear should be driven out of the workplace. Finally, unlike the notion where fear might be used as a short-term motivator, when individuals experience the feeling of fear for an extended period of time, applying fear as a means of motivation may produce the opposite effect.

The Studies of Eliminating Workplace Fear

This group of researchers focuses only on the negative impacts of fear in the workplace. They insinuate fears as unwelcoming, and should be driven out of the workplace when evident.

Deming (1982) develops the fourteen steps for improved management that forms the basis for transformation of American industry where the eighth step deals specifically in driving out fear from the workplace. He perceives that many employees are afraid of expressing ideas, questioning policies, or taking a position even though there is a lack of understanding of their job responsibilities that could lead to poor job performance. Hence, those employees become incapable of verbally reporting problems because they are afraid of the negative consequences that might result if speaking up. Moreover, as they continue to perform incorrectly or avoid

being productive, the organization realizes economic losses until employee performance levels improve. He also claims that no one can perform his or her best without feeling secure. (Deming, 1982)

The work of Deming has appeared in the book *Driving fear out of the workplace*. Ryan & Oestreich (1991) interviewed 260 managers from a mixture of organizations across the United States and confirmed that fear negatively impacts individuals in the workplace. Fear obliterates trust and distorts communication at the expense of nourishing competition. In addition, fear also lowers the level of commitment and the level of self-confidence while obstructing managers from effectively resolving problems and making sound decisions. Ultimately, as problems accumulate in the workplace along with poor decisions being made, the organization fails to operate as a successful business entity.

Slightly different, Hochschild (1983) examines fear from an employee perspective by interviewing flight attendants of Delta Airlines. The repetitious interviews indicate that those flight attendants who participated in the study were fearful of the company policy that encourages feedback from passengers describing the quality of service received. Compounding to the potential negative feedback that might be realized from airline passengers, flight attendants are adversely afraid of being observed by not only actual passengers, but also their supervisors who may be covertly recording their performance. Accordingly, they tend to focus on eradicating the discomfort caused by fear of monitoring as opposed to accomplishing the desired positive productivity (Hochschild, 1983).

Correspondingly, Scarnati (1998) exemplifies how the extreme fear of litigation paralyzed the 1970s Xerox Corporation, which was once considered a vigorous and innovative company in making effective decisions during its legal battles. He further narrates that because of the fear of receiving a lawsuit, every step of the decision-making process has unnecessarily employed the services of lawyers. As a result, too much time and effort is inevitably consumed for executing business decisions that are trivial or potentially profitable. Moreover, he provides the case of IBM during the late 1980s and early 1990s when scientists of the Research and Development (R&D) were fearful of receiving unfavorable performance appraisals to the point where being creative was considered risky. The lack of creativity from R&D in favor of being conservative has resulted in IBM deteriorating from being “the once leader of inventiveness to

number six in the world” where “only 851 US patents were awarded to the company in 1992” (p.363)

Briskin (1996) captures several of Deming’s quotes from the Walton (1986)’s book, *The Deming Management Method*, and uses them as a way to explain how the presence of fear could impact learning in the workplace. He points out that if fear inhibits both organizational and individual learning in the workplace, then it should be driven out of the workplace. Although the objective is the same as Deming, Briskin proposes a different approach to driving out fear of the workplace when he expresses, “I think we need to reverse Deming’s canon to drive out fear to support learning and say instead that we must be committed to learning to drive out fear”(p.29).

The studies of how fear influences organizational behaviors and learning

Taking a different approach, this group of researchers chooses to observe how fear plays a role in the workplace. They believe that fear manifests itself in different forms and individuals in the organization should be aware of the signs that indicate pervasiveness of fear in the workplace.

Gibb (1965) focuses on how fears influence organizational behaviors and communication climate. While working as a consultant for several years in numerous organizations, he began to observe and investigate organizational climates that are impacted by fears. He also realized that some behaviors could be signs of pervading fears in the workplace that create hostile work environments such as “ambiguity, tight controls, talent threat, depersonalized role behavior”(Gibb 1978, p.192).

He continues by labeling the behavior above as *defensive behaviors*, which are defined as “behavior which occurs when an individual perceives threat or anticipates threat in the group” (Gibb, 1961,p141). As a final point, Gibb claims that while the reduction of fear is needed, efforts to reform trust should be exercised simultaneously. Consequently, individual characteristics such as motivation, consciousness, perception, emotion, cognition, action, and synergy are impacted negatively when high levels of fear are evident. For instance, when fear is felt strongly, an individual may be unable to focus effectively when examining a problem due to an impaired perception of the task at hand. Furthermore, if a decision is made to resolve a problem, an individual may be hesitant to take action and reconsider alternatives when there is an over concern of the consequences, or when perception is questionable.

The study of Gibb has opened up the direction of studying fear in a more practical manner. For instance, Argyris (1986) ascertains that both executives and employees build a “defensive routine” by steering clear of being suspicious on “undiscussable” policies, which are defined as “any action or policy designed to avoid surprise, embarrassment or threat”(p.75). Argyris (1986) continues to explain that while both types of members in the organization may be curious about one another’s intentions and actions, those curiosities should be unanswered and ultimately let go. Furthermore, the defensive routing provides each member an opportunity to exchange his or her feeling of security. For instance, the executives are free from fear of appearing incompetent by not having to answer any surprising questions, whereas the employees are free from being monitored by their managers.

Subsequently, Argyris (1990) observes how stressful situations, which are perceived to be threatening, could instigate defensive behaviors among individuals in organizations. He further summarizes the seven worldwide errors, which he believes that top management should consider as essential. These errors include:

1. Action intended to increase understanding and trust often produce misunderstanding and mistrust
2. Blaming others or the system of poor decisions
3. Organizational inertia: The tried and proven ways of doing things dominate organizational life.
4. Upward communications for difficult issues are often lacking
5. Budget games are necessary evils
6. People do not behave reasonably, even when it is in their best interest.
7. The management tem is often a myth. (See examples of each error in Argyris 1990, p.6-9)

In supporting Argyris, Bunce (2002) examines the impact of fear of repercussion on the rating accuracy in an upward feedback. He found that the raters are prone to provide true feelings about the behaviors of the ratees when they feel more secure.

Bohnke (2000) conducted a study that analyzes cognitive discrepancies between superiors and subordinates where fear is used as a management tool in high turn over environments and in the less experienced workgroup. The results of the survey indicate that not only the subordinates, but also the supervisors, perceive that some behaviors that provoke fear in the workplace exist. Additionally, fear of embarrassment is a main factor that creates defensive routines between them.

Pittman (1997) conducted a structured interview to investigate the experiences of fears among retirees who voluntarily terminated their employment from a Fortune 500 Company. The results show that fear was not the foremost factor describing why the retirees left their company since the environment during the time of the study was well established. As a result, a stable working environment implied that unless there is a drastic change in the company that would cause insecurity, fears may not be experienced.

Mills (1999) investigated how self-efficacy and fear could influence the resistance to change. The study involved interviewing six non-supervisors and 24 supervisors. He found that in the time of change, effective communication and human relations should be focused on comforting their fears caused by the changes.

Bassman (1993) scrutinized how abusive management can create uncertainty, anxiety, and fear from employees or within workgroups. He claims that the root of the abusive behaviors comes from (1) psychological condition of managers; (2) social-cultural background of the managers and (3) the interaction among these factors (p.18). He also explains that the abusive behaviors can distance the employees from their supervisors and impact overall work productivity. He suggests:

Once abuse is identified, points of leverage for change include psychological treatment, altering behavior through changes in reinforcement contingencies, and changing the situation to eliminate factors that facilitate or exacerbate abusive tendencies and impose policies and remedies that ensure abusive management will not be tolerated. Employee assistance programs can provide advice and referral for appropriate psychological treatment (p.18).

Additionally, the recent study of Haines and his colleagues (2002) investigate the “severe avoidance behavior in relation to the workplace”(p.129). They make an attempt to apply the knowledge from psychological and psychophysiological perspectives to build an understanding of why some people avoid being in certain stressful work-related situations to the point where employees shun coming to work. Thirty-six participants were chosen from private psychological practices in which one-third of those participants suffer from work-related stress and another one-third of the participants have workplace phobic symptoms. The remainder of the participants serves as the control group.

To investigate the differences in psychophysiological and psychological responses, “a 3x2x4 factorial design with repeated measures was employed”(p.134). The participants were divided into three groups, which are work-phobic group, work-stressed group, and control group.

Once the groups were established, all participants underwent a thorough interview using the Work History Questionnaire to obtain overall work history and work stress, Schedule of Recent Experience to Assess stressful life event unrelated to work, and the Symptom Checklist-90-Revised to measure level of symptomatology.

The results indicate that all participants demonstrated increased psychophysiological arousal and psychological response to stressful work events in comparison with neutral events (p.134). In closing, Whetton & Camron (2002) recap how stressful work-related problems can negatively influence organizational climate, which are called “The Dirty Dozen.” Some of the twelve outcomes of stress within an organization include loss of being innovative, loss of trust, increased conflicts, lowered morale, distorted communications, avoidance of long term planning and flexibility, etc. (p.411)

To put it briefly, this line of research aims at observing and investigating some behaviors that occur when individuals experience fearful or threatening work situations. However, simply understanding how fears impact behaviors or what behaviors may provoke fear may not be sufficient. As such, the next section will discuss what literature is available that addresses how to manage or cope with work-related fears.

4. The studies of coping with or managing work-related fears

A number of research efforts on coping and organizational stress have been done extensively while studies about a relationship between fear and coping have been minimally done. To our knowledge, there are only a few studies (Moses, 1989; Welbourne, 1997; Klunk, 1999; Zytka, 2001) that relate to investigation of individuals’ experiences of work-related fear and coping strategies. For example, in the study “Workplace Devaluation: Learning from experience”, fear in the workplace and coping strategies were articulated using qualitative approach. Klunk (1999) interviewed four individuals who have diverse professions (Marketing/Health services, Information Technology, Attorney, educator). Each of these individuals shared his or her experiences using the five- phrase framework, described as follows:

1. *Awareness*: that phrase wherein the professional became aware that the interaction identified something that caused an emotional reaction which create a felt physical or biological response

2. *Acknowledgement*: that phrase of the process when one is able to name the interaction at least to one's self
3. *Coping*: the thoughts, actions, and strategies that an individual implements to protect self in the situation
4. *Action*: the action one undertakes to change the situation
5. *Consequences*: the outcomes, aftermath, effects, or result of taking action
(Klunk 1999, p41-42)

Similarly, Zytka (2001) examines what type of job-related fears high school principals, chosen from five urban districts and five suburban districts, experience. Also what coping strategies they use to deal with those job-related fears. The recurring and idiosyncratic fears and coping strategies were compared in order to test nine hypotheses.

Suárez (1993) believes that fear cannot be completely driven out from the workplace, but provides concepts, implications, elements, and consequences of fear in the workplace to promote a better understanding of the phenomenon. Seven types of commonly seen work-related fears were defined which he suggests managers or human resource professionals can use to acknowledge the organizational fears. Furthermore, he exemplifies some behaviors and situations that cause individuals to experience fear at work and examples of the effect of fear. With all the information Suárez provided, he believes that it can be used to help the individuals and organization to deal with fear in the workplace.

Likewise, Gilly (1998) echoes, "Consciously addressing and dealing with our fears most often requires us to acknowledge our fears to others and involve them and other resources in formulating an intentional plan for using the information the fears have given us to move forward in spite of them" (p.110)

Moses (1989) illustrates the case of Justin who tries to cope with his fear of failure in changing his career. She investigates the manifestation of fears based on three domains which are affective, cognitive and behavioral. Conn (2000) investigated active coping strategies among graduate students from social work backgrounds based on the extent they cope with fear given certain situations. Specifically, the described situations occur where the graduate students become apprehensive about the severity of the negative evaluations during the thesis writing process, and the indebtedness to the faculty as completion of their degree materializes. The Coping Strategy Indicator scale was applied to measure the coping strategies. The results indicate that Avoidance subscale of the CSI scale was positively correlated to the fear of negative evaluation.

While other researchers find the way to assist individuals cope with fear or anxiety that already exist in the organization, Voyer, Gould, & Ford (1997) were more interested in finding out how an organization deals with anxiety that its members have created. They express, “Although organizations do not suffer death in the same way that individuals do, they do face the possibility that their financial or operational viability (the analogue to being alive) will end” (p.472). The model and system thinking was used to explain how organizational anxiety is created systematically by the members of the organization.

This group of researchers shares a common goal, which finding a better way to not only understand fear in the workplace, but also seek the best coping techniques to cope with them.

Understanding and coping with work-related fear is not an easy mission given the fact that individuals have their own unique perceptions about fear as well as their own strategies for coping with work-related fear. As such, all four main areas of studies will be pieced together under the umbrella of one of the most useful frameworks that is simple in design, yet applicable to individuals at all level of organizations.

Coping

Cartwright & Cooper state, “The extent to which organizations and their individual members learn to cope effectively with the stresses and strains of work has important implications for their continued survival and for society generally”(p.202). The above claim advocates that coping ability is an indispensable skill for surviving in the ever-changing organizational environments. In order to be able to assess coping strategies of individuals, its concepts, functions and dimensions should be depicted. Going forward with the topic of coping, the upcoming discussions will build on the concepts provided from the previous chapter. A number of attempts have been put into explaining the concept of coping. Respectively, those efforts have yielded varying definitions, which are captured below:

Definitions of coping

Lloyd (1993) Coping is a survival process that forces the individual or corporation to assess the degree of alignment between the new experience and the old way, which is required to continue to move forward amidst enormous change. (p.35)

Schuler (1985)	Coping is a process of analysis and evaluation to decide how to protect oneself against adverse effects of any stressor and its associated negative outcomes yet to take advantage of its positive outcomes (p.351).
Lazarus & Holroyd (1982)	Coping is cognitive and behavioural efforts to master, reduce, or tolerate the internal and/or external demands that are created by the stressful transaction (p.843).
Lazarus (1991)	Coping is a cognitive and behavioral efforts to manage specific external or internal demands (and conflict between them) that are appraised and taxing or exceeding the resource of a person (p.112)
Stone, Greenbert, Kennedy-Moore, & Newman (1991)	Coping is regarded as a dynamic process, which changes over time in responses to objective demands and subjective appraisals of the situation.

The definitions mentioned above do not constitute an exhaustive list of definitions. In fact, the preceding opinions describing coping represent only a fraction of the definitions that may be found in stress coping literature. In addition, there are more definitions of coping that are presented in the study of Latack & Havlovic (1992). Thirty-three synopses of coping concepts from accessible research were summarized.

By considering existing definitions of coping, it can be assumed that coping involves precautions that are aligned in the survival process. For example, coping may entail the analysis of adjustment, appraisal of the situations, assessment of cognitive and behavioral efforts, addressing external or internal demands, and measures to remove discomfort.

The preceding actions, again, support the notion that coping acts as an outlet in addressing the survival process. Interestingly, these definitions complement each other. However, learning about the definitions alone is not enough. Thus, the following section, which captures some of coping strategies that have proven to be useful in studying about coping with work-related fears, will be used to solidify an understanding of coping..

Coping strategies

A variety of coping strategies have been proposed by researchers in order to understand the discrepancies in actions that individuals have taken to deal with stressful situations.

Obviously, given the fact that the actions taken by individuals as an expression of coping may or may not overlap a substantial amount of research that aims at developing scales and measurements capturing the various forms of coping strategies has been conducted.

In cases where there are some similar actions taken or expressions of coping strategies exercised by different individuals, the research efforts are still justified since the experiences and perceptions about coping remain unique across individuals.

First and foremost, two main categories that frequently cited in coping literature are problem-focused, emotion-focused coping from the theory of stress and coping (Lazarus, 1984). Folkman (1982) studies the two copings and clearly explains as follows:

Problem-and emotion-focused coping include both cognitive and behavioral strategies. Problem-focus coping, for example, includes strategies directed at analyzing the situation and strategies involving action. Similarly, emotion-focused coping includes cognitive strategies such as looking on the bright side of things as well as behavioural strategies such as seeking emotional support or having a drink (p.99).

Subsequently, (Lazarus, 1988; Ralston, 1995) have realized that there are only two classifications of coping strategies that do not confine a wide variety of other strategies used in coping. In addition, Lazarus has developed a measurement of coping known as Way of Coping (WOC), which are eight empirically derived scales that have been widely used as the standard in the field of stress and coping. The eight subscales include confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem-solving, and positive appraisal.

Latack (1986) sorts coping strategies into two main categories, which are control coping and escape coping. Control coping emphasizes proactive and positive cognitive reappraisals and actions. In contrast, escape coping encompasses both evasive actions and cognitive appraisals that are prone to reduce the negative feeling of stress. For example, the online survey of 400 adults by Vacation Coach, Maynard, and Massachusetts indicate that because of fear for their jobs, 11% of respondents avoid taking a vacation because of concern that their jobs might be gone when they returned from vacation. Naughton (1997) roughly groups coping strategies into three components, biological/physiological, cognitive, and learned. Similarly, Cohen (1987) develops five approaches of coping comprised of information seeking, direct action, inhibition of action, intrapsychic processes, and turning to others for support.

Hobfoll et al. (1994) developed the Dual-Axis Model of Coping including two dimensions of coping: an active-passive dimension, and a prosocial-antisocial dimension. From this model, an active-passive dimension deals with activity dimension. While prosocial dimension deals with the positive use of social resources, antisocial dimension focuses on personal needs regarding of social interests.

Correspondingly, Smith (1993) proposes four major approaches for active coping including problem solving, assertiveness training, negotiation training, and time management (Smith, 1993).

Lazarus (1966) studied the work of Hann (1963) and learned that these coping strategies can be grouped into two separate mechanisms by analyzing the properties of defense and adaptive coping mechanism. Respectively, both mechanisms, which are Defense and Adaptive Coping mechanisms, are comprised of several behavioral properties, and each property has a corresponding counterpart in the other mechanism.

The first mechanism, which is the Defense mechanism, presents its initial behavior as rigid and dependent upon stimuli. In contrast, the Adaptive Coping mechanism employs choices to influence behavior. In addition, behavior of the former mechanism is driven by the past, which determines the needs of the present while distorting the present situation. On the contrary, Adaptive Coping mechanism is motivated by the future while considering the present needs to assess realistic requirements for current situations. The defense mechanism requires substantial primary process thinking, and applies the use of unconscious elements in providing uniform responses. Quite the opposite, Adaptive Coping mechanism entails the application of secondary process thinking, and conscious and preconscious elements to produce highly differentiated responses. Finally, the behavior associated to the Defense mechanism operates under the assumption that questionable means such as “magic” may be used to remove disturbing affects, while behavior described by Adaptive Coping mechanism performs given an organism’s necessity to “meter” disturbing affects being experienced.

To support Hann’s point of view, Tucker-Ladd (2000) analyzes Cramer’s view (1998) and is expressed as follows:

There are clarifying distinctions being made between coping processes and defense mechanisms. Coping processes are conscious, intentional, learned, and associated with normal adjustment. Defense mechanisms are unconscious, unintentional, self-protective instincts or dispositions, and associated with pathology” coping processes and defense

mechanism are distinctive. Coping process are consciously and intentionally learned which associated with normal adjustment whereas defense mechanisms focuses on unaware, spontaneous, self-protective intuition or nature, and associated with pathology (Tucker-Ladd, 2000).

A better understanding of the defense mechanism can be seen through the study of Voyer, Gould, and Ford (1998). They give the everyday example that can be seen in most any organization. They found that when people in organizations experience fearful emotions, those individuals defend themselves in three different forms as follows:

- Dependency: The group stops trying to solve its problems and instead waits for a “messiah” to save them
- Pairing: Two individuals related to the group members, or one member and outside consultant) combine to try to oust someone that they consider a “bad” member.
- Flight/Fight: Group members blame all the group’s problems on an outside cause, or they pretend that no problem exists. (p.2)

Besides, Beehr & McGrath (1996) differentiate five coping strategies based on the duration of coping (1) Preventive coping: the coping that occurs long before encountering the stressful situation, for example, the employees always prepare updated resume in case of unexpected lay off or firing. (2) Anticipatory coping: when the event is anticipated shortly; for example, the survivors from massive company lay off start looking for external job options (3) Dynamic coping: that coping occurs while the stressful situation is happening; for example, having a conversation with other survivors from the same lay off. (4) Reactive coping: coping after the stressful event had happened; for example, applying for a job at another company right after being lay off and (5) Residual coping: coping occurred long after the stressful situation resulting in a long-run effects; for example, controlling one's disturbing thoughts years after having gone through the lay off. (Beehr& McGrath, 1996)

Likewise, based on the study of Lehrer (1996) and Kahn& Byosiere (1992), Whetton & Camron (2002) recommended the hierarchical stress-coping strategies. The first strategy is a reactive strategy, which is a strategy that promotes the stress free environment. The second strategy called proactive strategies deals with “initiating action that resist the negative effect of stress” and the last strategy is reactive strategies that refers “on-the-spot remedies to reduce temporarily the effects of stress”(p.108)

Interestingly, Amirkhan (1990) developed the Coping Strategy Indicator (CSI) with the belief that “...some middle ground between deductive approaches could be found, making it possible to identify those coping dimensions that constitute the common denominators of human

dealing with stress” (p.1066-1067). In turn, the CSI provoked concepts related to the three coping strategies, which are problem solving, seeking support, and avoidance after examining its series of derived factor analysis. Bijttebier & Vertommen(1997) comments on the CSI scale as follows:

Problem-Solving, a strategy of direct assault, could be considered as derivative of primitive ‘fight’ inclinations, while Avoidance, consisting of escape responses, seems to be a derivative of ancient ‘flight’ tendencies. Finally, Social Support Seeking taps the basic need for human contact in times of duress (p.157)

At this point, Amirkhan’s scale seems to be the most suitable for encapsulating coping strategies that individuals use when they experience fear, and is aligned with the present study.

In terms of how individuals deal with fear, Lazarus & Lazarus (1994) conclude that the individual actions that are taken as a means to cope is significantly dependent upon the predicament at hand, the consequences that may be realized if no action is taken, and what has immediately materialized from their coping strategies. Obviously, the goals and beliefs that characterize each individual also influence the coping behavior in addition to the aforementioned conditions. Furthermore, the ability for individuals to handle comparable situations will be inconsistent on the whole given that the several provisions described previously are unique to each individual. Thus, as situations become unraveled, success will depend on how well coping efforts are able to adapt as predicaments, which may evolve frequently, become realized.

However, there is no clear formula that applies to all individuals when coping since prevailing coping efforts learn to adjust from the changing patterns of events, which are unique to each individual, as a means to adapt. Fortunately, once individuals understand that coping does not follow a blueprint consisting of a “fixed set of strategies” to apply in all situations, those individuals may enhance their ability to cope favorably. (Lazarus & Lazarus, 1994)

In conclusion, the provided studies are only part of considerable research on stress and coping that seem to be useful in understating of coping strategies in the organizational context. By contemplating overall coping strategies, they can be categorized into two major dimensions, which one focuses on easing the feeling of discomfort due to the negative impacts of stress or fear, and the other deals with aligning or adjusting oneself to fit with the environment.

Sex differences in coping strategies

For several reasons, sex has consistently proven to be an important factor in influencing how individuals cope with stressful situations. Bijttebier & Vertommen (1997) conducted a study that examined the psychometric properties of the Coping Strategy Indicator, and determined that female subjects seek more social support than their male counterparts.

In a similar vein, Utsey, Ponterotto, & Reynolds (2000) employ the CSI scale to assess coping strategies used by African Americans who experience stress caused by racism and discrimination. In this case, a MANOVA analysis was calculated using sex as the independent variable.

Unlike the previous study that examined psychometric properties of CSI, the results indicate that men and women are significantly different on Seeking Social Support. In short, the presented studies have proven that sex does influence coping strategies that the individuals utilize.

Application of the Protection Motivation Theory

The notions of fear and coping are ubiquitous. Needless to say, when either term is described, the second term is often referenced, if not used to support in describing the initial term being discussed. Regardless of the context that raises discussion of either term, both topics are equally important and require examining both terms together in order to gain a firm understanding of their associated concepts. Studying both terms simultaneously is especially imperative since the relationship between the terms is ambiguous, and remains debatable. Thus far, after reviewing existing literature of the two main constructs linked to the present study (fear and coping), one question that comes to mind involves answering, “Is there a framework that mutually investigates the fear and coping process?” Fortunately, there is a theory that incorporates the two constructs together as previously mentioned in chapter 1, a protection motivation theory, has been developed.

Protection motivation theory (PMT), which applies the concepts of both fear and coping, has proven to be a versatile model that is employed in various applications. For example, PMT has been applied to promote exercise participation (Milne, Orbell, & Sheeran, 2002), prevent heart disease (Ploninikoff & Higginotham, 2002), reduce skin cancer risk (McClendon, Prentice-Dunn, 2001), enhance parent-child communication about sexual abuse (Burgess & Wurtele,

1998), determine future travel behavior from past travel experience and perception of risk and safety (Sonmez & Graefe, 1998), examine the effects of information about aids risk and self-efficacy on women's intentions to engage in AIDS preventive (Yzer, Fisher, Bakker, Siero, & Misovich, 1998), determine compliance with sports injury rehabilitation (Taylor & May, 1996), understand alcohol use attitudes among older adults(Runge, Prentice-Dunn, & Scogin,), prevent nuclear war (Axelrod & Newton, 1991), predict behavioral change in earthquake preparedness (Mulilis & Lippa, 1990), explain men's motivation to perform the testicle self-exam(Steffen, 1990).

Despite the fact that PMT has been applied to a wide variety of topics, the major overlap between those studies involves its objective in conveying the fear appeal message where threat may provoke two cognitive processes. Specifically, these cognitive processes that may be provoked are threat appraisal and coping appraisal.

Indeed, the application of PMT is versatile and may be applied in the organization context. For example, Welbourne (1995) proposes that fear should be retained and communicated to encourage effective behavioral changes among employees during the organizational transformations. However, she claims:

The protection motivation model suggests that long-term goal should revolve around the reinforcement of social norms and values that support the new corporate structure. In addition human resource program should be designed to provide employees with the skills needed to cope with the new organization and with future changes (P.34)

Recently, she conducted a marketing study about the application of PMT in a rapid growth organization, and posits that fast growth organizations should promote fear appeal communication to stimulate a sense of urgency within the organizational environment. Unfortunately, effective application of PMT has prerequisites, and calls for the availability of coping information in order to yield the desired performance of employees (Welbourne, 1997).

Additionally, Melamed et al (1996) applies PMT in the organizational context to investigate the hearing protection devices used by Israeli male workers under harmful circumstances. Nine variables included in the study are organizational- social factors, personal factors and component of PMT. The results report that among the nine variables, the self-efficacy, and perceived susceptibility are proven to be the most influential predictors of hearing protection behavior

The abovementioned studies have applied protection motivation in two different approaches. By no means does that imply that PMT can't be applied differently. On the contrary, PMT demonstrates its flexibility when Melamed et al,(1996) observes how individuals cope with physical threats, while Welbourne focuses on using fear as a short-term motivation to change organizational behaviors when individuals experience psychological threats.

As can be seen from the previous studies, the PMT model has a possibility to be applied in the organizational context. As such this study will apply the cognitive mediating processes of the PMT model to investigate the differences in experiences of fears as well as predict coping strategies that individuals may use in the workplace.

Conclusion

A large volume of research has addressed that work-related fears are a major concern of organizations and its members. However, there is no mutual understanding that clearly explains why individuals cope with fear differently. Even though countless studies on coping have been done, the framework that draws the bridge between the two areas of studies of fear and coping is still lacking. Thus far, protection motivation has shown promise, and seems to be useful in narrowing the knowledge gap between fear and coping. Accordingly, embarking on examining the relationships between the work-related fears using the PMT model is necessary.

CHAPTER III

METHOD

This chapter describes how the present study was approached, and the logical processes that justify the method adopted. Because the purpose of the study entails examining the relationship between work-related fears and the coping strategies of individuals, the research design and conceptual framework were introduced at the outset, followed by an explanation of sample selection. Independent and dependent variables, and instrumentation, are provided. Finally, the examination of the procedures documenting how the data is to be gathered and analyzed will be presented.

Research Design

In the present study, four different vignettes and a series of questions related to them were presented via traditional paper-pencil questionnaire as well as a sophisticated web-based instrument. The goal was to examine the relationships among components representing protection motivation theory, threat appraisal (severity of threats, perceived vulnerability), coping appraisal (self-efficacy), and coping strategies (problem solving strategies, seeking support strategies, and avoidance strategies) when dealing with unique fearful situations.

Participants who agreed to take part in the study were provided reading materials that describe one of four stressful situations representing work-related fears that may be experienced in the workplace. The participants were asked to rate both their perceived severity and perceived vulnerability for of each situation. The same scale of severity and vulnerability was repeated four times to assess how participants perceive each fearful situation. Then, they were asked to state the extent to which they would use each of the 33 coping strategies in light of only *one* of the four scenarios. Afterwards, the subjects were instructed to select *one* of the four stressful situations based on the first letter of their last name. For example, if their last name begins with the letter A-D, those subjects whose last name matches the criteria were asked to select situation #1. In order to determine the alphabetical ranges for the last names, a phone book was employed to provide a basis describing the distribution of last names beginning with a particular letter in the alphabet. Consequently, a phone book representing the residents within Northern Virginia

was used, and ultimately divided the alphabet into four cut off points where the first letter of a last name may be located. Correspondingly, subjects having their last name begin with the letter E-K, L-Q, or R-Z were asked to select situation #2, situation #3, or situation #4 in that order. Finally, they rated their own self-efficacy in dealing with their own work related problems.

Vignettes of Fear Typologies

Four different vignettes, each representing one type of a fearful situation, (fear of separation, fear of punishment, fear of embarrassment, and fear of harm), were developed. The wording of each scenario was developed from a literature review, and was further refined after communicating with a number of people, in person, by telephone, and via e-mail through several listservs. They were asked to describe stressful situations that caused them to be anxious or fearful in the workplace.

Based on a content analysis of the 20 situations provided at this stage, four vignettes were developed to represent each type of work-related fear. In order to confirm that each vignette really represents one typology of fear, a pilot study was conducted with 25 students at Virginia Tech.

Respondents were asked to read the four vignettes described in Table 3.1, along with explicit definitions of each type of fear. Subsequently, the pilot study participants were asked to relate a typology of work-related fears to each vignette. Twenty respondents correctly matched the type of work-related fear with the stressful situations.

However, three respondents in the pilot study indicated that the description of the fear of embarrassment was too lengthy, which resulted in that particular situation being modified and shortened to save time and get rid of confusion. These scenarios became the vignettes for the final questionnaire.

Table 3.1: Scenarios of Four Types of Work-related fears

<p>Scenario 1: Fear of separation</p>	<p>You are being excluded from key meetings with the "big wig" because your boss would allegedly "forget" to invite you. You begin to feel that missing those meeting means you have "fallen from favor." As you miss more and more meetings with prominent individuals of the organization, you believe that your manager is losing confidence in you. You are concerned that your coworkers will distance themselves from you and stop sharing information. You start to worry that you may not be connected to your workgroup anymore.</p>
<p>Scenario 2: Fear of punishment</p>	<p>You have been working on a high-profile project for your agency where its completion is critical. Despite your painstaking efforts, you believe the project will be incomplete by the deadline. Your are afraid that if you fail to finish the project, you will be punished by an unsatisfying pay raise resulting from a negative performance appraisal.</p>
<p>Scenario 3: Fear of embarrassment and humiliation</p>	<p>You are having a personal telephone call at work about a very sensitive issue. After you hang up, you discover that your phone call was connected to a speakerphone in a room where several coworkers were gathered. You are concerned that this incident will make you less respected by your peers and even more humiliated if it gets around to others you work with.</p>
<p>Scenario 4: Fear of harm</p>	<p>You are one of the few survivors after a major lay off by your company. Unfortunately, one of your former employees who was let go believes that you are the reason why he is no longer employed. Feeling infuriated, the former employee threatened his once-manager by stating, "I will pay you back one day". You are fearful and concerned about your own safety.</p>

Participants

The initial targeted participants were a group of 300 diverse working professionals enrolled in courses during the Spring 2003 semester at the Virginia Tech, Northern Virginia Center (VT/NVC). The sample represented the various programs offered at VT/NVC and the choice was deliberate, as the survey calls for a sample coming from distinct backgrounds and professions. Such programs include, but are not limited to, the Adult Learning and Human Resource Development program, MBA program, Engineering program, and Education Program.

Issues such as time, convenience, and the nature of the study influenced the number of participants of the sample. Therefore, the collection of the data had to take place not only in the classroom, but also online. For online data collection, five different individuals who represented a wide variety of organizations such as telecommunication, health care, government, banking, and higher education were solicited. They forwarded an email to their co-workers explaining the nature of the study and providing the URL for the questionnaire. The initial number of e-mail addresses contacted was 250. However, the actual number of contacts may have been higher because some individuals may also have forwarded the request to participate in the survey to their friends and co-workers in other organizations.

The final sample of this group totaled 240 participants where five participants were excluded in the data analysis given their incomplete questionnaire submissions. Among a final 235 participants, 130 responses were collected when the questionnaire was presented to students coming from 10 classes from the ALHRD program and MBA program. The online group delivered a total 105 responses from participants who had successfully completed and submitted a questionnaire via the Internet.

Instruments

Two subscales of the Risk Behavior Diagnosis scale developed by Witte, McKeon, and Berkowitz (1996) were applied in assessing the severity of threat and vulnerability to threat. For the self-efficacy component, all 10 items from the General Self-Efficacy Scale (GSE) was employed. Jerusalem & Schwarzer developed this scale in 1993, but was later revised in 2000. The Coping Strategy Indicator, developed by Amirkhan (1993), was used to assess three basic mode of coping strategies.

The Risk Behavior Diagnosis Scale (RBD). Scores for severity of threat and perceived vulnerability to threat were accessed by six items from two subscales of the RBD scale(Witte, Cameron, McKeon, & Berkowitz, 1996). The RBD scale is a 12 item self –report with Likert scale responses ranging from 1(strongly disagree) to 5(strongly agree). The RBD scale is comprised of four subscales including severity of threat, susceptibility to threat, self-efficacy and response efficacy. In this study, the susceptibility subscale was used to assess the perceived vulnerability to threat because the similarity of the definitions for susceptibility and vulnerability.

The theory behind the development of the scale was the Extended Parallel Process Model, which is also the same theory that influenced protection motivation theory. The RBD scale has been shown to have a high degree of content, construct, and predictive validity (Witte, Cameron, McKeon, & Berkowitz, 1996). Individually, the susceptibility of threat has a high reliability (Cronbach's alpha .85); so does severity of threat subscale (Cronbach's alpha = .90).

The Coping Strategy Indicator (CSI). This was developed by Amirkhan (1990) and was used to assess coping strategies. The 33-item self-report scale contains three subscales with 11 items for problem solving strategy, 11 items for seeking support strategy, and 11 items for avoidance strategy. The responses are rated on a 3-point Likert scale, 1(A lot), 2 (a little), and 3 (Not at all). The 11 items in each of three subscales have demonstrated high internal consistency (Cronbach's alpha = .928 for Seeking Support;.894 for Problem Solving; and.839 for Avoidance).

For test-retest reliability, Person coefficients were .83 and .77 for Problem solving scale, .80 and .86 for Seeking support scale, and .82 and .79 for the Avoidance scale, which result in overall reliability of .82 and .81. The development of the scale was done in four phrases with total sample of N=1923. Initially, 161 items were obtained from the combination of the previous studies (Amirkhan, 1984; Lazarus & Folkman, 1984; Sidle et al., 1969) combined with suggestions of the scale developer's colleagues and friends.

Then, a series of principal-factor analyses and principal –components analyses with varimax rotation was performed based on the criterion that “an item must load .450 or above on one factor and less than .250 on the others” (Amirkhan 1990, p.1067) which finalized the overall items to 33 items.

The instructions for completing the CSI was slightly modified to suit the present study. The original instruction asked the participants to describe a general stressful event within the last six months. In this study, the participants responded to the CSI items based on ***one*** of the four situations presented in the vignettes. ***The General Perceived Self-Efficacy (GSE) Scale.***

Schwarzer & Jerusalem (1993, 2000) developed this instrument with 10 items rated on a 4-point Likert scale ranging from 1 (Not at all true), 2 (Hardly true), 3 (Moderately true) and 4(Exactly true). The original GSE is a unidimensional scale that has been used to measure general sense of perceived self-efficacy, first developed in 1979 and revised in 2000 and translated to 26 different languages. The scale has been tested in countless samples in 23 nations for more than two

decades and has yielded high reliability (Cronbach’s alphas between .76-.90); overall the majority of Cronbach’s alphas were higher than .80. Schwarzer & Jerusalem (2000) explain, “ Criterion-related validity is documented in numerous correlation studies where positive coefficients were found with favorable emotions, dispositional optimism, and work satisfaction. Negative coefficients were found with depression, anxiety, stress, burnout, and health complaints” (Schwarzer & Jerusalem, 2000).

Variables

Table 3.2 is a summary of the independent variables and the dependent variable to be measured in this study. The left column shows the name of each variable and the right column indicates the instruments used to assess the variables. Age and sex have been documented as important variables in predicting individuals’ coping strategies to stressful situation caused by work-related fear (Neville, Heppner, & Wang, 1997; Gianakos, 2000; Remondet & Hansson, 1991) Additionally, ethnicity has been proven to be a good predictor of coping strategies (Utsey, Ponterotto, & Reynold, 2000)

Table 3.2: Variables and Items

Independent Variable	Measurement
Type of fear (presented via vignette)	<ol style="list-style-type: none"> 1. Fear of punishment 2. Fear of separation 3. Fear of embarrassment 4. Fear of harm
Risk Behavior Diagnosis Scale Witte, Cameron, McKeon, and Berkowitz (1996)	Severity of threat <ol style="list-style-type: none"> 1. I believe that (the situation) is severe 2. I believe that (the situation) is serious 3. I believe that (the situation) is significant
	Perceived susceptibility/Vulnerability <ol style="list-style-type: none"> 1. I am at risk of being in (the situation) 2. It is likely that I will contract (encounter) situation 4. It is possible that I will contract (encounter) situation 5.
	Subscale and Items
Coping Strategy Indicator James H. Amirkhan (1990)	Coping Strategy Indicatory Scale: 15 items as examples Three subscale of coping strategies:

	<p>Problem solving</p> <ol style="list-style-type: none"> 1. Try to solve the problem 2. Try to carefully plan a course of action rather than acting on impulse 3. Brainstorm all possible solutions before deciding what to do 4. Set some goals for yourself to deal with situation 5. Try different ways to solve the problem until he/she found one that worked <p>Seeking support</p> <ol style="list-style-type: none"> 1. Confide his/her fears and worries to friend or relative 2. Seek reassurance from those who know his/her best 3. Talk to people about the situation because talking about it helped your to feel better 4. Accept sympathy and understanding from friend who had the same problem 5. Go to a friend for advice on how to change the situation <p>Avoidance</p> <ol style="list-style-type: none"> 1. Avoid being with people in general 2. Daydream about better times 3. Wish that people would just leave you alone 4. Identify with characters in novels or movies 5. Watch television more than usual
<p><i>General Perceived Self-Efficacy Scale</i> <i>Schwarzer & Jerusalem (1993)</i></p>	<p>Self-Efficacy</p> <ol style="list-style-type: none"> 1. I can always manage to solve difficult problems if I try hard enough 2. If someone opposes me, I can find the means and ways to get what I want 3. It is easy for me to stick to my aims and accomplish my goals 4. I am confident that I could deal efficiently with unexpected events 5. Thanks to my resourcefulness. I know how to handle unforeseen situations 6. I can solve most problems if I invest the necessary effort 7. I can remain calm when facing difficulties because I can rely on my coping abilities 8. When I am confronted with a problem, I can usually find several solutions 9. If I am in trouble, I can usually think of solution 10. I can usually handle whatever comes my way
<p>Demographic Variable</p>	<p>Measurement</p>
<ol style="list-style-type: none"> 1. Ages 2. Years on current position 3. Years in present organization 4. Ethnicity 5. Type of employment 6. Occupation 	

Procedures

A pilot study comprised of a sample of 25 students at the VT/NVC was completed with several primary objectives. The first objective entailed verifying that each of the vignettes represented the fear typologies, and that the procedures adopted assured clarity of the instructions. The final objective of the pilot study also called for obtaining feedback on the overall context and format of the instrument, which was then used to further develop and refine the content of the questionnaire. Once all necessary revisions had been done, I met with several faculty from the MBA and ALHRD programs to determine a convenient schedule to collect data.

For the in-class survey group, as soon as the date and time was determined, course instructors were either provided with informed consent with attached questionnaires or I went to the classroom to distribute questionnaire packets to the students (i.e., the subjects) who chose to participate in the survey.

Afterwards, the subjects who had decided to volunteer were required to read and sign the informed consent as an assurance that they understood and agreed to complete the questionnaire. Upon agreeing to the terms outlined in the consent form, the subjects were then allowed to complete the accompanying questionnaire. The questionnaire served as a vehicle to measure the subjects' perception of specific stressful situations, coping strategies that may be applied to those situations, and their own self-efficacy in dealing with their personal stressful situations.

For the online survey, the URL that displays the same questionnaire was sent to at least 250 e-mail addresses across several organizations. In order to increase the sample size, the participants were also asked to forward the URL to their friends and coworkers who might agree to participate in the study. Unlike the in-class group where the research subjects were required to sign an informed consent to be collected with their responses, this group did not have to sign the informed consent form.

Because the online group would submit their responses electronically, the online questionnaire was organized so that the research subjects were provided with a brief explanation pointing out that their participation was voluntary with no compensation at the beginning of the survey. They were also assured that the participation was anonymous and were not traceable back to the participants. Their voluntary clicking of the "send" button constituted their informed consent.

The questionnaire is self-explanatory and takes less than 15 minutes to complete. It is divided into three parts with the first section introducing descriptions of stressful scenarios that represent typology of four work-related fear categories, including fear of separation, fear of punishment, fear of separation and fear of harm. After the first section has been read, the subjects were asked to put themselves in each situation and rate the severity of each situation, and then how vulnerable they think they are to each stressful situation before moving to the second exercise in the survey. `

The second part asked the subjects to select *one* of the four fearful situation, afterward, the subjects were asked to imagine that the scenario described were to hypothetically occur to them, and to describe the extent to which they would use each of 33 coping strategies in such a situation. In the last part, the subjects were asked to rate their own self-efficacy in dealing with their own stressful situations and problems related to work that they might encounter. Finally, the respondents were asked to complete the demographic data including, sex, age, ethnicity, occupation,

Research questions

To facilitate a discussion of the analyses, the research questions are repeated here. To what extent do males and females respond differently to the following variables under different representations of a fearful situation in the workplace.

Response variables are:

1. Threat appraisal of the represented situation, as measured by:
 - a. Perceived severity of the hypothetical fearful work situation
 - b. Their perceived vulnerability to the threat in the hypothetical situation
2. Their assessment of coping strategies that the person in the situation should adopt, based on three types of strategies:
 - a. Problem solving strategies
 - b. Social support strategies
 - c. Avoidance strategies
3. A coping appraisal measure based on respondents' self-efficacy in dealing with work related problems.

Additionally, the relationships between selected demographic variables (such as age, years of experience, and race/ethnicity) and responses to the different scenarios will be explored to the extent that such comparisons may be made.

Data Analysis

The raw data were entered into an Excel spreadsheet and then imported into the SPSS 11.05 for data analysis. The codebook was developed beforehand to ease entering the data. Then the data were thoroughly examined to check for any outliers due to the data entry- errors using frequencies, crosstabs, and scatterplots.

Subsequently, data were checked and compared among groups before conducting analyses. When the errors or missing data were found, the systematic corrections were made using replace-missing values function in SPSS.

Because the study implemented several instruments to assess components of protection motivation theory, the reliabilities of all measures needed to be explored. Thus, the statistical procedure began with computing internal reliabilities of all items from the scales used in this study were computed for their reliability (Cronbach's alpha).

The next step was exploring the descriptive characteristics of all variables. Means, variance, standard deviations, skewness, kurtosis were computed to ensure the normality of the data distribution. Then, Chi square, t-test, and a series of ANOVA tests were computed to investigate whether there were any statistical significant differences across criterion variables, predictor variables, and demographic variables.

Then, ANOVA tests were computed to investigate where there are differences across all the dependent measures as shown in table 3.3

Table 3.3: Questions Related to Data Analysis

ANOVA tests	Questions related to each test
Sex (of respondent)	Is there a difference in responses between male and female respondents?
Fear typology	Is there a difference in responses depending on typology of fear?
Sex by fear	Is there an interaction between sex of respondent and how they respond to the different fear typologies?
Sex by Coping	Is there an interaction between sex of the respondents and the coping strategies they use?
Sex by coping strategies by fear	Is there a three-way interaction?

Since this study aims at investigating the relationship between work-related fears, component of protection motivation theory, and three main coping strategies, several correlation matrix were calculated to investigate the strength of the relationships among measured variables.

Summary

How individuals cope with work-related fear might not be easy to understand. This chapter explained in detail how I answered the research questions. The procedures, research design, instruments, sample as well as data analyses were provided in order to assure that the research had been well thought out and planned. By reading all the steps provided in this chapter, making meaning out of the findings in the following chapter should be possible.

CHAPTER IV

RESEARCH FINDINGS

In this chapter the findings of the study are presented, starting with a representation of the descriptive statistical data illustrating the characteristics of the participants. The characteristics associated with the participants include gender, age, ethnicity, employment, occupation, the total number of years serving in their current position, and the total number of years with their organization,. Correlations and coefficient alphas for severity of threat, vulnerability to threat, self-efficacy, and coping strategies are presented. Finally, analyses that answer all of the research questions are presented, followed by a summary of the findings.

Demographic Characteristics of the Participants

A total of 240 working professionals served as the participants for this study. However, in order to provide an accurate account of the data collected, five participants (2%) were excluded in the final data analysis because of incomplete responses from their questionnaires. Among the valid 235 responses, slightly more than half (133 or 57%) were graduate students enrolled in either the MBA or Adult Learning/Human Resource Development (ALHRD) programs at the Northern Virginia Center of Virginia Tech. The remaining 102 (43%) participants were working professionals representing different backgrounds and occupations.

The composition of the graduate students, who participated in the study, included 83 participants representing the MBA program and 50 participants enrolled in the ALHRD program. Of the 87 questionnaires that were distributed to the MBA students, 4 students declined participation in the study. Only two of the 52 questionnaires presented to students in the ALHRD program were not returned. As a result, the response rate for the in-class survey was about 92%. In contrast, the response rate given the submissions representing the online questionnaire was immeasurable since there was no way to track where the data had originated. Thus, the response rate for the online questionnaire is not reported.

The gender breakdown of the participants included a total of 114 males (48.5%) and 121 females (51.5%), with an age range between 23 and 58. The average age was 33.5 years with a *SD* =7.4 years. The ethnicities for the final sample were 120 Caucasians (51.1%), 40

Black/African Americans (17%), 67 Asian or Pacific Islander (28.5%), 1 Hispanic (.4%) and 7 subjects indicating “Other” ethnic groups (3%). When asked about their profession, a wide variety of occupations were represented in the participants. The numerous professions that were represented include biologist, social worker, accountant, engineer, police officer, nurse, architect, adult educator, investor, instructor, marketing specialist, organization developer, dietitian, loan officer, IT consultant, dispatcher, realtor/property appraiser, software developer, technical writer, and human resources professional. The varying professions captured in the sample are far from exhaustive, and the aforementioned occupations only list a fraction of the unique occupations that participated in the study.

Among the aforesaid occupations, 84(35.7%) participants worked for a corporate entity, and 36(15.3%) participants have jobs in higher education, 32(13.6%) participants represented the government sector, 23(9.8%) participants come from healthcare industry, and 12(5.1%) participants were independent consultants. Additionally, 2 participants (.9%) worked in elementary/secondary education, 5 participants (2.1%) worked within a non-profit association, and a single participant (.4%) is serving in the military. The remaining 40 participants were comprised of 37 research subjects (15.7) not fitting in any of the given categories and 3 participants (1.3%) not reporting their employment information at all.

With regards to the participants’ years of service with their present organization, the average number of years working with their organization was 3.54 ($SD = 1.30$). The number of years of service was split into several categories to determine how many participants had worked with their organization given a minimum and maximum amount of time not exceeding ten years. A separate item for years of service greater than ten years was also created to account for those participants whose years of service surpass a single decade.

The years of service worked for an organization is summarized where roughly 35% (84) of the participants have served their organization for 1-3 years, 23.4%(55) served for 4-6 years, 14.9%(35) served for 7-10 years, and 8.5% (20) served for more than 10 years. Less than 20% of the participants were with their organizations for less than one year: 7.2%(17) were employed for less than 6 months and 10.6%(25) served for 6 months- 1 year.

Table 4.1 presents demographic variables by response type. Chi-squares were conducted for categorical variables such as sex and ethnicity and t-tests were carried out for age, number of years serving in current position, and number of years employed by present organization.

Table 4.1 Demographics by Response Type (N=235)

	Paper questionnaire student participants N = 133		Online questionnaire employee participants N = 102			
	Mean (sd)		Mean (sd)		t-test	p-value
Age	34.02(8.43)		32.75(5.66)		1.373	.001
Years with organization	3.38(1.32)		3.74(1.27)		-2.067	.041
Years in position	2.96(1.06)		3.35(1.08)		-2.758	.006
	N	%	N	%	Chi-square	p-value
	133		102			
Sex						
Male	73	54.9%	41	40.2%	4.988	.035
Female	60	45.1%	61	59.8%		
Race/ethnicity					43.846	<.001
Caucasian	88	66.17 %	32	31.37 %		
Other:	45	33.83 %	70	68.63 %		
Black/African Amer.	25	18.80 %	15	24.50 %		
Asian	17	12.78 %	50	49.0 %		
Hispanic	1	.75 %	0	0 %		
Other	2	1.50 %	5	4.90 %		

Based on t-tests, results showed a statistically significant difference between the two participant groups on all three metric variables ($p < .05$ in all cases). However, the actual differences were relatively minor. On average, the student group was somewhat older (1.3 years) but had been with their organization and in their position with only slightly less time (.3 years and .4 years, respectively). Likewise, the two categorical variables produced statistically significant chi-square results ($p < .05$). Slightly more than half of the student group were male (55%), but only 40% of the online group were male. Due to small numbers in some of the race categories, this variable was collapsed to represent Caucasian and “Other” ethnic groups for the chi-square analyses. Two-thirds of the student group was Caucasian, while over two-thirds of the online group (69%) represented other race/ethnic categories.

Relationships Among Components of Protection Motivation Theory

Protection motivation theory contains two major components that deal with the severity and vulnerability for a given situation. The fearful situations in a work environment were: (1) fear of separation, (2) fear of punishment, (3) fear of embarrassment, and (4) fear of harm. Each scenario was rated on three severity and three vulnerability items.

Scale Scores. The 12 severity and 12 vulnerability responses were subjected to separate factor analyses using principal component extraction and Varimax rotation. In both cases, four factors with eigenvalues greater than one were extracted. The four factor solutions explained 80% of the variance in the severity items and 76% of the variance in the vulnerability items.

As seen in Table 4.2, the responses indicated four clean components for both types of variables. The internal consistency of the three-item sets that made up the severity and vulnerability scale scores for each fear scenario were consistently high across the four fear vignettes, averaging .86 for severity and .84 for vulnerability (see Table 4.3). Together, these results indicate that the scale scores were reliable and that responses to the four fear situations constitute separate components.

Table 4.2 Factor scores for severity and vulnerability items

<u>Rotated Component Matrix</u>					<u>Rotated Component Matrix</u>				
	Component					Component			
	1	2	3	4		1	2	3	4
SIT1SEV1	.137	.012	.055	.809	SIT1VUL1	.209	.047	.192	.765
SIT1SEV2	.100	.011	.184	.901	SIT1VUL2	.072	.152	.180	.876
SIT1SEV3	.048	.166	.172	.765	SIT1VUL3	.049	.216	.230	.760
SIT2SEV1	.177	.107	.830	.106	SIT2VUL1	.220	.141	.785	.188
SIT2SEV2	.090	.124	.920	.136	SIT2VUL2	.110	.141	.857	.237
SIT2SEV3	-.011	.132	.801	.173	SIT2VUL3	.126	.244	.826	.222
SIT3SEV1	.164	.885	.157	.024	SIT3VUL1	.830	.181	.114	.170
SIT3SEV2	.147	.923	.098	.095	SIT3VUL2	.872	.168	.121	.082
SIT3SEV3	.121	.867	.120	.079	SIT3VUL3	.791	.224	.194	.078
SIT4SEV1	.901	.185	.120	.088	SIT4VUL1	.278	.777	.142	.117
SIT4SEV2	.936	.110	.084	.135	SIT4VUL2	.196	.885	.138	.169
SIT4SEV3	.885	.142	.055	.089	SIT4VUL3	.138	.813	.229	.139

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization

Table 4.3 provides descriptive information about the perceived severity and vulnerability to the four vignettes representing fearful situations, as well as their intercorrelations. The variable labels sev1 through sev4 represent the respondents' perceived severity scale scores for these four situations and vul1 through vul4 represent the scale scores for their sense of vulnerability to each particular type of fearful situation. For ease of interpretation, the summated scores were put on a 1-to-5 point response scale, as were the original items.

Table 4.3: Means, Correlations, and Coefficient Alphas for Severity^a of and Vulnerability^b to Four Fearful Situations^c (N=235)

	Mean	Std	SEV1	SEV2	SEV3	SEV4	VUL1	VUL2	VUL3	VUL4
SEV1	3.7	2.55	$\alpha = .79$							
SEV2	3.8	2.57	.33**	$\alpha = .84$						
SEV3	3.7	3.25	.17**	.29**	$\alpha = .90$					
SEV4	3.4	3.47	.24**	.22**	.32**	$\alpha = .92$				
VUL1	2.5	2.98	.12	.04	.05	.08	$\alpha = .79$			
VUL2	2.7	3.23	-.06	.15*	.14*	.05	.50**	$\alpha = .86$		
VUL3	2.0	2.95	-.06	-.02	.13*	.10	.32**	.38**	$\alpha = .84$	
VUL4	1.9	2.80	-.12*	-.08	-.01	.16*	.38**	.45**	.47**	$\alpha = .85$

^a Severity variables are sev1 to sev4. ^b Vulnerability variables are vul1 to vul4.

^c Four fearful situations are: (1) fear of separation, (2) fear of punishment, (3) fear of embarrassment, and (4) fear of harm.

All four types of fears were seen as having more than average severity. The fear of harm scenario was perceived as being the least severe (3.4), while the other three were seen as fairly similar in their severity (3.7 or 3.8). In contrast, respondents' gave lower ratings to their vulnerability to each type of fear. Although all four scores were lower than the mid-point value of 3, respondents felt that they were most vulnerable to fear of punishment (2.7) and fear of separation (2.5). They did not feel as vulnerable to either fear of embarrassment (2.0) or of harm (1.9).

The ratings of the severity of the situations representing the four types of fear were fairly independent of each other, with even the strongest correlations being only a weak .33 (between fear of separation and of punishment) and .32 (between fear of embarrassment and of harm). In contrast, correlations between vulnerability ratings were above .32, with moderately strong

correlations between fear of harm and both fear of embarrassment (.47) and of punishment (.45). The strongest relationship was between fear of separation and of punishment (.50).

Only five of the 16 correlations between severity and vulnerability scores were statistically significant, but even those were extremely weak, with the largest being .16. This indicates that an individual's perceived vulnerability to a situation was not related to how they rated the severity of the situation.

Question 1: To What Extent Do Male and Females Respond Differently on Threat Appraisal of the Representation Situation, As Measured by Perceived Severity and Perceived Vulnerability.

Different Responses on Perceived Severity of and Vulnerability to Four Fearful Situations

Because one emphasis for this study is on the extent to which males and females respond differently on the severity of and vulnerability to the four fearful situations, the means and standard deviations are shown to demonstrate those preliminary differences.

As can be observed from table 4.4, the mean scores across all severity of the four fearful situations between males and females were slightly different from each other. The mean differences are trivial and when the effect size was calculated, the number yields a small effect of sex on severity of the four fearful situations.

For vulnerability to the four fearful situations, males and females also demonstrate similar perceptions on how vulnerable they were in situations 1, 3, and 4. However, the mean scores on vulnerability to the fear of punishment of males was moderately higher than females so effect size was computed and showed that sex has a medium effect ($\eta^2 = .45$) on vulnerability to the fearful situations

Table 4.4 Mean and Standard Deviations of Threat Appraisal Scale Separated by Gender

Variables	Male (N=114)		Female (N=121)	
	Mean	<i>sd</i>	Mean	<i>Sd</i>
Severity of fear of separation (sev1)	3.70	2.57	3.75	2.53
Severity of fear of punishment (sev2)	3.80	2.69	3.82	2.46
Severity of fear of embarrassment (sev3)	3.70	3.44	3.74	3.06
Severity of fear of harm (sev4)	3.30	3.68	3.45	3.25
Vulnerability to fear of separation (vul1)	2.50	2.95	2.45	3.00
Vulnerability to fear of punishment (vul2)	2.96	3.26	2.50	3.06
Vulnerability to fear of embarrassment (vul3)	1.98	2.92	1.96	2.95
Vulnerability to fear of harm (vul4)	1.94	2.82	1.92	2.80

An analysis of variance (ANOVA) was carried out to explore how males and females differed in responses on severity of and vulnerability to the four fearful situations. From table 4.5, the only statistically significant difference that showed as perceived vulnerability to fear of punishment (vul2), ($F= 11.741, p < .01$), which indicated that males tend to be slightly more vulnerable than females in the fearful situation that provoke fear of punishment.

Table 4.5: ANOVA Tests of Differences in Perceived Vulnerability to Fearful Situations Between Males and Females

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>Sig.</u>
Vulnu1: Separation					
Between Groups	1	1.907	1.907	.215	.644
Within Groups	233	2070.281	8.885		
Vulnu2: Punishment					
Between Groups	1	117.424	117.424	11.741	.001
Within Groups	233	2330.363	10.002		
Vulnu3: Embarrassment					
Between Groups	1	.233	.233	.027	.870
Within Groups	233	2038.064	8.747		
Vulnu4: Harm					
Between Groups	1	.388	.388	.049	.825
Within Groups	233	1840.395	7.899		

Since gender differences exist on perceived vulnerability to the work-related fearful situation, further analysis on coping strategies was continued separately for males and females.

Question 2: To What Extent Do Male and Females Respond differently in Adopting Strategies to Cope with Fearful Situations?

Coping strategy is another key variable from the protection motivation theory that is thoroughly examined in this study. The three main coping strategies, which are problem solving, seeking support, and avoidance strategies (Amirkhan, 1990) were used. These scale scores had high internal consistency, with alpha coefficient values having a range from .74- .91 (See table 4.6).

Based on one-way ANOVA's, mean male and female responses did not differ for either problem solving or avoidance coping strategies. The means did differ for support seeking ($F = 12.987, p < .001$). Overall, respondents were most likely to use problem solving strategies (2.6 on a scale of 1 to 3) and least likely to use avoidance (1.5). Females were slightly more likely to employ support seeking as a coping strategy (2.3 versus 2.0 on the 3-point scale), but both sets of scores were in the middle range between the other two coping strategies.

The overall analysis was followed by investigating the interrelationships between the three coping strategies and perceived severity, perceived vulnerability, and self-efficacy. Table 4.6 presents the correlations between the three CSI scores and the aforementioned variables.

There are seven statistically significant relationships that were revealed in the male group, but only four statistically significant relationships discovered in the female group. Respectively, both groups demonstrated r values *ranging* from -.01 to .36.

Table 4.6: Means, Standard Deviations, Correlations Between CSI Subscale and Component of Threat and Coping Appraisals by Gender

	Three Coping Strategies					
	Problem Solving		Seeking Support		Avoidance	
	Male	Female	Male	Female	Male	Female
Self-Efficacy	.36**	.16	-.17	-.05	-.20*	-.29**
Sev1: Severity of separation	.32**	.08	.14	.10	.04	-.05
Sev2: Severity of punishment	.10	.08	.14	.02	.06	-.02
Sev3: Severity of embarrassment	-.02	.09	.01	-.12	-.07	.12
Sev4: Severity of harm	.24**	.29**	.29**	.09	-.08	.17
Vul1: Vulnerability to separation	-.05	-.08	.19*	.10	.29**	.20*
Vul2: Vulnerability to punishment	-.13	-.02	.17	-.01	.19*	.19*
Vul3: Vulnerability to embarrassment	-.01	.08	.06	.07	.07	.13
Vul4: Vulnerability to harm	-.05	-.02	.03	.002	.009	.27**
Mean	27.98	27.82	22.45	24.98	16.63	16.04
Standard Deviation	4.087	4.301	5.166	5.562	3.824	3.367
Alpha	.84		.91		.74	

** Correlation is significant with $p < .01$

* Correlation is significant with $p < .05$

For males, there were three positive correlations revealed between problem solving and self-efficacy ($r = .36$ with $p < .01$), problem solving and perceived severity of fear of separation ($r = .32$ with $p < .01$) and problem solving and perceived severity of fear of harm ($r = .24$, $p < .01$). Although the correlations were relatively weak, they were all statistically significant. Additionally, the seeking support strategy was positively associated with severity to fear of harm ($r = .29$, $p < .01$) and positively correlated with vulnerability to fear of separation ($r = .19$). In the avoidance subscale group, there is an apparent negative relationship between self-efficacy and avoidance subscale given that $r = -.20$ and $p < .05$ were determined in the male group.

In contrast, the correlation between self-efficacy and avoidance strategy ($r = -.29$, $p < .01$) in the female group was not only slightly more negative, but was also found to be statistically significant. In addition, a weak yet significant relationship also occurred between avoidance strategy and vulnerability to fear of separation ($r = .20$, $p < 0.05$), vulnerability to fear of punishment ($r = .19$, $p < 0.05$), and vulnerability to fear of harm ($r = .27$, $p < 0.01$)

Table 4.6 also presents the means and standard deviations for the problem solving scale, seeking support scale, and avoidance scale. For each subscale of CSI, several score ranges determined whether the mean and standard deviation values were counted as very low, low, above average, or high. Correspondingly, score values falling in the range of 11-16 were categorized as very low, while the remaining 16-21, 21-26, and 26-31 score ranges were marked as low, above average, and high in that order. The mean scores of the avoidance strategies for both males and females were in the low range, and the mean scores in Seeking Support strategies were above average, and the means in Social Support strategies were relatively high.

By comparing the mean values among the three subscales of CSI, a better understanding of how coping strategies are used by males and females when severity and vulnerability were appraised can be obtained. It is apparent that problem solving is a dominant strategy used by both males and females in all cases because both genders have reported the highest mean scores on problem solving followed by seeking support and avoidance strategies. Although females have higher mean scores on seeking social support, the males have reported higher mean scores on problem solving and avoidances, but these latter differences are not statistically different from each other.

In terms of internal consistency, the alpha coefficients of the three subscales of the CSI are moderate to high with $\alpha = .84$ for problem solving scale, $\alpha = .92$ for seeking support scale, and $\alpha = .74$ for avoidance scale.

Male and Female Differences in Situation Specific Coping Strategies

The types of work-related fears are also included as one element of this study. Unlike the previous section that dealt with relationships between the three coping strategies and severity of and vulnerability to all four fearful situations, this section deals with the investigation of how males and females select coping strategies when they have to deal with a specific type of fearful situation without pertaining to its severity and vulnerability to the situations. After responding to all four vignettes in general, respondents were asked to select one vignette (based on the first letter of their last name) and to put themselves in that situation. They then responded to how they would cope in that specific situation.

Table 4.7 compares the coping strategy differences between males and females by presenting the mean and standard deviation values for each of the coping strategies used in

different fearful situations. Although not statistically significant, the information presented shows that across all four fearful situations, males have higher mean scores on problem solving strategy. On the contrary, females have higher scores on seeking support strategy across all four fearful situations.

Moreover, while it is evident that avoidance strategy seems to be used more frequently by females when encountering fear of punishment situations, males have reported higher mean scores for avoidance strategy under a fear of embarrassment condition.

Table 4.7 Means and Standard Deviations of Coping Strategies Between Males and Females Separated by Type of fears

Type of Fears	Sex (N=235)	Problem Solving Means (sd)	Seeking Support Means (sd)	Avoidance Means (sd)
Fear of separation	Male (N=27)	29.52(2.58)	22.44(6.22)	16.70(4.11)
	Female (N=32)	28.22 (4.84)	23.41(5.78)	14.87(2.31)
Fear of punishment	Male (N=30)	30.10(2.99)	22.37(4.64)	15.83 (3.62)
	Female (N=26)	28.85 (3.43)	24.38 (5.58)	17.19 (4.10)
Fear of embarrassment	Male (N=21)	26.95(3.89)	22.76(6.14)	18.43 (3.74)
	Female (N=33)	26.91(4.33)	25.55(5.71)	16.64 (3.30)
Fear of harm	Male (N=36)	25.67(4.60)	22.33(4.24)	16.19(3.62)
	Female (N=30)	27.50(4.31)	26.53(4.86)	15.63(3.37)

The differences in applying coping strategies between males and females were tested by conducting an ANOVA test (see table 4.8). There was a statistically significant difference only in utilizing seeking support strategy when coping with fearful situations ($F(2,233) = 12.987$ with $p < 0.001$). As such, the conclusion can be drawn that females prefer to employ a seeking support strategy to cope with fearful situations than males regarding of types of fearful situations.

Table 4.8: Differences in Coping Strategies by Genders

	df	SS	MS	F	Sig
Problem Solving	1	1.584	1.584	.090	.765
Between Groups					
Within Groups	233	4107.965	17.631		
Seeking Support	1	375.077	375.077	12.987	.000
Between Groups					
Within Groups	233	6729.110	28.880		
Avoidance	1	20.451	20.451	1.581	.210
Between Groups					
Within Groups	233	3013.320	12.933		

In summary, when male and female coping strategies are considered under separate fear situations, the differences appear to be in how they use avoidance strategies under fear of punishment and embarrassment. But, when ignoring a specific fearful situation, it appears that the differences are in the use of support seeking strategies. Due to the existence of these statistically significant differences on coping strategies related to sex differences, a further analysis was done separately for males and females in exploring significant differences in the type of coping strategies when dealing with distinct fearful situations.

Situation Specific Coping Strategies for Males

Beginning with the male group, the results (see table 4.9) indicated that type of fearful situations was not related to males' use of avoidance and seeking support strategies. The only statistically significant result was in males' use of problem solving as the strategy when dealing with each of the four fearful situations ($F(3, 110) = 10.285, p < 0.001$).

Table 4.9: Differences in Coping strategies in Different Fearful Situation in Males

	df	SS	MS	F	Sig.
Problem Solving	3	413.572	137.857	10.285	.000
Between Groups					
Within Groups	110	1474.393	13.404		
Seeking Support	3	2.741	.914	.033	.992
Between Groups					
Within Groups	110	3013.443	27.395		
Avoidance	3	93.948	31.316	2.210	.091
Between Groups					
Within Groups	110	1558.578	14.169		

In order to determine where the statistically significant differences were, the effect sizes between situations were calculated as well as performing a post hoc test. The results indicate that there were statistical differences between fear of separation and fear of embarrassment ($p = 0.018$), fear of separation and fear of harm ($p < 0.001$), fear of punishment and fear of embarrassment ($p = 0.003$), and fear of punishment and fear of harm ($p < 0.001$)

Additionally, the results indicated that males prefer to apply problem-solving strategies in dealing with fear of punishment and separation as opposed to fear of embarrassment and fear of harm. Table 4.10 captures the effect size of these differences ranging from .60 to 1.08, which are considered moderate to large effects.

Table 4.10: Post Hoc Test Results, Effect Size for Problem-Solving Strategy in Males

(I) Type of fear	(J) Type of fear	Mean Difference (I-J)	Sig.	Effect Size (η^2)
Fear of separation	Fear of punishment	-.58	.551	.14
	Fear of embarrassment	2.57	.018	.60
	Fear of harm	3.85	.000	.94
Fear of punishment	Fear of embarrassment	3.15	.003	.77
	Fear of harm	4.43	.000	1.08
Fear of embarrassment	Fear of harm	1.29	.204	.30

Situation Specific Coping Strategies for Females

When the ANOVA was calculated for females, the results (see table 4.11) show that there were statistically significant differences existing in their use of avoidance strategies when dealing with different fearful situations ($F(3, 117) = 2.915, p < 0.05$).

Table 4.11: Difference in Coping strategies in Different Fearful Situation in Females

	SS	Df	MS	F	Sig.
Problem Solving					
Between Groups	62.919	3	20.973	1.138	.337
Within Groups	2157.081	117	18.437		
Seeking Support					
Between Groups	171.405	3	57.135	1.888	.135
Within Groups	3541.521	117	30.269		
Avoidance					
Between Groups	94.652	3	31.551	2.915	.037
Within Groups	1266.141	117	10.822		

Even though there were slight differences, further post hoc tests were conducted on the avoidance means across the four fear situations. The results indicated (see Table 4.12) that there were statistically significant differences between fear of punishment and of embarrassment ($p=0.017$) and between fear of embarrassment and of harm ($p<0.05$).

It appears that females have a propensity to use avoidance strategy to cope with fear of embarrassment somewhat more than to cope with fears of either punishment or harm. Although not statistically significant, the avoidance response scores were also slightly higher under fear of embarrassment than under fear of separation.

Table 4.12: Post Hoc Test Results, Effect Size for Avoidance Strategy in Females

(I) Type of fear	(J) Type of fear	Mean Difference (I-J)	Sig.	Effect Size (η^2)
Fear of separation	Fear of punishment	.87	.385	.25
	Fear of embarrassment	-1.72	.118	.50
	Fear of harm	.51	.596	.15
Fear of punishment	Fear of embarrassment	-2.60	.017	.77
	Fear of harm	-.36	.699	.11
Fear of embarrassment	Fear of harm	2.23	.033	.66

Question 3: To what extent do males and females differ in coping appraisal based on their self-efficacy in dealing with different fearful situations?

Self-Efficacy, Three Coping Strategies, and Sex

The mean scores of self- efficacy for females was 31.6 (sd 4.4), which was lower than mean score of self-efficacy in the males group ($M = 32.3$ (sd 4.5). With the intention of exploring if the difference is statistically significant, an ANOVA was computed to examine this. The results did not reveal a statistically significant difference between male and female on self-efficacy ($F(1, 233) = 1.370, p > 0.05$).

However, as was previously shown in Table 4.6, self-efficacy scale was positively correlated with problem-solving strategies for males ($r = .36$ with $p < 0.01$) but not for females ($r = .16$ $p > .05$); was not related to support seeking strategies for either gender; and was slightly negatively related to avoidance strategies for both genders ($-.29$ of females and $-.20$ for males).

As such, the results may be interpreted by explaining that males and females did not differ in terms of self-efficacy scores and the relationship between self-efficacy and coping strategies showed only one modest difference between them. Men who have a higher level of self-efficacy will be somewhat more likely to apply problem-solving strategies than men with lower self-esteem. Additionally, there is a very slight tendency for both men and women with lower self-esteem to use avoidance strategies.

With regard to reliability of the ten items of the General Self Efficacy Scale (GSE), the results yielded a reasonably high alpha of .85, which is considered in the high range of internal consistency (Jerusalem & Schwarzer, 2000)

Question 4: To what extent is there a relationship between selected demographic variables (such as age, years in organizations, years in position, and ethnicity) and responses to the different work-related fearful situations?

In order to respond to research question # 4, Pearson correlations were performed. Table 4.13 depicts interrelationships between all demographic variables in this study and component of threat appraisal and coping appraisal.

Table 4.13: Correlations between Demographic Variables and Measured Variables

	Age	Years in Organization	Years on Position
SEVERE1	.02	-.01	-.05
SEVERE2	-.02	.07	.07
SEVERE3	.07	.20**	.17**
SEVERE4	.01	.03	-.02
VULNU1	.03	.01	.01
VULNU2	-.02	.10	.01
VULNU3	-.06	.07	.17**
VULNU4	.02	.12	.13
SELFEFFI	.07	-.002	-.02
PROB	.01	-.04	-.09
SEEKSUP	-.20**	-.17*	-.20**
AVOIDANCE	.05	.01	.05

There were only six statistically significant relationships among all variables with the correlations ranging from $r = -.20$ to $r = .20$, indicated extremely weak relationships. At the outset, there were statistically significant correlations between ages and seeking support ($r = -.20$), number of years employed by the organization and seeking support ($r = -.17$), number of years serving a position and seeking support ($r = .20$), as well as employment type and seeking support ($r = .13$).

Another two significant correlations also appeared between perceived severity of embarrassment and number of years employed by the organization ($r = .20$) and number of years serving a position and perceived severity of fear of embarrassment ($r = .17$). Also, number of years serving a position positively correlated with vulnerability to fear of embarrassment ($r = .17$). The statistically significant results for such small correlations for some categories might also be due to the large sample size. Thus, the correlations are not strong enough to draw the conclusion that age, number of years employed by the organization, and number of years serving a position have any relationships within all components of the PMT.

With regard to ethnic groups, some of the cell sizes were too small for a valid test if using 6 different groups in the analysis. The number of participants in the Asian group and Black/African American group was large enough to continue investigating any differences

before collapsing the categories into three groups (Caucasian, Black/ African American, and Asian & Pacific Islander).

Once the ethnicity groups were entered into a series of ANOVA with least significant difference (LSD) post hoc tests across all measured variables, the results (see table 4.12) indicated statistically significant effects of ethnicity on perceived severity of harm ($F(2, 224) = 3.504, p < .05$) and seeking support coping strategy ($F(2, 224) = 5.549, p < 0.01$). The remaining variables did not differ from one another when comparing across the three ethnic groups. Therefore, there are only two variables reported in the table 4.14.

Table 4.14: ANOVA for Ethnicity and Severity to Fear of Harm and Seeking Support Strategies

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>Sig.</u>
Severity of Harm					
Between Groups	2	82.901	41.450	3.504	.032
Within Groups	224	2650.122	11.831		
Seeking Support					
Between Groups	2	327.879	163.939	5.549	.004
Within Groups	224	6618.077	29.545		

By considering the significance level, it is reasonable to report where the statistical significant differences have occurred in the seeking support group. The following table (table 4.15) shows where the statistical significant differences are captured. The results indicate that the Asian group preferred to use seeking support strategy to cope with fearful situations over both Black/African Americans and Caucasians. When comparing the latter two groups, Caucasians preferred to use seeking support strategy to Black/African Americans. The effects were large (.67 and .70).

Table 4.15: Means, Standard Deviations, Post Hoc Post Hoc Test Results, Effect Size of Ethnicity on Seeking Support Coping Strategy

(I) Ethnicity	(J) Ethnicity	Mean Difference (I-J)	Sig.	Effect Size (η^2)
Caucasian (N= 120) (M = 24.21, sd 5.7)	Black/ African American (N = 40) (M = 21.13, \pm sd 4.6)	3.08(*)	.002	.67
	Asian (N = 67) (M = 24.39, \pm sd 5.4)	-.18	.828	
Asian (N = 67) (M = 24.39, \pm sd 5.4)	Black/ African American (M = 21.13, \pm sd 4.6)	3.26(*)	.003	.70

Summary

The findings of this chapter indicate that the instruments used to measure threat appraisal (severity of threats, vulnerability to threats), coping appraisal (self-efficacy), and three coping strategies (problem solving, seeking support, and avoidance) yield a high internal consistency, which have resulted in plausible findings.

The application of multiple correlations determined that there are some overall weak to moderate relationships among a number of variables. Additionally, a series of ANOVA were conducted to test the significant differences between males and females in perceiving severity of fearful situations and vulnerability to fearful situations, and coping strategies. There were some statistical differences found between males and females.

Subsequently, type of fearful situations and coping strategies were tested for the effects. Some statistically significant effects of type of fears were revealed. Last but not least, a relationship between selected demographic variables and responses to the different work-related fearful situations was investigated. Although the results of the investigation illustrate a weak relationship, it is premature to use the result in predicting the coping strategies selected by males and females based on the proposed independent variables.

CHAPER V

DISCUSSION

Although studies of fear in the workplace have been conducted extensively, none of those studies were done in light of examining how individuals experience and cope with distinctive work-related fears that lead to the four ultimate negative consequences. Specifically, the associated negative consequences that may be observed are separation, punishment, embarrassment, and harm.

The uniqueness of the present study comes from the use of vignettes, which represent the four types of widespread fearful situations that individuals may experience in today's workplace. In particular, the application of vignettes provides a means for examining the relationships among threat appraisal (vulnerability to, and severity of) and coping appraisal (self-efficacy), which were adopted from the two components described by protection motivation theory (Rogers, 1983)

Another objective of this study entails exploring the discrepancies in coping strategies that males and females select when dealing with stressful situations. The present study responds to the concerns of Miller & Kirch (1987) in that research efforts based on gender differences in coping strategies have been overlooked (Miller & Kirch, 1987).

Furthermore, there are several previous studies proving that differences in coping strategies may also be influenced by various factors such as age, sex, years of work experience, and ethnicity (Neville, Heppner, & Wang, 1997; Gianakos, 2000; Remondet & Hansson, 1991; Utsey, Ponterotto, & Reynold, 2000)

Research Questions

In order to address the concerns of the study, research questions have been carefully developed, and are used as a guideline for this study. The research questions are as follows:

To what extent do males and females respond differently to the following variables under different representations of a fearful situation in the workplace?

To what extent do males and females respond differently to the following variables under different representations of a fearful situation in the workplace?

Response variables are:

1. Threat appraisal of the represented situation, as measured by:
 - a. Perceived severity of the hypothetical fearful work situation
 - b. Their perceived vulnerability to the threat in the hypothetical situation
2. Their assessment of coping strategies that the person in the situation should adopt, based on three types of strategies:
 - a. Problem solving strategies
 - b. Social support strategies
 - c. Avoidance strategies
3. A coping appraisal measure based on respondents' self-efficacy in dealing with work related problems.

Additionally, the relationships between selected demographic variables (such as age, years of experience, and race/ethnicity) and responses to the different scenarios can be explored to the extent that such comparisons may be made

Method

Without valid measures, the goal of this study would not be attainable. As a result, the two subscales of the Risk Behavior Diagnosis scale (RBD) developed by Witte, McKeon, and Berkowitz (1996), the General Self-Efficacy Scale (GSE) by Jerusalem & Schwarzer (1993, 2000), and the Coping Strategy Indicator (Amirkhan, 1993), were employed to assess those constructs mentioned earlier. All subscales of each construct yield relatively high internal consistency with the alpha coefficient having a range from .74- .92. (See table 4.3 and table 4.6).

Subsequently, all questionnaires pertaining to all measured variables were created and distributed to individuals who were willing to participate in the study. The questionnaires were in either paper form or in electronic format, by which the former was physically distributed and the latter was delivered via the Internet. Overall, the questionnaires were distributed over a two-week period and contributed a total of 240 participants. A total of 235 responses were useable for data analysis by the Statistical Package for Social Science (SPSS 11.05) software application.

In order to address the concerns of this study, several statistical procedures were adopted. At the outset, characteristics of the participants were elucidated because the results from the Chi square, or t-test, and the Analysis of Variance did not disclose meaningful differences between

the two groups. Thus, the data captured from the paper and online questionnaires were consolidated, and analyzed together as one sample

Summary of findings

The descriptive data analysis included the means, standard deviations of the perceived severity and perceived vulnerability related to the four work-related fearful situations. The rationale behind having measurement of the two constructs was initially paralleled with the claim by Endler (1991) in that different participants may not perceive the same threaten situation in the same manner, which necessitates the assessment of type and degree of perceived thereat as requirements (Endler, 1991).

In terms of validity of the four types of fears in this study, a principal component analysis was performed using varimax rotation to extract the factors related to severity and vulnerability. The four-factor solution explained 80% of the variance in the severity items and 76% of the variance in the vulnerability items. The results also indicate that the scale scores were reliable and that responses to the four fear situations constitute separate components.

All four types of fears were seen as having more than average severity. The fear of harm scenario was perceived as being the least severe (3.4), while the remaining three were considered similar in their severity (3.7 or 3.8). In contrast, respondents gave lower ratings to their vulnerability to each type of fear. Although all four scores were lower than the mid-point value of 3, respondents felt that they were most vulnerable to fear of punishment (2.7) and fear of separation (2.5). They did not feel very vulnerable to either fear of embarrassment (2.0) or fear of harm (1.9).

Correlations between perceived severity and vulnerability across all fearful situations were also investigated. The results indicate that there are extremely weak relationships between the two constructs, which explains that an individual's perceived vulnerability to a situation was not related to how they rated the severity of the situation.

Sex was applied as a function in subsequent data analysis to discriminate the differences in the mean scores of vulnerability to the four fearful situations, and the mean scores of severity of all fearful situations. The results disclosed that males and females had similar perceptions on vulnerability to and severity of fearful situations. In contrast, Rachman (1974) expresses differently, "In all major investigations it has been observed that women express fears of more

objects and situations than men and they also indicate higher degree of fear”(P.51). However, one meaningful result demonstrated that males feel slightly more vulnerable to fear of punishment than females (see table 4.4 and table 4.5).

Although a conclusion may not be drawn, it can be reasonably assumed that the general profile of the participants may be described as knowledgeable and well-educated given the fact that the participants were graduate students, working professionals, or both. As a result, it may be further assumed, that given the maturity level of the participants, their exposure to many situations may have led to many experiences where they are more likely not to be afraid of arbitrary fearful situations. Additionally, Rachman’s study was done almost 30 years ago, as time went by, women may become more confident and less timid to fearful situations.

In terms of coping strategies, the three main coping strategies, which are problem solving, seeking support, and avoidance (Amirkhan, 1990), were treated as dependent variables. The analysis began by examining the interrelationships between the three coping strategies, perceived severity, perceived vulnerability, and self-efficacy.

Some statistically significant but relatively weak relationships were observed among some variables and coping strategies. For example, in the male group, self-efficacy had a positive relation with problem solving strategy at $r = .36$ with $p < .01$. Avoidance strategy has a weak negative correlation with self-efficacy in both males and females.

Therefore, it may be assumed that males and females who tend to have higher self-efficacy resort to problem- solving strategies in coping with fearful situations while those who have lower scores on self-efficacy prefer to avoid fearful situations. To support this conclusion, Bandura (1982) suggests, “Perceived self-efficacy helps to account for such diverse phenomena as changes in coping behavior produced by different modes of influence, level of physiological stress reactions, self-regulation of refractory behavior” (p.122).

In addition, the relationships between perceived severities of fear of harm and fear of separation were found to be somewhat correlated with problem solving strategy in the male group. However, the weak correlation suggests that it may be impossible to draw the conclusion that perceived severity of fearful situation has an effect on the application of problem solving strategy, which is consistent with a previous study (Rippetoe & Rogers, 1987). They investigated components of protection motivation theory and coping strategies, which were

relatively comparable to this study where “The results disclosed that the high-threat condition energized all forms of coping; it did not differentially cue specific coping strategies”(p.596).

With regard to sex differences in coping strategies, the mean and standard deviation values across all four types of fears were compared. The ANOVA test was conducted to explore the significant effect of sex on coping strategies. The results demonstrated that, in all cases, females prefer to use seeking support strategy to cope with fearful situations than males regarding of type of fearful situations. On the contrary, Carver et al (1989); Folkman & Lazarus (1980) did not find any meaningful differences in coping strategies caused by differences in sex.

The next round of analyses was done separately for males and females in order to investigate significant differences in discrepancies of adopting coping strategies when dealing with distinctive fearful situations. Lepore & Evans (1996) suggest, “There are other instances in which coping with one stressor does have implications for coping with another stressor. Coping with one stressor might increase or decrease the person’s coping ability or willingness to cope with another stressor” (p.362).

For the male group, the types of fearful situations yielded no effect on avoidance and seeking support strategies in their responses to distinctive fearful situations. The only statistically significant effect of type of fearful situations was found in a group that used problem solving as the strategy when dealing with each of the four fearful situations (see table 4.8).

Due to the abovementioned statistically significant differences, the effect sizes between coping strategies group and situations were calculated as well as post hoc test. The results indicate that males prefer to apply problem-solving strategies in dealing with fear of punishment and separation as opposed to fear of embarrassment and fear of harm. (See the effect size in table 4.10). Additionally, identical analyses were also calculated for the female group. The results also reveal a statistically significant difference in coping strategies for females when experiencing different fearful situations. The post hoc test indicates that females tend to use avoidance strategy to cope with fear of separation as opposed to fear of punishment and fear of harm (See the effect size in table 4.12).

The conclusion drawn from the abovementioned results demonstrate that males and females have different preferences for using particular coping strategies. Specifically, the preferential differences in coping strategies are evident when dealing with different types of fearful situations.

Self-efficacy

Another aspect of this study dealt with examining the extent to which males and females differ in coping appraisal based on their self-efficacy in dealing with different fearful situations. The mean scores of self-efficacy of males and females were compared and an ANOVA test was conducted, which yielded no statistical significance between males and females in regards to self-efficacy.

Besides, the self-efficacy scale weakly and positively correlated with problem-solving strategies ($r = .36$ with $p < 0.01$ for male and $r = .161$ $p > .05$ for female) while presenting a weaker negative correlation with seeking support and avoidance strategies ($r = -.20$ with $p < 0.01$, and $r = -.29$ with $p < 0.01$ for female) for both sex. Hence, it may be interpreted that regardless of sex, individuals who have a higher level of self-efficacy will more likely apply problem-solving strategies as opposed to those individuals who are likely to seek support or avoid the fearful situations if their self-efficacy is lower. Accordingly, Bandura (1982) claims that “Perceived self-efficacy helps to account for such diverse phenomena as changes in coping behavior produced by different modes of influence, level of physiological stress reactions, self-regulation of refractory behavior”(p.274)

Demographic Variables

Moreover, another objective of this study was to investigate a relationship between selected demographic variables (such as age, years in organizations, years on position, ethnicity) and responses to the different work-related fearful situations. Regarding the relationship between coping strategies and demographic variables, Cartwright & Cooper (1996) thoroughly investigated the study of Schwartz and Stone (1993) and draw a conclusion:

Gender and age differences in coping were found. Compared with males, females were more likely to use distraction/ diversionary activities and social support and relaxation. Similarly the use of distraction and social support was more frequent among older subjects (p.207).

On the contrary, the results of this study indicated that younger subjects are more likely to use seeking support as coping strategies. The discrepant findings between this study and literature may result from the age range of the participants. Additionally, due to the large

number of correlation that were done the slight but significant correlation for some variable may have occurred by chance as a result it is impossible to conclude that age has any relationships with the component of the PMT

The correlation analysis between demographic variables and all variables from components of the PMT was performed. The results revealed that the slight, but significant correlation for some categories that may have occurred from the random effect might also be due to the large sample size. As a result, it is impossible to draw a conclusion that age, number of years employed by the organization, and number of years serving a position have any relationships within all components of the PMT.

The three main ethnic groups (Caucasian, Asian, Black/African American) were entered into a series of ANOVA with a post hoc test across all measured variables. The results (see table 4.15) indicate statistical significant effects of ethnicity on perceived severity of harm and seeking support coping strategy. Post hoc results indicate that the Asian ethnic group preferred to use seeking support coping strategy over both Black/African Americans and Caucasians. Additionally, Caucasians prefer to use seeking support coping strategy over the Black/African American ethnic group.

Limitations of the study

This study has several limitations that needed to be addressed. First of all, the majority of the participants are comprised of a working group of professionals who are employed in specific regions within the United States. In particular, these participants work within the Washington DC metropolitan area. As a result, conclusions from the study may not generalize other geographic regions or other population

Another limitation is the fact that the responses were based on self-report responses to hypothetical fearful situations. The possibility exists that responses to actual fearful situations might be different

Furthermore, there was only a specific situation representing each work-related fearful situation, which may not be applicable to all individuals since job responsibilities or professions may differ. Some people may have difficulty imagining or relating to the situations presented in the vignettes.

Future research recommendations

The limitations discussed in this study coupled with the findings have created opportunities for future research recommendations. For example, replication of the different population, for example, a lower education level, a population who are in non professional positions study is not only highly recommended, but may also provide more meaningful conclusions that may be generalized.

Additionally, modification or improvement of the measure regarding the fear scenarios could be done because the severities of the said scenarios were perceived as comparable levels of fearful situations. Future research could include numerous fearful situations that illustrate the different levels of severity of each type of fear. Furthermore, future research efforts could be conducted with a group of professionals who have actually experienced or are experiencing one of the four fearful situations in order to test the application of the protection motivation theory.

The instruments that were used in this study may be reused to confirm the severity of all situations. Another alternative is to develop two scenarios with low and high fear of each type so that a comparison in terms of level of severity of each type of work-related fear would be possible.

Furthermore, because the modified protection motivation theory that was used as a framework in this study was not fully supported by the findings, future research efforts may include more variables. For instance, a variable such as coping efficacy to compare with individuals' efficacy in general might be more reasonable to include as component of protection motivation theory.

Another recommendation calls for conducting a longitudinal study on coping strategy of individuals to investigate whether or not they used the same coping strategies to deal with the same type of work-related fear over time (Latack & Havlovic, 1992). The relationships between short-term and long-term fearful situations and coping strategies should be included in the future research. Krohne (1996) recommends that avoidance strategies are more likely to be more appropriate to everyday short-term fearful situations while problem-solving may be more applicable to long-term fearful situations (Krohne, 1996).

Also, the use of more variables pertaining to individual differences such as personality, health status, job satisfaction, management level may be included in a future study. Additionally, studying communication style with respect to how well fearful situations are

articulated, and its behavioral impact across individuals might be worthwhile. An example might entail using communication style as a variable in future research to observe how individuals differ in perceiving fearful situations.

Additionally, instead of looking at the difference between men and women the further can be done in light of investigating how men and women are similar in perceiving fearful situations and copings strategies. Moreover, relationships among all variables in this study can be further investigated in three way interactions instead of linear relationships. Conducting such a research can provide a better understanding of how one variable related or interact to another variable.

The fact that individuals may change after successfully coping with work-related fearful situations is interesting enough to warrant further studies. Armeli (2001) conducted a study pertaining to stress-related growth and found that individuals who had higher level of stress who “ had adequate coping and support resources and for which they used adaptive coping strategies” (p.366).

Implications

Certainly, the indication of the differences between males and female and differences among ethnic groups should be taken in to consideration when planning workplace intervention. HRD professionals and practitioners should be cautious of some needed research related to very important issue in the workplace. A certain type of training can be prepared based on preferred coping strategies that may be assumed ahead of time based on ethnicity.

Moreover, HRD professionals and practitioners may make assumptions beforehand in preparing to understand the coping strategies among individuals that may publicize in forms of maladaptive coping behaviors. They should be cautious and careful about assuming particular in coping strategies among individuals in any particular type of fear. This should be useful in achieving the sensitivity required in developing in any effective program

Summary

This study uses the components of protection motivation theory to examine the differences of coping strategies used by individuals when dealing with the four unique work-

related fearful situations. Specifically, the components that are referenced include threat appraisal, which examines severity and vulnerability, and coping appraisal where self-efficacy may be explored. The findings suggest that among the three coping strategies, problem solving was the most dominant strategy used by males and females across all situations as a group. However, females preferred seeking support as a coping strategy more than males regardless of the type of fears experienced. In contrast, males preferred avoidance coping strategies to deal with situations that provoke fear of punishment.

With regard to severity of the four fearful situations, both males and females perceive that the fear of harm scenario is the most severe while the remaining fearful scenarios are perceived as having similar level of severity. In terms of vulnerability to the four fearful situations, males feel slightly more vulnerable to the fear of punishment scenario.

Males and females also have comparable levels of self-efficacy. There are weak negative relationships between self-efficacy and seeking support, and avoidance strategies. However, self-efficacy has a positive correlation with problem solving strategies in both males and females. Research found that, the Asian ethnic group prefers to use seeking support strategy over the Black/African American and Caucasian ethnic groups. When comparing the latter two ethnic groups, Caucasians favor seeking support strategies.

Given all the findings and limitations, recommendations for future research efforts, as well as the implication for practices are provided. Therefore, this study should contribute not only to the body of literature of fear in the workplace, coping with occupational stress, and related studies, but also human resource departments within an enterprise. In fact, Human Resource Development (HRD) professionals as well as practitioners should be able use this study as a guideline to apply within their own work environments. When HRD professionals are able to leverage the concepts uncovered in this study in the context of their organization culture, they may be able to identify which organizational policies should be retooled or created. In turn, the consistent practice of retooling or creating well-thought out policies may communicate not only those fearful situations that are otherwise oblivious, but also establishes logical processes in creating meaningful organizational policies.

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VITA

Juthamas Thongsukmag earned a Bachelor's degree in Political Science from Chulalongkorn University, Thailand in 1996. Consequently, her interest in human development and human resources management was ignited while working as an intern.

After making the commitment to pursue her newfound interest abroad, she attended Webster University in Missouri, and received her Master's Degree in Human Resource Management and Development in 1998. Soon afterwards, Juthamas was further motivated in applying her cultural insights towards a doctorate degree, and decided to attend Virginia Tech the following four years in completing her PhD.

Upon starting her doctoral coursework, she was accepted as a graduate assistant in the ALHRD department. Respectively, given the support from the ALHRD department, Juthamas found the study of fear in the workplace alluring, which serves as the basis of this dissertation.