

**COGNITIVE APPRAISALS, EMOTION, AND COPING: A
STRUCTURAL EQUATION ANALYSIS OF THE
INTERACTIONAL MODEL OF STRESS AND COPING**

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ABSTRACT

COGNITIVE APPRAISALS, EMOTION, AND COPING: A STRUCTURAL EQUATION ANALYSIS OF THE INTERACTIONAL MODEL OF STRESS AND COPING

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This study aimed to examine the role of secondary appraisal of the event, cognitive appraisal of the situation, emotions experienced and coping styles used after a real life stressful event that university students experienced. Five hundred and sixty students (271 females and 289 males) from Middle East Technical University voluntarily participated in the study. A pilot study which consisted of two stages, interviews and survey was conducted before the main study in order to test the appropriateness and applicability of the appraisal and emotion measures. Cognitive Appraisal of the Situation Scale (CASS), Emotions Checklist, Cognitive Appraisal of the Emotion Scale (CAES) and Coping Styles Scale (CSS) were used to assess cognitive appraisals, emotions and coping styles. Stress level, harm/loss and threat appraisals of the stressful events, cognitive appraisal of situation, emotions experienced by the individuals after the stressful event, cognitive appraisal of the emotions and coping strategies used by the participants were the variables used in the structural equation modeling (SEM). The results of the analysis revealed that, problem focused coping was predicted by positive emotions and cognitive

appraisal of emotion. Emotion focused coping was predicted by negative emotions, stress level and secondary appraisal. The results also yielded that cognitive appraisal of emotion was a moderator variable between positive emotions and problem focused coping. Findings of the research were discussed in the framework of Cognitive Theory of Emotions and Interactional Model of Stress and Coping.

Keywords: Stress, secondary appraisal of the event, cognitive appraisal of situation, emotions, cognitive appraisal of emotions, coping styles, Structural Equation Modeling, SEM.

ÖZ

BİLİŞSEL DEĞERLENDİRMELER, DUYGULAR VE BAŞA ÇIKMA: YAPISAL EŞİTLİK TEKNİĞİ İLE ETKİLEŞİMSSEL STRES VE BAŞA ÇIKMA MODELİNDE İNCELENMESİ

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Bu çalışmanın amacı, üniversite öğrencilerinin yaşadıkları stress verici bir olaya dayalı olarak yaptıkları, olayın ikincil bilişsel değerlendirmesi, durumun bilişsel değerlendirmesi, olaydan sonra yaşanan duygular, duyguların bilişsel değerlendirmesi ve kullanılan başa çıkma yöntemleri arasındaki ilişkiyi araştırmaktır. Çalışmaya Orta Doğu Teknik Üniversitesi'nin 560 öğrencisi (271 kadın, 289 erkek) katılmıştır. Ana çalışmadan önce, kullanılan ölçeklerin uygunluğunu ve anlaşılabilirliğini belirlemek üzere, görüşmeler ve alan taramasını içeren iki aşamalı pilot çalışma gerçekleştirilmiştir. Bilişsel değerlendirmeler, duygular ve başa çıkma stillerini belirlemek amacı ile, Durumun Bilişsel Değerlendirmesi Ölçeği (CASS), Duygu Listesi, Duygunun Bilişsel Değerlendirmesi Ölçeği (CAES) ve Başa Çıkma Stilleri Ölçeği (CSS) kullanılmıştır. Öğrencilerin, stress verici durumdan sonra yaşadıkları stress düzeyi, zarar/kayıp ve tehdit ikincil bilişsel değerlendirmeleri, durumun bilişsel değerlendirmesi, stress yaratan olaydan sonra öğrencilerin yaşadığı duygular, duyguların bilişsel değerlendirmesi ve olayın yarattığı stress ile baş etmek için kullandıkları başa çıkma yöntemleri, yapısal eşitlik modeli kullanılarak yapılan

analizlerde deęişken olarak kullanılmıřtır. Bulgular, olumlu duygular ve duyguların biliřsel deęerlendirilmesi deęişkenlerinin, problem odaklı bařa ıkma yollarını, olumsuz duygular, stres dzeyi ve ikincil biliřsel deęerlendirme deęişkenlerinin ise, duygu odaklı bařa ıkma yollarını anlamlı dzeyde yordadığını gstermiřtir. Sonular ayrıca, duygunun biliřsel deęerlendirilmesi deęişkeninin, olumlu duygular ve problem odaklı bařa ıkma arasında bir ara deęişken olarak yer aldıđını gstermiřtir. Bulgular, Duygunun Biliřsel Kuramı ve Etkileřimsel Stres ve Bařa ıkma Modeli erevesinde tartıřılmıřtır.

Anahtar Kelimeler: Stres, olayın ikincil biliřsel deęerlendirmesi, durumun biliřsel deęerlendirmesi, duygular, duyguların biliřsel deęerlendirmesi, bařa ıkma stilleri, Yapısal Eřitlik Modeli, SEM.

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Date: January 30, 2004

Signature:

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CHAPTER I

INTRODUCTION

1.1 Background of the Study

The aim of this study is to examine the relationships of cognitive appraisals of the situation, emotions experienced, cognitive appraisal of emotions and coping strategies used in the face of real life stressor. The theoretical framework of the study is the interactional model of stress and coping in which appraisals have central importance. Conceptualization of and theoretical approaches to the concepts of stress, cognitive appraisal, coping and emotions are introduced in the following section.

1.1.1 Conceptualization of Stress

In its most widely accepted use, stress has been defined as a process of interaction between the person and the environment (Folkman & Lazarus 1985; Folkman, Lazarus, Gruen, & DeLongis, 1986). In this definition, stress is an interactional process and stress models that emphasize the process of interaction are called interactional stress models. One of the most accepted interactional models of stress is the “Cognitive Theory of Stress and Coping” which was proposed by Folkman and Lazarus (1985). The theory is composed of two crucial components in the stress process: cognitive appraisal and coping. The process of stress begins with any demands made on the person. According to cognitive theory of stress, the degree to which the person experiences stress is mainly determined by the evaluation of what is of interest in these demands.

When a person perceives danger or threat, s/he evaluates it in the light of certain factors. Therefore, there is no event or stimulus that is universally stressful. Stress is present if a person defines the situation as stressful. It is an interactional and bi-directional process between the person and the environment. According to interactional models of stress, a person is expected to give different levels of stress responses according to the type of event, appraisal of the situation and his or her personal state of being (Folkman & Lazarus, 1985).

Within the theoretical formulation, the meaning of an event, therefore the stressfulness of the event is determined by the evaluation of event in relation to persons' well being and interests. That's why, these evaluations or cognitive appraisals determine the seriousness of demands and cause a person to define the situation or event as stressful.

1.1.2 Cognitive Appraisal

Cognitive appraisal is a process in which a person evaluates whether an encounter with the environment is relevant to his or her well being (Lazarus, 1993). In the cognitive theory of stress and coping, the person's evaluations of encounters are considered as primary and secondary appraisals.

In primary appraisal, "the person evaluates whether he or she has anything at stake in this encounter" (Folkman, Lazarus, Gruen, & DeLongis, 1986, p. 572). If the person believes that the situation is related to his/her well being, then the situation is defined as stressful. The primary appraisal is shaped both by the situational and personal factors. The basic elements of personal factors are beliefs and commitments. (Folkman, 1984). One of the generalised beliefs that may affect the appraisal in primary appraisal process is the control belief through which a person assumes or believes that s/he can control the outcome. Another factor that affects the primary appraisal is the situational

variables such as nature of harm or threat, familiarity, likeliness to occur and clearness of the outcome (Folkman, 1984). During the primary appraisal if the situation is seen as stressful, then the person makes additional mental evaluations, which are called as secondary appraisal.

In secondary appraisal, by considering the adequacy of personal resources and options, the person makes three forms of stressful appraisals Harm or loss, threat and challenge (Lazarus, 1993):. Harm or loss is perceived when the damage has already been done. Threat perception occurs when there is a potential for harm or loss. While the first two appraisals trigger negative emotions like fear and anger, challenge triggers positive emotions such as excitement or interest (Lazarus, 1993).

In addition to harm/loss, threat and challenge appraisals, in secondary appraisal, the person also evaluates what can be done to overcome difficulty or enhance benefit. Various coping options, in the light of available resources such as physical, social, and psychological well being, are evaluated during this process (Folkman & Lazarus, 1985). These resources take many forms like cognitive skills, social support for meeting emotional needs, physical fitness to meet high energy levels and toughness (Folkman, 1984), previous success in coping with stress, optimism, sense of control, hardiness with its components of commitment, control, challenge, self-esteem (Sarason, Levine, Basham, & Sarason, 1983).

Since cognitive appraisals are dynamic processes, two types of appraisals, primary and secondary appraisals, operate interdependently. When a person feels threat, for example, if the person's coping resources are enough to overcome the difficulties, the degree of threat appraisal may diminish. However, the situation that is not threatening may become so, when the coping

resources are found to be inadequate by the person or, the environmental demands are exceeding coping resources (Folkman & Lazarus, 1985).

Cognitive appraisals in the cognitive theory of stress and coping, not only determine the stressfulness of an event, but also determine the coping strategies that are used to handle that stressful event. Individuals' cognitive appraisals of stressor "...serve as key determinants of coping" (Chung, Langenbacher, Labouvie, Pandina, & Moos, 2001, p. 93). Cognitive appraisals predict coping better than the type of stressor. As different studies show, although the type of stressor accounts for relatively lower portions of variance (2-3 %) in coping, the cognitive appraisal of the stressor accounts for higher proportions of variance (17 %) in coping (cited in Chung, et al., 2001).

1.1.3 Coping

In addition to cognitive appraisals, coping is another crucial component of the cognitive theory of stress (Folkman & Lazarus, 1985). Together with appraisal, coping is seen as a mediator between the stress and its adaptational outcomes (Folkman, 1984). Folkman and Lazarus (1980) stated that "Coping refers to cognitive and behavioral efforts to master, reduce or tolerate the internal and/or external demands that are created by stressful transaction" (cited in Folkman, 1984, p. 843). In the process of stress, coping has three distinct features. First, it is process oriented, that is; it focuses on what a person actually thinks and does in a specific encounter. Second, it is contextual, meaning that it is influenced by a person's appraisal of the actual demands in the situation. Personal and situational variables together determine the coping efforts and options. Third, priory assumption is not made about what constitutes good or bad coping (Folkman, 1984).

In this view, coping has two major functions: Regulation of emotions, and the handling of the problem that is causing the distress. The former is

referred to as emotion focused coping and the latter is problem-focused coping. Emotion focused coping includes efforts to deal with an individual's emotional responses to a stressor. In problem focused coping, on the other hand, strategies are focused on the stressor itself. Two types of coping differ in the type of stressful events that they are used with. If the situation requires the control of the distressing emotions, emotion focused coping is used, as changing the meaning of the outcome of the event. In the problem focused coping, through problem solving, decision-making, and/or direct action, the troubled person environment relationship is controlled (Lazarus, 1993). Individual coping strategies that are used to handle the stress, fall in either problem focused or emotion focused coping styles.

Researchers found that, depending on personal and the situational determinants, both problem and emotion focused forms of coping are being used in stressful situations (Folkman et al., 1986). In the study of Folkman and Lazarus (1980), over 1300 stressful episodes were analyzed and they found out that both types of coping were used in 98 % of the episodes. Appraisal of the situation affects the type of coping that is going to be used. They reported an increase in the use of problem focus coping when the situation was appraised as changeable and the emotion focused coping when the appraisal was stable or resistant to change (cited in Folkman 1984).

Several studies showed the relationship between certain appraisals and coping styles. In these studies, for example, a positive correlation was found between threat appraisal and emotion focused coping, and challenge appraisal and problem focused coping (Mikulincer & Victor, 1995). Challenge appraisal predicted more problem solving and positive reappraisal coping (Bjorck, Cuthberston, Thurman, & Yung 2001). Upsetting and self interest appraisals which are stressful primary appraisals were found to be related to

disengagement strategies of coping which fall into the category of emotion focused coping (Portello & Long, 2001).

Consistent with the findings in the literature it can be concluded that harm/loss and threat appraisals lead to emotion focused coping styles whereas challenge appraisal leads to problem focused coping styles. However, although there is extensive research literature on cognitive appraisal and coping, the complete pattern and dimensions of this relationship have not been shown empirically where appraisals, emotions and coping relationship were simultaneously examined in a stress process. Some limitations of these studies could be mentioned: for example, many of them examined this relationship only in terms of correlations (Anshel & Wells, 2000; Dewe & Ng, 1999; Holaday & Warren-Miller, 1995; Mikulincer & Victor, 1995; Pennebaker, Colder, & Sharp, 1990; Portello & Long, 2001) among which some of them fail to consider other possible factors that may have a moderator effect on this relationship, such as personality variables, coping resources or the emotion component (Anshel & Wells, 2000; Dewe & Ng, 1999; Holaday & Warren-Miller, 1995).

The researcher of the present study further argues that, in the real life stressful events, besides mental evaluations, individuals give emotional reactions and describe themselves by using emotion words. In other words, in actual stressful experiences, emotions also take place. It is believed that, when emotions are considered in the stress process, the appraisal coping relationship can be better understood due to the emotions' possible moderator role.

1.1.4 Conceptualization of Emotions

Emotion has been defined as “a state of consciousness having to do with the arousal of the feelings, distinguished from other mental states, as cognition, volition, and awareness of physical sensation” (Neutfelt & Guralnik, 1988). As the dictionary definition of emotion suggests, it includes arousal,

which is unique in quality and different from other mental states. Not surprisingly, the conceptualization of emotion has been a controversial issue in the literature (Frijda, 1988; Lazarus 1991a; Lazarus, 1991b). It is seen that, the term emotion and affect were used interchangeably, the term affect was used as a broader term generally meaning negative affectivity. For example, Lazarus (1966) used affect and anxiety interchangeably. One possible reason for that is anxiety has been the focus of the work of many researchers and practitioners because of its relationship with adaptation or maladaptive behavior (Lazarus, 1966).

In addition to the use of affect and other emotions interchangeably, another problem includes the discrete emotions versus valence approach. In the latter, the emotions are grouped as positive and negative emotions. Although theoretical controversy still exists (Niedenthal, Halberstadt, & Innes-Ker, 1999), both approaches are used in research depending on the research question. While some researchers use discrete emotions (Lerner & Keltner, 2000; Roseman, Spindel, & Jose, 1990), others use emotions as negative and positive emotion clusters (Niedenthal, Halberstadt, & Innes-Ker, 1999; Hermal & Tomaka, 2001; McCarthy, Lambert, & Brack, 2001; Watson, Clark, & Tellegen, 1988; Zohar & Dayan, 1999).

When the emotions literature is reviewed, the problem of five basic emotions versus secondary or complex emotions categorization appears. Some researchers specified happiness, sadness, fear, anger, and disgust as basic emotions proposing that each of these emotions is physiologically and expressively distinct (Oatley & Johnson-Laird, 1987) and has a biological basis (Power & Dalgleish, 1999). Other emotions are considered to be complex emotions and it is believed that they are complex specifications of basic emotions (Frijda, Kuipers, & ter Schure, 1989).

Despite the conceptualization problems, there have been several attempts to theorise the emotion. The last and most widely accepted of the theories of emotion is the cognitive theory of emotions, which was proposed by Lazarus, Averill, and Opton in 1970 (cited in Mandler, 1975).

1.1.4.1 Cognitive Theory of Emotion

In the cognitive theory of emotion, “each emotion is characterized by its own specific pattern of response which includes, physiological, behavioral and cognitive components” (Mandler, 1975, p. 105). Cognitive theorists see emotions as “relational response syndromes” which require the analysis of total the situation. As Lazarus and colleagues stated

The important theoretical and research task in a cognitive theory of emotion is to identify the nature of the relevant cognitive processes, to establish their determinants in the stimulus configuration and in the psychological structure of the individual, and to link these to emotional arousal and reduction as well as to the quality of the emotional experience (cited in Mandler, 1975, p. 107).

Similar to the role of cognitive appraisals in the cognitive theory of stress, in the cognitive theory of emotion, the core of the theory centers around the appraisal of eliciting events on different dimensions, to the extent that, later, this theory is called the appraisal theory of emotion (Roseman, Spindel, & Jose, 1990). In this sense, each emotional experience corresponds to a cognitive structure and this cognitive structure is composed of a pattern of values on different dimensions (Ortony, Clore, & Collins, 1988).

The relationship between appraisal and emotions has been examined and supported in the literature (Hazerbroek, Howells, & Day, 2001; Frijda, Kuipers, & ter Schure, 1989; Lerner & Keltner, 2000; Roseman, Spindel, & Jose, 1990; Smith & Ellsworth, 1985; Zohar & Dayan, 1999). Studies showed

that different emotions correspond to certain appraisal dimensions. In these studies, researchers named the appraisal dimensions differently. Valance, certainty, expectedness, importance, agency, familiarity, interestingness (Frijda, Kuipers, & ter Schure, 1989); pleasantness, responsibility/control, certainty, attentional activity, effort, situational control (Smith & Ellsworth, 1985; Lerner & Keltner, 2000); situational state, motivational state, power, probability, legitimacy, agency (Roseman, Spindel, & Jose, 1990) are some of the commonly used cognitive appraisal dimensions.

Although the cognitive theory of emotion has evolved since 70's by considering many other factors, and although there is no consensus on the definition of emotion (Frijda, 1988), the core theme is still intact.

...experience of emotion is closely associated with the organism's appraisal of its environment along several cognitive dimensions, and that a close study of these dimensions will help us to understand not only the nature of distinct emotional states, but also their interrelations (Smith & Ellsworth, 1985, p. 817).

Smith and Ellsworth (1985), in their experimental study of cognitive appraisal and emotions, identified the relationship between 15 emotions: happiness, sadness, fear, anger, boredom, challenge, interest, hope, frustration, contempt, disgust, surprise, pride, shame, and guilt and 6 cognitive dimensions (appraisals); pleasantness, responsibility/control, certainty, attentional activity, effort, situational control. The results of the study show that "people's emotions are intimately related to their cognitive appraisals of their circumstances" (Smith & Ellsworth, 1985, p. 831). Tomaka, Blascovich, Kelsey, and Leitten's (1993) experimental study of threat and challenge appraisal showed that, cognitive appraisals generated by subjects were related to the experience of emotion and patterns of this effect indicated the importance of establishing the link between appraisal and emotional outcome.

Roseman, Spindel, and Jose (1990), provided empirical support for their hypothesis that a particular appraisal elicited 16 distinct emotions. They found that, positive emotions such as joy, relief, hope, affection and pride occurred in situations that were appraised as motive consistent, negative emotions such as disgust, distress, fear and frustration were elicited in situations that were appraised as motive inconsistent. These empirical studies show that emotions can be predicted by evaluation of situational variables in the environment.

1.1.5 Theoretical Framework of the Study

When the coping and emotion literature (also, motivation and adaptation literature) are reviewed, two clusters of studies are recognized. One cluster of research focuses on cognitive appraisal and coping relationship (Bjorck et al., 2001; Blalock & Joiner, 2001; Chung et al., 2001; Folkman & Lazarus; 1986; Mikulincer & Victor, 1995; Pakenham, 2001; Portello & Long, 2001; Thornton, 1992), and the other cluster, on cognitive appraisal and emotion relationship (Hazerbroek, Howells, & Day, 2001; Lerner & Keltner, 2000; Skinner & Brewer, 2002; Smith & Ellsworth, 1985; Roseman, Spindel, & Jose, 1990; Zohar & Dayan, 1999). Although none of them examined the emotion-coping relationship together with the cognitive appraisal of situation and secondary appraisal of the event, results of the recent studies (Dunkley & Blankstein, 2000; Herrald & Tomaka, 2001; McCarthy, Lambert, & Brack, 1997) seemed to suggest that, dimensions of cognitive appraisal of the situation should be included in the studies since they might provide information in understanding the role of emotions in the coping process.

The present study aims to integrate two theories, cognitive theory of stress and coping and, cognitive theory of emotions by embedding the appraisal–emotion relationship component of the latter in the former. By the attempt to do so, the researcher of the present study aims to bridge a gap in the interactional model of stress and coping that has not been given much

emphasis, the role of emotions. Since, in the cognitive theory of emotion, cognitive appraisals determine the emotion, and in the cognitive theory stress, cognitive appraisals determine the coping, we can expect that, emotions might have an effect on coping in the stress process. In other words, emotions may intervene in the relationship between cognitive appraisal and coping. Especially, when one of the functions of coping, regulations of emotions is considered, the effect of emotions on coping becomes clear.

In order to examine the role of emotions in coping effectively, both the theoretical framework, methodologies, used in the two clusters of research, and the suggestions of them that were mentioned above were taken into consideration.

When the aim and the theoretical basis of this study are considered, the role of emotion and appraisal in coping, the cognitive theory of emotion serves the research's aim best. Very similar to cognitive (interactional) theories of stress, the cognitive theory of emotion postulates that emotion is a process and its valence and intensity (perhaps meaning) are determined by the person's evaluation process. The researcher of this study also believes that, no matter what the definitions, structures or dimensions of emotion are, it is experienced and expressed in the context and in the light of certain evaluations (appraisals). In a broader sense, in the cognitive theory of stress and coping, emotion may have an important role as mediator or even independent factor in determining the coping option. Because of cognitive appraisals' determinant role in both theories, it is hypothesized that, there is a robust relationship between emotions experienced and coping strategies used.

In the present study, two kinds of appraisals, secondary appraisal and the cognitive appraisal of the situation were used together simultaneously. In the secondary appraisal of the event, harm/loss, threat and challenge, the

person evaluates the event in terms of his or her well being (Folkman & Lazarus, 1985). In the cognitive appraisal of the situation, the person evaluates the situation on cognitive dimensions, which are determinants of the emotion (Roseman, Spindel, & Jose, 1990; Smith & Ellsworth, 1985). To this end, by using Roseman et al.'s (1990) six cognitive appraisal dimensions that predict emotions and Folkman and Lazarus's (1985) secondary appraisals that determine coping, the present research was able to focus on the characteristics of the situation that lead to both coping and emotions.

Actually, the role of emotions in coping is not a very new idea. In their appraisal-coping study, Folkman and Lazarus (1985) used some of the emotions and they named them as threat, challenge, harm and benefit emotions. Further, they emphasized only the relationship between appraisals and these four types of emotions but not coping. Even they noted "There are no compelling theoretical or empirical bases for predicting the relations between specific types of coping and harm and benefit emotions" (Folkman & Lazarus, 1985, p. 162). However, recently, Folkman, one of the two theorists who proposed cognitive theory stress stated that, "Further work that specifically addresses the distinction between coping processes that are associated with positive as opposed to negative emotions is clearly needed" (Folkman & Moskowitz, 2000, p. 117). Therefore, the researcher of the present study believes that, an empirical study, where both types of appraisals -secondary and situational-, emotions experienced, and coping are examined in the face of real life stressful events, bridges a gap in the cognitive (interactional) model of stress.

In order to examine the relationship between cognitive appraisals and emotions elicited after a stressful event, present research adopts Smith and Ellsworth's (1985) and Roseman, Spindel, and Jose's (1990) studies as a theoretical base for the research. The term cognitive here is used in the same

way as the coping researchers such as Lazarus (1991b) use it in general terms; implying mental evaluations (cited in Smith & Ellsworth, 1985).

In terms of emotions, similar to the Smith and Ellsworth's (1985) study, the present research relied on self-report data of the individuals and included the same fifteen distinct emotions that researchers used in the experiment. The results of Smith and Ellsworth's (1985) experiment revealed that, positive and negative emotions are appraised differently from each other and might be used as clusters that is, as positive versus negative emotions. The use of emotions as clusters was also recommended by Folkman and Moskowitz (2000) by stating the occurrence of both positive and negative emotions in stressful situations.

According to interactional models, in the stress process, when we encounter an event, we evaluate that event through cognitive appraisals, decide that an event is stressful for us, and use different strategies to cope with the stressful event. In the theoretical formulation, the role of emotions was introduced in the definition of emotion focused coping, i.e., when the situation requires the control of the distressing emotions, emotion focused coping is used, as changing the meaning of the outcome of the event (Folkman & Lazarus, 1985). However in more recent reformulation, although Lazarus stated that "Coping shapes emotion..." he did not clarify the role of emotion in coping (Lazarus, 1993, p. 16).

When the recent studies that focused on coping-appraisal-emotion relationship were examined, it was seen that none of them examined this relationship in real life stressful events with actual coping strategies as the present study examined. For example, Herrald and Tomaka's (2001) laboratory study did not focus on real life stressful event, did not measure the emotions caused by appraisals, and measured the coping strategies used in the computer task only. Similarly in another study (Skinner & Brewer, 2002), the researchers

used hypothesized scenarios and focused on the effect of coping expectancy on emotions. McCarthy, Lambert, and Brack (1997), on the other hand, measured coping resources rather than the coping strategies used. Besides, they examined the effect of coping on emotions, not the effect of emotions on coping. In the present study, the coping strategies that participants actually used to handle the stressful event were assessed in order to obtain a more realistic picture of appraisal-emotion-coping relationship.

In addition to exploring the relationship between cognitive appraisals, emotions and coping in response to stressful event in the stress process, this study introduces a new component to the stress process; cognitive appraisal of emotion.

The cognitive appraisal of emotion along the dimensions of cognitive appraisal of the event might be another type of appraisal in the stress process and might have an effect in determining coping. The researcher of this study believes that, cognitive appraisal of emotion, which is similar to the cognitive appraisal of situation, may contribute to the judgment, decision-making and consequently behavior, which correspond to coping in the stress process. Recent studies, (Lerner & Keltner, 2000; Skinner & Brewer, 2002; Tiedens & Linton, 2001) which examine the effect of emotion on judgment and information processing, might be considered as empirical support for the presence of such an appraisal. These studies show that, there is a bi-directional relationship between emotion and cognition (Lerner & Keltner, 2000) and it is possible to measure the individuals' perceptions of emotion at least as beneficial-harmful (Skinner & Brewer, 2002) and certain-uncertain (Tiedens & Linton, 2001).

In the present research in order to examine the role of emotions in coping, two methodological issues that were mentioned by Roseman, Spindel,

and Jose (1990) were tried to be overcome. The first problem that they mentioned was the use of hypothetical scenarios. The second problem was focusing on the assessment of appraisal while feelings and emotions not the appraisals that cause the emotion. Researchers stated that they overcome this problem by asking participants about appraisals of events that caused the emotions rather than asking them about the appraisals while feeling the emotions.

The first methodological problem was also mentioned by coping researchers “But because constraints of the laboratory limit researchers’ ability to simulate the meaning or duration of serious real-life stressors, we strongly encourage pursuing research under real-life circumstances, with all their complexity” (Folkman & Moskowitz, 2000, p. 117). In the present study this problem was overcome by the use of real life stressful events that participants actually experienced. Beyond its theoretical implications, since this research aims to find out a link between emotion and coping and hence a working knowledge regarding the nature of this relationship that can be used in counseling sessions, real life stressful events actually experienced by university students were used to better understand the appraisal, emotion coping relationship in the real life.

In the present study the second problem that Roseman et al. (1990), mentioned was overcome by asking participants to appraise the stressful event first, independent of the emotions. Later, after their appraisals, participants’ emotions were assessed. This method was followed by considering the suggestions of McNally (2001), who warned the researchers about making post hoc faults by assuming a relationship between variables and assessing them in such a sequence that produce an artificial cause effect relationship.

To conclude, the researcher of the present study believes that the nature of appraisal coping relationship cannot be fully understood unless appraisal, emotions and coping relationship are simultaneously examined in real life stressful events. In other words, it is believed that emotions have an important role in predicting the type of the coping style that individuals use to deal with the stressful events.

1.2 Purpose of the Study

The primary aim of the current study was to understand the relationships of appraisal, emotion and coping in the stress process. The relationship between cognitive appraisals, subjective emotions experienced after cognitive appraisals, cognitive appraisals of emotions and their possible combined effect on coping strategies were examined in the interactional model of stress with the expectation to find out a pattern of relationship regarding the type of cognitive appraisal, types of emotions (positive-negative) and type of appraisal of emotion and coping styles.

Specifically, the present research tries to answer following questions:

Whether there is a robust relationship between secondary appraisal of the event along harm/loss and threat appraisals and, emotions experienced after a real life stressful event.

Whether there is a relationship between appraisal of the stressful event along six cognitive dimensions and emotions experienced after the event.

Whether emotions experienced after a stressful event have any affect on the coping style used to cope with the event.

Whether cognitive appraisal of emotions has any effect on the coping style.

There are two hypotheses of the research:

1. Negative emotions directly determine emotion focused coping and positive emotions directly determine problem focused coping.
2. Appraisal of emotion determines both problem focused and emotion focused coping styles.

1.3 Significance of the Study

The main purpose of this study is to examine the relationships of cognitive appraisals, subjective emotions experienced after cognitive appraisals, cognitive appraisals of emotions and their possible combined effect on coping and, particularly to demonstrate the role of emotions in the stress process within the theoretical framework of interactional model of stress. It is believed that, the results of the study will bridge a gap in this model where the role of emotions was not given enough emphasis. “The attempt to abandon emotion as a scientific study - either by subsuming it within other concepts or by arguing that, being nonmaterial, emotion requires no explanation - seems to me to have been an historical aberration” (Lazarus, 1993, p.18). This research, tries to combine the cognitive theory of emotion and the stress process, through the use of cognitive appraisals and emotions simultaneously. Since in both areas, appraisals have central role, it is believed that, the results will show a link between appraisal-emotion and coping. The introduction of a new component, cognitive appraisal of emotion, contributes to the interactional model of stress by further examining the role of emotions. One additional asset in terms of the theoretical significance of the present research is the use of positive, as well as negative emotions and their relationship with appraisals and coping simultaneously.

Secondly, to the knowledge of researcher of the present study, the cognitive appraisal of situation and its relationship with emotions have not been studied with a Turkish sample yet. Although extensive theoretical arguments about emotion and the account of appraisal-emotion relationship are far beyond the scope of this study, this research also provides information about the relationship between cognitive appraisals and emotions among Turkish university students, therefore it will also have a pioneering role in this area.

In terms of its practical implications, the results provide us with the information about the appraisal and emotion relationship in the face of real life stressful events.

If we know how a person sees his or her relation to the environment, we are better able to identify that person's emotional state; conversely, if we know what a person is feeling, we can deduce much about how that person is interpreting his or her circumstances (Smith & Ellsworth, 1985, p. 831).

By the same token, if, as a counselor, we know the person's state of feelings, which in most of the counseling sessions we focus on, as part of the cardinal rule, *emphasizing the here and now*, we will better understand the person's tendency to interpret his or her circumstances. The present study aims to make even one further deduction, which is our ability to infer a person's coping behaviors from his or her emotional state. As Weiner (1980), stated cognitive attributions guide people's feeling but emotional reactions provide the motor and direction for behavior.

Finally, when the long term negative effects of the use of emotion focused coping in adolescence is considered (Endler, Parker, & Butcher, 2003),

the results of the study will provide knowledge about the strategies that counselors can use for clients to change their coping strategies from emotion focused styles to problem focused styles.

1.4 Definition of Terms

The usage of the basic terms of the present study, stressful event, stress level, secondary appraisal of the event, cognitive appraisal of the situation, emotions, cognitive appraisal of emotions and coping styles were presented below as they were conceptualized in this research.

Stressful event: Any event or situation that a person defines as stressful.

Stress level: The degree of pressure, tension and distress experienced by the individual, as a result of a specific event.

Secondary appraisal of the event: Individuals' evaluation of the stressful event with the perception of harm/loss or threat (Folkman & Lazarus, 1985).

Cognitive appraisal of the situation: Mental evaluation of the situation on six cognitive appraisal dimensions; situational state, motivational state, power, probability, legitimacy, and agency. Cognitive appraisal of the situation is also called situational appraisal (Smith & Ellsworth, 1985; Roseman, Spindel, & Jose, 1990).

Emotions: Names of subjective feeling states that people use to explain their affective experience. In the present study emotions were the participants' self report accounts of their feelings after a specific stressful event (Smith & Ellsworth, 1985).

Appraisal of emotion: Mental evaluation of an emotion that a person experienced after a specific event on six cognitive dimensions; situational state, motivational state, power, probability, legitimacy, and agency.

Coping styles: Behaviors and thoughts that are used to deal with the stressful situation. In the present study, two main styles were used: emotion focused coping style and problem focused coping style. Emotion focused coping includes submissive, helpless styles and seeking social support strategies. Problem focused coping includes problem solving, self confident and optimistic approaches (Şahin & Durak, 1995).

CHAPTER II

REVIEW OF THE LITERATURE

Stress has long been studied extensively in the field of psychology, counseling, and health literature particularly because of the research evidence supporting its relations with several dimensions of well being (Hersen & Turner, 1991; Kaplan & Sadock, 1988; Pennebaker, Colder, & Sharp, 1990). Stress has been defined differently by different views and theories mostly based on certain proposed models of stress. There are mainly three models of stress; stimulus based, response based, and cognitive-interactional models.

According to Matheny et. al (1986), stimulus based models view stress as a psychosocial demand, which leads to personal tension. In these models, stimuli or events are referred to as stress, and the body's response to it is referred to as tension or strain. These models argue that if stress is in the form of clustering life events, it leads to stress symptoms such as illness.

Lazarus (1993), stated that, in response based models, stress is seen as the response that a person gives when s/he faces the external stimuli. Response based models emphasize physiological mobilization for handling stressful situations. According to these models, a person exhibits certain responses like, an increase in heart rate, sweating, trembling, and frequent urination. These are mostly the products of the automatic nervous system. It is a predictable set of hormonal and neurological reactions to stimuli that disrupt homeostasis.

When the two models were compared, it was seen that, while the stimulus based models failed to consider the response side of the event, the response based models have not specified stimuli or events that may lead to a stress response. It can be concluded that personal differences and psychological evaluation of stressors are not considered in either of these models. In other words, both of the models ignore the role of interaction between the person and events.

As it was mentioned in the introduction chapter, the recent theory of stress and coping in interactional models of stress is the cognitive theory of stress and coping (Folkman & Lazarus, 1985), which includes two important components: appraisal and coping. They are interdependent and several studies have been conducted to examine their relationship.

2.1 Cognitive Appraisal and Coping

Before presenting the studies examining appraisal and coping relationship, it is useful to briefly summarize the types of appraisals and coping because, different terms were used across studies to name appraisal and coping. Therefore in the following two sections first, the conceptualization of and second, the research findings regarding appraisal and coping are presented.

2.1.1 Conceptualization of Appraisal and Coping

As it was mentioned in the introduction section, cognitive appraisals in the stress process are mainly in two forms, primary and secondary appraisals (Folkman et al., 1986). However, when the literature is reviewed, one can easily recognize that, different labels have been used for these two types of appraisals by the researchers.

For example, upsetting and self interest appraisals were used as primary appraisal (Portello & Long, 2001), control and threat as secondary appraisals (Pakenham, 2001), possibility of change (Folkman & Lazarus, 1986), appraisal of difficulty and control as secondary appraisals (Folkman & Lazarus, 1985), challenge and threat appraisals as secondary appraisal (Chung et al., 2001), goal relevance, goal congruence and goal content as types of primary appraisals, decisions regarding blame or credit, coping potential and future expectations as types of secondary appraisals (Lazarus, 1991a). To this end, in some studies (Creasey & Hesson-McInnis, 2001; Zohar & Dayan, 1999), appraisals checklists consisting of several adjectives designating, positive-negative appraisals like the one that was developed by Folkman and Lazarus, (cited in Scherer & Drumheller, 1993) were also used.

In the studies which examine the relationship between appraisal and emotion, on the other hand, we see the use of various types of situational appraisal dimensions. While some studies use a variety of cognitive appraisal dimensions together (Smith & Ellsworth, 1985; Roseman, Spindel, & Jose, 1990; Frijda, Kuipers, & ter Schure, 1989), other studies used primary appraisal as, degree of personal stakes (Zohar & Dayan, 1999), motivational relevance, motivational congruence, (Hazerbroek, Howells, & Day, 2001), certainty-uncertainty (Tiedens & Linton, 2001), threat (Anshel & Wells, 2000) and, perceived level of risk (Lerner & Keltner, 2000), and, secondary appraisals as perceived task demand and threat (Herrald & Tomaka, 2001).

Similar to the variance in the use of appraisal dimensions and names, coping styles and individual coping strategies are used differently in different studies. In addition to emotion versus problem focused coping styles, subtypes and dimensions can be used to assess the individual coping strategies. These subtypes and strategies are generally obtained as a result of the factor analysis of the responses to coping scales and studies generally showed that these

subtypes or strategies may vary from sample to sample (e.g., Alkan, 1998; Connor-Smith et al., 2000). Some of these strategies are named as self confident, optimistic, submissive, helpless styles and seeking social support (Şahin & Durak, 1995); confrontive, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving, positive reappraisal (Folkman & Lazarus, 1988); problem solving, information seeking, cognitive restructuring, wishful thinking, blaming others, resigned acceptance (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001).

Although subtypes of coping are also used in coping studies (Alkan, 1998; Folkman & Lazarus, 1985; Şahin & Durak, 1995), in their recent review of coping, Compas et al. (2001) stated that, dimensional approach of coping is more widely used, and among them emotion versus problem focused coping is the most widely used dimensions. They also mentioned that, broad dimensions of coping serve as organizing principles, and there is little consistency in the application of subtypes of coping (Compas et al., 2001).

Despite their various names and types, the core of the conceptualization of appraisal and coping did not change. In all of their usages, appraisals referred to the mental evaluations and in all of their usages, coping referred efforts to handle the stressful situation.

In the following section, studies that examined the relationship between various types of appraisal and coping in different populations are presented. In these studies, appraisal has been examined as either the main predictor of coping or a significant moderator in stress coping relationship.

2.1.2 Research on Appraisal and Coping

The research investigating the relationship between appraisal and coping has been carried out with different populations. The relationship between appraisal and coping was examined in woman managers working at university (Portello & Long, 2001). In this study, women managers' psychosomatic distress level was found to be affected by their primary appraisal. Specifically, upsetting and self-interest appraisals led to greater distress both directly and indirectly. Both type of appraisals led to increase in the use of disengagement strategies and in daily hassles, thus affecting distress both indirectly and directly.

In another study (Pakenham, 2001), which examined the relationship between adjustment to MS caregiving and social support, appraisal and coping strategies, it was found that appraisal was the strongest predictor of caregiver's adjustment. Specifically, higher control and lower threat appraisals were found to be related to better adjustment.

Bjorck et al. (2001) studied cognitive appraisal, coping and distress among ethnically different groups: Korean Americans, Filipino Americans, Caucasian Americans. Results indicated that for all participants, regardless of their ethnic background, challenge appraisal predicted more problem solving and positive reappraisal coping.

In a study (Mikulincer & Victor, 1995), threat appraisal was found to be positively correlated with emotion focused and distance coping. The results also yielded significant correlations between challenge appraisal and support seeking coping; secondary appraisal and problem focused coping. Similarly, in another study (Anshel & Wells, 2000), the results revealed that challenge appraisal was associated with approach coping and, threat appraisal was

associated with avoidance coping in basketball players during stressful events in the game.

Another example of the relationship between certain appraisals and the coping come from a study, which was conducted with depressed people (Folkman & Lazarus, 1986). Depressed and non-depressed people were found to be different in their appraisals of possibility of change and the subsequent coping. Depressed people used more wishful thinking, both problem and emotion-focused coping and seeking emotional support than non-depressed people.

Blalock and Joiner (2000), examined the moderating effect of gender and avoidant coping on the negative life events, and their effect on depressive symptoms in college undergraduate students. The study, where, participants' anxiety and depression symptoms, negative life events, and actual coping strategies were measured by self report inventories four times in three week intervals, revealed that, increased number of negative life events significantly predicted the increase in depressive symptoms among females. Results of repeated measures showed that, two avoidant coping subscales; cognitive and behavioral avoidance subscales emerged as lower level categories of avoidant coping. Cognitive avoidant coping strategies were found to be the significant predictors of anxiety and depression scores in females but not in males. Behavioral avoidance coping was not found to be related to any of these symptoms. The results of this study suggested that, coping strategies alone were not enough to make significant predictions about psychological well being, specifically, anxiety and depression.

Chung et al.'s (2001) study investigated the changes in the appraisal, stressful event type, coping and psychological outcomes in alcoholic patients in six, and twelve months intervals. The study was conducted with 133 alcoholic

patients who were recruited from addiction treatment centers. The challenge and threat appraisals of the participants were assessed by appraisal scale and coping responses that they use were measured by Coping Responses Inventory (CRI) developed by Moos in 1993 (as cited in Chung et al., 2001), and focused on approach and avoidance types of behavioral and cognitive coping responses, which are similar to problem and emotion focused coping strategies. Patients' severity of alcohol problems and psychosocial functioning scores were used as treatment outcomes. Results of this study showed that, the type of the stressful event did not predict coping responses in any of the assessments. Challenge appraisal predicted cognitive and behavioral approach coping and, threat appraisal predicted cognitive and behavioral avoidance coping at 6 months assessment. Similarly, at 12 months assessment, threat appraisal predicted cognitive and behavioral approach coping and, challenge appraisal predicted decrease in cognitive avoidance coping. At 12 months assessment, behavioral approach coping, which included problem focused coping strategies, predicted better psychosocial functioning. Similarly, decrease in cognitive avoidance coping was associated with better psychosocial outcomes. The results suggested that, as the threat appraisal decreased, the use of avoidance coping also decreased, and, as the challenge appraisal increased, so did the use of approach coping strategies. The changes in participants' appraisal and coping types suggested that cognitive behavioral interventions could be used to change the appraisal and subsequent coping strategies. It was concluded that, appraisals were the most significant predictor of coping.

The results of all these studies seemed to suggest making a general conclusion that appraisals are important determinants of coping and, as the appraisal types change, the coping styles also change since these patterns were found to be consistent across different groups of participants.

2.2 Cognitive Appraisal and Emotion

Similar to the appraisal-coping studies, studies examining the appraisal-emotion relationship revealed the important role of cognitive appraisals in predicting emotions. Although the area of study is slightly different from stress and coping literature, the role of appraisals of situation in determining the emotions is worth mentioning in order to enhance the understanding of the role of emotions regarding the stress and coping process. Before presenting the empirical studies of appraisal and emotion, the historical background of emotion theories are summarized below.

2.2.1 Historical Overview of the Theories of Emotion

Theories of emotion can be grouped under three major headings; physiological, two factor and cognitive theories. Mandler (1975) provided an overview of emotion theories. According to him, the early emotion theories focused on the physiological arousal, tracing their roots back to 1800's. These theories emphasized the consequences of perception of skeletal, visceral, and muscular responses. They postulated that, perception of these bodily responses lead to emotions. As James (1884) noted "Our feeling of the (bodily) changes is emotion" (cited in Mandler, 1975). In this view of emotions, only basic clusters were mentioned such as pleasant-unpleasant in addition to fear and anxiety. Later, another physiological theorist Wegner (1950) stressed the importance of experience of emotions and pointed out that, in addition to basic positive negative affectivity clusters, a variety of emotions such as jealousy and pride are worth paying attention to (cited in Mandler, 1975). Although the importance of the verbal report of emotional experience was also stressed, Wegner's main interest was on autonomic nervous system (ANS) activity and visceral responses as emotions. Mandler (1975) mentioned that Wegner's use of the term "emotional complex" shows his recognition of both stimulating conditions and resultant bodily and mental activities.

The second line of theories can be grouped under the heading of two factor theories. In this view, physiological arousal alone does not produce the full-blown emotion unless it is accompanied by relevant cognitive evaluation. According to Schachter (1959), arousal causes an evaluative need so that the person seeks an explanation for the physiological reactivity. This group of theories has seen physiological arousal and cognitive appraisals as independent but interacting factors (cited in Lazarus, 1991b).

The last group of theories are called cognitive theories of emotion, and similar to cognitive theory of stress and coping, these theories viewed emotions as processes (Frijda, 1988; Lazarus, 1991a). Frijda (1988), for example, defined emotion as a process which was composed of sub processes. These sub processes were named as; event coding, appraisal, significance evaluation, action readiness and, action (Frijda, Kuipers, & ter Schure, 1989). According to Lazarus (1991a), in the cognitive theories of emotion, there are two important implications of emotion studies. First, emotion cannot be defined in terms of only environmental response nor the conflict between impulses. Second, quality and intensity of emotion depend on many mediating variables, primarily cognitive appraisals. Roseman, Spindel, and Jose (1990), stated that the basic postulate of cognitive theories of emotion is cognitive evaluations of events, which determine the emotion

Although emotions were defined differently by different theories, there are some common factors that need to be mentioned in order to understand the possible role of emotions in the stress and coping process. According to Oatley (1992), the first common factor is the attentional property; that is, an emotion requires conscious preoccupation. When people are in a particular emotional state it is difficult to stop thinking about it or to switch to another emotion. Secondly, emotions are accompanied by bodily changes. People experience and express emotions together with physiological changes such as increase in

heart rate and vocal changes. The third common factor is called action readiness. Frijda, Kuipers, and ter Schure (1989) defined action readiness as the persons' state of readiness to interact with the environment. Moving toward and moving against are examples of different action readiness states. Action readiness is thought to be an important link that connects the experience and the behavior. Although the controversy on the conceptualization and measurement of emotion continues, recent studies seem to consider emotions as "subjective experiences" (Smith & Ellsworth, 1985) that are distinct from one another and closely related with the appraisal of situation.

2.2.2 Empirical Studies Regarding Emotion

Two classical studies of cognitive theory of emotions that support the relationship between appraisal of event and elicited emotions will be presented in more detail, because, these studies served as the theoretical and the methodological basis for the present research.

The first study that provides support for the appraisal-emotion relationship is an experimental study that was conducted by Smith and Ellsworth (1985). The main aim of this study was to find out the patterns of relationship between certain cognitive appraisals and elicited emotions. Their aim was to understand both the nature of a distinct emotional state and the interrelations of emotional states. The important aspect of the study was seeing emotions as self report accounts of the participants, and secondly, using the term cognitive as a broad rather than strict term. In their so called "a new dimensional approach", researchers selected six cognitive appraisal dimensions that were previously used and supported. These dimensions were pleasantness, anticipated effort, certainty, attentional activity, self-other responsibility/control, and situational control. The study was carried out with 16 undergraduate university students and participants were asked to remember emotional experiences. Participants were asked to remember an experience in

which they felt one of the 15 emotions presented as happiness, sadness, fear, anger, boredom, challenge, interest, hope, frustration, contempt, disgust, surprise, pride, shame, and guilt and, to describe the event in detail, explain the emotion in detail, pose the facial expression of the emotion and answer the cognitive appraisal dimension questions. Participants repeated the same procedure for all of these 15 emotions.

In the analysis of Smith and Ellsworth's study (1985), the appraisal dimensions were subjected to both principal component analysis and discriminant analyses. Results revealed that legitimacy and pleasantness dimensions did not differentiate significantly. Similarly, responsibility and control dimensions did not differentiate. Certainty, anticipated effort, situational control, and attentional activity dimensions, on the other hand, emerged as distinct dimensions. Finally, perception of obstacle dimension was not found in both analyses consistently. When the appraisal scores for each emotion were compared, the results showed that emotions might be grouped and compared along the cognitive appraisal dimensions. Happiness and pride for example, were found to be very similar to each other in terms of cognitive appraisal dimensions; pleasantness, anticipated effort, certainty and attentional activity, i.e., participants wanted to pay attention to the emotion. Similarly, shame and guilt, anger and contempt were similar in terms of the appraisal dimensions. Other emotions were characterized by a unique pattern of cognitive appraisal. Researchers claimed that their study demonstrated the strong relationship between the appraisal of the event and emotion in reaction to the event. It was suggested that further research should examine the conditions and other possible characteristics of conditions that may also contribute to the formation of the emotion experienced.

Smith and Ellsworth's (1985) study contributed to the present research in two main areas. First, as they did, the present research used cognitive

appraisals as a general term as Lazarus used, meaning the mental evaluations (Lazarus, 1991b). Second, it relied on the self report data of participants and included the same distinct emotions that researchers used in the experiment. Their study also revealed that positive and negative emotions are appraised differently from each other. However, within themselves each category of emotions has a similar pattern in terms of cognitive appraisal dimensions, and therefore, can be used as clusters, that is as positive versus negative emotions.

The second classical study, further proves that the relationship between appraisals and emotions is a strong one, even causal. Roseman, Spindel and Jose (1990) tested the hypothesis that particular appraisals of events elicit discrete emotions. The main objective of the study, in accordance with the cognitive theory of emotions, was to show empirically the relationship between particular appraisals and particular emotions corresponding to these appraisals. Situational state, motivational state, power, legitimacy, probability and agency were determined as the appraisal dimensions to predict 16 discrete emotions (8 pairs); joy/relief, affection/pride, hope/surprise, disgust/distress, sadness/fear, unfriendliness/anger, frustration/shame, and regret/guilt. The secondary objective of the study was to overcome prior methodological problems; use of hypothetical or typical emotional events and appraisals made while feeling an emotion. To overcome these two methodological problems, researchers used the actual emotional experiences of participants and asked participants what caused an emotion.

In the study, participants answered the questions in a written questionnaire. On each questionnaire, only 2 of 16 (1 of 8 pairs) emotions were included and participants were randomly assigned to questionnaires. Therefore, each participant was asked to remember an actual event in which she/he had experienced the particular emotions given in his/her questionnaire. Participants were also asked to write down the event briefly to enhance the recall of the

experience. Therefore, each participant recalled two events in which, two emotions were experienced. Lastly, for two emotion eliciting events, the participants answered questions that measured the appraisal of emotion eliciting event. In the results, for each emotion, an appraisal score was obtained and these appraisal scores were compared across 16 discrete emotions. The results showed that there were significant differences between emotions in situational state, motivational state, power, probability, legitimacy and agency dimensions. Situational state was found to be differentiating the negative and positive emotions. As can be expected, when the situation was appraised as positive; joy, relief, affection and pride (positive emotions) occurred, when the situation was appraised as negative; disgust, distress, sadness, fear, frustration, unfriendliness, anger, shame, guilt and regret (negative emotions) occurred. Motivational state appraisal differentiated joy from relief and, sadness from disgust and distress. Joy was experienced when the motivation was to get something positive from the situation, whereas relief was experienced when the motivation was to get rid of something negative. Similarly, sadness was experienced when the motivation in the situation was to get reward and, disgust and distress were experienced when the motivation was to avoid punishment. As for the probability appraisal, when the situation was appraised as certain, the resulting emotion was joy and, when the situation was appraised as uncertain, the corresponding positive emotion was hope. For negative emotions, uncertainty appraisal was not consistent across emotions. Power appraisal was significantly different for positive and negative emotions in general only, but failed to differentiate among discrete emotions. When participants felt themselves powerful they reported positive emotions and when they felt powerless they reported negative emotions. Similarly, legitimacy appraisal yielded inconsistent results. Frustration, anger and regret were the corresponding emotions when the participants believed that they did not deserve to experience the event. In shame and guilt too, participants believed that they deserved a positive outcome. In the last appraisal dimension, agency,

when other people were seen as the source of the event, anger and unfriendliness were reported. When the person saw himself or herself as the source of the event, the corresponding emotions were pride, shame, guilt and regret. When the circumstance agency was seen as the cause of the event, relief and sadness occurred. When the circumstance agency was not seen as the source of the event, pride, anger, shame and guilt were experienced. To summarize, this study supported the hypothesis that certain appraisals lead to the experience of certain emotions. Motivational state, situational state, power and probability dimensions were more consistent in predicting emotions than legitimacy and agency dimensions.

Roseman et al.'s (1990) study contributed to the present research in several ways. First, it revealed that six appraisal dimensions can be used both in predicting emotions and also, some dimensions of situational appraisals such as situational state, motivational state and power which have great similarities with secondary appraisals in the interactional model of stress and coping; specifically challenge appraisal and coping expectancy. Therefore, six dimensions of situational appraisal were decided to be used in this research. Second, the methodological problems that they mentioned were tried to be overcome by using real life stressful events in the present study. Further, the present study overcome one methodological problem of Roseman et al.'s (1990) study, that is the use of discrete emotion pairs and participants' appraisal of the situation after they remembered the emotion. In the current study, the participants first remembered any stressful event they have recently experienced, later appraised the situation independent of the emotions and finally reported their emotions on a checklist. It was believed that this method to prevent the post hoc faults of assuming the appraisal-emotion sequence during an event (McNally, 2001).

These two studies showed the relationship between certain appraisal dimensions and emotions in the cognitive theory of emotions framework. Unfortunately, other studies that examined the relationship between primary and secondary appraisals (harm/loss, threat and challenge) and, emotions which are more relevant in terms of the appraisal-emotion relationship in the stress process, are limited in number and scope.

For example, Zohar and Dayan (1999), examined the relationship between appraisals and their effect on affective response. In their study, participants were given three written scenarios describing stressful episodes. In their written descriptions, researchers manipulated the level of primary appraisal (the degree of personal stake; high, moderate, low) and availability of coping options (high, moderate, and low). The results of their experiment showed that emotion intensity is determined by cognitive appraisal. The effect of appraisal (level of personal stakes) affected the emotional reaction (negative versus positive mood), regardless of the availability of coping options.

Hazerbroek, Howells, and Day (2001) studied the relationship between anger and reaction to provocation in an experimental study. They found out that, high and low trait anger people appraised the provocation and reacted to the provocation differently. High trait anger individuals were found to be reporting more intensity of anger, blame, and appraised the situation as caused by the other person (other accountability appraisal dimension) than low trait individuals.

As the studies that were summarized above show, on the one hand, emotions are determined by cognitive appraisals, but on the other hand, emotions affect the cognitive process such as information processing and judgment, especially if they are long term or dispositional. In their recent study, Lerner and Keltner (2000) proposed a model of emotion specific

influence on judgment. The results of their study showed that fearful and angry individuals appraised the risk in the environment differently. While fearful individuals perceived more risk, angry individuals tended to perceive less risk. This study also supported the notion that there are some functional differences between emotions in the same valence suggesting that the categorisation of emotions as positive and negative is too gross when accompanying cognitive appraisals and judgments are taken into consideration.

In addition to judgment, emotions were also found to be important in determining the information processing types; systematic versus heuristic information processing. In Tiedens and Linton's (2001) experimental study which examined the relationship between appraisal, emotion and information processing, researchers asked participants to remember four different events in which they felt disgust, scared, hopeful and happy. The design of the experiment was 2 X 2 (emotion by appraisal); 2 (positive-negative emotion) X 2 (certainty-uncertainty). Therefore, these four emotions fall in one of the four categories ranging between positive-negative and certainty-uncertainty dimensions of emotions. In the "study one", after participants remembered these emotions, researchers asked them to appraise their emotion on certainty-uncertainty dimension which is a dimension obtained from Smith and Ellsworth's study (1985). In the "study two", participants were asked to make 8 future predictions about year 2000 such as the tuition fees, and the legal status of same sex marriages in California. Each participant rated his/her prediction on a certainty dimension. The results showed that, fear and hope were appraised as less certain emotions, on the other hand, disgust and happiness were appraised as certain. The degree to which participants experienced each emotion did not produce significant difference in terms of appraisal. The results indicated that certainty-associated emotions (disgust and happiness) led to less substantive information processing. Uncertainty-associated emotions (fear and hope) on the other hand led to more thorough

processing. Another important finding of the study is when their emotions were accompanied with certainty appraisals, participants were more likely to feel certain in subsequent situations.

As these studies show, appraisals determine the emotions, but emotions also affect the appraisal and perceptions implying a bidirectional relationship between appraisal and emotion. This bidirectional relationship is similar to the research findings in appraisal, emotion and coping studies, where, the researchers emphasized the effect of coping on emotions, but not the role of emotion on coping.

2.3 Cognitive Appraisal, Emotion and Coping

The last group of research shows the relationship between cognitive appraisals, emotions and coping.

Herrald and Tomaka (2001), examined the relationship between appraisal, coping and emotion related appraisals in an experimental study with 109 undergraduate students. To measure cognitive appraisals, an instrument was developed to assess two stress related appraisals and seven emotion related appraisals. Stress related appraisals were perceived task demand and perceived threat. The emotion related appraisals were goal relevance, goal congruence, blame or credit, emotion focused coping potential, problem focused coping potential, future expectancy and perceived justice. Emotional reactions were measured by emotions checklist including 12 distinct emotions; anger, fear, anxiety, sadness, guilt, shame, disgust with situation, self-disgust, happiness, pride, relief and hope. Problem and emotion focused coping strategies were measured by shortened 48-item Ways of Coping Questionnaire (Folkman & Lazarus 1988). 20-item state self esteem scale was also developed for the study to be used as a psychological outcome. Subject's cardiac activity was measured by electrocardiography (EKG) and impedance cardiography (ZKG). In the

experiment, students were told that they would answer a set of questions regarding college related topics on a computer. After these instructions, students answered the questions in the questionnaire, and continued with the computer task. During the experiment, when subjects were dealing with the computer task, an emotion manipulation by the confederate was carried out. The confederate elicited three target emotions; anger, shame, pride by using verbal and non-verbal behavior, i.e., remarks and gestures. Later students answered the same questions again after the task was completed. Results of the experiment revealed that, three emotion conditions were significantly different from each other along appraisal and coping variables. In pride condition, participants appraised the situation as goal congruent, fair, less demanding and less threatening. They showed high levels of state self esteem and used less emotion focused coping strategies than the participants in other emotion conditions. Surprisingly, these participants' score on problem focused coping potential was not higher than that of other participants. Participants in anger and shame conditions appraised the situation as goal incongruent, demanding, and threatening. Participants in anger and shame condition showed a low level of state self esteem and did not appraise the situation as unfair. Cardiovascular reactivity was high in anger and shame conditions; in pride condition, there was low emotional arousal. Overall, the experiment supported the appraisal and discrete emotion relationship in a laboratory condition for three emotions and showed that subjects in different emotional states used different styles of coping. It also supported two higher order emotion categories approach, positive and negative emotion clusters, and also partially supported the view that negative emotions were associated with higher cardiac reactivity suggesting the relationship between negative emotions and poor health outcomes.

Although Herrald and Tomaka's (2001) laboratory study did not focus on real life stressful event or, did not measure the emotions caused by

appraisals, and measured the coping strategies used in the computer task only, it might have real world implications. We might expect that positive and negative emotions are related with different types of coping.

Another recent study focused on appraisal and emotion relationship prior to stressful achievement events (Skinner & Brewer, 2002). Although the study did not assess the coping strategies used, it included the coping expectancy. It was hypothesized that threat appraisal style negatively and challenge appraisal style positively affect the coping expectancy and coping expectancy affects the valance of emotions. In order to test this hypothesis, researchers created two hypothetic scenarios; public speaking and university exam to evoke anxiety in participants. 161 undergraduate students and 91 faculty members took part in the study. Threat and challenge appraisal styles were measured before the presentation of the scenarios. After the scenarios were presented, participants' coping expectancy and positive and negative emotions were measured. After each appraisal and affect measurement, in order to measure the perceptions of these cognitions and affect, perception of emotion scale was administered. The scale consisted of items that were modified from Test Anxiety and Distressing Thoughts Questionnaires. Perception of emotion scale aimed to measure beneficial versus harmful properties of cognition and affect. The results show that, as compared to students, faculty members had stronger challenge and weaker threat appraisal styles. They also reported more positive emotions, got higher scores on coping expectancy measure and, perceived their emotions as more beneficial. Researchers concluded that, threat and challenge appraisal negatively correlated with each other; challenge appraisal style was associated with higher coping expectancy, positive emotions and, perception of cognition and emotion as more beneficial. Threat appraisal on the other hand was associated with lower coping expectancy, negative emotions and, perception of cognition and appraisal of emotion as more harmful. Although coping expectancy and

emotion relationship were emphasized in this study, the researchers used hypothesized scenarios not real life events and focused on the effect of coping expectancy on emotions, but not the effect of emotions on coping.

Another study, where the data were analyzed using structural equation modeling, examined the relationship between appraisal, emotions and coping resources after a relationship breakup (McCarthy, Lambert, & Brack, 1997). Researchers examined the relationship between situational state appraisal i.e., desirability of relationship breakup and emotions (positive and negative emotions) together with availability of coping resources. The situational appraisal was measured by Roseman et al.'s (1990) 17 item inventory. Coping resources of the participants were measured by 280-item battery. The results of structural analysis showed that situational state significantly predicted positive affect (.77) and negative affect (-.37). Both combative and preventive coping influenced negative emotions negatively. Researchers concluded that, participants who have available coping resources tended to appraise relationship as more desirable and experienced less negative emotions. Similar to Skinner and Brewer's study (2002), McCarthy, Lambert, & Brack (1997), measured coping resources rather than coping strategies. Moreover, they examined the effect of coping on emotions, not the effect of emotions on coping.

Dunkley and Blankstein (2000), examined the relationship of self critical perfectionism, coping, hassles and current distress in undergraduate university students by using structural equation modeling for the analysis of data. Researchers collected data on socially prescribed and self-oriented perfectionism, self criticism, autonomy, dispositional coping, academic and social hassles, depression, current anger, and psychosomatic distress. Four latent variables were tested in the structural equation model; self-critical perfectionism, coping, hassles and distress. It was reported that measurement

model fit the data (CFI = .95). After testing this model several times with modifications suggested by AMOS program, the final fit model revealed that maladaptive coping mediated the relationship between self-critical perfectionism and distress level. Specifically; self critical perfectionism predicted maladaptive coping significantly (.85) and maladaptive coping predicted distress significantly (.72). Maladaptive coping also predicted hassles (.61). Researchers concluded that their findings are in line with the cognitive theories of stress and coping, that is, experience of stressful events does not necessarily predict the adaptational outcomes but rather coping can be important because it can affect the impact of the stressor.

As the recent empirical studies that focus on appraisal, emotion, and coping showed, the relationship between appraisal, coping and emotions were studied by both experimental and non experimental methods and each of them considered appraisal (primary, secondary, threat, challenge, certainty), emotions (positive, negative, and discrete emotions) and coping (coping potential, coping expectancy and coping with computer task, dispositional coping) by using different classifications, definitions and measurement techniques. Besides, none of them tested appraisal, emotion coping relationship in the interactional model of stress where, secondary appraisal of the event and stress level were also included.

Finally, as for the appraisal of emotion, which might be another determining factor in the process of stress and coping, that will be tested in this current research for the first time, unfortunately in the literature there is no direct support for the existence of such an appraisal. The only relevant study that may support the existence of such a process can be Skinner and Brewer's study (2002), which examined the relationship between threat and challenge appraisal and their relationship with perception of emotions. In this study the participants appraised their emotion as beneficial or harmful and the results

show that challenge appraisal style was associated with more beneficial perception of emotion. A similar significant relationship between emotion and appraisal of emotion can be expected in the interactional model of stress and coping.

CHAPTER III

METHOD

3.1 Participants

Five hundred and sixty students (271 females and 289 males) from Middle East Technical University (METU) voluntarily participated in the study. The sampling procedure was essentially the convenient sampling and students from all departments at METU were included in the study. The age of students varied between 17 and 35 with mean age of 21.32 ($SD = 1.92$). 7.7% of students were studying at English Preparatory School, 19.4% were freshman, 26% were sophomore, 24.7% were junior, 20% were senior and 2.2% were graduate students.

3.2 Material Development

In the present study, a questionnaire was developed to measure the appraisal of cognitive and emotional processes that the students experienced in stressful life events. In the development of the questionnaire, two instruments were used, namely Coping Style Scale (Şahin & Durak, 1995) and Cognitive Appraisal Measure (CAM) (Roseman, Spindel, & Jose, 1990). Therefore, before presenting the studies carried out in the development of the questionnaire used in the present study, the measurement characteristics of the Coping Style Scale and Cognitive Appraisal Measure are presented in the following sections.

3.2.1 Instruments

Coping Style Scale (CSS), which is a shorter and modified form of Ways of Coping Questionnaire (WCQ), originally developed by Folkman and Lazarus (1988), was used to assess the types of coping strategies that students used to overcome distress caused by the stressful event that they have experienced. WCQ was designed to identify the cognitive and behavioral strategies an individual has used to cope with various stressful encounters. WCQ consists of 66 items and eight subscales; confrontation, distancing, self control, seeking social support, accepting responsibility, escape/avoidance, planful problem solving and positive reappraisal.

The Turkish translation of WCQ and adaptation study was performed by Siva (cited in Şahin & Durak, 1995). Siva added eight new items that were thought to be relevant to the Turkish culture and tapping at fatalism and superstition. This new instrument consists of 74 items. Şahin and Durak (1995) conducted a study with university students and derived Coping Style Scale. They found that the scale with 5-factor structure is a reliable and valid instrument to measure coping styles. The modified scale consisted of 30 items under five factors; self confident, optimistic, submissive, helpless styles and seeking social support. In their study that they examined the psychometric properties of the scale on three different samples, they reported the reliability coefficients as follows; self confident (.68, .69, .49), optimistic (.80, .77, .62), submissive (.70, .72, .47), helpless (.73, .64, .68) and seeking social support (.47, .45).

Cognitive Appraisal Measure (CAM) was developed by Roseman in 1983 (cited in Roseman, Spindel, & Jose, 1990), and revised by Roseman, Spindel, and Jose (1990). The scale consisted of 18 statements, measuring six dimensions of appraisal: motivational state, situational state, power, probability, legitimacy, and agency. Each dimension was measured by three

questions on a 9-point scale, anchored at either end. The examples of the items together with their response formats were as follows: For situational state, “*At the time, was SPECIFIC EVENT A, wanted by you or unwanted by you? Very much wanted (1) Very much unwanted (9)*”; for motivational state, “*During SPECIFIC EVENT A, were you seeking less of something negative, or more of something positive? Very much seeking less of something negative (1) Very much seeking more of something positive (9)*”; for probability, “*During SPECIFIC EVENT A, how much you were in doubt about what was actually occurring? Not at all in doubt (1) Very much in doubt (9)*”; for power, “*During SPECIFIC EVENT A, did you feel powerful or powerless? Very powerful (1) Very powerless (9)*”; for legitimacy, “*At the time, did you believe that the occurrence of SPECIFIC EVENT A was an injustice to you? Not at all an injustice to me (1) Very much an injustice to me (9)*”; for agency, “*At the time, how much did you think that SPECIFIC EVENT A was caused by someone else? Not at all caused by someone else (1) Very much caused by someone else (9)*”. The reliability coefficients of dimensions were reported as follows; situational state .86, motivational state .62, probability .56, power .74, legitimacy .39 and .63 (.63 was obtained after one item focusing on the justice-injustice dimension was removed in the analysis). Researchers reported that they did not calculate any reliability coefficient for the agency dimension because each item in this dimension focuses on different sources as the situational agency i.e., self, other and, circumstance agency. Since CAM was developed for the purpose of examining the role of each dimension in the specific emotion, the measure was not considered as a scale therefore, the scale reliability was not reported (Roseman, Spindel, & Jose, 1990).

3.2.2 The Development of the Questionnaire of the Present Study

In the development of the questionnaire, special emphasis was given to the assessment of the process of cognitive and emotional appraisals of the students in real life stressful experiences. For this purpose, while developing

the questionnaire a pilot study was conducted by carrying out two successive studies based on two different data collection procedures: interviews and a survey study.

3.2.2.1 Interview

The aim of the interviews was to test the appropriateness and the applicability of cognitive appraisal dimensions and emotions to Turkish university students. For this purpose, 20 volunteer students (10 male, 10 female) from different departments and grades of Middle East Technical University were interviewed by the researcher. A structured interview form (see Appendix A) was developed by the researcher in line with the cognitive theory of stress and coping. The interviews lasted 20-50 minutes.

During the interviews, students were first asked to remember a recently experienced stressful event and explain their thoughts and emotions regarding the event. Later students answered a number of questions regarding the level of stress caused by the event, secondary appraisals of the stressful event (3 dimensions: harm/loss, threat, and challenge), emotions that they have experienced, accompanying cognitive appraisal of the situation and cognitive appraisal of emotions (6 dimensions separately for appraisal of the stressful situation and elicited emotions: situational state “whether the situation/emotion punitive or rewarding”, motivational state “whether the situation/emotion was aversive or appetitive”, power “whether the person felt powerful or powerless”, probability “whether the outcome of the situation/emotion was certain or uncertain”, legitimacy “whether the person deserved or not deserved the outcome”, and agency “source of the event/emotion”). The questions which aimed to measure each appraisal dimension were derived from Cognitive Appraisal Measure (CAM) (Roseman, Spindel, & Jose 1990).

The qualitative analysis of interview results revealed that, cognitive appraisal of the emotion along six dimensions of CAM were possible and the

types and sequence of questions were meaningful to the students. As a result of interviews, the original CAM (Roseman, Spindel, & Jose 1990) was decided to be translated into Turkish and used in order to assess the cognitive appraisal of situation and cognitive appraisal of emotion experienced after a stressful event.

3.2.2.2 Survey

In the light of the findings of interviews, a questionnaire was constructed to measure the cognitive appraisal of the stressful event and cognitive appraisal of the emotions caused by the stressful event.

Besides the results of the interviews, in the development of the questionnaire, following theoretical considerations were taken into account.

First, the real life stressor was preferred to be used in the present study in line with the view of Folkman and Moskowitz (2000) noting that written scenarios limit the researcher's ability to simulate real life stressor. Students' reports of their own life stresses were also preferred by considering the implication of the present research results to counseling.

Second, since the degree of the stress is an important factor because of its effect on appraisal and coping (Coyne, Aldwin, & Lazarus, 1981; Matheny, Aycock, Pugh, Curlette, Kathleen, & Canela, 1986), the degree of stress was measured by one question. In the questionnaire, students were asked to check the extent to which they experienced the stress caused by the event, at the time of the event on a 11 point Likert scale (1 = not at all, 11 = to a great extent).

Third, in measuring the cognitive appraisal of the event, only the secondary appraisal was assessed but primary appraisal was not included. Theoretically, primary appraisal corresponds to the evaluation of the relevance of the event to the wellbeing of the person (Folkman & Lazarus, 1985). Since

this research focuses on real life stressful events that participants experienced, it is assumed that, people have already made the primary appraisal and thought that the event was stressful for them.

In measuring the secondary appraisal, three types of appraisals were assessed; Harm/loss, threat, and challenge. In the development of items aiming to measure these three types of appraisals, the suggestions of current literature on the various assessments strategies were considered. Although there are some studies (Creasey & Hesson-McInnis, 2001; Zohar & Dayan, 1999) which used either appraisals checklists consisting of several adjectives designating, positive-negative appraisals like the one that was developed by Folkman and Lazarus, (cited in Scherer & Drumheller, 1993), as it was mentioned in the Review of the Literature chapter, various individual characteristics were also used as an indicator of secondary appraisal (Nyer, 1997; Cassidy & Burnside, 1996). In addition to the use of checklists and individual characteristics, assessment of the types of the secondary appraisal by one or two questions is a common method (Bjorck et. al., 2001, Chung et al., 2001; Tomaka, Blascovich, Kelsey, & Leitten, 1993). Following a similar procedure, in the present study, seven secondary appraisal items (item numbers; 7, 8 for harm/loss, item numbers; 11, 12 for threat, and item numbers; 6, 9, 10 for challenge appraisals) were written by the researcher. Five more items (item numbers; 1, 2, 3, 4, 5) which tapped the source of the event, that was thought to be related to the secondary appraisal were also written by the researcher.

Forth, in measuring cognitive appraisal of the situation, Roseman, Spindel, and Jose's (1990) CAM was translated into Turkish by the researcher and the item structure was modified to improve clarity. 18 statements, measuring six dimensions of appraisal of situation; motivational state, situational state, power, probability, legitimacy and agency were used in the survey. Each dimension was measured by three questions on a 9-point scale,

anchored at either end. An example of an item, with its response format was as follows; *“I thought that this event was caused by someone else (1) I did not think that this event was caused by someone else (9)”*.

Fifth, since the present study emphasizes the emotions that were experienced after a stressful event, instead of using affect scales like Positive and Negative Affectivity Schedule (PANAS) (Watson, Clark, & Tellegen, 1988), which measures general positive and negative affect status, an emotion checklist was constructed. In the development of emotions checklist, the emotions to be included in this checklist (17 discrete emotion names) were selected in the light of the literature and findings of the interview. The checklist consisted of 14 emotions used in Smith and Ellsworth’s study (1985), 5 of which are called basic emotions (Oatley & Johnson-Laird 1987; Power & Dalgleish, 1999); happiness, sadness, fear, anger and disgust. In addition to these 14 emotions; happiness, sadness, fear, anger, boredom, interest, hope, frustration, contempt, disgust, surprise, pride, shame, and guilt, three additional emotions, jealousy, regret and hate which were derived from the findings of interviews were also included.

Last, in the present study, the cognitive appraisal of emotions was aimed to be measured by adapting the items of Roseman’s CAM (Roseman, Spindel, & Jose, 1990), to the context of emotions, in order to assess the cognitive appraisal of specific emotions along six cognitive dimensions. For this purpose, the items of Roseman’s CAM (Roseman, Spindel, & Jose, 1990) were modified and adopted to emotions by the researcher of the present study and called Cognitive Appraisal of Emotion Scale (CAES). The aim of using this scale was to understand the reappraisal of the emotions along the dimensions of cognitive appraisal. Since “each emotion is characterised by its own specific pattern of response which includes, physiological, behavioral and cognitive components” (Mandler, 1975, p. 105), it is important to learn how the

person evaluates each emotion along the dimensions of cognitive appraisal, in order to understand an emotion's possible effect on the selection of coping strategies.

In the modification process of the CAES, wordings of the items were changed to be able to appraise specific emotions. The scale consisted of 17 items measuring the same six dimensions as; motivational state, situational state, power, probability, legitimacy and agency. Only one item in certainty dimension was excluded from the scale, because of its redundancy. Each dimension was measured by three questions on a 9-point scale, anchored at either end. The format and measurement of the items in this scale were identical to CAM items, only the wording of the items was changed to appraise the emotion. For example, "*I thought this emotion was caused by someone else*" (1), "*I did not think that this emotion was caused by someone else* (9)".

In line with the theoretical considerations that were mentioned above, in the second stage of the pilot study, the survey, the questionnaire consisted of items measuring stress level, secondary appraisal of the event, cognitive appraisal of the situation, emotions checklist and, cognitive appraisal of emotions. The questionnaire of the pilot study was presented in Appendix B.

Forty-nine Atılım University students (13 female 36 male) from different departments and grades voluntarily participated in the second stage of the pilot study. The questionnaire was distributed to the students by the researcher during their regular class hours with the permission of the course instructor. Students filled out the questionnaires approximately in 20 minutes.

3.2.2.3 Modifications Made to the CAM and CAES after the Survey

The examination of the results of the survey study indicated that both CAM and CAES needed some modifications particularly in response format

for the ease of both understanding and measurement. It was found that some items measure two different concepts in one item. Such items were separated into two items so that each item can measure a single concept. Since Turkish sentence structure was thought not to be appropriate, double negations were avoided and the response format of items of both scales were changed from 9-point bipolar format to 5-point Likert type (1 = never to 5 = to a great extent).

The items both in CAM and CAES that needed such modifications were as follows:

Item number 3 (an item of situational state dimension); “(The event/this emotion) improved the situation (1), worsened the situation (9)”, was separated into two items and presented as “(The event/this emotion) improved the situation” and “(The event/this emotion) worsen the situation”.

Two items of motivational state dimensions (items number 5 and 6) were also separated in the same way. Item number 5 (an item of motivational state dimension); “I wanted to (this emotion) minimize(d) some cost (1), I wanted to (this emotion) maximize(d) some benefit (9)”, was separated into two items and presented as item number 5, “I wanted to (this emotion) decrease(d) some cost and, item number 6, “I wanted to (this emotion) increase(d) some benefit”

Item 6 was decided to be separated as; item 7 “ I wanted to (this emotion) decrease(d) something negative” and item 8 “I wanted to (this emotion) increase(d) something positive”.

Three items of CAES (item number 4, 13,16) and two items of CAM (item number 4 and 16) were excluded because of some repetitions of the items.

Lastly the item number 16 of the CAM, (item of circumstance agency) “I did not think that the event was caused by circumstances beyond anyone’s control (1), I thought that the event was caused by circumstances beyond anyone’s control (9)” was excluded in the light of the questionnaire application in the pilot study. Instead of this item, three separate items were used to tap the event itself (item number 19, “It (the situation) was caused by the event itself”), chance/coincidence (item number 21, “It was caused by chance, coincidence etc.), and fate (item number 22, “It was caused by fate”) were used in the main study. In CAES, the number of agency dimension items was kept as they were in the original scale (three items measuring, circumstance agency, other person agency and self agency). Circumstance agency, [item number 16, “(This emotion) was caused by circumstances beyond anyone’s control”], self agency, [item number 18, “(This emotion) was caused by me”] and, other person agency, [item number 17, “(This emotion) was caused by someone else”].

The remaining items which measure single concepts on two dimensions, i.e. positive-negative, deserved-not deserved, strong-weak, were presented as single items, emphasizing the positive pole. For example, item number 10, “During the event I felt powerless (1), During the event I felt powerful (9)”, was changed to one positive statement, i.e. item number 12 “During the event I felt powerful”.

As a result of these modifications made to CAM, the modified scale called Cognitive Appraisal of Situation Scale (CASS) was used in the main study consisting of 22 items with a 5-point Likert scale; 4 items measuring situational state (item numbers; 1, 2, 3, 4), 4 items measuring motivational state (item numbers; 5, 6, 7, 8), 3 items measuring probability/certainty (item numbers; 9, 10, 11), 3 items measuring power (item numbers; 12, 13, 14), 3

items measuring legitimacy (item numbers; 15, 16, 17), and 5 items measuring agency dimensions (item numbers; 18, 19, 20, 21, 22).

Similarly, the Cognitive Appraisal of Emotion Scale (CAES) used in the main study consisted of 18 items with a 5-point Likert scale; 4 items measuring situational state (item numbers; 1, 2, 3, 4), 4 items measuring motivational state (item numbers; 5, 6, 7, 8), 2 items measuring probability/certainty (item numbers; 9, 10), 3 items measuring power (item numbers; 11, 12, 13), 2 items measuring legitimacy (item numbers; 14, 15), and, 3 items measuring agency dimensions (item numbers; 16, 17, 18).

After the modifications of the scales, it was seen that the items of agency dimension of the CASS were very similar to five items that were used to measure the source of the event in the secondary appraisal of the event. Therefore, five items of the secondary appraisal (item numbers; 1, 2, 3, 4, 5) were removed from the questionnaire of the present study.

3.2.3 Reliabilities of the Measures

When the psychometric properties of the instruments used in the present study were considered, the following reliability characteristics were obtained.

In the analysis of the survey data of the pilot study, internal consistency of secondary appraisal was satisfactory. Cronbach alpha reliability of the items of harm/loss and threat was .85. Therefore, these items were decided to be used in the main study. Items of challenge appraisal on the other hand, were presented in the questionnaire of the present study in order to use the score of challenge appraisal as a criterion for the validity of CASS.

Since the studies that examined the appraisal emotion relationship emphasized the effect of appraisal on discrete emotions (Frijda, Kuipers, & ter Schure, 1989; Lerner & Keltner, 2000; Roseman, Spindel, & Jose, 1990; Smith & Ellsworth, 1985), in these studies emotions were used as discrete emotions not as checklists or scales, therefore their reliabilities were not assessed. However, although there are other studies that used emotions as clusters such as negative and positive emotions (e.g., McCarthy, Lambert, & Brack, 1997; Skinner & Brewer, 2002), these studies did not report the reliability of the emotion clusters either. In the present study, the results of the analysis of the survey data revealed that when subjected to the factor analysis, emotions checklist revealed two factors that can be used as negative and positive emotions subscales. When the internal consistency of these subscales were computed, the Cronbach alpha reliability for negative emotions was .83, and for positive emotions .80.

In the survey data, for CAM and CAES the reliabilities of the scales were not computed, because these two instruments are composed of six dimensions that actually measure distinct features of the situation (CAM) and emotion (CAES). Also, due to the measurement format of the items of these instruments, the factor analysis could not be conducted. However, correlations between items in each dimension were promising. The item correlations of 6 dimensions of CAES varied between .70 and .30. (Situational state .70; motivational state .52; probability .48; power .44; legitimacy, .30 and agency .39) and of CAM varied between .72 and .10. (Situational state .72; motivational state .43; probability .57; power .60; legitimacy .35 and agency .10). Therefore, the psychometric properties of these two scales, CASS and CAES, with the modifications after the survey, were examined during the analysis of the data of the main study. The detailed account of the reliabilities of the two scales was presented in “Preliminary Analysis” section of the Results chapter.

3.3 Materials

In the main study, the questionnaire, which consisted of four parts, was used to collect data. The questionnaire of the main study was presented in Appendix C.

In the first page of the questionnaire students were introduced to the purpose of the study.

In the first part of the questionnaire, background information about students regarding their gender, age, department, and grades were asked for the purpose of sample presentation.

In the second part of the questionnaire, students were asked to briefly report (in 5-10 sentences) a stressful event that they have experienced in the past fifteen days so that they can accurately remember their thoughts and emotions about the event. Students, after writing the stressful event were asked to indicate the extent to which the event created stress on a 11-point Likert type scale (1 = not at all, 11 = to a great extent).

The third part of the questionnaire consisted of four sections. In the first section, in order to assess the secondary appraisals of students (harm/loss, threat and challenge appraisals) 6 questions were formed (item numbers, 1, 2 for harm/loss; item numbers, 5, 6 for threat, item numbers 3, 4, 7 for challenge). In the present study, for each of the items, students were asked to rate their response on a 11-point Likert type scale (1 = do not agree at all, 11 = totally agree).

Since the secondary appraisal items and stress question were used in the SEM analysis as observed variables, 11 point Likert format was decided to be

used by considering the recommendations of Bollen and Long (1993) instead of more common smaller points like 5 or 7.

In the second section of the third part of the questionnaire, the Cognitive Appraisal of Situation Scale (CASS) which is the modified version of CAM was presented (Roseman, Spindel, & Jose 1990). After the modifications described in material development section, the CASS used in the main study consisted of 22 items with a 5-point Likert scale (1 = not at all, 5 = extremely). Students were asked to remember their evaluations during the stressful event and answer the questions by considering their evaluations during the event. The importance of answering questions remembering the time of the event was emphasized by underlying the sentence “not your evaluations about the event now”.

The third section of the third part of the questionnaire consisted of emotions checklist. The checklist consisted of 17 emotions: happiness, sadness, fear, anger, boredom, interest, hope, frustration, contempt, disgust, surprise, pride, shame, guilt, and, three additional emotions: jealousy, regret and hate which were derived from the findings of the interviews. Students were asked to remember the emotions that they had experienced during the stressful event and indicate how intense they were feeling each of the emotions on the checklist, on a 5-point Likert format (1 = not at all, 5 = extremely). The importance of answering questions remembering the time of the event was emphasized by underlying the sentence “not your emotions about the event now”.

In the fourth section of the third part of the questionnaire, students were first asked to select one emotion that they have intensely experienced during the stressful event and print it in a box on that page. Later, they were asked to evaluate that specific emotion by answering the questions of CAES,

considering this single emotion that they have just printed in the box. The CAES used in the main study consisted of 18 items with a 5-point Likert scale (1 = not at all, 5 = extremely).

The forth and the last part of the questionnaire was composed of Coping Style Scale (Şahin & Durak, 1995). Students were asked to indicate the coping strategies that they used to cope with the stressful event that they described and the extent to which they used each strategy on 5 a point Likert scale (1 = not at all, 5 = extremely).

3.4 Procedure

For student recruitment, the written permission to include students in the study was obtained from the office of the President. The data was collected by administering the questionnaires to students. The questionnaires were distributed to students during their regular class meetings and at dormitories by the researcher. The method of sampling was essentially a convenient sampling but in order to include students from different departments, the questionnaires were distributed to the students during their required English courses at METU (ENG 101, ENG 102, ENG, 103, and ENG 211) and at dormitories. After obtaining the necessary permission from the director of each dormitory at METU, the researcher administered the questionnaires to students. During several times of the day, the researcher visited the dormitories, visited each room and informed students about the research, briefly mentioning what the research is about. Students were given a certain time to meet in the study room of the dormitory and questionnaires were administered in a group format by the researcher. The same procedure was followed in each and every dormitory on METU campus. On the first page of the questionnaire, brief information about the research and instructions to answer the questions were presented. Students filled out the questionnaires approximately in 30 minutes.

3.5 Data Analysis

In order to examine the role of cognitive appraisals and emotions in the interactional model of stress, the Structural Equation Modeling (SEM) was used. The reasons for using SEM instead of similar multivariate statistical techniques were threefold. First, SEM programs provide an overall test of model fit and test of individual parameter estimates. Second, regression coefficients, means and variances may be computed and tested simultaneously. Third, multiple dependent and independent variables are permitted therefore, mediating variables can be included in a single model unlike in regression analysis.

In the data analysis, as in most SEM applications, five steps were followed; model specification, model identification, model estimation, testing the model fit and model respecification (Bollen & Long, 1993). AMOS.5 (student edition) program was used for the SEM analysis (Arbuckle, 2003).

In order to test the model fit, basic measurement and fit indexes were used. These indexes were presented below with summary information about their function and interpretation. The information about indexes was obtained from Bollen and Long (1993), Byrne (2001), and Ullman (1996).

The first three values are measurement indexes; χ^2 , df and χ^2/df ratio. Since χ^2 alone is not an adequate indicator, it was interpreted with degrees of freedom. Here df refers to the difference between known values and unknown value estimates and the ratio of χ^2/df determines the identification of a model. As a general rule of thumb, the ratio less than 5 is considered to be accepted and as the value of ratio get closer to 1, the model is accepted to be a fitting model. Non significant p ($p > .05$) is interpreted as identified measurement model. Other indexes are considered to be goodness of fit statistics and test how the hypothesized model fits the data.

CFI (Comparative fit index) and NFI (Normed fit index): CFI and NFI assess the improvement of models fit relative to the null or independence model. Values over .90 are generally considered to be acceptable and over .95 to be superior fit (Byrne, 2001).

RMSEA (Root mean square error of approximation): RMSEA takes into account the error of approximation in the population. Values less than .05 are considered to be acceptable values.

AIC (Akeike's information criterion): AIC addresses the issue of parsimony in the model fit assessment. Smaller values represent better fit and this index is also used to reflect the degree to which parameter estimates in the original sample will cross validate in future samples.

BCC (Brown-Cudeck criterion): BCC operates and is interpreted in the same way as AIC. The only difference between the two is BCC considers model complexity and is more strict than the AIC.

ECVI (Expected cross validation index): ECVI assesses the likelihood that the model cross-validates across similar size samples from the same population. There is no determined value for this index but the comparative value of ECVI to saturated and independent models gives the acceptable rates.

CN (Critical N): This index focuses only on the adequacy of the sample size. Values over 200 are an indicator of adequate sample size.

3.6 Limitations

This research has several limitations which need to be mentioned. First of all, the sample was drawn from university students and although the number of

participants was tried to be kept adequate, it prevents the results from being generalized to the other populations.

Second, the data collected rely on the self report of participants and, although the importance of reporting thoughts and emotions during the event was emphasized, there was no way to control the validity of this information by a survey type research.

Focusing on each dimension of the cognitive appraisal of the situation and discrete emotions separately could not be performed in this study. Future research in the area of stress process should focus on the discrete effect of each dimension of appraisal and emotions on coping strategies.

Lastly, the effect of time on both appraisals and emotions need to be studied in order to better understand the possible change in the appraisals, emotions and coping over time.

CHAPTER IV

RESULTS

The results of the study are presented in two parts in separate sections. In the first part, results of the preliminary analysis of the stressful event, secondary appraisal of the event and factor analysis of cognitive appraisal dimensions, elicited emotions, cognitive appraisal of emotions and coping scale are presented. In the second part, the relationships of stress level, secondary appraisal, cognitive appraisal of the situation, positive and negative emotions experienced after the stressful event, cognitive appraisal of emotion, problem focused coping, and emotion focused coping are demonstrated by employing structural equation modeling (SEM).

4.1 Preliminary Analysis

In the preliminary analysis, scores of dependent and independent variables that were used in the structural equation modeling were obtained through either summing up the scores of individual items, or as a result factor analysis. The reliability and validity characteristics of the two scales, CASS and CAES, were also obtained and presented in the preliminary analysis part.

4.1.1 Level of Stress

The stress caused by the event at the time of the event was measured by single questions on a 11-point Likert scale (1 = not at all, 11 = to a great extend). The mean stress level of the sample (N = 558) was 8,29 (*SD* = 1,99).

4.1.2 Secondary Appraisals

Participants' secondary appraisal scores were obtained by averaging the responses given to four appraisal questions that aimed to measure harm/loss and threat appraisals (item numbers 1, 2, 5, 6 in the secondary appraisal of event). Since the internal consistency of four items was also adequate (Cronbach Alpha = .78), secondary appraisal score was used as an unobserved variable in the SEM analysis. Items of challenge appraisal were decided to be excluded in the further analysis because of their similarities with the items of power, situational state and motivational state dimensions of CASS. Specifically, three challenge appraisal items in the secondary appraisal of event measure, item numbers 3, 4 and 7 were similar to item number 3, 6 and 14 in the CASS.

4.1.3 Cognitive Appraisal of Event

Responses to the Cognitive Appraisal of Situation Scale (CASS) were subjected to factor analysis by employing principal components with varimax rotation. The initial analysis, employing an eigenvalue of 1.00 as the criterion produced eight factors explaining 70.2% of the total variance. When the number of factors was restricted to six, the analysis produced the most suitable solution for the purpose of the study. Six factors explained 61.4% of the total variance with eigenvalue = 1,28. Variances explained by each factor were as follows: factor 1, 11,9%; factor 2, 11,7%; factor 3, 10,8%; factor 4, 10,4%; factor 5, 9,3%; factor 6, 7,9%. The item compositions of 6 factor solution, factor loadings, communality values of each item and Cronbach Alpha reliabilities of each factor were presented in Table 1.

Table 1. Items of Six Factors of CASS, Factor Loadings, Communalities and Cronbach Alpha Reliabilities of Factors

Appraisal of Event	1	2	3	4	5	6	Communality	α
Power 13	.92	.03	.06	.15	.13	-.05	.90	.90
Power 12	.91	.04	.05	.19	.15	-.08	.89	
Power 14	.86	.11	-.06	.12	.09	-.06	.78	
Motivational state 7	.01	.81	.05	.05	.07	.01	.67	.79
Motivational state 8	.01	.77	-.03	.10	.07	.11	.62	
Motivational state 6	.04	.76	-.08	.16	-.04	.05	.62	
Motivational state 5	.07	.73	.08	-.05	.07	.00	.56	.67
Self agency 18	-.06	.01	-.78	.12	.09	-.10	.65	
Other person agency 20	-.02	-.01	.70	.05	.13	.18	.54	
Legitimacy 15	-.03	.02	.67	-.09	.15	-.07	.48	.71
Legitimacy 16*	-.04	.01	-.66	.21	.23	.12	.54	
Legitimacy 17	.22	.30	.31	.11	.06	-.11	.26	
Situational state 1	.08	.01	.01	.83	.11	.08	.72	.74
Situational state 2	.09	.13	-.07	.80	.07	.06	.68	
Situational state 3	.21	.22	-.13	.68	.01	-.18	.47	
Situational state 4*	-.21	.04	.21	-.51	.18	.30	.60	.56
Probability 10	.03	-.01	.01	-.01	.86	.01	.74	
Probability 11	.10	.16	-.07	.13	.74	-.01	.59	
Probability 9	.20	.03	.11	-.02	.73	-.05	.61	.74
Agency 22 (Fate)	-.01	-.02	-.02	-.07	-.09	.79	.64	
Agency 21 (Chance)	-.09	.10	-.01	-.03	.02	.79	.64	
Agency 19 (Event)	-.09	.10	.45	.04	.02	.51	.49	

*Item numbers 4 and 16 were reverse coded in the further analysis.

As can be seen in Table 1, items of four dimensions, power, motivational state, situational state, and probability were loaded in the relevant factors. Two agency items were loaded in the legitimacy factor. Poor psychometric properties of these two dimensions; legitimacy and agency, were expected. Earlier research on cognitive appraisal dimensions produced similar results that is, legitimacy items correlated high with the agency items and researchers deleted or modified some items of these dimensions (Frijda, Kuipers, & ter Schure, 1989; Roseman, Spindel, & Jose, 1990; Smith & Ellsworth, 1985). Therefore, for the further analysis, the items of legitimacy and agency dimensions were decided to be removed from the analysis. When

the legitimacy and agency items were removed from the scale, the Cronbach alpha reliability of the scale was .78.

As for the validity of the CASS, it can be said that the scale has content validity. Since the dimensions obtained as a result of factor analysis are almost identical to the original CAM (Roseman, Spindel, & Jose, 1990) the results of the factor analysis can be used as evidence for its construct validity. Since the contents of the remaining four dimensions of the CASS were similar to the challenge secondary appraisal where persons appraise the event positively such as expecting to cope successfully with the event, expecting the event to produce something positive and beneficial, the score of challenge appraisal was used as the criterion for the validity of the CASS. The Pearson Product-Moment Correlation Coefficient was .44, which can be considered as adequate (Anastasi, 1988) when the theoretical considerations of the present research are taken into account.

Scores of CASS dimensions that were used in the structural analysis were obtained by averaging the items of four dimension (power, items 12, 13, 14; motivational state, items 5, 6, 7, 8; situational state, items 1, 2, 3, 4; probability, items 9, 10, 11). The scale score that was used in the structural analysis as an unobserved variable was obtained by summing up four dimension scores.

4.1.4 Emotions Experienced after the Stressful Event

When the students' ratings of the emotions experienced after the event were subjected to factor analysis, with principle components, varimax rotation, and eigenvalues over 1,00 as the criterion, 4 factors explaining 53.6% of the total variance with eigenvalue = 1, 25 was obtained. When the number of factors was restricted to two, factors explained 35.5 % of the variance with eigenvalue = 1,92. Since it serves the aim of the study better, the two factor

solution was decided to be used in the further analysis. Two-factor solutions, factor loadings and communality values of each item and Cronbach Alpha reliabilities of each factor were presented in Table 2.

Table 2. Items of Two Factors of Emotions Checklist, Factor Loadings, Communalities and Cronbach Alpha Reliabilities of Factors

Emotions Checklist	1	2	Communality	α
Anger	.69	-.08	.48	.79
Sadness	.68	-.04	.47	
Hate	.66	-.10	.45	
Contempt	.65	.03	.43	
Boredom	.61	-.10	.38	
Disgust	.60	-.14	.38	
Frustration	.56	.17	.34	
Shame	.54	.11	.31	
Regret	.48	.11	.24	
Guilt	.43	.10	.20	
Surprise	.40	-.01	.16	
Hope	-.23	.74	.60	
Interest	-.06	.65	.42	
Happiness	-.35	.59	.47	
Pride	.21	.51	.31	
Jealousy	.30	.39	.24	
Fear	.30	.30	.18	

Emotions scores were obtained as a result of factor analysis with two factors. Factors named as positive and negative emotions, and mean scores for positive and negative emotions were obtained by averaging the scores of emotions in each factor. In the light of previous research findings where surprise was used as positive emotion (Smith & Ellsworth, 1985; Roseman, Spindel, & Jose, 1990; Watson, Clark, & Tellegen, 1988), in the present study, although it was loaded under negative emotions, surprise was placed under positive emotions.

In positive emotions, responses to five emotions (surprise, happiness, pride, hope, interest), and, in negative emotions, 12 emotions (anger, sadness,

hate, contempt, boredom, disgust, frustration, shame, regret, guilt, jealousy, fear) were included. Jealousy and fear were placed under negative emotions since they were loaded under both factors.

4.1.5 Cognitive Appraisal of Emotions

Responses to the items of CAES were subjected to factor analysis by employing principal components with varimax rotation. The initial analysis, employing an eigenvalue of 1.00 as the criterion produced 5 factors explaining % 65.2 of the total variance with eigenvalue = 1, 06. Variance explained by each factor was as follows; factor 1, 23,8%; factor 2, 14,8%; factor 3, 10,3%; factor 4, 8,2%; factor 5, 7,9%. The item compositions of 5 factor solution, factor loadings and communality values of each item and Cronbach Alpha reliabilities of each factor were presented in Table 3.

Table 3. Items of Five Factors of CAES and Factor Loadings, Communalities and Cronbach Alpha Reliabilities of Factors

Cognitive appraisal of emotion	1	2	3	4	5	Communality	α
Motivational state 7	.85	.09	.13	-.02	.04	.75	.89
Motivational state 5	.84	.19	.10	-.01	.05	.75	
Motivational state 6	.83	.12	.03	.00	.01	.70	
Motivational state 8	.82	.07	.10	.03	.02	.69	
Situational state 3	.78	.24	.18	-.03	.16	.73	
Situational state 1	.57	.17	.12	.07	.39	.52	.87
Situational state 2	.49	.24	.11	.10	.43	.50	
Power 12	.21	.87	-.06	.19	.10	.84	
Power 11	.22	.83	-.06	.21	.13	.81	
Power 13	.14	.82	.02	.04	.00	.69	
Self agency 18	.16	-.09	.82	.16	.05	.73	.53
Other person agency 17	-.05	-.01	-.78	.15	.11	.65	
Legitimacy 14	.27	.05	.64	.16	.28	.59	
Probability 9	.16	.17	.11	.78	-.04	.67	
Probability 10	-.08	.19	.04	.67	.20	.53	
Situational state 4	-.23	-.48	-.22	.48	-.12	.58	.23
Circumstance agency 16	-.02	-.07	-.06	.12	.74	.57	
Legitimacy 15	.18	.22	.12	-.08	.58	.44	

As it can be seen in Table 3, item loadings under factors were as expected. Items of situational and motivational state dimensions fell into one factor. Although, these items measure two different dimensions, in the case of the appraisal of the emotion, this distinction seems to be disappearing, suggesting that the state appraisal for the emotion actually corresponds to the pleasantness dimension. Pleasantness is also a common dimension and appears in appraisal studies (e.g., Lerner & Keltner, 2000; Smith & Ellsworth, 1985).

Similar to the findings of other appraisal studies (Smith & Ellsworth, 1985; Roseman, Spindel, & Jose, 1990) legitimacy and agency items did not differentiate well. Similar to the procedure followed for CASS, in this scale, these two dimensions were decided to be removed in the further analysis. When the legitimacy and agency items were removed from the scale, the Cronbach alpha reliability of the scale was .80. The internal consistency coefficient suggests that the scale has a reliability evidence to assess the emotions on three cognitive dimensions.

Scores of CAES dimensions were obtained by averaging the items of each dimension (state, items 1, 2, 3, 5, 6, 7, 8; probability, items 9, 10; power, items 11, 12, 13). The scale score that was used in the structural analysis was obtained by summing up the dimension scores.

4.1.6 Coping Styles

Responses to Coping Style Scale were subjected to factor analysis, employing principal components with varimax rotation. The initial analysis, employing an eigenvalue of 1.00 as the criterion produced 8 factors explaining % 58.51 of the total variance. Since the number of factors extracted was not in line with the similar studies, further factor analysis, employing forced factor numbers was tried. When the number of factors was restricted to 2, two-factor solution explained 29.6 % of the total variance with eigenvalue = 3.9. The first

factor explained 16,6 % and the second factor explained the 13,0 % of the variance. The item compositions of 2 factor solution, factor loadings and communality values of each item and Cronbach Alpha reliabilities of each factor were presented in Table 4.

Table 4. Items of Two Factors of Coping Style Scale, Factor Loadings, Communalities and Cronbach Alpha Reliabilities of Factors

Coping Styles Scale Item Numbers	1	2	Communality	α
6	.69	-.07	.48	.78
14	.66	-.10	.44	
18	.65	-.10	.42	
5	.60	.05	.37	
17	.60	-.02	.37	
16	.58	-.27	.41	
9	.57	-.09	.33	
2	.56	.05	.32	
29	.54	-.03	.30	
4	.51	.01	.26	
28	.41	.08	.17	
26	.36	.13	.14	
8	.35	-.02	.18	
24	.12	.66	.45	
11	.17	.65	.45	
23	.08	.62	.39	
1	.01	.59	.35	
20	.06	.57	.33	
21	-.23	.56	.36	
19	-.33	.56	.42	
13	-.04	.54	.29	
25	-.05	.51	.27	
15	.20	.45	.24	
10	.20	.42	.21	
27	-.13	.41	.18	
22	-.07	.41	.17	
3	.24	.39	.21	
7	.31	.35	.22	
30*	.13	.27	.09	
12*	.03	.25	.06	

* Items excluded from further analysis

Factors of Coping Styles Scale were named as problem focused coping style and emotion focused coping style. Scores of coping styles were obtained by averaging the items of each factor.

4.2 Analysis with Structural Equation Modeling

In order to examine the role of cognitive appraisals and emotions in the interactional model of stress, the Structural Equation Modeling (SEM) was employed by using AMOS.5 (Student Edition) (Arbuckle, 2003). The structural analysis consisted of five steps; model identification, model estimation, model modification, model testing and, model respecification.

In the first step, dependent and independent variables were determined and, observed and latent variables were constructed accordingly. In model estimation, the measurement model, that is the relationship between variables was tested (Model 1). In the model modification step, some modifications to the model took place (Model 2). In the model testing, the modified model was tested. In the last step, model respecification, the final model (Model 3) was respecified, tested and compared with the modified model.

4.2.1 Model Identification

In the model identification step, a proposed model was constructed according to the hypothesis of the research. In this step, variables and factors that determine the latent construct were identified. Names and numbers of observed and unobserved variables were presented in Table 5. As it was shown in Table 5, observed or indicator variables are directly measured variables and can be both dependent and independent variables. Unobserved variables or latent variables are variables that are not directly measured, but predict the measured variables. In other words, unobserved variables are constructs such as cognitive appraisal of situation in this model and are not directly measured, but were constructed by certain measured variables (Ullman, 1996). For

example, dimensions of cognitive appraisal of situation that were obtained as a result of factor analysis in this model are observed and, the total score that was obtained by averaging the dimension scores are unobserved variables.

Table 5. Names and Numbers of Observed and Unobserved Variables in the Model

Latent (unobserved) Variables	Number of Indicator (observed) Variables	Description of indicator variables
Secondary appraisal	1 observed variable that combined 4 items of secondary appraisal items	Harm/loss appraisal Threat appraisal
Cognitive appraisal of situation	1 observed variable that combined 4 factors of CASS	Situational state Motivational state Power Probability
Cognitive appraisal of emotion	1 observed variable that combined 3 factors of CAES	State Power Probability
Positive emotions	1 factor of emotions checklist	Positive emotions
Negative emotions	1 factor of emotions checklist	Negative emotions
Problem focused coping	1 factor of coping styles scale	Problem focused coping
Emotion focused coping	1 factor of coping styles scale	Emotion focused coping
	Stress level	1 item

In line with the research questions of the study, a model where eight variables were used was hypothesized. In the model, there were three independent variables; stress level, secondary appraisal, and cognitive appraisal of situation. Emotion focused coping and problem focused coping were the dependent variables. Positive emotions, negative emotions and cognitive appraisal of emotion were mediating variables. Means and standard deviations and, intercorellations of variables were presented in Table 6.

The hypothesized model (model 1) was presented in Figure 1. Latent variables were represented in ellipses and the observed variable was

represented by a rectangle. As illustrated in Figure 1, it was expected that, cognitive appraisal of situation will determine the positive and negative emotions, positive and negative emotions will determine the cognitive appraisal of emotion, cognitive appraisal of emotion will determine problem and emotion focused coping directly. The relationship between cognitive appraisal of situation and coping styles were expected to be mediated by positive and negative emotions and cognitive appraisal of emotions. Two other independent variables, stress level and secondary appraisal of the event, will determine problem and emotion focused coping directly. Absence of direct lines between variables implies lack of hypothesized direct effect.

Table 6. Means, Standard Deviations and Intercorrelations of Variables in the Model

Variables in the SEM	M	SD	1.	2.	3.	4.	5.	6.	7.	8.
1. Stress level	8,29	1,99	—	.42**	-.13*	-.12*	.02	.40**	.32**	-.10*
2. Secondary appraisal	5,44	2,76		—	-.09	-.06	-.01	.45**	.34**	-.04
3. Cognitive appraisal of situation	2,80	.62			—	.59**	.48**	-.17**	-.10*	.45**
4. Cognitive appraisal of emotion	2,34	.63				—	.44**	-.14*	-.13*	.39**
5. Positive emotions	2,19	.83					—	-.07	-.03	.33**
6. Negative emotions	2,53	.68						—	.49**	-.11*
7. Emotion focused coping	2,39	.62							—	-.07
8. Problem focused coping	3,06	.66								—

*p< .05, **<.01

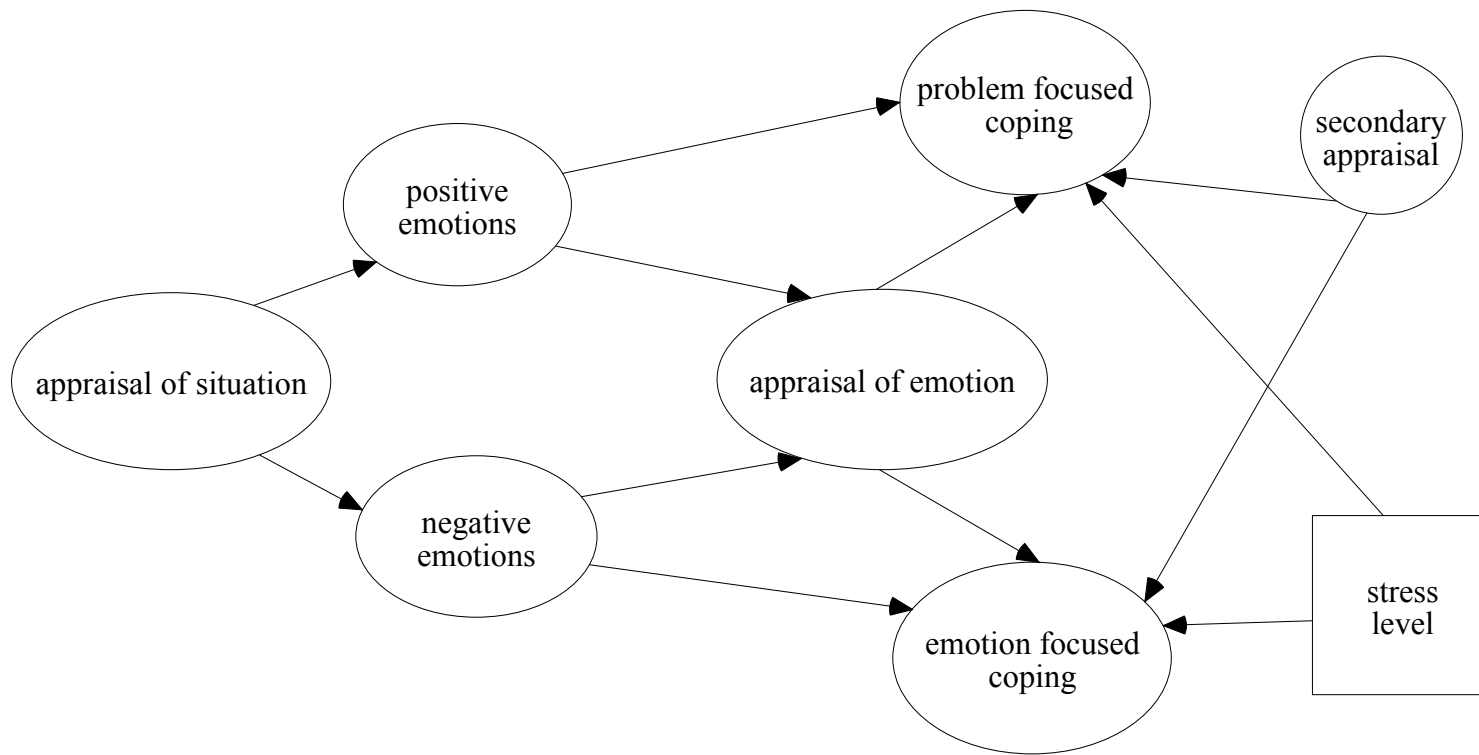


Figure 1. The Hypothesized Model (Model 1)

4.2.2 Model Estimation

In the second step, model estimation, the measurement model was tested because the measurement of each latent variable is important to obtain a psychometrically sound model in SEM (Bollen & Long, 1993; Byrne, 2001). For this purpose, the validity of measurement model was tested using chi-square difference test. Since the factors that constitute the latent variables in the model were obtained by an earlier factor analysis, chi-square difference test in SEM served as the cross validation of the psychometric characteristics of the measures. The result of the test showed that although the variables are correlated with each other and measurement model is adequate $\chi^2 = 367,89$, $df = 14$, the model did not fit the data, $p = .000$ ($\chi^2 / df = 26,28$).

4.2.3 Model Modification

Since the model estimation revealed a misfit, post hoc model modifications were performed in an attempt to develop a better fitting model. Modification indexes in the AMOS output suggested some modifications in order to develop better fitting data. The modifications that were suggested by the AMOS program were presented in Table 7.

Table 7. Suggested Modifications by AMOS Program to Improve the Fit of Hypothesized Model

Suggested additional paths	
secondary appraisal	→ cognitive appraisal of situation
secondary appraisal	→ negative emotions
secondary appraisal	→ stress level
negative emotions	→ stress level
cognitive appraisal of situation	→ cognitive appraisal of emotion

The modification indexes revealed that five additional paths needed to be added to the model. After these paths were added to the model, the

modified model (model 2) was tested. The modified model was presented in Figure 2.

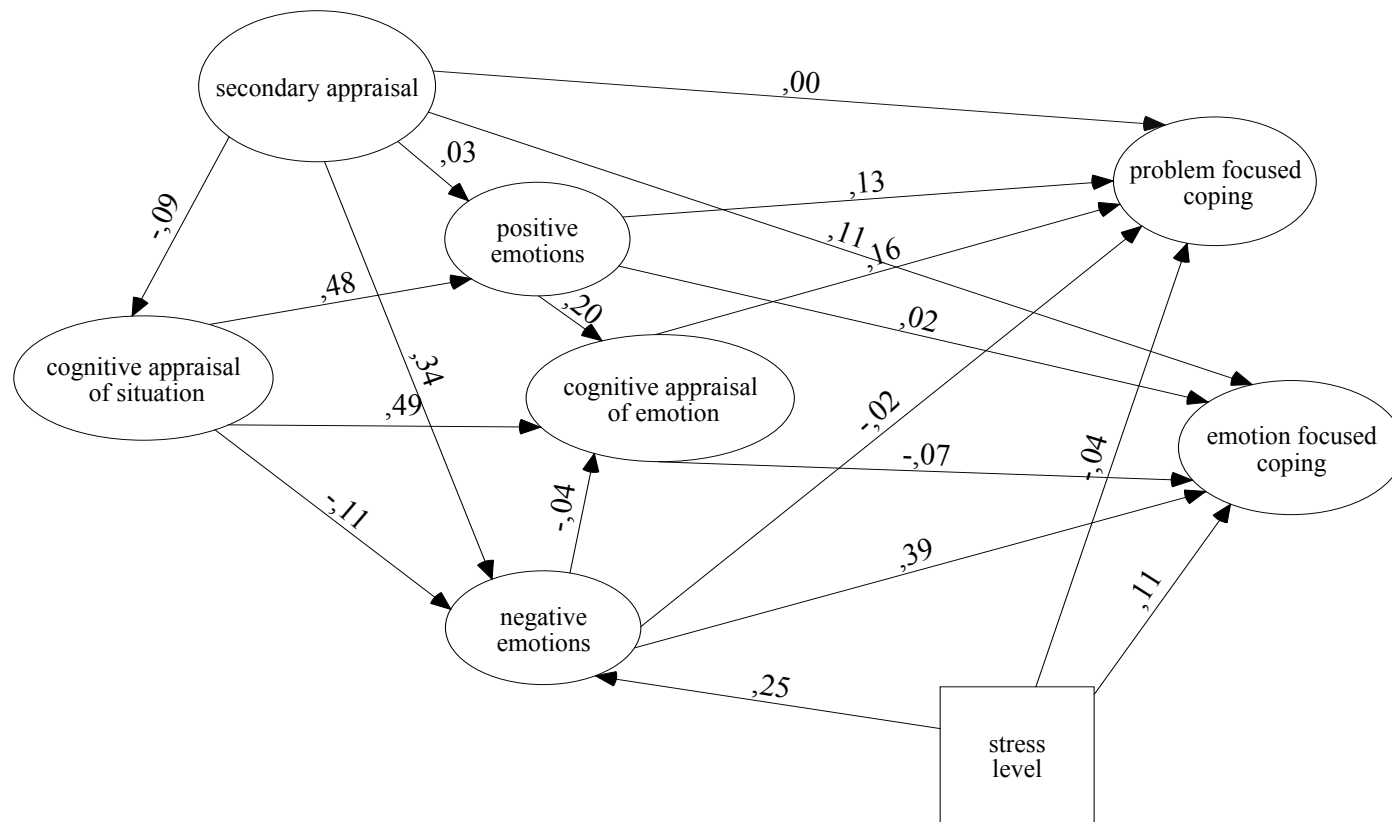


Figure 2. The Modified Model (Model 2)

4.2.4 Model Testing and Model Respecification

The test of modified model revealed that the model fitted the data significantly, $\chi^2 = 13,25$, $df = 6$, $p = .39$ ($\chi^2 / df = 2,20$). Goodness of fit index shows that the fit is adequate (CFI = .993; RMSEA = .046).

In the final step, model respecification, the accepted model was tested for the last time after deleting the nonsignificant paths from the model. Specifically, 8 nonsignificant paths were deleted; negative emotions to cognitive appraisal of emotion and secondary appraisal; negative emotions and stress level to problem focused coping; secondary appraisal to positive emotions; positive emotions to emotion focused coping; cognitive appraisal of emotion to emotion focused coping. The final model, after the nonsignificant paths were deleted, fitted the data significantly $\chi^2 = 20,79$ $df = 13$, $p = .077$ ($\chi^2 / df = 1,59$). Goodness of fit index shows that the fit is still good, (CFI = .992; RMSEA = .033). When the other goodness of fit statistics was examined the values were in acceptable ranges; NFI = .980; AIC = 82,79; BCC = 83,80; ECVI = .148 (Low = .134, High = .178); CN = 602. The χ^2 difference test revealed that, the final model was not significantly different from the modified model, therefore, the hypothesis of the final model was accepted. Comparisons of three models; hypothesized model, modified model and final model and, summary of fit indexes were presented in Table 9 and 10 respectively. The final model with significant predictions was presented in Figure 3.

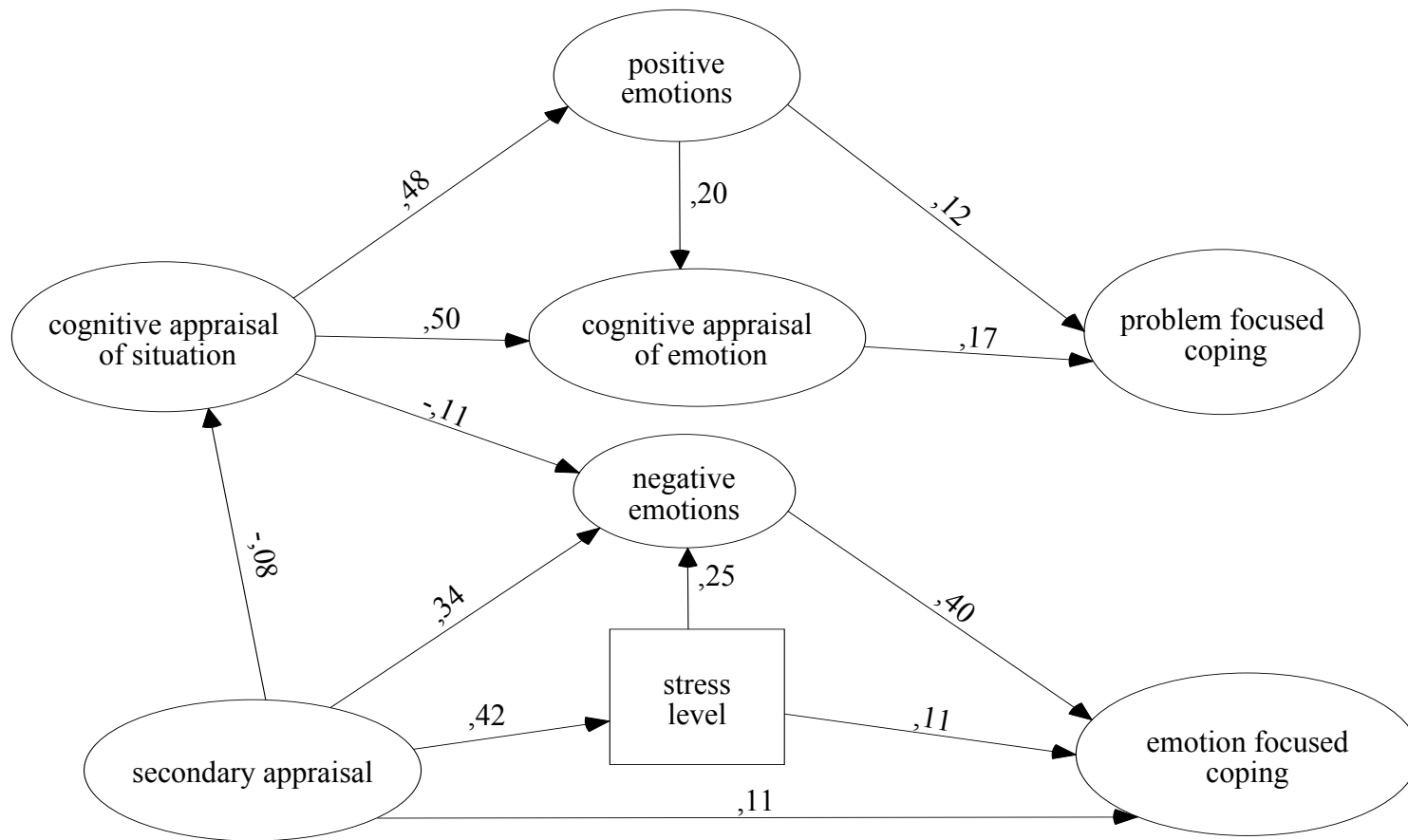


Figure 3. The Final Model (Model 3)

Standardized regression weights (Beta values) of each path between independent and dependent variables in the final model were presented in Table 8.

Table 8. Standardized Regression Weights of Paths Between Independent and Dependent Variables in the Final Model

Independent variable	Dependent variable	Beta
secondary appraisal of the event	→ cognitive appraisal of situation	-.08
cognitive appraisal of situation	→ positive emotions	.48
secondary appraisal of the event	→ stress level	.42
cognitive appraisal of situation	→ negative emotions	-.11
cognitive appraisal of situation	→ cognitive appraisal of emotion	.50
secondary appraisal of the event	→ negative emotions	.34
positive emotions	→ cognitive appraisal of emotion	.20
stress level	→ negative emotions	.25
positive emotions	→ problem focused coping	.12
cognitive appraisal of emotion	→ problem focused coping	.17
negative emotions	→ emotion focused coping	.40
stress level	→ emotion focused coping	.11
secondary appraisal of the event	→ emotion focused coping	.11

As the final accepted model shows, cognitive appraisal of situation directly and significantly predicted positive emotions (.48), cognitive appraisal of emotion (.50) and negative emotions (-.11).

Cognitive appraisal of emotion, was significantly predicted by cognitive appraisal of situation (.50), and positive emotions (.20).

Secondary appraisal of the event directly and significantly predicted stress level (.42) and negative emotions (.34).

While negative emotions were negatively predicted by cognitive appraisal of the situation (-.11) they were positively predicted by secondary appraisal of the situation (.34).

Problem focused coping was predicted by two variables; positive emotions (.12) and cognitive appraisal of emotion (.17) and these two variables explained the 15% of the variance in the problem focused coping. Emotion focused coping was predicted by three variables; negative emotions (.40), stress level (.11) and secondary appraisal (.11), and these three variables explained the 27% of the variance in emotion focused coping.

Standardized direct, indirect and total effects (Beta values) of variables in the final model were presented in Table 11. Squared Multiple Correlation coefficients (R^2) of the variables were presented in Table 12.

As it can be seen in Table 11, when the indirect effects were considered, it was seen that, cognitive appraisal of situation also has an indirect significant effect on problem focused coping (.16).

Finally when the total effects of the predictors of two coping styles were considered, it was seen that for both styles of coping the effect of emotions is considerable. As Table 11 presents, the most parsimonious determinant of emotion focused coping was negative emotions (.40), and for problem focused coping, the size of the effect of three determinants was comparable (cognitive appraisal of situation, .16, positive emotions, .15, and cognitive appraisal of emotion, .17).

The results of the structural equation modeling supported the first hypothesis of the research, i.e., positive emotions directly predicted the problem focused coping and, negative emotions directly predicted the emotion

focused coping. The second hypothesis of the research was partially supported for problem focused coping. As hypothesized, cognitive appraisal of emotion predicted the problem focused coping. However, cognitive appraisal of emotion did not have any effect on emotion focused coping.

Table 9. Comparisons of Models

Model Description	Comparison Model	χ^2	<i>df</i>	χ^2/df	$\Delta\chi^2$	Δdf	$\Delta\chi^2/df$	p
Model 1: Hypothesized model		367,89	14	26,28	–	–	–	–
Model 2: Modified model	Model 1	13,25	6	2,20	354,64	8	24,08	P< .05
Model 3: Final model	Model 2	20,79	13	1,59	7,54	7	.61	ns

Table 10. Summary of Goodness of Fit Statistics

Model	CFI	NFI	RMSEA	AIC	BCC	ECVI	CN
Model 1: Hypothesized model	.563	.561	.213	427,90	428,88	.765	36
Model 2: Modified model	.993	.987	.046	89,25	90,50	.160	532
Model 3: Final model	.992	.980	.033	82,79	83,80	.148	602

Table 11. Standardized Direct, Indirect and Total Effects of Variables

Standardized Direct Effects	Secondary appraisal of event	Cognitive appraisal of situation	Positive emotions	Stress level	Negative emotions	Cognitive appraisal of emotion
Cognitive appraisal of situation	-.08	—	—	—	—	—
Positive emotions	—	.48	—	—	—	—
Stress level	.42	—	—	—	—	—
Negative emotions	.34	-.11	—	.25	—	—
Cognitive appraisal of emotion	—	.50	.20	—	—	—
Problem focused coping	—	—	.12	—	—	.17
Emotion focused coping	.11	—	—	.11	.40	—
Standardized Indirect Effects						
Cognitive appraisal of situation	—	—	—	—	—	—
Positive emotions	-.04	—	—	—	—	—
Stress level	—	—	—	—	—	—
Negative emotions	.11	—	—	—	—	—
Cognitive appraisal of emotion	-.05	.10	—	—	—	—
Problem focused coping	-.01	.16	.03	—	—	—
Emotion focused coping	.23	-.04	—	.10	—	—
Standardized Total Effects						
Cognitive appraisal of situation	-.08	—	—	—	—	—
Positive emotions	-.04	.48	—	—	—	—
Stress level	.42	—	—	—	—	—
Negative emotions	.45	-.11	—	.25	—	—
Cognitive appraisal of emotion	-.05	.59	.20	—	—	—
Problem focused coping	-.01	.16	.15	—	—	.17
Emotion focused coping	.34	-.04	—	.21	.40	—

Table 12. Squared Multiple Correlation Coefficients (R^2) of the Variables in the Final Model

Variables in the model	(R^2)
Cognitive appraisal of situation	.01
Positive emotions	.23
Stress level	.17
Negative emotions	.27
Cognitive appraisal of emotion	.38
Problem focused coping	.15
Emotion focused coping	.27

As Table 12 presents, when the variances explained in the four mediating variables in the final model were examined, it was seen that 23% of the variance was explained in positive emotions by a single variable, cognitive appraisal of situation. 27% of the variance in negative emotions was explained by two variables, secondary appraisal and cognitive appraisal of situation. Two variables, positive emotions and cognitive appraisal of situation explained 38% of the variance in cognitive appraisal of emotion. Finally, secondary appraisal of the event explained 17% of the variance in the stress level.

CHAPTER V

DISCUSSION, IMPLICATIONS AND RECCOMENDATIONS

5.1 Discussion

This study examined the role of cognitive appraisal of the situation, emotions experienced and cognitive appraisal of emotions in the face of a stressful event together with secondary appraisal of the event, stress level, and coping styles by using Structural Equation Modeling.

Findings of the structural analysis showed that, appraisal of situation in four cognitive dimensions; situational state, motivational state, probability, and power predicted positive emotions significantly (.48). Positive emotions, which worked as a mediator between appraisal and coping, led to problem focused coping style (.12). Both appraisal of the situation (.50) and positive emotions (.20) significantly predicted appraisal of emotion, which is another moderator that predicted problem focused coping (.17). Although the indirect effect of appraisal of situation on problem focused coping was also significant (.16), when the total effects were compared, positive emotions (.15), appraisal of situation (.16), and appraisal of emotion (.17). predicted problem focused coping almost equally.

Secondary appraisal of the event, which was composed of threat and harm/loss appraisals, directly predicted negative emotions (.34) and stress level (.42) significantly. Emotion focused coping was significantly directly predicted

by three variables; secondary appraisal (.11), stress level (.11) and negative emotions (.40).

When the total effects of stress level, secondary appraisals, and negative emotions on emotion focused coping were examined, it was seen that total effect of negative emotions (.40) was higher than both secondary appraisal (.34) and stress level (.21).

The results of this study indicated that appraisal of situation determined the positive emotions, and positive emotions not only affected problem solving coping but also determined the appraisal of emotion which also affected problem solving coping. Secondary appraisal affected both stress level and negative emotions and these two variables determined the emotion focused coping. In this part, appraisal of negative emotions was not a significant predictor for emotion focused coping.

The results support the research's first hypothesis that not only appraisal of the situation but also emotions can directly predict the style of coping.

The second hypothesis of the research, which predicted significant direct effect of appraisal of emotions, was partially supported, i.e., only for positive emotions. While appraisal of emotion predicted problem focused coping, the results show that, negative emotions did not go through any appraisal process.

The presence of significant relationships between secondary appraisal and negative emotions, and appraisal of the situation and positive emotions, partially supported the cognitive theory of emotion, which argues that emotions are the results of cognitive appraisals (Roseman, Spindel, & Jose, 1990; Skinner & Brewer, 2002; Smith & Ellsworth, 1985); and fully supported the

view of two higher order emotion categories approach, positive and negative emotions clusters (Herrald & Tomaka, 2001; Watson, Clark, & Tellegen, 1988).

When appraisal and coping relationship was taken into consideration and the results of this study were compared to the findings of other appraisal-coping studies, as it was expected, secondary appraisal moderated the emotion focused coping (Mikulincer & Victor 1995; Portello & Long, 2001; Thornton, 1992); and appraisal of situation (positive appraisal) predicted more problem focused coping (Bjorck, Cuthberston, Thurman, & Yung 2001). Similarly, cognitive appraisal predicted coping better than the level of stress (Chung et al., 2001; Portello & Long, 2001). However, when the total effects of appraisal, emotion, and stress level were compared, the results showed that for both problem and emotion focused coping, emotions were strong predictors. This result satisfied the basic premise of the research, that is, the important role of emotions in stress and coping, which has both theoretical and practical implications.

An important point in this research was its attempt to imply the effect of affect on coping both directly and indirectly through appraisal of emotion. Absence of appraisal of negative emotions leads us to consider possible alternative explanations about the appraisal process of emotion. Absence of appraisal of negative emotions can find support from information processing research. Tiedens and Linton (2001), stated that dual process theories of information processing investigate how affect states affect attitude change. There is evidence that “positive moods lead to heuristic processing. ... positive moods lead to increased reliance on heuristic cues such as the expertise of the source. On the other hand, sad and neutral people (neutral and negative mood) are more attuned to the quality of arguments than are happy people, and thus, they appear to be processing more systematically” (Tiedens & Linton, 2001, p. 977).

It is possible that people who experienced positive emotions in this research, followed a similar cognitive processing and tended to deal with the heuristics of the situation, which corresponds to the problem focused coping strategies. For negative emotions, on the other hand, emotion focused coping strategies can be seen as systematic processing of the situation and of the information about the situation. This explanation might have an important input for the counseling implications of the results of this study. People who come to the counseling session with negative emotions or ineffective coping skills, might be in need of systematic processing of the event. In other words, if the appraisal of the emotion part was missing in the stress process, the counselor might guide the client to systematically reprocess the event and the emotions.

The presence of appraisal of emotion only for positive emotions can be explained by the certainty dimension of cognitive appraisal of the event. It is possible that, after a stressful event, people are more uncertain about their positive emotions as compared to negative emotions and therefore get into substantive processing of possibly uncertainty associated positive emotions. This possibility also finds support from Roseman et al.'s (1990) and Smith and Ellsworth's (1985) studies where the results of the research were inconsistent for the appraisal of event on certainty-uncertainty dimension. Hope, for example, was appraised as uncertain, but disgust, sadness and distress produced inconsistent results in terms of certainty (Roseman, Spindel, & Jose, 1990; Tiedens & Linton, 2001). For negative emotions included in this study such as anger, distress, shame, sadness, students might be more certain about the emotion and therefore do not reappraise the emotion cognitively. In such a case, it can be argued that if the experienced emotions are negative, students tend to directly deal with these emotions as in emotion focused coping styles, possibly because of its function to regulate emotions. Another possible explanation can be the nature of basic versus complex emotions. Basic

emotions such as happiness, sadness, fear, anger and disgust are elicited automatically, without the appraisal of event (Power & Dalgleish, 1999).

For positive emotions, on the other hand, there are two possible explanations. First, since these emotions are positive, people may want to keep experiencing the emotion and therefore reappraise the emotion over time. In other words, appraisal of positive emotions can serve as a mechanism to make endurance of such plausible emotions possible. The second explanation can be again related with the certainty dimension of the emotion: if people are not sure about these positive emotions they may need to appraise them in order to increase their certainty about the emotion.

The final point that needs to be mentioned is about the methodological issues inherent in appraisal studies. In this study, the participants first remembered a stressful event, later appraised that event and finally reported their emotions regarding the event. Although the sequence of event-appraisal-emotion-appraisal of emotion process was tried to be kept during data collection and also in the analysis, this does not guarantee the sequence of the processes while the event was actually happening. In other words, the relationship between appraisals and emotions and coping might be much more complex than we assume and this relationship may not be linear. Therefore, it is also possible that, the participants were not answering especially appraisal questions by considering their thoughts and emotions at the time of the event but rather, at the time when they were questioned about the event which was after the event happened. This handicap exists and also is mentioned by some researchers (MacLeod, 1993, cited in McNally, 2001), who are critical of the use of cognitive appraisals in psychology “because of its reliance on introspective self reports to ascertain beliefs, the appraisal approach embodied in cognitive therapy falls outside the boundaries of legitimate science” (MacLeod, 1993, p. 170, cited in McNally, 2001). They even claim that the method used in appraisal studies in psychology and counseling can be invalid;

and the relationship between cognitive appraisals and subsequent behavior does not confirm causality. Assuming a causal relationship in such a sequence may cause us to do post hoc faults. It was also argued that, self-report is inadequate to reveal the causes “that lie outside of the awareness, it fails to capture processes that occur very quickly” (McNally, 2001, p. 516). This critique is partly the result of a difference in the use of the word cognitive, as a general versus strict way. As it was mentioned in several points in this research, the word cognitive appraisal was used as a general term and by no means used in the meaning of cognition or information processing. Further, this research was not after finding the nature of the appraisal process that happens very quickly and even lies outside of awareness, which has very structured and specific use in the counseling process, e.g., dealing with automatic thoughts.

5.2 Implications

For the theoretical part, the results suggested that emotions and the cognitive appraisal of emotions are important variables in the interactional model of stress and coping, because of their direct and moderator roles in the stress process. The roles of positive emotions and the appraisal of positive emotions need more consideration to understand the role of positive emotions in the stress process. This is similar to the need to understand the adaptive mechanism of positive emotions (Folkman & Moskowitz, 2000).

Since the research focused on real life stressful events that participants actually experienced, the results suggest that the findings can be used in counseling practices. Even if we cannot be certain about the precision of the appraisals and emotions experienced after a stressful event, this may not hinder the applicability of the results to the counseling sessions.

When the counseling implications of the results are considered, in cognitive terms, clients come to the counseling sessions when they need to

cope with stressors, when they are loaded with emotions which are generally negative, or, when they cannot deal with the problems or the stressors. The results suggest to us, the need to focus on emotions by considering their antecedents and consequences.

Emotion ... plays a significant role in counseling, regardless of whether emotion is a fundamental part of the counseling psychologist's theoretical framework or whether emotion is considered to be significant, although not primary, element of the counseling process (Wester, Vogel, Pressly, & Heesacker, 2002, p. 630).

Since the appraisal of the situation determines the emotion, and since the negative emotions tend not to be appraised but rather directly yield emotion focused coping strategies which are not always the effective ways of handling situations, by reappraising the situation and the negative emotions, the clients may gain a more objective view of the stressful event.

The four dimensions of cognitive appraisal of event can be used as a tool for clients to reappraise the stressful event. Focusing on each appraisal dimension: power, motivational state, situational state, and probability dimensions as well as threat and harm loss appraisal, may serve a therapeutic tool for the regulation of emotions. For example, the counselor may see that strong negative emotions such as anger and shame may cause clients to see a situation as more demanding and threatening (Folkman 1984) hence, appraise the situation as unchangeable and use emotion focused coping strategies. The results of Herrald and Tomaka's (2001) experiment also support the relationship between negative emotion and subsequent behavior. In their experiment it was found that anger was associated with task performance decrements and such a relationship between negative emotion and performance, may have real world consequences. Therefore, focusing on and exploring negative emotions during counseling may contribute to the relief and change the clients' frame of seeing the event differently. As Wester and

colloques reported “Counseling psychologist’s increased understanding of affective phenomena may increase their ability to facilitate certain therapeutic change processes” (Wester et al., 2002, p. 631).

From a different perspective, reappraising the situation and emotions may also serve as an information processing function and this process may produce more positive emotions (Winkielman & Cacioppo, 2001). Therefore, clients can develop more problem oriented coping strategies especially in the cognitive oriented counseling practices.

Since there is a strong relationship between coping styles and psychological well being, and since the emotion focused strategies are related with poor psychological outcomes (Dunkley & Blankstein, 2000; Endler & Parker, 1990; Endler, Parker, & Butcher, 2003; Herrald & Tomaka, 2001; Pakenham, 2001), in counseling, the interventions focusing on negative emotions, and related appraisals may help the development of more task or problem oriented coping strategies and these shifts may have long term preventive effects for the clients.

In this context, a similar, widely used method, “reframing”, has procedural similarities with reappraising. “Reframing and stress inoculation assume that maladaptive emotions and thinking are influenced or mediated by one’s core beliefs, schemas, perception and cognitions” (Cormier & Cormier, 1998, p. 395). Reframing involves understanding the mechanism by which an incident or situation is perceived by the client, and providing the client with a new frame or new view of the situation. Similarly, by reappraising the situation according to the dimensions of cognitive appraisal of the event, the client may alter the perceptions and gain a new view of the situation. If this alteration can become more objective, or positive, this change in the perception may accompany, changes in emotions and subsequent behaviors.

Although some cognitivists argue for the validity of appraisal approach in the practice of counseling and psychotherapy, they seem to accept that appraisal approach is therapeutically more fruitful than the information processing approach. As critics of the appraisal said "...depending on one's question, they (introspective self report) can be precisely what is needed" (McNally, 2001, p. 520). The information, even introspection about appraisal and emotion in counseling, when restricted to their effect on coping, is believed to be what is needed in counseling because it is persons' evaluations, conscious awareness and perceptions of events, of themselves and sometimes other people. With this respect, both appraisals and emotions can be the working ground for counselors.

5.3 Recommendations

There are some recommendations for the future that the results of this study revealed. First, since emotions play an important role in counseling, counselors should be aware of the theory behind emotions and roles of emotions in behavior (Wester et al., 2002). This point becomes especially relevant when we counselors face clients who experienced a stressful event, which needs to be handled via several coping strategies.

An important point that future studies should focus on is the effect of expressed emotions in the stress and coping process. The possible difference between emotions experienced and emotions expressed may have an effect on the appraisal of the event and coping relationship. Expressed and unexpressed emotions might be appraised differently and these emotions might differently affect the coping styles.

The pattern of appraisal-emotion-coping relationship may exhibit changes in time. Proximity can be another factor that may affect the coping style. The possibility of the use of emotion focused coping right after the event, and following some changes in the valance of emotions, the use of problem

focused coping strategies are also possible. Longitudinal studies that capture this possible change in appraisal, emotions and coping are required to understand the dynamic nature of this relationship.

In order to understand the role of discrete emotions in predicting the different coping strategies, further studies should examine each appraisal dimension, discrete emotions and coping strategy separately.

Finally, appraisal of emotion, which was used in this research as one of the moderator factors affecting coping, needs to be further studied, in order to validate its effect on the stress-coping process. This examination might also give a better account for the absence of appraisal of negative emotions. Although the model tested in this research is an acceptable one, the same model should be tested in different populations preferably by using methods of the structural equation modeling. Furthermore, to understand the pattern of relationship between appraisal and emotions, this relationship can be tested for different stressful events separately.

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APPENDICES

APPENDIX A

INTERVIEW FORM OF THE PILOT STUDY

Bu çalışmanın amacı, kişilerin karşılaştığı stresli durumlardaki duygu ve düşüncelerini araştırmaktır. Lütfen size soracağım soruları tam ve sizin için en doğru şekliyle cevaplamaya çalışınız.

Yaş _____
Cinsiyet _____
Bölüm _____
Sınıf _____

I. Son zamanlarda yaşadığınız sizde stres yaratan bir olayı anlatır mısınız?

1. Bu olay sizde 100 üzerinden ne kadar stres yarattı?

2. Bu olayın yarattığı stres ne kadar sürdü?

3. Bu olayın yarattığı stres hala sürüyor mu?

4. Sizce bu stresi yaşamanızın sebebi, stresin kaynağı nedir? Ya da kimdir?

II. Bu olayı yaşarken düşündüklerinizi aklınızdan geçenleri söyler misiniz? Bu olayın o anda size düşündürdükleri, olay anındaki etkileri, ileride olabilecekler, yarar ve zararları hakkında aklınızdan neler geçti? Lütfen o anı hatırlamaya çalışarak aklınızdan neler geçtiğini söyleyiniz.

1. Bu olayın ileride size getirebileceği zararlar ve olumsuz etkileri hakkında neler düşündünüz?

A. Bu düşünce sizin hangi duyguyu yaşamanıza neden oldu? -----

2. Bu olayın size getirdiği maddi-manevi kayıplar hakkında neler düşündünüz?

A. Bu düşünce sizin hangi duyguyu yaşamanıza neden oldu? -----

3. Bu olayın size getirebileceği yararlar ve fırsatlar hakkında neler düşündünüz?

A. Bu düşünce sizin hangi duyguyu yaşamanıza neden oldu? -----

4. Bu olayın yarattığı stres ile başarılı bir şekilde başa çıkabileceğinizi düşündünüz mü?
 5. Bu olayı yaşamak sizin istediğiniz, olumlu birşey miydi yoksa istemediğiniz olumsuz birşey mi?
 6. Bu olaya zararları ya da olumsuzlukları azaltmak için mi yoksa yararları ya da olumlulukları arttırmak için mi tepki verdiniz?
 7. Bu olay sırasında, olay ile ilgili olup biten şeylerden ne kadar emindiniz?
 8. Bu olay süresince kendinizi güçlü, dayanıklı mı yoksa güçsüz, zayıf mı hissettiniz?
 9. Bu olayla başarılı bir şekilde başedebileceğinize inandınız mı?
 10. Bu olayı yaşamayı hak ettiğinizi düşündünüz mü?
 11. Bu olayı yaşamanıza sebep olan şey neydi ya da kimdi?
- III. Bu olayı yaşarken hangi duyguları yaşıyordunuz lütfen detaylı bir şekilde belirtiniz.

Yukarıda belirtilen her duygu için ayrı ayrı aşağıdaki sorular sorulacak

Duyguyu değerlendirme boyutları	Duygu I	Duygu II	Duygu III
Bu duyguyu yaşıyor olmak sizin istediğiniz, olumlu birşey miydi yoksa istemediğiniz olumsuz birşey mi?			
Bu duyguyu yaşamamanın zararları ya da olumsuzlukları azalttığımı mı yoksa yararları ya da olumlulukları arttırdığımı mı düşündünüz?			
Bu duygunun ne olduğundan ne kadar emindiniz?			
Kendinizi bu duygu altında güçlü, dayanıklı mı yoksa güçsüz, zayıf mı hissettiniz?			
Bu duyguyla başedebileceğinize bu duyguyu yenebileceğinize mi yoksa yenemeyeceğinize mi inandınız?			
Bu duyguyu yaşamayı hak ediyor muydunuz?			
Bu duyguyu yaşamamanıza sebep olan şey neydi ya da kimdi?			

APPENDIX B

QUESTIONNAIRE OF THE PILOT STUDY

Sevgili Öğrenciler,

Bu ankette sizin stresli bir yaşantınızdaki duygu, düşünce ve başa çıkma yollarınızı anlamayı amaçlayan cümleler bulunmaktadır. Sizden beklenen, her bir bölümde verilen açıklamaları dikkatle okumanız ve sizi en iyi yansıttığına inandığınız seçeneklere çarpı (X) işareti koymanızdır.

Ankette yer alan maddelerin doğru veya yanlış olarak değerlendirilebilecek bir yanıtı yoktur. Bu nedenle, lütfen sadece kendi durumunuzu açıkça yansıtan cevaplar veriniz. İçtenlikle vereceğiniz yanıtlar araştırmanın güvenilirliği ve geçerliği açısından son derece önemlidir.

Ankete vereceğiniz yanıtlar kesinlikle gizli tutulacak ve araştırma dışında hiçbir yerde kullanılmayacaktır.

Yardımlarınız için şimdiden teşekkür ederim.

Neşe Üner Alkan
Doktora öğrencisi

BÖLÜM I: Lütfen aşağıdaki bilgileri doldurunuz.

Cinsiyet: () K () E

Yaş :

Bölüm :

Sınıf :

BÖLÜM II: Bu bölümde önce stresli bir yaşantınızı yazmanız ve daha sonra bununla ilgili soruları yanıtlamanız istenmektedir.

Son 15 gün içinde başınızdan geçen, stresli (ya da sıkıntı verici/gerginlik yaratıcı) olarak tanımlayabileceğiniz bir olayı ana hatlarıyla ve 5-10 cümleyle özetleyerek yazınız.

Bu olayın sizde **ne derece stres yaratmış olduğunu** aşağıda verilen 1(çok az) ile 11(çok fazla) arasındaki seçeneklerden birini işaretleyerek belirtiniz.

1	2	3	4	5	6	7	8	9	10	11
Çok az										Çok fazla

BÖLÜM III: Bu bölümdeki soruları yanıtlarken, lütfen, **yaşadığınız olay anını** mümkün olduğunca hatırlamaya çalışınız.

A. DÜŞÜNDÜKLERİNİZ: Aşağıdaki maddeleri, **olayı yaşarken düşündüklerinizi** hatırlamaya çalışarak yanıtlayınız. Bu maddeleri yanıtlarken, olaya ilişkin şu andaki düşüncelerinizi değil, olayı yaşarken düşündüklerinizi tekrar hatırlamanız çok önemlidir.

BU OLAY	Hiç düşünmedim 1	2	3	4	5	6	7	8	9	10	Çok Düşündüm 11
1. Benden kaynaklandı											
2. Diğer kişi/kişilerden kaynaklandı											
3. Olayın kendisinden kaynaklandı											
4. Şans, tesadüf, vb. kaynaklandı											
5. Kader, alın yazısı, vb. kaynaklandı											
6. Bununla başa çıkamam											
7. Bana bazı şeyleri kaybettirdi											
8. Bana maddi ya da manevi bir zarar verebilirdi											
9. Bana bazı yararlar sağlayabilirdi											
10. İleride bana olumlu şeyler yaşatabilir, iyi bir fırsat doğurabilirdi											
11. İleride bana olumsuz etkileri olabilirdi											
12. İleride bana zarar verebilirdi veya kayıp getirebilirdi											

B. OLAYA İLİŞKİN DEĞERLENDİRMELERİNİZ: Aşağıda **olayı yaşadığınız andaki** bazı değerlendirmelerinizi anlamak amacıyla verilmiş ifadeler yer almaktadır. Her bir maddede iki uçta verilen ifadelere ne derece katıldığınızı 1 ile 9 arasındaki rakamlardan birini seçerek işaretleyiniz. Bu maddeleri yanıtlarken, olaya ilişkin şu andaki düşüncelerinizi değil, olayı yaşarken düşüncelerinizi tekrar hatırlamanız çok önemlidir.

1. Yaşamak istediğim bir olaydı	1	2	3	4	5	6	7	8	9	Yaşamak istemediğim bir olaydı
2. Ne istediğimle tutarlıydı	1	2	3	4	5	6	7	8	9	Ne istediğimle tutarsızdı
3. Durumu iyileştirdi	1	2	3	4	5	6	7	8	9	Durumu kötüleştirdi
4. Verdiğim tepki olumlu bir şeye sahip olmak (veya varolanı korumak) içindi	1	2	3	4	5	6	7	8	9	Verdiğim tepki olumsuz bir şeyden kurtulmak (veya uzak kalmak) içindi
5. Bazı zararları azaltmak istedim	1	2	3	4	5	6	7	8	9	Bazı yararları artırmak istedim
6. Olumsuz olanı azaltmayı hedefledim	1	2	3	4	5	6	7	8	9	Olumlu olanı artırmayı hedefledim
7. Neler olabileceğini tahmin edemiyordum	1	2	3	4	5	6	7	8	9	Neler olabileceğini tahmin edebiliyordum
8. Doğabilecek sonuçlardan hiç emin değildim	1	2	3	4	5	6	7	8	9	Doğabilecek sonuçlardan çok emindim
9. Neler olup bittiğinden kuşku yoktu	1	2	3	4	5	6	7	8	9	Neler olup bittiğinden kuşkuluydum
10. Olay süresince kendimi güçlü hissettim	1	2	3	4	5	6	7	8	9	Olay süresince kendimi güçsüz hissettim
11. Olay süresince kendimi dayanıksız hissettim	1	2	3	4	5	6	7	8	9	Olay süresince kendimi dayanıklı hissettim
12. Bu olayla hiç baş edemeyeceğime inandım	1	2	3	4	5	6	7	8	9	Bu olayla bütünüyle baş edebileceğime inandım
13. Bana karşı yapılan bir haksızlık değildi	1	2	3	4	5	6	7	8	9	Bana karşı yapılan büyük bir haksızlıktı
14. Ben kötü bir şeyler olmasını hak ettim	1	2	3	4	5	6	7	8	9	Ben iyi bir şeyler olmasını hak ettim
15. Kendimi ahlaki açıdan doğru buldum	1	2	3	4	5	6	7	8	9	Kendimi ahlaki açıdan yanlış buldum
16. Hiç kimsenin kontrol edemeyeceği etmenlerden kaynaklandığı aklıma gelmedi	1	2	3	4	5	6	7	8	9	Hiç kimsenin kontrol edemeyeceği etmenlerden kaynaklandığı aklıma geldi
17. Bu olaya başka birinin neden olduğunu düşündüm	1	2	3	4	5	6	7	8	9	Bu olaya başka birinin neden olduğunu düşünmedim
18. Bu olaya ben sebep olmadım	1	2	3	4	5	6	7	8	9	Bu olaya ben sebep oldum

C. DUYGULARINIZ: Aşağıdaki maddeleri, **olayı yaşadığınız andaki** duygularınızı hatırlamaya çalışarak yanıtlayınız. Bu maddeleri yanıtlarken, olaya ilişkin şu andaki duygularınızı değil, olayı yaşadığınız andaki duygularınızı tekrar hatırlamanız çok önemlidir.

	Hiç 1	Çok az 2	Orta 3	Çok 4	Çok fazla 5
Şaşkınlık					
Kıskançlık					
Suçluluk					
İlgi					
Aşağılanma					
Sıkıntı					
Öfke					
Üzüntü					
Mutluluk					
Utanç					
İğrenme					
Engellenme					
Gurur					
Umut					
Korku					
Nefret					
Pişmanlık					
Diğer (belirtiniz ve derecelendiriniz)					
.....					
.....					
.....					

D. DUYGULARA İLİŞKİN DEĞERLENDİRMELERİNİZ:

Bir önceki bölümde belirttiğiniz duygulardan, **en yoğun yaşadığınız bir duyguyu seçip yazınız.** (Eğer birden fazla duyguyu yoğun olarak yaşadıysanız, bunlar içinden birini seçiniz.)

.....

Aşağıda olayı yaşadığımız andaki bu duyunuza ilişkin değerlendirmelerinizi anlamak amacıyla verilmiş ifadeler yer almaktadır. Her bir maddede iki uçta verilen ifadelere ne derece katıldığınızı 1 ile 9 arasındaki rakamlardan birini seçerek işaretleyiniz.

1. Yaşamak istediğim bir duyguydu	1	2	3	4	5	6	7	8	9	Yaşamak istemediğim bir duyguydu
2. Ne istediğimle tutarlıydı	1	2	3	4	5	6	7	8	9	Ne istediğimle tutarsızdı
3. Durumu iyileştirdi	1	2	3	4	5	6	7	8	9	Durumu kötüleştirdi
4. Olumlu bir şeye sahip olmak (veya varolanı korumak) içindi	1	2	3	4	5	6	7	8	9	Olumsuz bir şeyden kurtulmak (veya uzak kalmak) içindi
5. Bazı zararları azaltmak içindi	1	2	3	4	5	6	7	8	9	Bazı yararları artırmak içindi
6. Olumsuz olanı azaltmak içindi	1	2	3	4	5	6	7	8	9	Olumlu olanı artırmak içindi
7. Doğurabileceği sonuçlardan emin değildim	1	2	3	4	5	6	7	8	9	Doğurabileceği sonuçlardan emindim
8. Yaşadığım duygudan kuşkum yoktu	1	2	3	4	5	6	7	8	9	Yaşadığım duygudan kuşkuluydum
9. Bu duyguyu yaşarken kendimi güçlü hissettim	1	2	3	4	5	6	7	8	9	Bu duyguyu yaşarken kendimi güçsüz hissettim
10. Bu duyguyu yaşarken kendimi dayanıksız hissettim	1	2	3	4	5	6	7	8	9	Bu duyguyu yaşarken kendimi dayanıklı hissettim
11. Bu duyguyla baş edemeyeceğime inandım	1	2	3	4	5	6	7	8	9	Bu duyguyla baş edebileceğime inandım
12. Bu duyguyu yaşamayı hakediyordum	1	2	3	4	5	6	7	8	9	Bu duyguyu yaşamayı haketmiyordum
13. Olumsuz duygular yaşamayı hak ettim	1	2	3	4	5	6	7	8	9	Olumlu duygular yaşamayı hak ettim
14. Bu duygu ahlaki açıdan doğruydı	1	2	3	4	5	6	7	8	9	Bu duygu ahlaki açıdan yanlışdı
15. Hiç kimsenin kontrol edemeyeceği etmenlerden kaynaklandığı aklıma gelmedi	1	2	3	4	5	6	7	8	9	Hiç kimsenin kontrol edemeyeceği etmenlerden kaynaklandığı aklıma geldi
16. Bu duyguya başka birinin neden olduğunu düşündüm	1	2	3	4	5	6	7	8	9	Bu duyguya başka birinin neden olduğunu düşünmedim
17. Bu duyguya ben sebep olmadım	1	2	3	4	5	6	7	8	9	Bu duyguya ben sebep oldum

KATILDIĞINIZ İÇİN TESEKKÜR EDERİM

APPENDIX C

QUESTIONNAIRE OF THE MAIN STUDY

Sevgili Öğrenciler,

Bu ankette sizin stresli bir yaşantınızdaki duygu, düşünce ve başa çıkma yollarınızı anlamayı amaçlayan cümleler bulunmaktadır. Sizden beklenen, her bir bölümde verilen açıklamaları dikkatle okumanız ve sizi en iyi yansıttığına inandığınız seçeneklere çarpı (X) işareti koymanızdır.

Ankette yer alan maddelerin doğru veya yanlış olarak değerlendirilebilecek bir yanıtı yoktur. Bu nedenle, lütfen sadece kendi durumunuzu açıkça yansıtan cevaplar veriniz. İçtenlikle vereceğiniz yanıtlar araştırmanın güvenilirliği ve geçerliği açısından son derece önemlidir. Lütfen tüm soru ve maddelere yanıt veriniz, yanıtız soru ya da madde bırakmayınız.

Ankete vereceğiniz yanıtlar kesinlikle gizli tutulacak ve araştırma dışında hiçbir yerde kullanılmayacaktır.

Yardımlarınız için şimdiden teşekkür ederim.

Neşe Üner Alkan
Doktora öğrencisi

BÖLÜM I: Lütfen aşağıdaki bilgileri doldurunuz.

Cinsiyet: () K () E

Yaş :

Bölüm :

Sınıf :

BÖLÜM II: Bu bölümde önce stresli bir yaşantınızı yazmanız ve daha sonra bununla ilgili soruları yanıtlamanız istenmektedir.

Son 15 gün içinde başınızdan geçen, stresli (ya da sıkıntı verici/gerginlik yaratıcı) olarak tanımlayabileceğiniz bir olayı ana hatlarıyla ve 5-10 cümleyle özetleyerek yazınız.

Bu olayın sizde **ne derece stres yaratmış olduğunu** aşağıda verilen 1(çok az) ile 11(çok fazla) arasındaki seçeneklerden birini işaretleyerek belirtiniz.

1	2	3	4	5	6	7	8	9	10	11
Çok az										Çok fazla

BÖLÜM III: Bu bölümdeki soruları yanıtlarken, lütfen, **yaşadığınız olay anını** mümkün olduğunca hatırlamaya çalışınız.

A. DÜŞÜNDÜKLERİNİZ: Aşağıdaki maddeleri, **olayı yaşarken düşündüklerinizi** hatırlamaya çalışarak yanıtlayınız. Bu maddeleri yanıtlarken, olaya ilişkin şu andaki düşüncelerinizi değil, olayı yaşarken düşüncelerinizi tekrar hatırlamanız çok önemlidir.

BU OLAY	Hiç katılmıyorum 1	2	3	4	5	6	7	8	9	10	Tamamen katılıyorum 11
Bana bazı şeyleri kaybettirdi	1	2	3	4	5	6	7	8	9	10	11
Bana maddi ya da manevi zarar verdi	1	2	3	4	5	6	7	8	9	10	11
Bana bazı yararlar sağlayabilirdi	1	2	3	4	5	6	7	8	9	10	11
İleride bana olumlu şeyler yaşatabilir, iyi bir fırsat doğurabilirdi	1	2	3	4	5	6	7	8	9	10	11
İleride bana olumsuz etkileri olabilirdi	1	2	3	4	5	6	7	8	9	10	11
İleride bana zarar verebilirdi veya kayıp getirebilirdi	1	2	3	4	5	6	7	8	9	10	11
Bu olayla başedebileceğimi düşündüm	1	2	3	4	5	6	7	8	9	10	11

B. OLAYA İLİŞKİN DEĞERLENDİRMELERİNİZ: Aşağıda **olayı yaşadığınız andaki** bazı değerlendirmelerinizi anlamak amacıyla verilmiş ifadeler yer almaktadır. Her bir maddedeki ifadelere ne derece katıldığınızı uygun rakamı işaretleyerek belirtiniz. Bu maddeleri yanıtlarken, olaya ilişkin şu andaki düşüncelerinizi değil, olayı yaşarken düşüncelerinizi tekrar hatırlamanız çok önemlidir.

	1 Hiç	2 Biraz	3 Orta Düzeyde	4 Oldukça fazla	5 Çok fazla
1. Yaşamak istediğim bir olaydı	1	2	3	4	5
2. İsteklerimle tutarlı bir olaydı	1	2	3	4	5
3. Durumu iyileştirdi	1	2	3	4	5
4. Durumu kötüleştirdi	1	2	3	4	5
5. Bazı zararları azaltmak istedim	1	2	3	4	5
6. Bazı yararları artırmak istedim	1	2	3	4	5
7. Olumsuzlukları azaltmayı hedefledim	1	2	3	4	5
8. Olumlulukları artırmayı hedefledim	1	2	3	4	5
9. Olay sırasında neler olabileceğini tahmin edebiliyordum	1	2	3	4	5
10. Bu olayın doğurabileceği sonuçlardan emindim	1	2	3	4	5
11. Olay sırasında neler olup bittiğinden kuşku yoktu	1	2	3	4	5
12. Olay süresince kendimi güçlü hissettim	1	2	3	4	5
13. Olay süresince kendimi dayanıklı hissettim	1	2	3	4	5
14. Bu olayla baş edebileceğime inandım	1	2	3	4	5
15. Bana karşı yapılan bir haksızlıktı	1	2	3	4	5
16. Bu olayı yaşamayı hak ettim	1	2	3	4	5
17. Yaptıklarım ahlaki açıdan doğrudu	1	2	3	4	5
18. Bu olay benden kaynaklandı	1	2	3	4	5
19. Olayın kendisinden kaynaklandı	1	2	3	4	5
20. Diğer kişi/kişilerden kaynaklandı	1	2	3	4	5
21. Şans, tesadüf, vb. kaynaklandı	1	2	3	4	5
22. Kader, alın yazısı, vb. kaynaklandı	1	2	3	4	5

C. DUYGULARINIZ: Aşağıdaki maddeleri, **olayı yaşadığınız andaki** duygularınızı hatırlamaya çalışarak yanıtlayınız. Bu maddeleri yanıtlarken, olaya ilişkin şu andaki duygularınızı değil, olayı yaşadığınız andaki duygularınızı tekrar hatırlamanız çok önemlidir.

	1 Hiç	2 Biraz	3 Orta	4 Çok	5 Çok fazla
Şaşkınlık	1	2	3	4	5
Kıskançlık	1	2	3	4	5
Suçluluk	1	2	3	4	5
İlgi	1	2	3	4	5
Aşağılanma	1	2	3	4	5
Sıkıntı	1	2	3	4	5
Öfke	1	2	3	4	5
Üzüntü	1	2	3	4	5
Mutluluk	1	2	3	4	5
Utanç	1	2	3	4	5
İğrenme	1	2	3	4	5
Nefret	1	2	3	4	5
Gurur	1	2	3	4	5
Umut	1	2	3	4	5
Korku	1	2	3	4	5
Engellenme	1	2	3	4	5
Pişmanlık	1	2	3	4	5
Diğer (belirtiniz ve derecelendiriniz)	1	2	3	4	5
.....	1	2	3	4	5
.....	1	2	3	4	5

D. DUYGULARA İLİŞKİN DEĞERLENDİRMELERİNİZ:

Bir önceki bölümde belirttiğiniz duygulardan **en yoğun yaşadığınız bir duyguyu seçip aşağıdaki kutuya yazınız.** (Eğer birden fazla duyguyu yoğun olarak yaşadığınızı belirttiyseniz, bunlar içinden **birini** seçiniz.)

OLAY ANINDA EN YOĞUN YAŞADIĞIM
DUYGU:

Aşağıda, olayı yaşadığımız andaki **bu duygunuza ilişkin değerlendirmelerinizi** anlamak amacıyla verilmiş ifadeler yer almaktadır. Her bir maddedeki ifadelere ne derece katıldığınızı yukarıdaki kutuya yazdığınız duygu açısından değerlendirip, uygun rakamı işaretleyerek belirtiniz

	1 Hiç	2 Biraz	3 Orta Düzeyde	4 Oldukça fazla	5 Çok fazla
1. Yaşamak istediğim bir duyguydu	1	2	3	4	5
2. İsteklerimle tutarlı bir duyguydu	1	2	3	4	5
3. Bu duyguyu yaşamam durumu iyileştirdi	1	2	3	4	5
4. Bu duyguyu yaşamam durumu kötüleştirdi	1	2	3	4	5
5. Bazı yararları arttırdı	1	2	3	4	5
6. Bazı zararları azalttı	1	2	3	4	5
7. Olumsuzlukları azalttı	1	2	3	4	5
8. Olumlulukları arttırdı	1	2	3	4	5
9. Doğurabileceği sonuçlardan emindim	1	2	3	4	5
10. Yaşadığım duygudan kuşku yoktu	1	2	3	4	5
11. Bu duyguyu yaşarken kendimi güçlü hissettim	1	2	3	4	5
12. Bu duyguyu yaşarken kendimi dayanıklı hissettim	1	2	3	4	5
13. Bu duyguyla baş edebileceğime inandım	1	2	3	4	5
14. Bu duyguyu yaşamayı hakediyordum	1	2	3	4	5
15. Bu duygu, ahlaki açıdan doğrudu	1	2	3	4	5
16. Bu duygunun, hiç kimsenin kontrol edemeyeceği etmenlerden kaynaklandığını düşündüm	1	2	3	4	5
17. Bu duyguya başka birinin neden olduğunu düşündüm	1	2	3	4	5
18. Bu duyguya ben sebep oldum	1	2	3	4	5

BÖLÜM IV: KULLANDIĞINIZ BAŞETME YOLLARI

Aşağıda, bireylerin sıkıntılarını, sorunlarını azaltmak, onlarla başetmek için kullandıkları bazı yöntemler bulunmaktadır. **Anketin başında belirttiğiniz stres yaratan olayla başetmek için, aşağıdaki yöntemleri ne derece kullandığınızı, uygun olan rakamı seçerek belirtiniz.**

Stresle Başetme Yolları Ölçeği	1 Hiç	2 Biraz	3 Orta düzeyde	4 Oldukça fazla	5 Çok fazla
1. Bir mucize olmasını bekledim	1	2	3	4	5
2. İyimser olmaya çalıştım	1	2	3	4	5
3. Çevremdeki insanlardan sorunlarımı çözmemde bana yardımcı olmalarını bekledim	1	2	3	4	5
4. Bazı şeyleri büyütmeyip üzerinde durmamaya çalıştım	1	2	3	4	5
5. Sakin kafayla düşünmeye ve öfkelenmemeye çalıştım	1	2	3	4	5
6. Durumun değerlendirmesini yaparak en iyi kararı vermeye çalıştım	1	2	3	4	5
7. Durumla ilgili olarak başkalarının ne düşündüğünü anlamaya çalıştım	1	2	3	4	5
8. Ne olursa olsun direnme ve mücadele etme gücünü kendimde hissettim	1	2	3	4	5
9. Kendime karşı hoşgörülü olmaya çalıştım	1	2	3	4	5
10. Başa gelen çekilir diye düşündüm	1	2	3	4	5
11. Kendimi kapana sıkışmış gibi hissettim	1	2	3	4	5
12. İçinde bulunduğum kötü durumu kimsenin bilmesini istemedim	1	2	3	4	5
13. Olanları kafama takıp sürekli düşünmekten kendimi alamadım	1	2	3	4	5
14. Mutlaka bir çözüm yolu bulabileceğime inanıp bu yolda uğraştım	1	2	3	4	5
15. "İş olacağına varır" diye düşündüm	1	2	3	4	5
16. Herşeye yeniden başlayacak gücü buldum	1	2	3	4	5
17. Olanlardan olumlu birşeyler çıkarmaya çalıştım	1	2	3	4	5
18. Problemi adım adım çözmeye çalıştım	1	2	3	4	5
19. Elimden hiçbirşey gelmediğini düşündüm	1	2	3	4	5
20. Herşeyin istediğim gibi olamayacağına inandım	1	2	3	4	5
21. Mücadele etmekten vazgeçtim	1	2	3	4	5

Stresle Başetme Yolları Ölçeği	1 Hiç	2 Biraz	3 Orta düzye	4 Oldukça fazla	5 Çok fazla
22. Sıkıntılarımın kendimden kaynaklandığını düşündüm	1	2	3	4	5
23. Olanlar karşısında "Kaderim buymuş" dedim	1	2	3	4	5
24. "Keşke daha güçlü bir insan olsaydım" diye düşündüm	1	2	3	4	5
25. "Benim suçum ne" diye düşündüm	1	2	3	4	5
26. Bana destek olabilecek kişilerin varlığını bilmek beni rahatlatı	1	2	3	4	5
27. Hep benim yüzümden oldu diye düşündüm	1	2	3	4	5
28. Hakımı savunmaya çalıştım	1	2	3	4	5
29. Bir kişi olarak olgunlaştığımı ve iyi yönde değiştiğimi hissettim	1	2	3	4	5
30. Problemin çözümü için adak adadım	1	2	3	4	5

KATILDIĞINIZ İÇİN TEŞEKKÜR EDERİM

APPENDIX D

TURKISH SUMMARY

BİLİŞSEL DEĞERLENDİRMELER, DUYGULAR VE BAŞA ÇIKMA: YAPISAL EŞİTLİK TEKNİĞİ İLE, ETKİLEŞİMSSEL STRES VE BAŞA ÇIKMA MODELİNDE İNCELENMESİ

GİRİŞ

Bu çalışmanın amacı, üniversite öğrencilerinde, stres yaratan bir olay sırasında, olayın ikincil bilişsel değerlendirmesi, durumun bilişsel değerlendirmesi, olaydan sonra yaşanan duygular, duyguların bilişsel değerlendirmesi ve kullanılan başa çıkma yöntemleri arasındaki ilişkiyi araştırmaktır. Çalışmanın kuramsal çerçevesi etkileşimsel stres ve başa çıkma modelidir. Stres, bilişsel değerlendirme, başa çıkma ve duygu kavramları ile bu kavramlara ilişkin kuramsal yaklaşımlar aşağıdaki bölümde açıklanmaktadır.

Stres Kavramı

En yaygın kullanımı ile stres birey ve çevresi arasındaki etkileşim süreci olarak tanımlanmıştır (Folkman & Lazarus 1985; Folkman, Lazarus, Gruen, & DeLongis, 1986). Bu tanıma göre, stres etkileşimsel bir süreçtir. Etkileşimsel sürece ağırlık veren stres modelleri etkileşimsel stres modelleri olarak anılmaktadır. En çok kabul gören etkileşimsel stres modellerinden biri Folkman ve Lazarus (1985) tarafından öne sürülen “Bilişsel Stres ve Başa Çıkma Teorisi”dir. Bu teoriye göre stres süreci başlıca iki öğeden oluşmaktadır. Bunlar, bilişsel değerlendirmeler ve başa çıkmadır. Bu teoriye göre stres süreci, bireyin algıladığı “talep” ile başlamaktadır. Böyle bir talebi

algılayan bireyin kendi iyiliğini ilgilendiren boyutlarda, olayı bilişsel olarak değerlendirmesi stres düzeyini belirler. Bir olayın birey için ne derece stres yarattığı, bireyin yaptığı bilişsel değerlendirmelere bağlıdır. Diğer bir deyişle, herkes için geçerli, stres yaratan bir durum yoktur. Bu teoriye göre, olayın biçimi, olayın bilişsel değerlendirmesi ve bireyin kendini nasıl hissettiği stres düzeyini belirler (Folkman & Lazarus, 1985).

Bilişsel Değerlendirme

Bilişsel değerlendirme, bireyin, çevresinde gelişen bir olayı, kendi iyiliği ile ilişkisi olup olmadığı değerlendirmesidir (Lazarus, 1993). Bu değerlendirmeler, birincil ve ikincil bilişsel değerlendirmeler olarak iki gruba ayrılmıştır. Birincil değerlendirmede birey, bu durumun kendisi için bir etkisi olup olmadığına karar verir (Folkman, Lazarus, Gruen, & DeLongis, 1986). Eğer durum kendisi ile ilgili ise, ikincil bir değerlendirme yapar. Olayın ikincil bilişsel değerlendirilmesinde üç tip değerlendirmeden söz edilmektedir. Bunlar, zarar/kayıp, tehdit ve meydan okumadır. Zarar/kayıp, tehdit ve meydan okuma değerlendirmeleri dışında, birey aynı zamanda durumu kendi kaynakları açısından da değerlendirir (Folkman & Lazarus, 1985). Bunlar, bilişsel yetenekler, sosyal destek, fiziksel enerji gibi kaynaklar olabilir (Folkman, 1984).

Stres ve başa çıkmanın bilişsel teorisinde, bilişsel değerlendirmeler yalnızca olayın hangi düzeyde stres yarattığını değil, aynı zamanda hangi başa çıkma yolunun kullanılacağına da en önemli belirleyicisidir (Chung, Langenbucher, Labouvie, Pandina, & Moos, 2001). Chung ve arkadaşları (2001), bilişsel değerlendirmelerin başa çıkma yollarını, stres düzeyinden daha iyi yordadığını belirtmektedir.

Başa Çıkma Stratejileri

Bilişsel stres teorisinin diğer bir önemli ögesi de başa çıkmadır (Folkman & Lazarus, 1985). Başa çıkma ve bilişsel değerlendirmeler, stres ve stresin doğurduğu sonuçlar arasında dengeleyicidir (Folkman, 1984). Folkman ve Lazarus (1980), başa çıkmayı, stresli durumların yarattığı içsel ya da dışsal baskılara hükmetme, azaltma ya da bunlara dayanma için gösterilen bilişsel ve davranışsal çabaların tümü olarak tanımlamışlardır (Folkman, 1984). Başa çıkmanın iki temel fonksiyonu vardır: Duyguların düzenlenmesi ve strese sebep olan problemin ele alınması. İlk fonksiyonu sağlayan yöntemler duygu odaklı, ikinci fonksiyonu sağlayan yöntemler ise problem odaklı başa çıkma olarak adlandırılmıştır. Duygu odaklı başa çıkma, bireyin, stres kaynağına verdiği duygusal tepkilerin düzenlenmesi amacı ile kullanılan yöntemlerdir. Problem odaklı başa çıkma yollarında ise stresin kaynağına yönelik yöntemler kullanılmaktadır. Başa çıkmak için hangi yöntemin kullanıldığı, stres yaratan durumun özelliğine göre değişebilir. Problem odaklı başa çıkmada, sorun çözme, karar verme ya da doğrudan sorunun çözümüne yönelik bir adım atma yolu ile birey, stres yaratan birey-çevre ilişkisini düzenler (Lazarus, 1993). Stres ile baş etmek için kullanılan strateji ve yöntemlerin tümü, ya problem odaklı, ya da duygu odaklı başa çıkma yollarından biridir.

Folkman ve arkadaşları (1986), bireyin ve stres yaratan durumun özelliklerine bağlı olarak her iki başa çıkma yolunun da kullanıldığını göstermektedir. Pek çok araştırma bilişsel değerlendirmeler ve başa çıkma arasındaki ilişkiyi incelemektedir. Mikulincer ve Victor (1995), tehdit ikincil değerlendirmesinin duygu odaklı başa çıkma yöntemi ile ilişkili olduğunu , bunun yanında, meydan okuma ikincil değerlendirmesinin problem odaklı başa çıkma yöntemleri ile ilişkili olduğu bulmuşlardır. Diğer bir çalışmada ise (Bjorck, Cuthberston, Thurman & Yung 2001) meydan okuma değerlendirmesi, problem çözme ve olayın yeniden olumlu değerlendirilmesi başa çıkma stratejilerini anlamlı olarak yordamıştır. Üzücü ve kendini düşünen

olarak adlandırılan birincil bilişsel değerlendirmelerin, duygu odaklı başa çıkma stratejilerinden biri olan kaçınma ile ilişkili olduğu bulunmuştur (Portello & Long, 2001).

Duygu Kavramı

Duygu, tanımlanması zor bir kavramdır. Bir tanımda duygu “duyumların uyarılması ile belirgin, bilinç düzeyinde ve diğer zihinsel durumlardan farklılık gösteren bir durumdur” şeklinde tanımlanmıştır (Neufelt & Guralnik, 1988). Duygunun tanımlanmasında fikir birliği yoktur (Frijda, 1988; Lazarus 1991a; Lazarus, 1991b). Duygu, duygudurum ve kaygı ile kimi kuramcılar (e.g., Lazarus, 1966) tarafından birbirleri yerine kullanılmışlardır. Tanımı ile ilgili sorunlar dışında, duygunun araştırmalarda kullanımı konusunda da görüş ayrılıkları bulunmaktadır. Bu görüş ayrılığı özellikle, duyguların olumlu ve olumsuz olarak iki grup halinde kullanımına karşı, her bir duygunun ayrı ayrı değerlendirilmesi görüşleri arasında belirgindir. Bu fikir ayrılığı hala sürse de (Niedenthal, Halberstadt, & Innes-Ker, 1999), her iki yaklaşım da yapılan araştırmaların amacına göre kullanılabilir. Bazı araştırmacılar (Lerner & Keltner, 2000; Roseman, Spindel, & Jose, 1990), her bir duyguyu ayrı ayrı ele alırken, diğerleri (Niedenthal, Halberstadt, & Innes-Ker, 1999; Herrald & Tomaka, 2001; McCarthy, Lambert, & Brack, 2001; Watson, Clark, & Tellegen, 1988; Zohar & Dayan, 1999), olumlu ve olumsuz duygu gruplarını kullanmaktadırlar.

Kavramsallaştırılması konusunda görüş ayrılıkları sürse de, pek çok kuramcı çeşitli duygu kuramları öne sürmüştür. Bu kuramlardan en sonuncusu ve en yaygın kabul göreni, Lazarus, Averill, ve Opton’un 1970 yılında öne sürdükleri (Mandler, 1975) bilişsel duygu teorisidir.

Bilişsel Duygu Teorisi

Bilişsel duygu teorisinde, her bir duygu kendine özgü fiziksel, davranışsal ve bilişsel öğelerden oluşan tepki örüntüsüdür (Mandler, 1975). Bilişsel teorisyenler duyguyu “ilişkisel tepki belirtisi” olarak görmüşlerdir (Mandler, 1975)

Bilişsel değerlendirmelerin, bilişsel stres teorisindeki önemine benzer, bilişsel duygu teorisinde de bilişsel değerlendirmeler önemli bir yere sahiptir. Bilişsel değerlendirmeler, bu teoride öylesine önemlidir ki, daha sonra, bilişsel duygu teorisi, “değerlendirme teorisi” olarak da adlandırılmıştır (Roseman, Spindel & Jose, 1990). Bu teoriye göre, her bir duygu, bir bilişsel yapıya karşılık gelmektedir. Bu bilişsel yapı, farklı boyutlardaki değer örüntülerinden oluşan bir yapıdır (Ortony, Clore, & Collins, 1988).

Araştırmacılar (Hazerbroek, Howells, & Day 2001; Frijda, Kuipers, & ter Schure, 1989; Lerner & Keltner, 2000; Roseman, Spindel, & Jose, 1990; Smith & Ellsworth, 1985; Zohar & Dayan, 1999) bilişsel duygu teorisini destekler sonuçlar elde etmişlerdir. Bu çalışmalar, farklı duyguların, farklı bilişsel değerlendirme boyutu örüntülerine karşılık geldiklerini ortaya çıkarmıştır. Sıklıkla kullanılan bilişsel değerlendirme boyutlarından bazıları, olumlu-olumsuz, kesinlik, beklenirlik, önem, kaynak, aşinalık, ilginçlik (Frijda, Kuipers, & ter Schure, 1989); hoşluk, sorumluluk/kontrol, kesinlik, dikkat aktivitesi, çaba, durumsal kontrol (Smith & Ellsworth, 1985; Lerner & Keltner, 2000); durumsal durum, motivasyonel durum, güç, olasılık, hak etme ve kaynak olarak adlandırılmıştır (Roseman, Spindel, & Jose, 1990).

Smith ve Ellsworth (1985), yaptıkları deneyde 15 ayrı duygu ve 6 bilişsel değerlendirme boyutu arasında anlamlı ilişkiler bulmuştur. Bu deneyde mutluluk, üzüntü, korku, kızgınlık, sıkıntı, meydan okuma, ilgi, umut, engellenme, aşağılanma, iğrenme, şaşkınlık, gurur, utanma ve suçluluk ile 6

bilişsel değerlendirme boyutu, hoşluk, sorumluluk/kontrol, kesinlik, dikkat aktivitesi, çaba, durumsal kontrol arasındaki ilişkiyi incelemişler ve insanların duygularının, kendi çevrelerini nasıl değerlendirdikleri ile ilgili olduğunu belirtmişlerdir. Roseman, Spindel ve Jose (1990), farklı bilişsel değerlendirmelerin, farklı duyguları ortaya çıkaracağı yönündeki hipotezlerini test ettikleri araştırmada, farklı değerlendirmelerin, 16 farklı duyguyu meydana getirdiğini bulmuşlardır. Araştırmacılar olumlu duyguların, bireylerin istekleri ile tutarlı, olumsuz duyguların ise tutarsız olduklarını bulmuşlardır. Yukarıdaki çalışmalar, durum özelliklerinin bilişsel değerlendirilmesinin, duyguları yordayabileceğini göstermektedir.

Araştırmanın Kuramsal Çerçevesi

Başta çıkma ve duygu literatürü incelendiğinde, iki grup araştırma dikkati çekmektedir. İlk gruptaki araştırmalar bilişsel değerlendirmeler ile başta çıkma arasındaki ilişkiyi ele alırken (Bjork et al., 2001; Blalock & Joiner, 2000; Chung et al., 2001; Folkman & Lazarus, 1986; Mikulincer & Victor, 1995; Pakenham, 2001; Portello & Long, 2001; Thornton, 1992), ikinci grupta bilişsel değerlendirmeler ve duygular arasındaki ilişkinin incelenmiş olduğu görülmektedir (Hazerbroek, Howells, & Day 2001; Lerner & Keltner, 2000; Skinner & Brewer, 2002; Smith & Ellsworth, 1985; Roseman, Spindel, & Jose, 1990; Zohar & Dayan, 1999). Bu çalışmalardan hiç biri duygular ve başta çıkma yolları arasındaki ilişkiyi, durumun bilişsel değerlendirmesi, olayın ikincil bilişsel değerlendirmesi ile birlikte ele almamış olmasına rağmen, en son yapılan araştırmaların sonuçları (Dunkley & Blankstein, 2000; Herrald & Tomaka, 2001; McCarthy, Lambert, & Brack, 1997), durumun bilişsel değerlendirmesi boyutlarının, başta çıkma çalışmalarında kullanabileceğini düşündürmektedir.

Bu çalışmanın amacı, iki teoriyi, stres ve başta çıkmanın bilişsel teorisi ile bilişsel duygu teorisini birleştirmektir. Bu birleştirme, bilişsel duygu teorisindeki, bilişsel değerlendirme-duygu ilişkisini, bilişsel stres ve başta

çıkma teorisine entegre etmek yolu ile sağlanmıştır. Bu entegrasyon ile araştırmacı, etkileşimsel stres modellerinde bulunan bir boşluğu doldurmayı hedeflemektedir. Her iki teoride de, bilişsel değerlendirmeler, ya duyguyu, ya da başa çıkma yolunu belirlediğinden, etkileşimsel stres modelinde duygulara yer verildiğinde, duyguların da başa çıkmayı belirleyeceği düşünülmektedir. Diğer bir deyişle, duygular, bilişsel değerlendirmeler ve başa çıkma arasında bir ara değişken görevi görebilir, ya da duygular başa çıkmayı doğrudan etkileyebilir. Duyguların, başa çıkmadaki yolunu incelemek amacı ile, yukarıda bahsedilen iki grup çalışmanın kuramsal ve yöntemsel önerileri göz önünde bulundurulmuştur.

Bu çalışmanın amacı ve kuramsal temeli düşünüldüğünde, bilişsel duygu teorisinin en uygun yaklaşım olduğu görülmektedir. Etkileşimsel stres modellerinde olduğu gibi, bu teoride de duygunun bir süreç olduğu ve anlamı ve yoğunluğunun bilişsel değerlendirmeler tarafından belirlendiği kabul edilmiştir.

Tanımı ya da kullanımı ne olursa olsun, duyguların belirli bağlamlar içinde hissedildiğine ve içinde bulunulan durumun zihinsel olarak değerlendirilmesinin, yaşanacak olan duyguyu belirlemekte katkısı olacağına inanılmaktadır.

Bu çalışmada iki tür bilişsel değerlendirme aynı anda kullanılmıştır. Birincisi, olayın ikincil bilişsel değerlendirmesi olarak adlandırılan ve zarar/kayıp, tehdit ve meydan okumadan oluşan ve kullanılan başa çıkma yöntemini belirleyen değerlendirmeler (Folkman & Lazarus, 1985); ikincisi, duyguyu belirleyen, (Roseman, Spindel, Jose, 1990; Smith & Ellsworth, 1985) durumun bilişsel değerlendirmesidir.

Aslında, duyguların başa çıkmadaki rolü, çok da yeni bir konu değildir. Örneğin Folkman ve Lazarus (1985), çalışmalarında, bazı duygulara yer

vermişler ve bu duyguları, tehdit duygusu, zarar duygusu, meydan okuma duygusu ve yarar duygusu olarak adlandırmışlardır. Fakat çalışmalarında yalnızca başa çıkmanın, duygulara olan etkisini vurgulamışlar, duyguların başa çıkmaya olabilecek etkisini incelememişlerdir. Hatta bu durumu, “Belirli tip başa çıkma ile yarar ve zarar duyguları arasındaki ilişkiyi yordamak için, kuramsal ya da görgül bir kanıt yoktur” (Folkman & Lazarus, 1985, s. 162) ifadesi ile vurgulamışlardır. Öte yandan, Folkman ve Moskowitz (2000), olumlu ve olumsuz duygular arasındaki farklılaşmayı stres sürecinde ele alacak çalışmalara ihtiyaç olduğunu belirtmişlerdir. Buradan hareketle, bu çalışmada araştırmacı, olumlu ve olumsuz duyguların bir arada, etkileşimsel stres modeli çerçevesinde, başa çıkmaya olan etkisini inceleyen bir çalışmanın, bir açığı kapatacağını düşünmektedir.

Bilişsel değerlendirme ve duyguların başa çıkmadaki rolünü incelemeyi hedefleyen bu çalışmada, iki önemli görgül çalışma; Smith ve Ellsworth (1985) ve Roseman, Spindel, ve Jose'nin (1990) çalışmaları, kuramsal ve yöntemsel temel olarak alınmıştır.

Duyguların araştırmada kullanılması açısından çalışmada, Smith ve Ellsworth'un (1985) çalışmasında olduğu gibi, araştırmaya katılan öğrencilerin kendi ifadelerine dayandırılmış ve Smith ve Ellsworth'un kullandığı 15 duygu kullanılmıştır. Ayrıca Folkman ve Moskowitz'in (2000) belirttiği gibi, stresli durumlarda olumlu ve olumsuz duyguların bir arada yaşanması gerçeğinden hareketle, olumlu ve olumsuz duygular iki grupta ele alınmıştır.

Son zamanlarda yapılan çalışmalar incelendiğinde, bu çalışmaların hiç birinin, gerçekten kullanılmış başa çıkma yöntemleri ile yapılmadığı görülmektedir. Örneğin, Herrald ve Tomaka'nın (2001) laboratuvar çalışmasında gerçek yaşamda karşılaşılan stres verici durum ve duygular ele alınmamış, ayrıca, ölçülen başa çıkma yolları da bilgisayar görevinde kullanılan başa çıkma yolları olmuştur. Benzer bir çalışmada (Skinner &

Brewer, 2002), arařtırmacılar varsayıma dayanan senaryolar kullanmıřlar ve gerekten kullanılan bařa ıkma yolları yerine, bařa ıkma beklentisini incelemiřlerdir. McCarthy, Lambert, ve Brack (1997), ise bařa ıkma yolları yerine bařa ıkma kaynaklarını incelemiřlerdir. Bu alıřmalarda ayrıca, duyguların bařa ıkmaya olan etkisi deęil, tam tersine, bařa ıkmanın duygular zerine olan etkisi arařtırılmıřtır.

Biliřsel deęerlendirmeler ve duyguların bařa ıkma zerindeki etkisini arařtırmanın yanında, bu alıřma, stres srecinde yer alabilecek yeni bir geyi de tanımlamaktadır. Bu yeni ge arařtırmacı tarafından duygunun biliřsel deęerlendirilmesi olarak adlandırılmıřtır. Arařtırmacı, bireylerin yařadıkları duyguyu, durumun biliřsel deęerlendirilmesi boyutunda deęerlendirmelerinin de bařa ıkma yolları zerinde etkisi olduęu dřünmektedir. Duygunun biliřsel deęerlendirilmesi, durum ile ilgili olarak varılacak yargıya, karar verme srecine ve son olarak da davranıřa etki edebilir. Stres srecinde ele alındıęında, duygunun biliřsel deęerlendirmesi, stresli durum ile ilgili olarak varılacak olan yargıya, karar vermeye ve son olarak da bařa ıkmaya etki edebilir.

Son yıllarda yapılmıř olan iki alıřmada (Lerner & Keltner; 2000; Skinner & Brewer, 2002; Tiedens & Linton, 2001) duyguların karar verme zerine olan etkisi incelenmiř ve bu alıřmalar duygu ile biliř arasında ift ynl bir iliřki olduęunu (Lerner & Keltner; 2000), bireylerin kendi duygularını nasıl algıladıklarının llebilir olduęunu gstermiřlerdir. Bu alıřmalarda bireylerin kendi duygularını yaralı-zararlı (Skinner & Brewer, 2002) ve kesin-kesin deęil (Tiedens & Linton, 2001) boyutlarında deęerlendirebildikleri bulunmuřtur.

Bu alıřmada Roseman, Spindel, ve Jose (1990) tarafından belirtilen iki yntemsel sorun ařılmaya alıřılmıřtır. Roseman ve arkadaşlarının dikkat ektięi ilk sorun varsayıma dayalı senaryoların kullanımıdır. İkinci sorun ise,

değerlendirmelerin olay yaşanırken hissedilen duygular temel alınarak ölçülmesidir. Araştırmacılar ikinci sorunu, katılımcıların, duyguya neden olan durumu değerlendirmeleri ile çözdüklerini belirtmişlerdir.

Yukarıda bahsedilen ilk yöntemsel sorun, Folkman ve Moskowitz, (2000) tarafından da belirtilmiş ve araştırmacılar, tüm zorluklarına karşın, gerçek hayatta yaşanmış olan stres verici olayların araştırmalarda kullanılması gerekliliğini belirtmişlerdir. Bu çalışmada, kuramsal etkileri yanı sıra, bulguların psikolojik danışma sürecinde kullanılabilir etkileri de göz önünde bulundurularak, öğrencilerden başlarından geçen ve stres yaratan bir durumu değerlendirilmeleri istenmiştir.

Roseman ve arkadaşlarının dikkati çektiği ikinci yöntemsel sorun, bu araştırmada, katılımcıların önce, stres yaratan duruma ilişkin değerlendirmeleri yapmaları istenip, duyguları daha sonra ölçülerek aşılmaya çalışılmıştır. Bu yöntem ayrıca McNally'nin, (2001) araştırmacılara yaptığı uyarılar dikkate alınarak kullanılmıştır.

Araştırmanın amacı

Çalışmanın temel amacı, bilişsel değerlendirme, duygular ve başa çıkma yolları arasındaki ilişkiyi stres sürecinde incelemektir.

Araştırmanın cevap aradığı sorular aşağıda sunulmuştur:

Stres yaratan olayın ikincil bilişsel değerlendirmesi ile (zarar/kayıp ve tehdit boyutlarında), yaşanan duygular arasında anlamlı bir ilişki var mıdır?

Stres yaratan durumun bilişsel değerlendirmesi ile yaşanan duygular arasında anlamlı bir ilişki var mıdır?

Stres yaratan durumdan sonra yaşanan duygular ile başa çıkma yöntemleri arasında bir ilişki var mıdır?

Duyguların bilişsel değerlendirmesinin başa çıkma yollarına etkisi var mıdır?

Araştırmanın iki hipotezi vardır:

1. Olumsuz duygular, duygu odaklı başa çıkmayı ve olumlu duygular, problem odaklı başa çıkmayı doğrudan belirler.
2. Duygunun bilişsel değerlendirmesi hem problem odaklı başa çıkmayı hem de duygu odaklı başa çıkmayı doğrudan belirler.

Gerçek hayatta yaşanmış stresli durumlarda yapılan bilişsel değerlendirmeler, duygular, duyguların bilişsel değerlendirmesi ve öğrencilerin yaşadıkları stres ile başa çıkma için kullandıkları başa çıkma yollarının bir arada incelendiği bu araştırmanın, etkileşimsel stres modelinde ihmal edilmiş olan duyguların rolünün daha iyi anlaşılması ile, kuramsal katkıları olacağı düşünülmektedir.

İkinci olarak, bilindiği kadarı ile durumun bilişsel değerlendirmesi ve duygular arasında ilişki Türkiye örneğinde henüz araştırılmamıştır. Bilişsel duygu teorisi tartışmaları bu araştırmanın boyutlarının çok ötesinde olsa da, bu alanda öncü bir etkisi olabilir.

Uygulamaya yönelik etkilerine bakıldığında, sonuçlar gerçek yaşam olayları karşısında üniversite öğrencilerinin stres sürecini nasıl yaşadıklarına ilişkin bulgular verdiğinden, duygu ve başa çıkma arasında, psikolojik danışma sürecinde de kullanılacak bilgiler elde edilebilir.

Örneğin, psikolojik danışmada, danışman, danışanın yaşadığı duygulardan hareketle başa çıkma yöntemlerine ulaşabilir.

Son olarak, duygu odaklı başa çıkmanın ergenler üzerindeki uzun dönemli olumsuz etkileri (Endler, Parker, & Butcher, 2003), göz önünde bulundurulduğunda, araştırma bulguları, danışana etkin başa çıkma yollarının kazandırılması konusunda bilgiler verebilir.

Araştırmada kullanılan terimlerin tanımları aşağıda sunulmuştur.

Stres yaratan olay: Bireyin stresli olarak tanımladığı herhangi bir durum ya da olay.

Stres düzeyi: Belirli bir olay sonucunda bireyin yaşadığı baskı, gerilim ve sıkıntının derecesi.

Olayın ikincil bilişsel değerlendirmesi: Bireyin stres yaratan olayı, zarar/kayıp ve tehdit algısıyla değerlendirmesi.

Durumun bilişsel değerlendirmesi: Durumun zihinsel olarak; durumsal durum, motivasyonel durum, güç, olasılık, hak etmişlik ve kaynak boyutlarında değerlendirilmesi. Durumun bilişsel değerlendirmesi, durumsal değerlendirme olarak da adlandırılmaktadır.

Duygular: Bireylerin kendi öznel duygusal deneyimlerini açıklarken kullandıkları isimlerdir. Bu çalışmada duygular, katılımcıların kendi ifadelerine dayanan, stres yaratan bir olaydan sonra yaşadıkları hislerdir.

Duygunun bilişsel değerlendirmesi: Bireyin stres yaratan olaydan sonra yaşadığı duyguları zihinsel olarak, durumsal durum, motivasyonel durum, güç, olasılık, hak etmişlik ve kaynak boyutlarında değerlendirilmesidir.

Başa çıkma stilleri: Stres verici bir durumla başa çıkmak için kullanılan düşünce ve davranışlardır. Bu çalışmada duygu odaklı ve problem odaklı olmak üzere iki tip başa çıkma kullanılmıştır. Duygu odaklı başa çıkma, boyun eğici, çaresiz, ve sosyal desteğe başvurma yöntemlerini, problem odaklı başa çıkma ise problem çözme, kendine güvenli ve iyimser yaklaşımları içermektedir.

YÖNTEM

Çalışmaya Orta Doğu Teknik Üniversitesi'nin toplam 39 bölümünden 560 öğrenci (271 kadın, 289 erkek) katılmıştır.

Ana çalışmadan önce, kullanılan ölçeklerin uygunluğunu ve anlaşılabilirliğini belirlemek üzere iki aşamalı pilot çalışma gerçekleştirilmiştir. İlk aşamada çalışmaya gönüllü olarak katılan 20 Orta Doğu Teknik Üniversitesi öğrencisi ile mülakatlar yapılmış (mülakatlarda kullanılan soru formu Ek. A da sunulmuştur), ikinci aşamada ise hazırlanan soru formu 49 Atılım Üniversitesi öğrencisine uygulanmıştır (pilot çalışmanın ikinci aşamasında uygulanana soru formu Ek B de sunulmuştur). Ana çalışmada kullanılan soru formu, pilot çalışma ve ilgili literatürün önerdiği şekilde oluşturulmuştur (ana çalışmada kullanılan soru formu Ek C de sunulmuştur).

Araştırmada iki temel ölçek kullanılmıştır. İlk ölçek Folkman ve Lazarus tarafından 1988 yılında geliştirilen 66 maddelik Başa çıkma Yolları Ölçeği'nin (Ways of Coping Questionnaire, WCQ), Şahin ve Durak (1995) tarafından kısaltılarak 30 maddeye indirilmiş ve Türk üniversite öğrencileri için uyarlanmış olan Başa Çıkma Stilleri Ölçeğidir (CSS). Araştırmada kullanılan ikinci ölçek Roseman, Spindel ve Jose tarafından 1990 yılında geliştirilmiş olan Bilişsel Değerlendirme Aracıdır (CAS). CAS, araştırmacı tarafından Türkçe'ye çevrilmiştir. Türkçe çevirisinde ifadelerde yapılan bazı değişiklikler ve yanıt formatınının 9 Guttman ölçeğinden 5 li Likert ölçeğe

çevrilmesinden sonra ana çalışmada kullanılan bu ölçeğe Durumun Bilişsel Değerlendirmesi Ölçeği (CASS) adı verilmiştir. Ana çalışmada kullanılan CASS 22 maddeden oluşmuştur.

Duyguların bilişsel olarak değerlendirilmesini ölçmek amacı ile CASS maddelerinin ifadeleri, duygunun bilişsel olarak değerlendirilmesini sağlayacak şekilde değiştirilmiş ve tekrar eden bazı maddeler ölçekten çıkarılmıştır. Duygunun bilişsel değerlendirilmesini ölçmek amacı ile araştırmacı tarafından oluşturulmuş bu ölçeğe Duyguların Bilişsel Değerlendirmesi Ölçeği (CAES) adı verilmiştir. Ana çalışmada kullanılan CAES 18 maddeden oluşmuştur.

Dört bölümden oluşan soru formunun ilk bölümünde, öğrencilere yaş, cinsiyet ve bölümleri sorulmuştur. İkinci bölümde öğrencilerden son zamanlarda yaşadıkları stres verici bir olayı anlatmalarını istenmiş ve olayın yarattığı stres 11-li Likert ölçek ile ölçülmüştür (1 = hiç, 11 = çok fazla).

Soru formunun üçüncü bölümü dört kısımdan oluşmuştur. İlk kısımda, olayın ikincil bilişsel değerlendirilmesini (zarar/kayıp, tehdit, meydan okuma) belirlemek amacı ile 6 madde geliştirilmiştir (soru formunda 1.-6. sorular). Öğrenciler her bir maddede belirtilen ifadelerle ne derece katıldıklarını 11-li Likert ölçek üzerinde belirtmişleridir (1 = hiç katılmıyorum, 11 = tamamen katılıyorum).

Üçüncü bölümün ikinci kısmında, 22 maddeden Durumun Bilişsel Değerlendirmesi Ölçeği (CASS) kullanılmış ve katılımcıların bu ölçekte belirtilen her bir maddeye ne kadar katıldıklarını 5 li Likert ölçek üzerinde belirtmeleri istenmiştir (1 = hiç, 5 = tamamen).

Üçüncü bölümün üçüncü kısmı duygu ölçeğinden oluşmuştur. Katılımcılar, stres yaşadıkları olay sırasında, 17 duygudan her birini (mutluluk, üzüntü, korku, öfke, sıkıntı, ilgi, umut, engellenme, aşağılanma, iğrenme,

şasıırma, gurur, utanç, suçluluk, pişmanlık, kıskançlık ve öfke) ne yoğunlukta yaşadıklarını 5 li Likert ölçek üzerinde belirtmişlerdir (1 = hiç, 5 = tamamen).

Üçüncü bölümün son kısmında, katılımcılara önce, olaydan sonra en yoğun yaşadıkları duyguyu belirtmeleri ve daha sonra bu duyguyu, Duyguların Bilişsel Değerlendirmesi Ölçeği'nde (CAES) bulunan 18 maddeyi, 5 li Likert ölçek üzerinde işaretleyerek değerlendirmeleri istenmiştir (1 = hiç, 5 = tamamen).

Soru formunun dördüncü ve son kısmında Başa çıkma Stilleri Ölçeği kullanılmıştır (Şahin & Durak, 1995). Öğrencilerden, soru formunun ilk kısmında belirttikleri stresli durumla başa çıkmak için her bir başa çıkma yolunu ne derece kullandıklarını 5 li Likert ölçek üzerinde belirtmeleri istenmiştir (1 = hiç, 5 = tamamen).

Veriler dört hafta boyunca pek çok oturumda, öğrencilere soru formunun, araştırmacı tarafından uygulanması ile edilmiştir. İki aşamalı olarak gerçekleşen veri toplama işleminde ilk aşamada, araştırmacı ders saatlerinde derslere girerek ölçekleri uygulamıştır. Öğrenciler soru formunda bulunan sorulara ortalama 30 dakika içinde cevap vermişlerdir. Bu aşamada 270 öğrenciye soru formu uygulanmıştır. İkinci aşamada ODTÜ yurtlarında kalan öğrenciler de araştırmaya dahil edilmiş ve soru formları bu aşamada 290 öğrenciye uygulanmıştır.

BULGULAR

Olayın ikincil bilişsel değerlendirme maddelerinden, meydan okuma boyutunu ölçen 3., 4. ve 7. maddeler daha sonraki analizlerden çıkarılmıştır. Zarar/kayıp ve tehdit boyutlarını ölçen maddelerin iç tutarlılığı hesaplandığında Cronbach Alpha katsayısı .78 elde edilmiştir.

Durumun Bilişsel Değerlendirmesi Ölçeği'nde (CASS) faktör analizi uygulanması sonucunda 6 faktör elde edilmiştir. İki alt boyut daha sonraki analizlerden çıkartılmış ve yapısal eşitlik modelinde kullanılacak olan ölçek puanı, kalan dört alt ölçek; durumsal durum, motivasyonel durum, güç ve olasılık üzerinden hesaplanmıştır. Ölçeğin güvenirlik katsayısı (Cronbach Alpha) .78 olarak elde edilmiştir. Ölçeğin faktör yapısı, faktörlerin Cronbach Alpha değerleri Tablo 1 de belirtilmiştir.

Duygular ölçeğine uygulanan faktör analizi sonucunda iki faktör elde edilmiştir. Elde edilen faktörler, olumlu ve olumsuz duygular alt ölçekleri olarak adlandırılmıştır. Duygu ölçeğinin faktör yapısı, faktörlerin Cronbach Alpha değerleri Tablo 2 de belirtilmiştir.

Duyguların Bilişsel Değerlendirmesi Ölçeği'ne (CAES) uygulanan faktör analizi sonucunda 5 faktör elde edilmiştir. Faktörler, durum, güç, olasılık, hak etmişlik, kaynak olarak adlandırılmış ve CASS da olduğu gibi iki faktör daha sonraki analizlerden çıkarılmıştır. Yapısal eşitlik modelinde kullanılacak olan ölçek puanı, kalan üç alt ölçek; durum, güç ve olasılık üzerinden hesaplanmıştır. Ölçeğin güvenirlik katsayısı (Cronbach Alpha) .80 olarak elde edilmiştir. Ölçeğin faktör yapısı, faktörlerin Cronbach Alpha değerleri Tablo 3 de sunulmuştur.

Baş Çıkma Stilleri Ölçeği'ne faktör analizi uygulanmış ve yapısal eşitlik modelinde kullanılacak iki faktör elde edilmiştir. Faktörler, duygu odaklı ve problem odaklı başa çıkma olarak adlandırılmışlardır. Ölçeğin faktör yapısı, faktörlerin Cronbach Alpha değerleri Tablo 4 de sunulmuştur.

Öğrencilerin stres verici durumdan sonra yaşadıkları stres düzeyi, zarar/kayıp ve tehdit ikincil bilişsel değerlendirmeleri, durumun bilişsel değerlendirilmesi, stres yaratan olaydan sonra öğrencilerin yaşadığı duygular, duyguların bilişsel değerlendirilmesi ve olayın yarattığı stres ile baş etmek için

kullandıkları başa çıkma yöntemleri araştırmanın değişkenleri olarak belirlenmiştir. Faktör analizi sonuçlarında; Bilişsel Durum Değerlendirmesi'nin (CASS) dört faktörden (içinde bulunulan durum, motivasyonel durum, güç ve olasılık), Duygular ölçeğinin iki faktörden (olumlu ve olumsuz duygular), Duygunun Bilişsel Değerlendirmesi Ölçeği'nin (CAES) üç faktörden (durum, güç ve olasılık), Başa çıkma Stilleri Ölçeği'nin iki faktörden (duygu odaklı başa çıkma ve problem odaklı başa çıkma) oluştuğu bulunmuştur.

Yapısal eşitlik modeli kullanılarak yapılan istatistiksel analizler AMOS.5 (Arbuckle, 2003) programı kullanılarak gerçekleştirilmiştir. Yapısal analizlerde kullanılan değişkenler ve özellikleri Tablo 5 de sunulmuştur. Değişkenlerin ortalamaları ve standart sapmaları ve birbirleri ile olan korelasyon katsayıları Tablo 6 da sunulmuştur.

Yapısal analizler 5 aşamada gerçekleştirilmiştir; modelin belirlenmesi, modelin tahmini, modelde uygulanan değişiklikler, modelin test edilmesi ve model yeniden belirlenmesi.

İlk aşamada, modelde kullanılan değişkenler belirlenmiştir. İkinci aşamada, modelde yer alan değişkenler arasındaki ilişki belirlenmiş ve test edilmiştir. Önerilen ilk model (Model 1) Şekil 1 de sunulmuştur. İlk modelin istatistiksel olarak anlamlı sonuçlar vermemesi üzerine bu modelde AMOS 5 programı tarafından bazı değişiklikler önerilmiştir. Önerilen değişiklikler Tablo 7 de sunulmuştur. Bu öneriler doğrultusunda, modelde bulunan değişkenler arasında, daha önce öngörülmemiş 5 ek ilişki daha belirlenmiştir. Değişen model (Model 2) Şekil 2 de sunulmuştur. Dördüncü aşamada değişen model (Model 2) test edilmiş ve istatistiksel olarak anlamlı sonuçlar elde edilmiştir. Son aşamada ise değişkenler arasında anlamlı olmayan ilişkiler analizlerden çıkarılmış ve model son kez test edilmiştir. Modellerin birbirleri ile karşılaştırılmaları ve istatistiksel uyum dereceleri ilgili indekslerin değerleri

Tablo 9 ve 10 da sunulmuştur. Analiz sonuçları son modelin istatistiksel olarak anlamlı sonuçlar verdiğini göstermiştir. Son model (Model 3) Şekil 3 de sunulmuştur. Son modelde bulunan ilişkili değişkenler arasındaki Beta değerleri Tablo 8 de gösterilmektedir. Tablo 11 de değişkenlerin bağımlı değişkenler üzerindeki doğrudan, dolaylı ve toplam etkileri sunulmuştur. Değişkenlerin R² değerleri Tablo 12 de sunulmuştur.

Şekil 3 de görüldüğü gibi durumun bilişsel değerlendirmesi olumlu duyguları (.48), duygunun bilişsel değerlendirmesini (.50) ve olumsuz duyguları (-.11). doğrudan ve anlamlı olarak belirlemiştir.

Duygunun bilişsel değerlendirilmesi, durumun bilişsel değerlendirilmesi yanında (.50), olumlu duygular (.20) tarafından da belirlenmiştir.

Olayın ikincil bilişsel değerlendirilmesi stres düzeyini (.42) ve olumsuz duyguları (.34) anlamlı düzeyde yordamıştır.

Olumsuz duygular, olayın ikincil bilişsel değerlendirilmesi tarafından doğrudan pozitif etkilenirken (.34), durumun bilişsel değerlendirilmesi tarafından negatif olarak etkilenmişlerdir (-11).

Yapısal eşitlik modeli ile yapılan analizler, problem odaklı başa çıkma yollarının, olumlu duygular (.12) ve duyguların bilişsel değerlendirilmesi (.17) tarafından anlamlı olarak yordandığını ve bu iki değişkenin, problem odaklı başa çıkmadaki varyansın %15 ini açıkladığını göstermiştir. Duygu odaklı başa çıkma ise olumsuz duygular (.40), stres düzeyi (.11) ve ikincil bilişsel (.11) değerlendirmeler tarafından anlamlı olarak belirlenmiştir. Bu üç değişken, duygu odaklı başa çıkmadaki varyansın %27 sini açıklamıştır.

TARTIŞMA

Araştırmanın sonuçları genel olarak değerlendirildiğinde, araştırmanın ilk hipotezinin tamamen kabul edildiği görülmüştür. İlk hipotezde öngörüldüğü gibi, olumlu duygular problem odaklı başa çıkmayı, olumsuz duygular ise, duygu odaklı başa çıkmayı doğrudan ve istatistiksel anlamlı olarak belirlemiştir. Araştırmanın ikinci hipotezinde öngörülen, duyguların bilişsel değerlendirmesinin, problem ve duygu odaklı başa çıkmayı doğrudan belirleyeceği hipotezi, yalnızca olumsuz duyguların değerlendirilmesinin duygu odaklı başa çıkmayı belirlemesi nedeni ile kısmen doğrulanmıştır. İkinci hipotezin kısmen desteklenmesi, diğer bir değişle, olumlu duyguların, duygunun bilişsel derlendirilmesi aşamasından geçerek problem odaklı başa çıkmayı belirlemesi, buna karşın, olumsuz duyguların herhangi bir bilişsel değerlendirmeye uğramadan, doğrudan duygu odaklı başa çıkmayı belirlemesi, olumlu ve olumsuz duygular arasındaki bu farklılığın nedenlerinin tartışılmasını gerekli kılmaktadır. Bu durum, bilgi işleme araştırmalarında elde edilen, olumsuz duygular içinde iken bireylerin farklı bilgi işleme süreçlerinden geçmeleri bulgusu (Tiedens & Linton, 2001) ve olumsuz temel duyguların otomatik olarak ortaya çıkması (Power & Dalgleish, 1999) ile benzerlikler göstermektedir.

Kuramsal tartışmaların ötesinde, araştırma sonuçlarına dayanarak, psikolojik danışma sürecinde kullanılabilecek bazı yöntemler önerilebilir. Olumsuz duyguların doğrudan, duygu odaklı başa çıkmaya yol açması ve problem odaklı başa çıkma yöntemlerinin kullanımını olumsuz olarak etkilemesi, psikolojik danışma sürecinde ele alınabilir. Psikolojik danışma sürecinde, danışanın olumsuz duygularını, bilişsel olarak yeniden değerlendirmesinin, problem odaklı başa çıkma yöntemlerinin kullanımını sağlayabileceği düşünülmektedir.

Son olarak, arařtırmanın, daha sonraki alıřmalar iin bazı nerileri olmuřtur. Bunlardan en nemlisi, benzer alıřmalarda, durumun ve duygunun biliřsel deęerlendirilmesinde, biliřsel deęerlendirmeyi oluřturan her bir boyutun, her bir duygu ile olan iliřkisinin arařtırılmasıdır. Her bir duygunun ve biliřsel deęerlendirmenin, bařa ıkma stratejileri zerindeki etkisi farklı rneklemlerde arařtırılması nerilmektedir.

CURRICULUM VITAE

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EDUCATION

1994-1998 M.S
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INTERNSHIPS

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PUBLICATIONS

- Alkan, N. "Cognitive Appraisal and Emotion". Paper presentation in the Qualitative Psychology Conference: Emerging Complexity in Conducting Qualitative Research in Psychology, University of Leeds, April 10-11, 2003, England.
- Alkan, N. (Baskıda) "Yükseköğretimde Psikoloğun Değişen Rolü". Üniversitelerde Öğretimden Eğitime: Yeni Açılımlar Ulusal Konferansı, Basılmış Tebliğler, 1-2 Mayıs, 2003, Bahçeşehir Üniversitesi, İstanbul.
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- Alkan, N., Balta, E., Karancı, N., Akşit, B. "Dinar Halkının 1995 Depremi Sonrası Psiko-sosyal Durumu ve Afet Yönetimi İle İlgili Görüşleri" (Psycho-Social State of Dinar Residents After 1995 Earthquake and Their Thoughts About Disaster Management). Dördüncü Ulusal Deprem Mühendisliği Konferansı Basılmış Tebliğler, Orta Doğu Teknik Üniversitesi, Ankara, 17 - 19 Eylül, 1997, pp. 647-654.
- Akşit, B., Karancı, N., Alkan, N., Balta, E. "Gender, Education and Status in the Assessment of State Built Disaster Housing and Other Aspects of Disaster Management in Dinar Turkey". Paper presented by Bahattin Akşit in the European Sociological Association Third Conference, 20th Century Europe: Inclusions/Exclusions, University of Essex, 27-30 August 1997, England.

HONOURS, AWARDS, ASSISTANTSHIPS

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| July-August 2001 | Full Scholarship by Pitzer College, Claremont, CA, for “Certificate: Program in American College English” |
| 1998 | Mustafa Parlar Education and Research Foundation (Mustafa Parlar Eğitim ve Araştırma Vakfı) Thesis of the Year Award (Masters thesis) |
| December 1995 | Middle East Technical University, Research and Co-ordination Liaison Office, Field Study of Effects of 1995 Dinar Earthquake Project (leading to dissertation research) |
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