STUDENT STRESS REACTION STYLES': THE EFFECTS OF STRESS APPRAISAL, CONTROL PERCEPTIONS AND PERSONALITY

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Abstract

Academic study can present many stressful situations. An adaptive coping style is one of the essential factors for university students to cope effectively with stressors in their lives, allowing for an effective level of performance while protecting from stress related side effects. Previous research has identified the relationship between stressful life events and the onset of illness. This current study extends on previous research and identifies dispositional factors and stressors specific to social interactions and educational settings and their resulting impact on student coping. This study explored the somewhat controversial concept of 'coping styles' by investigating a comprehensive model of coping that included two stressors (workload related demands and a social interaction), stressor appraisal, dispositional resources, the situational resources of perceived control and perceived levels of coping effectiveness.

An online questionnaire was completed by 257 participants from seven major universities around New Zealand. Problem-solving coping was positively correlated with perceived levels of coping effectiveness while avoidance coping was negatively correlated with coping effectiveness. The traits of neuroticism and conscientiousness appeared to predispose individuals to cope in predictable ways across situations when confronting adversity, lending support for the notion of coping styles. Results of the moderated regression analyses found that neuroticism and conscientiousness were significant moderators between stressor appraisal and coping behaviours used. The major implications from this research are that educational institutes need to offer on campus services that can support and educate students regarding their tendencies to engage in maladaptive and adaptive coping behaviours and under what circumstances trigger the use of maladaptive coping behaviours. Assistance could be tailored specifically to each individual and their likely coping responses chosen, by including a measure of personality. In the final chapter, conclusions are discussed with regard to implications of this research to educational institutes, students and the need for future research.

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Chapter One:

Introduction

Academic study and university life in general can present many stressful situations and students often report feelings of immense pressure from the demands that are placed on them (Cahir & Morris, 1991). Not only are students faced with academic and workload demands, but many are often overwhelmed by personal commitments to interpersonal networks, such as work, family and personal relationships (Arthur, 1998). Interpersonal relationships, like academic demands, require time and energy from the individual. These commitments, in addition to university requirements, are frequently identified by student samples as having the potential for creating significant distress (Endler, Parker, Bagby, & Cox, 1991).

By understanding the experiences which students perceive as significantly stressful, both in and outside the academic realm, and identifying relevant dispositional factors and resulting coping behaviour patterns, university personnel can understand the impact of specific stressors on students' coping effectiveness and adjustment. In addition, university personnel can assist students in coping with university demands and provide the assistance needed, such as academic advice, health and counseling services. For research on student stress to be useful it must contribute to the reduction of stress related illness and distress.

While much research has identified the impact of stressors on everyday living, as well as the relationship of stressful life events to onset of illness, relatively little research has been conducted on the assessment and identification of dispositional factors and stressors specific to social interactions and educational settings and their impact on student coping. The main aim of this current study was to explore the concept of 'coping styles' to ascertain whether students demonstrated a preference or consistency in their coping behaviour, across two different situations and to determine the association between personality, situational factors and coping behaviours used. This could help identify those at risk of engaging in maladaptive

coping styles when faced with certain stressors or even identify those at risk of developing stress related illnesses (Guenole, Chernyshenko, Stark, McGregor, & Ganesh, 2008). This current study used a series of questionnaires to assess students' personality and their coping styles in response to academic and social stressors. The present research has practical implications for stress intervention and prevention, including informing individuals about their vulnerability of engaging in maladaptive coping methods (Cahir & Morris, 1991).

Terminology

Stress can be experienced in every aspect of a person's life and is a concept that most people feel they have experienced at some point in their lives (O'Driscoll, Taylor, & Kalliath, 2003; O'Driscoll & Brough, 2003). It is important to note that there is still considerable confusion over the actual meaning of stress, which is demonstrated by the various definitions used to define the term. *Stress* as defined by Lazarus and Folkman (1984) is a particular person-environment relationship in which people appraise the demands of a situation as exceeding coping resources (Arthur, 1998). The term stress in this research is used to denote the overall process linking stressors, strain and coping, rather than to describe any specific component of that process (O'Driscoll, Taylor, & Kalliath, 2003). S*tressors* have been referred to as stimuli that make demands upon an individual, challenge an individual, and as a result of an interaction between the individual and environmental demands (Pearlin, Menaghan, Morton, & Mullan, 1981). Stress researchers tend to agree that the term *stressor* refers to the environmental stimulus or event, and that *strain* should be used to indicate the person's responses to the stressor. Stressors are the antecedents, and strain is the persons resulting reaction (physical or psychological) to a stressful transaction.

An equally important concept included in the stress transaction is *coping*, which simply reflects how individuals respond to a particular class of events (stressors) following appraisal. Folkman and Lazarus (1985) stated that coping refers to cognitive and behavioural efforts to manage (master, reduce or tolerate) a person-environment relationship (Watson & Hubbard, 1996).

The notion of '*coping styles*' is defined in terms of reported tendencies to use certain coping reactions to a greater or lesser degree when under stress (Carver & Scheier, 1994). Coping style refers to relatively stable, individual differences in coping with stress. More specifically coping style may be defined as a repertoire or catalog of strategies available to cope with stressful situations, specific to an individual (Heszen-Niejodek, 1997). The different coping styles explored in this study will be discussed in a later section.

Theoretical Models of the Stress-Coping process

Various different models exist within the literature that examine the stress-coping process. For the purposes of this study I am going to focus on two: the Interactional perspective and Lazarus's Transactional model. From the interactional perspective coping is viewed as a process that is sensitive to both situational and individual variables such as personality (Jang, Thordarson, Stein, Cohan, & Taylor, 2007). However this perspective is limited in that it treats all behaviour as simply a reaction to the situation. Research has demonstrated people are also proactive in their responses to counteract potential stressors (O'Driscoll & Brough, 2003). Lazarus's theory acknowledges proactive responding and much of the domain of the stress-coping literature has been influenced by his theory, hence the transactional model will be the key theory underlying the rationale of the current study (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

Lazarus's Transactional Model

Outlined initially in the mid-1960's by Richard Lazarus and colleagues (Folkman, 1984; Lazarus & Folkman, 1984) the transactional model is regarded as one of the most influential models that underlies current approaches to stress research. The transactional model views stress not as a variable that exists in the individual or the environment, but as a dynamic process that consists of several components (O'Driscoll, Taylor, & Kalliath, 2003). Lazarus theorises that the individual's personal perception of the stressor determines how stressful the event is, emphasising that an important component in this model is cognitive appraisal (Gardner, Rose, Mason, Tyler, & Cushway, 2005). This perspective implies individuals will

experience stress or strain when a situation or event is appraised as challenging and/or demanding and if the individual possesses insufficient resources to effectively cope with the event.

The transactional model, like the interactional perspective, views stress as dependent on the person environment interaction, however the key difference between the two models is that the transactional model expands this notion further and explicitly acknowledges the person's active role in the process, rather than simply seeing the individual as a passive recipient. Therefore, individuals' coping behaviours used in response to stress should relate systematically to the manner in which they respond to other events (Watson & Hubbard, 1996). One of the central themes of the transactional model of stress and coping is that stress-coping processes unfold from a complex interaction between the person and situation (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). However, little research has examined the specific interactions and contexts of stress-coping processes. It may be that the impact of personality in the stress-coping process may essentially depend on the actual context of the stressful situation (O'Brien & DeLongis, 1996). It becomes apparent from reviewing the existing literature that research needs to take a more diverse approach to studying coping by including a wide range of related variables and investigate each variables contribution to the stress-coping process and the relationships that may exist between them (Burch & Anderson, 2008).

Cognitive appraisals

In the transactional model of stress coping, Lazarus and Folkman (1984) argued that a critical variable is the individual's *cognitive appraisal* of the situation. As the transactional model underlies this current study the different types of appraisal will be discussed here. Lazarus (1966) outlined two types of cognitive appraisal, primary and secondary (Gardner, Rose, Mason, Tyler, & Cushway, 2005). Primary appraisal refers to an evaluation of a stressor. Lazarus (1966) further established the differences between primary appraisal of harm (damage already occurring), threat (harm that may happen in the future) and challenge (positive outcome) (Gardner, Rose, Mason, Tyler, & Cushway, 2005). Primary appraisal is a significant factor in establishing how an

individual appraises and then reacts when exposed to a stressful event. Secondary appraisal, in contrast, refers to an individual's attempt to define what coping resources are available for dealing with the harm, threat or challenge perceptions established during primary appraisal. Secondary appraisal involves the individual assessing how he or she can deal with the stressor or situation. The individual evaluates various coping methods, such as actively changing the situation, avoiding or simply accepting it, as a means for adapting to the event (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Secondary appraisal is important in the stress-coping process as it takes into account which coping options are available and which will accomplish the goal of effective coping. Irrelevant appraisals occur when an individual perceives an event or stressor to be unimportant to their overall wellbeing. Again personality characteristics have an effect in the process and can influence what aspects of the event or situation are appraised as relevant to the individual's well-being or goals (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

Purpose of the current Study

Theoretical model

The transactional model underlies most of the rationale behind this current study and is used to explore the interplay between many elements in the stressful transaction and to investigate the idea that people show some degree of consistency in their responses across different situations. The amount of research conducted on stress and coping has increased considerably over the years. In an attempt to understand the relationship between stress and the individual, the role of personality has been incorporated into the stress and coping literature. Stress research typically focuses on three main themes that establish the stress process: stressors, mediator variables (e.g. coping behaviours) and the manifestations of stress. This current study expands on earlier research by including stressor appraisal, situational (perceptions of control) and dispositional (personality) factors as direct and moderator variables in the stress-coping process and focuses on coping effectiveness as the end result. To address the aims of this study a theoretical model was developed that explicitly recognises the

influence of appraisal and both situational and dispositional influences on the stress-coping process to investigate the notion that individuals display both flexibility and consistency in their coping responses.

A mediated relationship is where the independent variable influences the mediator, which in turn influences the outcome (Holmbeck, 1997). The behaviours, cognitions and perceptions that can alter the impact of a stressor are referred to as moderators. The variables included in the stress-coping process and investigated in this research are resources (dispositional and situational) as direct and moderator effects of the relationship between stressor appraisal, coping styles and coping effectiveness. Coping styles are included as a mediator variable between stressor appraisal and coping effectiveness. A vast amount of coping research conducted on medical patients confirms the mediational role of coping under stressful situations, as depicted in *Figure 1* (Moos, 2003). The dispositional (personality) variables consist of the widely published Five Factor Model (Salgado, 2003). The paths in the model show that these processes are transactional with stressor appraisal, control perceptions and dispositional factors relating both directly and indirectly to coping styles. The following section will explain *Figure 1* in more detail.

Theoretical model
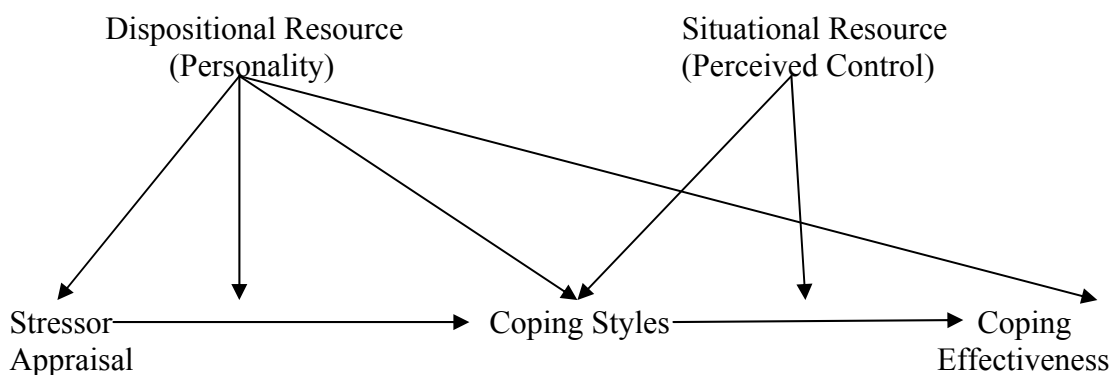
Figure 1: Theoretical Framework

Stressors

The current study focused on coping with ordinary stressful events in day to day life to investigate whether individuals habitually employed specific coping styles across two different situations (stressors) (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993). As mentioned earlier, strain is not the event itself, but is essentially the individual's response (physical, psychological or physiological) that is made in a response to the event or situation. The event that provokes the response is referred to as the stressor. Participant's responses to two stressors were investigated in this study: high academic workload and a stressful social situation involving one other person. Academic workload demand and a stressor resulting from a social interaction are two different external situations, however they can also manifest internally as emotions, such as feelings of being incapable of achieving a performance level or feeling inferior to others (Bolger, DeLongis, Kessler, & Schilling, 1989). The two stressors will be discussed in detail in a later section. Once the stressor has been faced appraisal of the stressor determines the importance of the event to the individual and effects resulting coping behaviors employed.

Stressor appraisal

A measure of *stressor appraisal* is included in this current study to ensure that the stressors faced were actually perceived as stressful. To understand the stress-coping process thoroughly it is necessary to know the significance or the meaning of the event or stressor to the individual (Folkman, 1984). If the significance of a situation is uncertain, it is difficult to reliably gauge its relevance to the individuals' goals and the link between the types of appropriate coping strategies employed and the situation can become unclear. Stressor appraisal in this current study involves a measure of stress appraisal at the primary and secondary level. The inclusion of a stressor appraisal measure is relevant to the aims of the current study, as appraisal sets the stage for a host of outcomes, including emotional experiences and resulting coping behaviours, as emotional experiences can in turn result in active or avoidance coping reactions (Schneider, 2008). Stressor appraisal is included in this current study as an antecedent to resulting coping behaviours employed and will be discussed further in a later section.

Coping behaviours

Lazarus (1966) emphasized that a stressful interaction with a situation that is perceived by an individual as a threat, loss, or challenge is a source of emotions, usually strong and negative (Gardner, Rose, Mason, Tyler, & Cushway, 2005). Therefore the purpose of coping behaviour is to fulfill two functions: to alter the demand-coping imbalance for the better (problem-focused coping) or engage in emotion focused coping, also known as palliative coping that occurs when the individual does not attempt to remove the stressor or to reduce its intensity, but rather attempts to change his or her emotional reactions to the situation (Arthur, 1998; O'Driscoll & Brough, 2003). In addition to the most widely accepted concepts in the coping literature outlined above, coping can be in the form of active or passive attempts to respond to a situation, with the aim of removing the stressor or reducing the discomfort (Amirkhan, Risinger, & Swickert, 1995). To cover the full range of coping behaviors, Endler and Parker (1990) added a third basic coping dimension, avoidance, which reflects the tendency to escape the stressor through both physical and psychological withdrawal (Heszen-Niejodek, 1997). Evidence suggests that individuals can use both problem-focused and emotion-focused coping strategies when attempting to cope with a stressor (Arthur, 1998).

The current study focuses on three coping behaviors; *problem solving, seeking social support*, and *avoidance coping*. Problem-solving can be described as an active, problem-focused coping strategy, seeking social support is included as an active, emotion-focused strategy and avoidance coping, a passive emotion-focused strategy. Problem solving is an instrumental approach involving planning and implementation of steps to remediate the problem, whilst seeking social support includes seeking others help and measures attempts at human contact (Amirkhan, 1990). Support can take a number of forms; practical, informational, emotional and getting feedback (Amirkhan, 1990). The four different types can be classified as either: emotion-focused coping, problem-focused coping or a mixture of both. A majority of the seeking social support items in this study indicate a kind of social support focused towards emotion focused coping such as seeking emotional support. Avoidance reflects tendencies to escape the problem through withdrawal (Amirkhan, 1990).

Empirical evidence presented by Endler and Parker (1990) has shown that the correlation coefficients between these three coping styles are low which confirms they represent three independent dimensions of coping dispositions not three different types of people, making their inclusion and investigation as distinct coping strategies relevant in this study (Heszen-Niejodek, 1997). The three coping behaviours above will be used in this study to expand on previous coping research by exploring the notion of '*coping style*' and its relation to stressor appraisal, situational resource (perceived control), in addition to the previously explored relation to specific dispositional variables (Guenole, Chernyshenko, Stark, McGregor, & Ganesh, 2008). Although an abundance of coping research already exists, additional research into coping styles is essential as growing evidence suggests that the ways people cope with stressors affect their psychological, physical and social well-being. The study of more enduring coping styles is important for understanding individual differences in vulnerability to ineffective coping practices and mental and physical health problems.

Personality

Coping styles may well be significantly influenced by personality (Hayes & Joseph, 2003). This assumption is derived from the notion that there is no reason to believe that coping responses differ necessarily from other cognitive, affective and behavioral responses. The most notable taxonomy in Industrial/Organisational psychology has been the "Big Five" or Five Factor Model, which has generally been accepted as an accurate model of personality (Salgado, 2003). The Big Five personality traits included in this study include five different personality factors: Neuroticism; Extraversion; Openness to Experience; Agreeableness; and Conscientiousness (see *Table 1* for characteristics of these traits). Regarding previous coping and personality research, it is unclear if coping styles are dependent on the environment in which the stressor is faced, or a result of another system such as personality, or as a result of a combination of the two, a key point this research will endeavor to clarify (Jang, Thordarson, Stein, Cohan, & Taylor, 2007).

Table 1   **The "Big Five" factors of personality as described by McCrae & Costa (1987)**

Neuroticism (N)	Anxiety; irritability; sadness; self-consciousness; impulsiveness; and an inability to cope with stressful situations.
Extraversion (E)	Warmth; sociability; assertiveness; energy; excitement; and optimism
Openness to experience (O)	A vivid imagination; an appreciation of art; wanting to try out new activates; intellectual curiosity; and an openness to political, social and religious beliefs.
Agreeableness (A)	A belief that others are well intentioned; frankness and sincerity; a willingness to help others; a preparedness to forgive and forget; modesty; and tender-mindedness.
Conscientiousness (C)	A sense of capability; good organisation; sense of responsibility; a drive to achieve; self-discipline; and deliberation

Although most theoretical models of the stress process acknowledge the importance of individual differences, there is relatively little conceptual or empirical work to (a) identify relevant and measurable individual differences, (b) explain how they impact the stress-coping process, or (c) empirically test the impact of individual differences on the stress-coping process (Jex, Bliese, Buzzell, & Primeau, 2001).

This current study takes the perspective that it seems unlikely people are born anew in every crisis they encounter and must carry 'person bound' factors with them from stressor to stressor, factors that may also influence the choice of coping strategy used (Amirkhan, Risinger, & Swickert, 1995). This perspective is consistent with psycho-dynamically oriented personality theorists who tend to view coping as stable characteristics of the individual (McCrae & Costa 1986). Lazarus has emphasised that coping reactions can change from moment to moment across the stages of a stressful transaction (Carver & Scheier, 1994). Although there is evidence coping can adapt from moment to moment, the current research is based on the perspective that there is merit in the argument that people develop habitual ways of dealing with stress based on personality traits and these coping styles (habits) can influence their reactions in new situations (Carver & Scheier, 1994).

Assessing personality in relation to an individual's coping styles poses the question of whether specific coping behaviours do actually come together to form a consistent style based on depositional factors (Mutsuhiro, Gregory, Patricia, Patricia, & et al., 2001). Lazarus has noted that these types of questions can be addressed only if independent assessments of personality dimensions and coping behaviours are used. This study attempts to examine the relations between personality and coping by employing conceptually and operationally independent measures of each (McCrae & Costa 1986).

The main intention of this research was to identify and examine the (a) effects of personality as a moderator and direct effect in the stress-coping relationship, (b) the effects of stressor appraisal, control perceptions and personality on the stress-coping process and coping effectiveness and (c) the relation between coping methods used and resulting coping effectiveness. In doing so the concept of 'coping style' was explored to determine if there was an association between appraisal, personality, situational factors and coping behaviours used, and to ascertain whether students demonstrated a preference or consistency in their coping behaviour by using a consistent coping style, across two different stressful situations. The next section describes in more detail each variable included in Figure 1.

Variables in the Stress-Coping Process

Stressors

One of the central tenants of the transactional models of stress and coping is that stress and coping processes occur through an interaction of person and situation (O'Brien & DeLongis, 1996). That is, the relationship of personality to coping may depend on the context in which the stressor occurs and personality traits may be expressed quite differently depending upon the constraints of the situation (O'Brien & DeLongis, 1996). Compass, Forsythe and Wagner (1988) found individuals exhibit a consistent pattern of coping when dealing with the same stressor over a period of time, indicating there is a need for the evaluation of individual coping across different types of stressors to investigate consistency. Hence two different situational stressors

and their effects on the stress-coping process were explored in the present research (O'Brien & DeLongis, 1996).

The current study took on a situationally-based approach by assessing the elements of the stress-coping process in relation to two very different and specific situations, on the assumption that doing so will offer a greater ability in exploring the consistency of students' coping behaviours' across two different stressors (Watson & Hubbard, 1996). Consistent with the situationally-based approach, the nature of the stressful situations the student participants reported on were controlled, as the instructions limited the participant to focus specifically on and describe two naturally occurring phenomena, academic work load related demand and stressors experienced from a specific social interaction. The two specific situations were chosen as they may require different coping behviours from the individual in each situation (Carver, Scheier, & Kumari Weintraub, 1989). Some examples of possible stressful situations the participant could refer to for an academic workload demand include anything from time pressures or a high quantity workload from assignments or tests. Some examples of situations involving social interactions could include meeting someone for the first time or a social interaction where a conflict or a disagreement occurred.

Research examining the role of the specific situation in the stress-coping process has employed many different methods for categorising stressful situations. An example includes grouping by the actual event (e.g. health problems, or loss of a loved one) and classifying the stressor by the level of cognitive appraisal used (e.g. threat, loss or challenge) (O'Brien & DeLongis, 1996). For the purpose of this study, academic workload related demands are classed as *agentic situations*, characterised as involving demands related to striving for mastery, work performance or instrumental task completion (O'Brien & DeLongis, 1996). In contrast, stressors from social interactions are classed as *communal situations* which involve demands that are related to striving for friendship, affiliation, belongingness, group cohesion, communality and relationship maintenance (O'Brien & DeLongis, 1996).

Generally speaking, agentic and communal situations included in this study are likely to be experienced as very different situations for the individual in the sense that workload demands are expected to be a discrete event, where the participant may know exactly how long the stressor will last. For example, workload demands will decrease when the semester break occurs or when the deadline for a thesis takes place, while stressors from a social situation may pose a long lasting problem to the individual and could perhaps be ongoing. Given these inherent differences, it might be expected that the two stressors would require different coping behaviours. Although this current research is advocating the possibility that individuals will employ a habitual and consistent coping style across the two situations, research involving the variables included in this study present conflicting findings from the coping literature regarding the existence of 'coping styles'. According to previous research, agentic and communal situations are likely to raise somewhat different primary appraisals, as stressors experienced from a social encounter are likely to generate feelings of threat appraisal if the person evaluates the situation as stressful or perceives the stressor as out of their control. A positive relationship has been found between threat appraisal, seeking social support and the use of problem-focused coping such as problem-solving (Carver & Scheier, 1994). Furthermore, a primary appraisal of threat has been linked to mental disengagement (avoidance coping) in a student population with regard to their exam anxiety, as threatened students tried to distract themselves from their worries (Carver & Scheier, 1994).

In comparison, evaluation of a stressor involving work load demand is likely to produce a primary appraisal of challenge from the individual. The potential for loss is present; however subjects are in a situation in which they could also create gain such as achieving a high mark in their course work (Carver & Scheier, 1994). Findings tend to suggest coping is far more responsive to threat appraisal than to challenge appraisal. This could be attributed to the fact that challenge appraisal is positive; there is no need to try to reduce it (Carver & Scheier, 1994). Research has found that the pattern for harm appraisal resembled that for threat appraisal. Harm appraisal is linked to seeking social support and avoidance coping. Interestingly, the primary appraisal of harm has been found to be comparatively unrelated to problem-focused

coping (Carver & Scheier, 1994). Primary appraisal is a significant factor in establishing how an individual appraises then reacts when exposed to a stressful event. Agentic and communal situations included in this study are likely to produce different appraisals in response to each stressor faced, that may have an effect on coping style consistency across the two situations, a notion further explored in this current study (Carver & Scheier, 1994).

Stressor Appraisal

Lazarus (1990) defined stress appraisal as a condition subjectively experienced by an individual who identifies an imbalance between the demands put on them from facing a stressor and the resources available to the individual to help encounter and cope with the demands (Dafna & Tali, 2005). Bringing this discussion back to the influential transactional model of stress coping, Lazarus and Folkman (1984) argued that a critical variable is the individual's cognitive appraisal of the situation as a determinant of the resulting coping behaviours used from the options that may exist for the individual (Gardner, Rose, Mason, Tyler, & Cushway, 2005). Lazarus (1984) theorised that it is the individual's personal appraisal of the specific event or stressor that determines how stressful the event is experienced. As outlined earlier, primary appraisal refers to an evaluation of a stressor and is a significant factor in establishing how an individual appraises, then reacts or copes when exposed to a stressor. Secondary appraisal involves an individual's attempt to define what coping resources are available for dealing with the harm, threat or challenge perceptions established during primary appraisal and involves the individuals evaluating which coping options are available (such as actively changing the situation, avoiding or simply accepting) and which option will lead to perceptions of effective coping (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). The transactional model of stress implies that individuals will experience stress or strain when a situation or event is appraised as threatening and/or demanding and if the individual possesses insufficient resources to effectively cope with the event. Events appraised as psychologically threatening will be perceived as stressful.

As discussed earlier, appraisals are evaluations of situations that have implications for people's beliefs, values and/or goals (Folkman, 1984). People tend to expand effort and resources on tasks significant to their personal beliefs, values, goals, and on tasks whose outcomes are personally important. Previous research has suggested coping efforts can shift to match changes in perceived demands relating to the stressor faced (Arthur, 1998). Consistent with previous research however, coping is viewed in this study as a consistent, stabilising factor which helps maintain coping effectiveness during stressful episodes; for this reason, coping behaviors should be most effective when the stressor being faced is perceived as important to the individual (Moos, 2003). When evaluations are that a personally relevant task is more demanding, more effort will be expanded on that task. If a task is not personally relevant, demands will be competitively lower (Schneider, 2008).

Once the stressor has been faced and appraised by the individual coping behaviours may result. Next the mediator variable coping style will be discussed in detail.

Stress-Coping Process: Mediator Variable

Coping Styles
This research is based on the dispositional approach which assumes relatively stable, person-based factors underlie habitual coping efforts. This is opposed to the alternative view of the contextual approach that assumes more situation based factors shape individuals cognitive appraisals, and their resulting choice of specific coping behaviours' (Moos, 2003). According to the dispositional approach, relatively stable personality and cognitive characteristics provide the most important aspect of the coping context (Moos, 2003).

It is proposed in the present research that it is highly possible stable coping styles or dispositions exist, which people bring with them to each stressor they encounter. *Coping styles* in this study imply if an individual has a free choice of coping strategies, they are likely to cope according to a habitual tendency and respond the same way across stressors (Heszen-Niejodek, 1997). According to previous research,

people differ in their nature and number of strategies available in their coping 'repertoire' or coping style and coping styles have been found to be influenced by dispositional factors such as personality traits (Carver, Scheier, & Kumari Weintraub, 1989)**.** It may therefore be assumed that in the process of coping, a person applies coping strategies from his or her repertoire according to their personality traits and demands of the stressor (Heszen-Niejodek, 1997).

Coping styles are specific to an individual and like other forms of behaviour they are said to be a result of learning. Similar to basic learning principles, new forms of coping may be established during the course of the stress-coping process. The newly learnt coping behaviour may then be included in the individual's coping style or repertoire if that coping behaviour proves effective in coping with stressors faced (Heszen-Niejodek, 1997). According to the above notion, individuals draw on a preferred set of coping strategies that remain relatively fixed (Carver, Scheier, & Kumari Weintraub, 1989). To offer an explanation, in the stress-coping process only a portion of the individuals' coping repertoire is activated, which coping strategy is actually extracted and used from the possibilities that exist in the individual's coping repertoire depends on the demands of the stressful situation and on the contents of the individuals' coping catalog or repertoire (Heszen-Niejodek, 1997). Consequently it can be suggested that people habitually apply the same, stable pattern of coping across different stressors faced (Heszen-Niejodek, 1997). This view appears to be supported by both observational and empirical research (Heszen-Niejodek, 1997; Miller, 1979).

However, the idea of habitual coping or coping styles is not devoid of controversy. Folkman and Lazarus (1980) have repeatedly emphasised that coping is a dynamic process. It is proposed in the present research that an additional possibility exist in that people have preferred methods of coping or coping behaviors in dealing with stress, and that preference is related to personality traits (Carver, Scheier, & Kumari Weintraub, 1989). That is to say, certain personality traits may predispose people to cope in a certain way when they confront a stressor (Carver, Scheier, & Kumari Weintraub, 1989)

A number of investigators have conceptualised coping in dispositional terms and have developed measures of coping styles accordingly (Moos, 2003). Carver, Scheier and Weintraub (1989) put forward the notion that coping strategies exhibit similar characteristics to personality traits. In other words, individual differences in the tendency to use a particular coping style (e.g. seeking social support, avoidance etc..) may be both moderately stable over time and consistent across situations because of the influences of personality traits on coping (Carver, Scheier, & Kumari Weintraub, 1989).

Problem-solving, avoidance and support-seeking
As mentioned earlier, three coping strategies were examined in the present research. Problem-solving, involves manipulation rather than simply awareness of the stressor, reflected in such items as 'thought about what needed to be done to straighten things out' (Amirkhan, 1994). Avoidance reflects a subset of possible emotion-focused responses involving some form of withdrawal (e.g. 'watched television more than usual'). Support-seeking is consistent with the notion that people actively recruit contact as opposed to passively await such contact and is reflected in items such as 'let your feelings out to a friend' (Amirkhan, 1990).

A large number of specific coping strategies could have been included in this study, however these three coping responses were included as they reflect distinct primary modes of responding. The three strategies mirror the problem-versus emotion-focused dichotomy mentioned earlier, proposed by Folkman and Lazarus (1980). In addition to the above categorisation, coping styles can be distinguished on the basis of attention paid to the stressor and/or one's response to the stressful situation. A relevant example of such a classification is Miller's (1987) conception of two coping styles: monitoring and blunting. Monitoring represents a person's tendency to focus attention on the stressor and consists of searching, gathering, processing, and applying information concerning the stressful situation, consistent with the coping behavior problem-solving (Miller, 1987). Individuals whose coping styles involve seeking social support can be classified as people who look for companionship in stressful situations, while others may prefer to cope alone (Heszen-Niejodek, 1997).

Blunting is focusing attention away from the stressor, which means avoiding, repressing and rejecting information, consistent with the notion of avoidance coping (Miller, 1987).

By no means do the three coping behaviours included in this study represent the full range of possible responses within each strategy, however they do seem to correspond to basic human responses to threat. For example, problem-solving, seems related to basic human "fight" tendencies, avoidance, which involves escape or withdrawal tendencies seems to be related to primitive "flight" inclinations and seeking social support is arguably related to the primal need for human contact in the form of advice or distraction (Amirkhan, 1990).

In this current study coping styles are included as a mediating variable between appraisal of the stressors and coping effectiveness. Direct and moderator variables may affect the resulting coping styles used and the direction and/or strength of the relationship between stressor appraisal and coping styles. The direct effect of the two different stressors on coping styles will be explored. In addition constructs from the Five Factor Model of personality were included as direct and moderator variables in the stress-coping process, however discussion on the specific effects of personality on coping will be discussed in a later section. The first objective of the current study was to examine the influence of the two different stressful situations (stressors) on the resulting coping styles and examine the consistency of an individual's coping strategies used in each stressful situations.

Coping and situation

Previous stress and coping research has found problem-focused strategies such as problem-solving are used more for work load demand stressors compared to interpersonal stressors (Folkman & Lazarus, 1980). In contrast seeking social support is relied upon more when stressors are of an interpersonal nature (O'Brien & DeLongis, 1996). Past research into the active coping behavior of seeking social support has found, in general that social support is reasonably effective in reducing

some of the ill effects of interpersonal conflict (Clark, Bormann, Cropanzano, & James, 1995).

H1.   Interpersonally orientated forms of coping, such as seeking social support, will be used more often in communal situations than in agentic situations.

H2.   Problem-solving as a coping behavior will be used more often in agentic situations than in communal situations.

The principal aim of this study was to explore the contradictory ideas regarding the notion of 'coping styles'. Consistent with the dispositional approach outlined above an alternative hypothesis is included.

H3.   Coping behaviours will be consistent across both communal and agentic situations.

A measure of coping effectiveness is included as an assessment of the end result of the stress-coping process and is discussed in detail in the next section.

Stress-Coping Process: End Result

Coping effectiveness

Previous coping and personality research has often administered a battery of tests to assess psychological well-being as a measure of the end result of the stress-coping process (McCrae & Costa 1986). A measure of such was not included in the present study. Instead a measure of coping effectiveness was incorporated. It is easy to hypothesize that adaptive coping efforts will lead to greater well-being, but meaningful tests of such are highly difficult to formulate. Unless a study includes a measure of all life strains and stressful events, occurring over a specific period of time, and data on exactly how the individual coped with each is reliably collected, the relation between coping and resulting outcomes is contaminated and arguably not of much value (McCrae & Costa 1986).

Effective coping is associated with better physical and psychological adjustment and better adjustment is positively related to life satisfaction (Clark, Bormann, Cropanzano, & James, 1995). A motivation for studying coping is that certain coping behaviours are more effective in promoting well being and addressing the problems which are causing the stress or strain, and that such information can then be used to design interventions to help people deal with stressors. Despite this relatively simple logic, the issue of determining coping effectiveness remains one of the most difficult (Folkman & Moskowitz, 2004). The contextual approach to coping, which guides much of the existing coping research, states that coping processes are not simply either good or bad. A coping behaviour may be effective in one situation but ineffective in another situation, depending for example on the extent to which the situation is perceived as controllable (Folkman & Moskowitz, 2004). Further, if the stressful situations' context is viewed as dynamic, what might be considered effective coping at the outset of a stressful situation may be ineffective later on (Folkman & Moskowitz, 2004). Nonetheless, past research has demonstrated consistently that an individual's coping response to stressful life events can be a critical component in determining the impact of the event on the person (Endler & Parker, 1990).

More specifically, past research has shown that daily hassles, in particular interpersonal conflicts, are a major contributor to overall stress levels (Bolger, DeLongis, Kessler, & Schilling, 1989). Various studies have found detrimental effects of daily hassles can be reduced by the use of appropriate coping strategies. For example Clark, Bormann, Cropanzano, and James (1995), used a measure of depression as an indication of coping ineffectiveness as the end result of the stress-coping process. Results indicated the use of 'appropriate' coping strategies (e.g. problem-solving and seeking social support) were associated with a reduction in symptom reporting, whereas the use of arguably 'maladaptive' coping strategies (e.g. avoidance coping) were associated with an increase in symptom reporting (Clark, Bormann, Cropanzano, & James, 1995). The second objective of this study was to explore the relationship between the different coping behaviours and reported coping effectiveness.

Coping and coping effectiveness

As stated earlier, problem-solving can be described as an active, problem-focused strategy. Seeking social support can be described as an active, emotion-focused strategy and avoidance coping as a passive emotion-focused strategy (Amirkhan, 1990). Based on Clark, Bormann, Cropanzano and James' (1995) findings, it is likely that the use of an active problem-focused coping strategy such as problem-solving efforts will predict greater perceived coping effectiveness because of such perceptions as facing the stressor head on, which can contribute to a sense of control over the stressor.

H4.   *Problem-solving coping will be positively correlated with reported coping effectiveness*

Active emotion focused strategies such as seeking social support are similar to problem-solving efforts in that they are likely to be associated with coping effectiveness because the coping effort is directed toward the actual problem, therefore coping is likely to be perceived as more effective. In addition the use of social support when facing a problem can aid in information gathering and sharing of ideas regarding the problem that may influence additional viewpoints of the same event or stressor, resulting in a more adaptive coping strategy employed.

H5.   *Seeking social support will be positively correlated with coping effectiveness*

Based on McCrae and Costa's (1986) findings that the behaviour considered least effective by those who used it included avoidance coping, it is likely the passive emotion focused strategy of avoidance will be associated with lower perceived coping effectiveness, because as a strategy it does not deal with or manage the problem or stressor (McCrae & Costa 1986).

H6.   *Avoidance coping will be negatively correlated with reported coping effectiveness*

In light of the above predictions it does need to be recognised that different strategies may be more or less effective for specific situations and stressors faced (McCrae & Costa 1986). In this current study it is expected problem-focused coping and seeking social support will be effective in both situations and avoidance coping will be ineffective with regard to the two stressors selected. The next section will discuss the dispositional resource personality as a moderator and direct influence on the stress-coping process.

Resources: Dispositional

Personality

This current research extends prior work that has examined personality as a moderator of stressor and coping style but has found somewhat inconsistent results. The inconsistencies found are demonstrated through the varying effect models often cited in the literature. Direct, mediated, and moderated effect models have been reported in previous coping literature along with relating evidence linking the Five Factor Model to stress exposure, cognitive appraisal, and coping. According to the direct effect model, personality and stress are directly and simultaneously related to strain. That is, the role of personality in the stressor-strain relationship is additive (Grant & Langan-Fox, 2007). The direct effect model is often cited as responsible for the development of stress-related illness and disease research. The concept of mediation is defined as a progression from an initial variable to a mediator (intervening variable) (Holmbeck, 1997). According to the mediated effect model, certain people create more frequent or severe stress through their own cognitions and behaviours as a result of personality and is often cited in occupational stress literature (Spector & O'Connell, 1994). According to the moderated effect model, the relationship between stress and strain is more (or less) strong for people with certain personality traits (Grant & Langan-Fox, 2007). Basically the strength and direction of the effect of stress on strain is dependent on personality. For example traits such as neuroticism has been found to intensify or prevent the appraisal of a situation as stressful and/or guide the selection of more or less adaptive coping strategies in response to stress (Grant & Langan-Fox, 2007).

In addition to the above inconsistent findings regarding coping and personality, a majority of coping research has tended to investigate the relation between coping strategies and more specific personality traits (Fleishman, 1984). Some dispositions widely studied are broad, such as extraversion, whereas other traits explored in the research are comparatively more specific, such as talkativeness. Among the traits which seem to have been widely studied are hardiness, self esteem and locus of control. In light of previous research it seemed beneficial to include traits in this study that represent the broader dimensions of individual differences and personality (Watson & Hubbard, 1996). The scope of the traits included in this current study are broader than some of the widely investigated traits such as hardiness and locus of control (Watson & Hubbard, 1996). Researchers have consistently reported the five robust factors-Neuroticism, Extraversion, Conscientiousness, Agreeableness and Openness-are sufficient to represent the underlying structure of traits (Watson & Hubbard, 1996).

The Five Factor Model (FFM) has proven to be a highly robust model across a wide range of conditions and has arisen from extensive factor analysis investigations into the structure of traits (Salgado, 2003). The use of the FFM is relevant for the purposes of this study because as a scale, the FFM allows for exploration into dispositional factors in a reliable manner (Watson & Hubbard, 1996). The FFM appears to be generally accepted in the literature; however broad factor models have been criticised by researches who promote more complex trait models (Watson & Hubbard, 1996). Basically the argument is centered on the notion that five traits cannot capture the complexity of human personality (McAdams, 1992). Although this argument has some value, it is important to highlight each of the FFM traits are higher order dispositions which can be divided into several distinct lower order traits, allowing for a more in-depth investigation (Watson & Hubbard, 1996).

Neuroticism (N)
Previous research has demonstrated that neuroticism is very broadly related to psychopathology, including depression and anxiety disorders, with sufficient evidence demonstrating significant links between this trait and virtually every stage in

the stress-coping process (Watson & Hubbard, 1996). N has been widely studied in past research, displaying sufficient reason to believe that it plays an important role in determining how individuals respond and cope with stress and the resulting effectiveness of their coping behaviours (Watson & Hubbard, 1996). Research findings beyond the trait of N are sparser and relatively inconsistent. However, the existing research is enough to suggest that each of the remaining FFM traits are significantly related to coping in a meaningful way.

Extraversion (E)

Extraversion as a trait is substantially related to individual differences in positive affect. Extraverts tend to engage in higher levels of joy, energy and enthusiasm, which leads to the prediction that compared to N, extraverts should generally engage in more active and effective coping mechanisms (Watson & Hubbard, 1996). Extraverts have been found to be interpersonally oriented and turn to others in response to stress (Watson & Hubbard, 1996). Social support can improve coping efforts by providing emotional support that promotes self-confidence. Moreover, social networks can provide information which aids appraisal of the stressor and in planning coping behaviour responses. E and N are viewed as important in this current study because as traits they tend to be viewed as stable across situations, an aspect needed in a good predictor (Amirkhan, Risinger, & Swickert, 1995).

Conscientiousness (C)

In many studies conscientiousness emerges as an equally important indicator of coping styles when compared to the widely acknowledged trait of N. High C individuals are characterised as having a tendency to be careful, reliable, hard-working and well organised (McCrae & Costa, 1987). Conscientious individuals tend to engage in planning to eliminate problems they face and tend to give up other activities or goals to concentrate on managing the stressor or problem faced (Watson & Hubbard, 1996).

Openness to experience (O)

Tolerance and curiosity generally characterise high scores on the dimension of openness to experience. Those high on O are inclined to be creative, original and flexible (O'Brien & DeLongis, 1996). High O individuals often report thinking hard about how best to handle the stressor and attempt to devise effective strategies to deal with the problems (Watson & Hubbard, 1996).

Agreeableness (A)

Agreeable individuals generally reflect a tendency to be good natured, courteous, helpful and trusting. Those high on A have been found to be more likely to engage in seeking emotional support and display a high level of willingness to help others (O'Brien & DeLongis, 1996).

This current study will expand on the findings outlined above by examining the direct and moderator affects of personality on the stressor-coping relationship with coping effectiveness as the end measure of the process. The third objective of this study was to explore the direct relationships between personality and stressor appraisal.

Personality and stress appraisal

One of the hallmarks of high N individuals is they tend to report greater distress when faced with either work overload, or when faced with interpersonal stress, compared to those low on N (O'Brien & DeLongis, 1996). These findings can be attributed at least in part to high N individual's greater tendency to engage in modes of coping that create and maintain stress.

H7.A   *Neuroticism will be positively correlated with appraisal of an agentic situation as a stressor*

H7.B   *Neuroticism will be positively correlated with appraisal of a communal situation as a stressor*

As mentioned earlier high E individuals tend to experience positive emotions and are warm, fun loving and assertive (O'Brien & DeLongis, 1996). Because of the positive association between E and the use of task-focused coping, high E individuals tend to indicate higher levels of self confidence which is likely to result in lower levels of stressor appraisal when they perceive their coping resources as adequate in coping with the demands of the stressor faced (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993).

H8.A   Extraversion will be negatively correlated with appraisal of an agentic situation as a stressor.

H8.B   Extraversion will be negatively correlated with appraisal of a communal situation as a stressor.

High O individuals on the other hand, tend to display a distinctive openness to feelings and ideas which has been evident in the linkages found between O and coping in the literature. Consistent with the work of McCrae and Costa (1986), O'Brien and DeLongis (1996) found a strong link between O and positive thinking. High O individuals engage in more positive reappraisal compared to those lower on O (O'Brien & DeLongis, 1996). These findings are consistent with descriptions of high O individuals being characterised as divergent thinkers, creative and reflective (McCrae & Costa 1986). Such a cognitive style may facilitate an ability to take a creative view of a stressful situation by appraising the situation as a challenging, growth-enhancing opportunity, allowing the individual to obtain a positive meaning from an otherwise adverse situation (McCrae & Costa 1986). In addition it has been found that those higher on O are able to respond empathetically to others, even in situations of conflict and stress, which suggests that those higher on O may be open and sensitive to the feelings of others as well as their own (O'Brien & DeLongis, 1996). Taken together it appears those high on O may tend to be model copers, and are able to perceive comparatively lower levels of stress when faced with adversity as they are able to cognitively reframe stressful situations to their advantage and respond sensitively to others (O'Brien & DeLongis, 1996).

H9.A   Openness to experience will be negatively correlated with appraisal of an
agentic situation as a stressor

H9.B   Openness to experience will be negatively correlated with appraisal of a
communal situation as a stressor

Earlier research findings concerning the trait of A are fairly inconclusive, however in general the pro-social nature that is ascribed to those high on A is reflected in the findings of O'Brien and DeLongis (1996) where across both agentic and communal situations, those higher on A reported engaging more support seeking and less confrontation. It has been found, those higher on A may avoid confrontation in order to maintain their emotional equilibrium and harmonious relationships with others. Therefore individuals high on the trait of A, being agreeable by nature, may experience a higher level of stress perception and discomfort when engaging in interpersonal confrontation or conflicts, as they place a higher value on harmonious relationships.

H10.   Agreeableness will be positively correlated with appraisal of a communal
situation as a stressor

Personality and coping
Certain coping styles (e.g. focusing on the problem, responding emotionally, or seeking the company of others such as contacting a friend) have been found by Jang et al (2007) to be modestly heritable, whereas the tendency to respond to a stressful situation by distracting oneself (avoidance coping), did not appear to be heritable (Jang, Thordarson, Stein, Cohan, & Taylor, 2007). These types of findings which imply a genetic correlation suggest personality may influence acquisition, prime what is attended to, or might even influence an individual's preferred style of coping responses. The fourth objective of this study was to assess the direct effect of the FFM variables specifically on coping behaviours used. In general it is expected each of the five personality traits will be related to different and unique aspects of coping.

One of the main advantages of using a well-researched personality model as a framework for research is informed predictions can be established based on the large amount of existing research involving the FFM traits (Watson & Hubbard, 1996).

Speaking on a very general basis, emotion-focused coping responses commonly viewed as maladaptive in the literature, such as avoidance coping, have been found to be associated with less adaptive personality traits such as N and with resulting psychological strain. The opposite pattern was found for problem-focused coping strategies viewed as adaptive in the literature such as problem-solving, which was found to be correlated with the adaptive personality trait of C (Lachlan A. McWilliams, 2003). The personality variable of N has been shown to be broadly related to psychopathology, including depression and anxiety. On the basis of this it becomes clear N must play a key role in determining how and how well individuals cope with stress (McAdams, 1992).

A significant and independent association with each FFM personality trait and each of the three coping behaviours included is expected as a result of previous findings (O'Brien & DeLongis, 1996). Specific findings regarding each trait and coping are outlined below.

As mentioned above, high N individuals are characterised by a tendency to experience negative affect and a tendency to be impulsive. In considering the relevant research, Endler and Parkers (1990) found N to be substantially correlated with passive and ineffective forms of coping. The findings of several studies suggest high N individuals are less likely to engage in problem-focused coping because they are prone to indecisiveness so are less likely to form an action plan when facing a stressor (Endler & Parker, 1990; O'Brien & DeLongis, 1996). Instead they tend to rely on emotion-focused forms of coping, particularly ones that involve escape-avoidance and self-blame (Endler & Parker, 1990). Further research by Folkman & Lazarus (1980), reported N to be associated with increased use of escape or avoidance coping, and with the decreased use of problem-focused coping such as problem solving and certain forms of emotional support. Similarly, Watson and Hubbard, (1996) found N was broadly associated with passive and ineffective forms of coping. Specifically,

high N individuals report responding to stress typically by giving up in their attempts to achieve their goals, engage in substitute activities to take their mind off the problem and by pretending their problems do not exist (avoidance coping). It is anticipated here then that those higher on N will report engaging in more avoidance coping and less problem-solving compared to individuals who score lower on N.

H11.A   Neuroticism will be positively correlated with avoidance coping in both situations

H11.B Neuroticism will be negatively correlated with problem solving in both situations

As mentioned earlier those high on E tend to experience positive emotions and are warm, fun loving and assertive (O'Brien & DeLongis, 1996). After reviewing previous literature it is likely high E individuals would report using more problem-solving because of their assertive nature and the positive association between E and the use of task-focused coping outlined in the previous literature (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993). Studies examining associations between E and coping have found those high on E engage in less arguably maladaptive forms of emotion-focused coping such as avoidance coping (O'Brien & DeLongis, 1996). Further, based on Watson and Hubbard's (1996) findings that indicated negative relations between E and emotion-focused coping, it is reasonable to assume higher scores on E will be associated with the lower use of avoidance coping (O'Brien & DeLongis, 1996).

Extraverts have been found to be interpersonally oriented and turn to others in response to stress typically in the form of seeking social support (Watson & Hubbard, 1996). Social support can help coping efforts by providing emotional support that promotes self-confidence. Moreover, social networks can provide information which aids appraisal of the stressor and planning coping responses (Amirkhan, Risinger, & Swickert, 1995). Because high E individuals are generally warm, fun loving and interpersonally orientated, high E individuals are likely to report engaging in more

seeking social support than those lower on E. Individuals high on E also engage in less avoidance and other maladaptive forms of emotion-focused coping. Instead as suggested above high E individuals are more inclined to engage in support seeking but use less avoidance coping compared to those low on E (O'Brien & DeLongis, 1996).

H12.A Extraversion will be positively correlated with problem-solving in both situations

H12.B Extraversion will be negatively correlated with avoidance coping in both situations

H12.C Extraversion will be positively correlated with seeking social support in both situations

High C individuals have been characterised as having a tendency to be careful, reliable, hard-working, purposeful and well organised, and have been reliably related to active, problem focused response strategies in previous literature (McCrae & Costa, 1987). Conscientious individuals tend to engage in planning to eliminate problems they face and tend to report levels of active coping in the form of giving up other activities or goals to concentrate on managing the stressor or problem. The high C individual is likely to engage in problem-solving coping and less avoidance coping as they display a greater tendency to engage in planful problem solving and disciplined behaviour so are likely to face the stressor head on and carry a plan through to completion (Watson & Hubbard, 1996).

H13.A Conscientiousness will be negatively correlated with avoidance coping in both situations

H13.B Conscientiousness will be positively correlated with problem-solving in both situations

High O individuals often report thinking hard about how best to handle the stressor and attempt to formulate effective strategies to deal with the problems (i.e. problem solving) (Watson & Hubbard, 1996). Findings with regard to O appear to be somewhat inconsistent compared to the other traits included in the FFM. Nonetheless McCrae and Costa (1987) found those high on O were more likely to employ humor in the face of stress, engage in positive thinking, distraction and emotional expression. High O individuals are inclined to be creative, flexible and have a preference for variety. Because individuals high on O are original and imaginative they may be particularly effective copers, able to utilise modes of coping such as positive reappraisal by looking at a stressor as a challenge which can be benefited from and hence engage in task oriented coping such as problem-solving to face the stressor head on (O'Brien & DeLongis, 1996). Those high on O should report using more problem-solving coping efforts and in comparison to those lower on O, those higher on O should report relatively less avoidance coping.

H14.A   Openness will be positively correlated with problem solving in both situations

H14.B   Openness will be negatively correlated with avoidance coping in both situations

High A individuals have been identified as the opposite to hostility by reflecting a tendency to be good natured, courteous, helpful, trusting and pro-social in nature. High A individuals, agreeable by nature are likely to engage in more support-seeking as they tend to place a higher value on maintaining close networks and harmonious relationships. Williams (1989) as cited by Nightingale and Williams (2000) proposed that some individuals hold negative attitudes towards emotional expression (Nightingale & Williams, 2000). A negative attitude toward emotional expression is likely to block the use of seeking social support as a coping mechanism, as the individual is unlikely to seek out others to share their problems with. A study conducted by Nightingale and Williams (2000) found that individuals high on A were more likely to hold a positive attitude towards emotional expression and it is assumed

in this current study that a positive attitude towards expressing ones emotions is likely to lead to the use of seeking social support in response to a stressor. Like those higher on E, individuals higher on A have been found to be more likely to cope via seeking social support and less likely to engage in other forms of emotion-focused coping (i.e., avoidance) (O'Brien & DeLongis, 1996).

H15   Agreeableness will be positively correlated with seeking social support in both situations

The fifth objective of this study was to investigate the direct effects of specific personality traits on coping effectiveness perceptions.

Personality and coping effectiveness
Individuals high on neuroticism (N) are prone to negative appraisal of the environment so are likely to see threats or crises where others may not. The item content of N has displayed a direct relation to coping effectiveness in that high N individuals generally see themselves as coping ineffectively with stress (Watson & Hubbard, 1996). The above finding is consistent with the notion that high N individuals are easily upset and tend to overreact to minor disturbances. Further, N has been found to be correlated with criteria that are traditionally used to measure coping effectiveness such as subjective distress or symptoms of anxiety. Put together these findings make it clear that high N individuals perceive their coping efforts as relatively ineffective when responding to a stressor (Watson & Hubbard, 1996).

H16.   Neuroticism will be negatively correlated with reported coping effectiveness

Individuals high on conscientiousness (C) have been characterised as having a tendency to be careful, reliable, hard-working and well organised (McCrae & Costa, 1987). C has continuously been related to active, problem focused response strategies, as conscientious individuals tend to engage in planning to eliminate problems posed by a stressor faced. These findings would indicate a high C individual would engage in active forms of coping such as problem-solving and

engage in less avoidance coping, indicating a high C individual is likely to report a higher level of perceived coping effectiveness.

H17.   Conscientiousness will be positively correlated with reported coping effectiveness

As mentioned earlier, the behaviors, cognitions and perceptions that can alter the impact of a stressor are referred to as moderators. Next the moderator effects of personality on the stressor-coping relationship will be explored.

Stressor appraisal x personality x coping

Previous research has found stressor appraisal significantly and positively predicts the use of emotion-oriented coping strategies and significantly and negatively predict the use of problem-focused coping strategies (Dafna & Tali, 2005). In general, with regard to examining coping styles in response to appraisal of the two diverse stressors included in this current study, it is expected if coping is determined primarily by person variables such as personality traits, individual coping behaviours should be highly consistent across the two stressors. If situation variables are the major determinates, coping styles will be situation specific, and a low consistency will result. One aim of this present study is to examine these competing hypotheses.

The two different types of stressors included in this study allow exploration of the idea that some personality traits may have differing effects depending on the context of the stressful situation (O'Brien & DeLongis, 1996). For example, those high on Neuroticism (N) tend to report experiencing more emotional distress and have been found to report greater distress when faced with work overload or when faced with interpersonal stress, compared to individuals lower on N (O'Brien & DeLongis, 1996). The findings of the study conducted by O' Brien and DeLongis (1996) suggest difference in experience might be due to high N individuals' greater tendency to engage in coping strategies that may not resolve the actual problem, such as avoidance coping and a lower inclination to use problem solving. Although engaging in avoidance may allow those higher in N to bring their emotions temporarily under

control, an overuse of avoidance and a lack of problem solving efforts may stop the problem actually reaching a resolution.

The sixth objective of this study was to explore the moderator effects of personality on the stressor-coping relationship.

H18.A   The relationship between the stressfulness of an agentic situation and avoidance coping will be greater when neuroticism is high than when neuroticism is low

H18.B The relationship between the stressfulness of a communal situation and avoidance coping will be greater when neuroticism is high than when neuroticism is low

H18.C The relationship between the stressfulness of an agentic situation and problem-solving coping will be weaker when neuroticism is high than when neuroticism is low

H18.D The relationship between the stressfulness of a communal situation and problem-solving coping will be weaker when neuroticism is high than when neuroticism is low

Avoidance coping has been found to be associated with a variety of negative outcomes in many studies (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986). For example, O'Brien and DeLongis' (1996) findings suggest those high on N may be more likely to cope with personal distress in maladaptive ways, such as fleeing or disengaging from the stressful situation which does not effectively solve the source of the stressor and may be an ongoing problem that needs attention and resources to ensure a resolution. In comparison, the unique openness to feelings and ideas associated with the personality trait of Openness to Experience (O) is evident in the coping research. Findings suggest, such a cognitive style may facilitate an ability to take a broader, more creative view of both a communal and agentic situation and

appraise the stressful situation as challenging resulting in more effective coping styles such as problem solving (O'Brien & DeLongis, 1996).

H19. A The relationship between the stressfulness of an agentic situation and problem-solving coping will be greater when openness is high than when openness is low

H19.B   The relationship between the stressfulness of a communal situation and problem-solving coping will be greater when openness is high than when openness is low.

Although research on agreeableness (A) has been comparatively scarcer, based on the findings of previous research that high A individuals cope via seeking social support and tend to be trusting of others, the following hypothesis was developed (O'Brien & DeLongis, 1996).

H20.A   The relationship between the stressfulness of an agentic situation and seeking social support will be greater when agreeableness is high than when agreeableness is low.

H20.B   The relationship between the stressfulness of a communal situation and seeking social support will be greater when agreeableness is high than when agreeableness is low

Research regarding those high on the personality trait of Conscientiousness (C) indicates that they tend to be more organised, careful and self-disciplined. More specifically research regarding the trait of C suggest those high on the trait engage in more problem-focused coping and work performance itself is predicted by C (O'Brien & DeLongis, 1996). The above finding can be attributed to the notion that the profile of the high C coper is one who faces the stressor straight on and follows through with an action plan to completion. Previous studies suggest that stress perceptions are likely to be lower in situations over which the person can have some control. High C

individuals are likely to exhibit more control over their stressors through the direct nature of their coping behaviors generally employed and hence coping is likely to be quite effective, which in turn is likely to decrease stressor appraisal when facing a situation (O'Brien & DeLongis, 1996). At least in situations over which the person has some control, this style of coping is likely to be effective in communal and agentic situations (O'Brien & DeLongis, 1996).

H21.A The relationship between the stressfulness of an agentic situation and the use of problem-solving coping will be greater when conscientiousness is high than when conscientiousness is low

H21.B The relationship between the stressfulness of a communal situation and the use of problem-solving coping will be greater when conscientiousness is high than when conscientiousness is low.

Next the influence and effects of the situational resource of perceived control will be discussed in detail.

Situational Resource

Perceived situational control

The situational resource of *perceived situational control* was included in the current study as a response to a consistent theme emerging from previous coping research suggesting coping behaviours used are partially influenced by individual's perceptions of stakes involved in the situation and their perceptions of control over the stressor (Clements & Sawhney, 2000). No simple relationship has been established in the literature regarding perceptions of control and the resulting effects on stressor appraisal. However a fairly consistent conclusion has been established stating that stress increasing or reducing components of control depend upon the context or the situation in which the stressor is faced (Folkman, 1984). Previous research regarding the relationship between control and stress appraisal is based on the idea that having control reduces stress experienced and not having control

increases the level of stress experienced. Yet a few studies indicate this view is not always accurate. Stressors experienced in real life situations, not in manipulated laboratory studies, are usually connected to other events through internal or external, psychological, physical, or social factors. The interrelation of most events helps explain why the potential for control could also be threat inducing (Folkman, 1984). For example the potential for control may present a difficult choice, as a person may value controlling a stressor, yet the potential for control may induce distress because of its costs in another area of the persons' life (Folkman, 1984). An example could be: a competitive athlete suffers a stress fracture which is causing them stress and is told that the potential for controlling his or hers injury through decreasing the amount of effort into training. The exercise of this control option, that is, decreasing training effort, may result in the injury being managed but at additional cost to the patient's physical and psychological wellbeing in losing hard earned body condition which enhances performance and helps the athlete achieve his or hers valued goals (Folkman, 1984).

A measure of perceived situational control is included in this study because perceived control over a stressor has been identified through the stress and coping literature as a potential factor which can have powerful effects on the way in which an individual copes (Endler, Speer, Johnson, & Flett, 2000). This concept is apparent in the definition put forward by Folkman (1984), effective coping is to know when to appraise a situation as uncontrollable and hence turn from coping efforts aimed at changing the situation and use emotion-focused coping processes instead (Endler, Speer, Johnson, & Flett, 2000; Folkman, 1984). Two types of situational control exist, perceived and objective. The current study measured perceived control. Perceived control has been found to be strongly associated with situational coping, compared to objective control, making its inclusion relevant for this study (Endler, Speer, Johnson, & Flett, 2000). Perceived control, as defined by Thompson (1981), is the belief that one has at one's disposal a response that can influence the aversiveness of an event (Endler, Speer, Johnson, & Flett, 2000). Perception of control is a component of secondary appraisal that refers to the person's judgment or belief about the possibility for control in the stressful situation. It is a result of the individual's

evaluation of the demands of the situation, and assessment of his or her coping resources and ability to implement the needed coping strategies (Folkman, 1984). Previous research has tended to focus on only one situation and included mainly problem and emotion focused coping. It is argued here, interpretation of the levels of perceived control maybe somewhat enhanced in this study as instructions were outlined to participants that dictated reporting of only two specific situations.

Many previous studies have investigated the stress-coping process with coping behaviors highlighted as a variable that mediates the relationship between a stressor and coping effectiveness and psychological adjustment (Clements & Sawhney, 2000; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Controllability perceptions are regarded in this current study as a variable of importance for determining coping behavior and coping effectiveness (Heszen-Niejodek, 1997). Previous findings have suggested people are strongly motivated to believe they can control their environment; part of this motivation could be attributed to the findings that individuals with a sense of control are better able to cope with stress and hence are more effective copers (Endler, Speer, Johnson, & Flett, 2000). However, it is not implied here that a simple causal relationship exists in the stress-coping process as effective adjustment to stressors faced most likely involve a very complex relationship between many variables (Clements & Sawhney, 2000). The seventh and final objective of this study was to investigate perceived situational control as a direct and moderator effect in the stress-coping process as an individual's perception of control over the stressor may affect the coping behaviours employed.

Control perceptions and coping
Miller (1979) found participants were more prone to monitoring strategies (e.g. problem-solving) in controllable situations and blunting (e.g. avoidance coping) strategies in uncontrollable situations.

H22. A Levels of perceived control will be negatively correlated with avoidance coping in the agentic situation

H22. B Levels of perceived control will be negatively correlated with avoidance coping in the communal situation

H23.A Levels of perceived control will be positively correlated with problem solving coping in the agentic situation

H23.B Levels of perceived control will be positively correlated with problem solving coping in the communal situation

Coping x control perceptions x coping effectiveness

Several coping studies have included control as a variable of interest with contradictory findings often resulting. Endler, Speer, Johnson and Fletts' (2000) results indicated perceived control was only minimally predictive of coping strategies and psychological strain, while one's coping style was seen to be a much stronger determinant. Past research tends to view problem-focused coping as varying as a result of perceived levels of situational control, whereas emotion-focused coping does not. Perceptions of situational control tends to be associated with higher problem-focused coping as problem-focused coping seems to be more adaptive when the situation is controllable, while emotion-focused coping in controllable situations is maladaptive. Consistent with this notion Forsthe and Compas (1987) found problem-focused coping such as problem-solving increased when the stressor was perceived as controllable but emotion-focused coping did not change according to the degree of perceived control (Endler, Speer, Johnson, & Flett, 2000).

In fact data from a number of studies reviewed indicate that problem-focused coping such as problem-solving and emotion-focused coping strategies such as seeking social support may differ in their psychological usefulness depending on the perceptions of control over a stressful life situation (Clements & Sawhney, 2000). Problem-focused coping techniques may present greater psychological benefit than emotion-focused strategies, in controllable situations. The reverse may be true for situations perceived to be uncontrollable. On the other hand, emotion-focused coping can be used to alter the meaning of a situation and thereby enhance the individuals

sense of control over his or hers distress. An example would be an individual seeking-social support to aid coping, as social networks can be used to discuss the problem and provide additional viewpoints of the same problem, effectively changing the situations meaning to the individual, which in turn could enhance their perception of control over the stressor (Folkman, 1984).

The actual coping styles included in this study have been found to be associated with attempts to gain control throughout a stressful transaction. Problem-focused coping and emotion-focused coping tend to differ in the stages of a stressful encounter they are used in to gain control. Emotion focused coping can be used to alter the meaning of a situation through controlling distressing emotions and thereby enhancing the individuals sense of control over their experienced level of stress (Folkman, 1984). Problem-focused coping is used to control the person-environment relationship through problem solving, decision making and direct actions.

Overall it appears perceptions of situational control is associated with task-oriented or problem-focused coping and less psychological strain, as problem-focused coping seems to be more adaptive when the situation is controllable, while passive emotion-focused coping in controllable situations is maladaptive (Endler, Speer, Johnson, & Flett, 2000).

H24.A. The relationship between problem-focused coping style (such as problem solving) and coping effectiveness will be greater when perceived control is high than when perceived control is low

H24.B. The relationship between emotion-focused coping (such as seeking social support) and coping effectiveness will be weaker when perceived control is high than when perceived control is low

Summary

Using the rationale of the transactional model it seems logical that after repeated exposures to the trials of life, people should come to have a preferred mode of coping. In general it was hypothesised; different personalities' traits would have attractions to

different coping behaviours that would influence resulting coping styles that would be transferred into different stressful episodes. In all, twenty-four hypotheses were proposed to explore the different aspects of the aims of this research.

This research has two primary aims which examined the:

1. Dynamic relationships between appraisals of two different stressors (academic workload demand and a social interaction), personality, control perceptions and their effects on the relationship between coping behaviours and coping effectiveness in a sample of post graduate students.

2. Investigating the existence of 'coping styles' through assessing the consistency of student coping across agentic and communal situations.

The seven specific objectives of the present research were:

1. To examine the influence of the two different stressful situations (stressors) on the resulting coping styles and examine the consistency of an individual's coping strategies used in each stressful situations.

2. Explore the relationship between the different coping behaviours included and reported coping effectiveness.

3. To explore the direct relationships between personality and stressor appraisal

4. Assess the direct effect of the FFM variables specifically on coping behaviours used

5. Investigate the direct effects of specific personality traits on coping effectiveness perceptions.

6. Explore the moderator effects of personality on the stressor-coping relationship.

7. Investigate perceived situational control as a direct and moderator effect in the stress-coping process as an individual's perception of control over the stressor may affect the coping behaviours employed

Chapter Two:

Method

Participants

A total of 257 post-graduate (Honors, Masters, PhD) Social Science and Management students from seven major universities (Waikato, Auckland, Massey, Victoria, Otago, Canterbury and Lincoln) participated in the research. The sample consisted of participants between 20 - 59 years of age. The participants included 202 females and 55 males (see Table 2).

Table 2. Demographic Information of Participants

Demographic	Number of Respondents.	Percentage of Sample
Gender		
Male	55	21
Female	202	79
TOTAL	256	100%
Ethnicity		
NZ European/Pakeha	160	63
NZ Maori	9	4
Indian	6	2
Samoan	2	1
Other European	34	13
Other Pacific	2	1
Chinese	19	7
South East Asian	14	5
Other Asian	4	2
South African	2	1
Other	3	1
TOTAL	255	100%
Degree		
Honours	74	29
Masters Thesis	93	36
PhD	77	30
Post Graduate Diploma	13	5
TOTAL	257	100%
Study		
Full-Time	214	83
Part-Time	43	17
TOTAL	257	100%

Eighty-three percent of the participants were enrolled full-time and seventeen per cent of the participants were enrolled part-time, undertaking either an Honours (74);

Master Thesis (93); PhD (77) or a Post Graduate Diploma (13). The majority of the participants classified themselves as NZ/European/Pakeha followed by Other European; Chinese; South East Asian; NZ Maori; Indian; Other Asian; Other; Samoan; Other Pacific and South African. Higher level university students were used, as previous research suggests students perceive academic life as stressful and demanding and report experiencing emotional and cognitive reactions to workload stressors, especially due to external pressure and self imposed expectations (Dafna & Tali, 2005). The participants included in this study are by no means representative of all student samples, being distinguished by markedly higher levels of education and the fact that they were volunteers.

Procedure

The research was undertaken in accordance with the Code of Ethics of the New Zealand Psychological Society. Ethical approval was gained from the University of Waikato's Department of Psychology Research & Ethics Committee. After obtaining ethical approval, contact with the participating universities was established. Initially an email was sent to the Heads of the Psychology Departments and Management schools of each university seeking permission to survey the post-graduate students and asking for their assistance in circulating the surveys to the post-graduate mailing list (Appendix 1). As the study progressed, the invitation to participate was extended to all students in the Faculty where Psychology was located (e.g. at Waikato, the Faculty of Arts and Social Sciences), in order to increase the sample size.

Participants were recruited via an e-mailing distribution list in each department/school. An email in the form of a cover letter (Appendix 2) was sent to the post-graduate Social Sciences and Management students from each university via a post-graduate distribution emailing list which briefly informed them of the research and invited them to participate. Before engaging in the survey, each participant was given the opportunity to read the cover-letter outlining the purpose and objectives of the research. Participants were informed that their anonymity would be guaranteed as no identifiable information was required, and all information provided by the participants for analysis would be based on aggregated data. The survey consisted of

150 closed questions and was used to identify the coping methods, personality traits, perceptions and appraisals of post-graduate students across two different situations (Appendix 3). The questionnaire included measures of five constructs (coping methods, perception of control, stressor appraisal, coping effectiveness and personality), as well as five demographic questions that related to gender, age, ethnicity, current course enrolment and nature of enrolment (full or part time). Students accessed the survey via a link embedded in the cover letter. To encourage a high response rate, a reminder letter was sent to the heads of department one month after the surveys were sent out to students (Appendix 4).

Once the participant clicked on the survey link they were required to think of and then describe a situation they found stressful involving an academic workload demand. Participants were asked to recall a stressful experience that occurred within the past six months, a time period recommended by Amirkhan (1990). Findings from a number of studies included in this study may suffer problems with retrospective contamination. For example in McCrae & Costa's (1986) study, the stressful situation reported could have occurred up to 21 months prior to assessment (O'Brien & DeLongis, 1996). When recall periods are long, retrospective contamination could occur and has been argued could be systematically related to personality. For example, an individual who scores high on neuroticism may distort their memories and be more biased toward the recollection of negative information consistent with the negative tendencies of the trait (O'Brien & DeLongis, 1996).

Keeping the academic workload demand which occurred in the past six months in mind, the participants were then required to answer a series of 33 questions assessing their coping strategies used (problem solving, seeking social support, avoidance). Again with reference to the academic workload demand described earlier the participants were required to answer three questions which assessed their perception of control regarding the stressful situation. A ten item scale followed which assessed overall stressor appraisal regarding the academic workload demand described, with a one item assessment relating to the participants perception of their coping effectiveness regarding the stressful situation.

Next the participant was required to think of and describe a situation involving a social interaction (involving one other person) which they had experienced as stressful. Again the participant was instructed to keep the stressful situation in mind and to answer the same 33 coping questions, however this time the questions were in reference to the social situation experienced. Again in reference to the social situation described the participant was required to complete a four item assessment of control perceptions. The same ten item stressor appraisal items were then completed with a one item measure of coping effectiveness, again in reference to the social situation experienced. The participants were then required to complete a 50 item personality measure. The personality measure was completed once and followed by five demographic questions. The participants were then informed that to complete the survey the 'submit' button' should be selected. Participants were then thanked for their participation.

Measures

All scale scores were computed by taking the mean across item responses. Raw data was then entered into SPSS version 14.0 for subsequent analysis.

Coping behaviours

The coping strategy indicator (CSI) was developed by Amirkhan (1990) and was used to measure coping behaviours in the agentic and communal situations described. The CSI is relevant to this studies design, as past research suggests the instrument is effective in identifying cross-situational coping tendencies, a method employed by the current study (Amirkhan, 1994). The scale has 33 items and participants rated the extent to which they used each of the coping strategies on a 3-point scale, a lot, a little, or not at all. Participants were required to complete the CSI twice, once in response to the situation involving an academic workload demand (agentic situation) and then again for the situation involving a social interaction (communal situation). The instructions stipulated that both situations described must be recent (occurring within the prior six months) and 'important' (a 'problem that caused you to worry'). To complete the CIS, a scoring scheme was developed to plot scores relative to scale norms (derived from a sample of 1,923 community residents)

(Amirkhan, 1994). Scores are interpreted through the use of scale norms developed by the author. The Cronbach's alpha for the CSI in this study was 0.77 (agentic situation) and 0.89 (communal situation).

Situational

     Perceived control. A measure of perceived control was included in this study. Participants were required to complete the measure of perceived control over the specific situation (situational control) twice, once for the agentic situation and then again for the communal situation. Control perceptions regarding the agentic situation was assessed using a three item scale which related to different aspects of workload demands and provided a measure of the students general perception of the situation; *to what extent were you able to control the order at which you completed the tasks required, how much control did you have over time pressures associated with your high academic workload, and in general, how much control did you have over your academic workload.*

The measure of perceived control regarding the communal situation was again altered slightly and comprised of four items assessing the extent to which participants believed they were provided the opportunity to control various aspects of the communal situation (Jimmieson & Terry, 1997). The items included were; *how much control did you have over why this social interaction occurred, how much control did you have over how the interaction ended, to what extent could you control the events which unfolded during the social interaction, in general, how much control did you have over the social interaction.* The scale items used for both the agentic and communal situation was adapted for the purposes of this current study, from the measure of perceived behavioural control cited by Jimmieson and Terry (1997). Perceived situational control regarding the agentic and communal situations were measured on a Likert type anchored scale from =no control (1), to total control (5). High scores on both assessments of perceived control indicated high perceived control. The Cronbach's alpha for perceived situational control in this sample was 0.77 (agentic situation) and 0.85 (communal situation).

Stressor appraisal was measured using the Stressor Appraisal Scale (SAS) ten-item scale developed by Schneider (2008). The 10-item scale expands on previous research by adding appraisal items, both primary and secondary, to address activation, an aspect of appraisal and emotion that should affect psychological responses as well as resulting behaviours (Schneider, 2008). The SAS includes items concerning the importance of the task, uncertainty, and the anticipated effort that is required (Schneider, 2008). The 10-item SAS scale was used to capture different stress perceptions among individuals. Participants were required to complete the SAS twice, once for the agentic situation and then again for the communal situation. The original wording of the scale item was altered to refer to a situation in the past tense. Primary appraisal items included; (1) *how threatening did you experience the situation to be*; (2) *how demanding did you experience the situation to be;* (3) *how stressful was the situation;* (4) *to what extent do you think you needed to exert yourself to deal with the situation;* (5) *how much effort (mental or physical) do you think the situation required you to expand;* (6) *how important was it for you to do well or achieve a good result regarding the situation;* (7) *how uncertain were you about what would happen during the situation.* Secondary appraisal items included: (1) *how well do you think you managed the demands imposed on you by the situation;* (2) *how able were you to cope with the situation;* and (3) *how well do you think you performed during your encounter with the situation.* Items were rated on five-point likert scales. The Cronbach's alpha for primary and secondary appraisal in this sample was 0.74 and 0.84 (agentic situation) and 0.84 and 0.88 (communal situation).

Coping effectiveness perception was gauged by using a one item scale developed for the purposes of the current study and was included at the end of the 10-item SAS scale. The item measuring coping effectiveness in the agentic situation was; *how effective do you think your behavior was at dealing with your academic workload demands.* Coping effectiveness perceptions in the communal situation was measured through the scale item worded; *how effective do you think you were at handling the social interaction.* Respondents were asked to rate the statements on a five-point anchored scale; 1= Not at all to 5 = Extremely. The Cronbach's alpha for this scale in this sample was 0.89 (agentic situation) and 0.76 (communal situation).

Personality

     PI-R Domains (International Personality Item Pool, 2008). Items from the International personality item pool were used to measure the Big Five personality domains and address the idea that certain personality characteristics predispose people to cope in certain ways when confronted with adversity (Carver, Scheier, & Kumari Weintraub, 1989). The items used loaded on the same factors as the NEO Five Factor Inventory (NEO-FFI) developed by Costa & McCrae (1986). The PI-R Domains consisted of a 50-item measure of personality and was completed once by the participants and used to assess the five personality dimensions included in this study. Each item is rated on a 5-point scale 1= very inaccurate to 5= very accurate. The scale comprises of five subscales assessing neuroticism, extraversion, openness to experience, agreeableness and conscientiousness (McWilliams, Cox, & Enns, 2003). The recorded alpha levels of each trait measured range from high to acceptable. The Cronbach's alpha for this scale in this sample was 0.76. The Cronbach's alpha for the individual traits in this sample were 0.81 (neuroticism), 0.88 (extraversion), 0.79 (conscientiousness), 0.79 (openness to experience) and 0.76 (agreeableness).

Chapter Three:

Results

This chapter presents the outcomes of the statistical analysis carried out. The following analyses were conducted to examine the twenty four hypotheses and included factor analysis, descriptive statistics, repeated measures t-tests, correlations and regressions and moderated hierarchical regression analyses.

Factor analysis

To determine whether items used were tapping into the same constructs in the current sample, as intended by the original authors, principal access factoring with oblique rotation was employed. The oblique rotation provides a better solution when the factors are inter-correlated than that of the varimax rotation so was more appropriate for the use in the current study. It was assumed here an item contributed meaningfully to a factor if it displayed a factor loading of .3 or above or below -.3.

Coping

Two analyses were run as the coping measure (CIS) was used in the agentic and communal situations. It was expected three factors would be obtained therefore a three factor structure was specified. In the agentic situation three factors displayed eigenvalues greater than 1 which explained 34% of the variance. Likewise in the communal situation, a three factor solution was specified. Similar to the agentic situations, at the initial stage, three factors were extracted as three out of the 33 factors displayed eigenvalues greater than 1. If three factors were extracted, then 46% of the variance would be explained.

Examination of the coping items in both the agentic and communal situations (see Table 3.1) indicated that no substantial cross loadings existed between factors which can be clustered as seeking social support, problem-solving and avoidance coping.

Table 3.1. Factor Analysis Loadings for The Coping Strategy Indicator (CSI):

Agentic Situation	Factor			Communal Situation	Factor		
	1	2	3		1	2	3
Seeking Social Support				Seeking Social Support			
q23	.846			q54	.863		
q12	.746			q70	.852		
q7	.731			q71	.808		
q1	.692			q48	.807		
q31	.663			q59	.798		
q19	.662			q61	.773		
q32	.659			q79	.762		
q24	.624			q52	.742		
q14	.600			q66	.740		
q5	.567			q78	.731		
q25	.491			q72	.699		
Problem-Solving				Problem-Solving			
q16		.609		q64		.772	
q17		.608		q63		.770	
q33		.607		q80		.732	
q9		.580		q76		.712	
q8		.554		q56		.677	
q15		.547		q55		.661	
q2		.523		q62		.657	
q3		.440		q50		.621	
q29		.404		q49		.579	
q11		.367		q58		.558	
q20		.314		q67		.443	
Avoidance				Avoidance			
q26			.505	q60			.708
q27			.505	q68			.682
q22			.493	q69			.577
q18			.471	q77			.567
q6			.455	q73			.566
q10			.451	q65			.519
q4			.449	q75			.449
q21			.443	q51			.428
q13			.438	q57			.418
q28			.417	q74			.384
q30			.317	q53			.378

Extraction Method: Principal Axis Factoring.
 Rotation Method: Oblimin with Kaiser Normalization.

Perception of control

The scales used to measure perceived control in the agentic and communal situations were analysed to ensure they were actually measuring one variable of control perception, as the scale items were not from an established measure. For the agentic situation one

factor was extracted (see Table 3.2), explaining 54% of the variance. With regard to the four item scale that measured perceived control over the communal situation, again one factor was extracted, explaining 62% of the variance.

Table 3.2. Factor Analysis Loadings for Control Perception Measure:

Agentic Situation	Factor	Communal Situation	Factor
	1		1
q36	.842	q84	.995
q35	.764	q83	.829
q34	.582	q82	.693
		q81	.570

Extraction Method: Principal Axis Factoring.
a 1 factors extracted. 13 iterations required.

Extraction Method: Principal Axis Factoring.
a 1 factors extracted. 12 iterations required.

Stressor appraisal

Again the stressor appraisal scale (SAS) was used twice, once in the agentic situation then again in the communal situation. A two factor structure comprised of primary appraisal and secondary appraisal was expected in both situations. Two factor analyses were run, one for primary appraisal and one for secondary appraisal in both situations. With regard to primary appraisal in the agentic situation one factor was extracted with 33% of the variance explained. Secondary appraisal in the agentic situation, one factor was extracted with 63% of the variance explained. Again primary appraisal in the communal situation had one factor extracted with 47% of the variance explained and 70% of the variance explained for secondary appraisal in the communal situation.

A two factor structure was expected with seven of the ten items loading in factor 1 (primary appraisal) and three of the ten items loading in factor 2 (secondary appraisal). Examination of the primary appraisal items (see Table 3.3) indicates that seven items loaded successfully in factor 1 for both situations. All three secondary appraisal items loaded successfully on factor 2 (see Table 3.4). The findings indicate the intended factor structure of the stressor appraisal scale is consistent for the sample in the current study.

Table 3.3. Factor Analysis Loadings for the Stressor appraisal scale (SAS): Primary
Appraisal

Agentic Situation	Factor		Communal Situation	Factor	
	1	2		1	2
Primary Appraisal			Primary Appraisal		
q38	.704		q87	.873	
q41	.612		q89	.827	
q39	.716		q88	.788	
q40	.638		q86	.738	
q43	.413		q90	.531	
q37	.569		q85	.495	
q42	.343		q91	.382	

Extraction Method: Principal Axis Factoring.
 Rotation Method: Oblimin with Kaiser
Normalization,
a Rotation converged in 12 iterations.

Extraction Method: Principal Axis Factoring
 Rotation Method: Oblimin with Kaiser
Normalization
 a Rotation converged in 4 iterations.

Table 3.4. Factor Analysis Loadings for the Stressor appraisal scale (SAS):
Secondary Appraisal

Agentic Situation	Factor		Communal Situation	Factor	
	1	2		1	2
Secondary Appraisal			Secondary Appraisal		
q45		.783	q92		.845
q46		.794	q94		.881
q44		.799	q93		.790

Extraction Method: Principal Axis Factoring.
 Rotation Method: Oblimin with Kaiser
Normalization,
a Rotation converged in 12 iterations.

Extraction Method: Principal Axis Factoring
 Rotation Method: Oblimin with Kaiser
Normalization
 a Rotation converged in 4 iterations.

Personality

With regard to the personality scale, five factors were expected to be extracted with each factor representing one of the five personality traits included in this study, hence five factors were specified. Five factors were extracted with eigenvalues greater than 1. With five factors extracted 35% of the variance was explained. Each trait was expected to have a loading of ten items. Examination of the personality items (see Table 3.5) indicates that factor 1 (extraversion) has ten items loading successfully.

All ten items loaded as expected on factor 2 (openness to experience), factor 3 (agreeableness), factor 4 (conscientiousness) and factor 5 (neuroticism). The factor analysis results indicate the intended five factor structure of the personality scale is consistent for the sample in the current study.

Table 3.5. Factor Analysis Loadings for the five personality traits

	Factor				
	1(E)	2(O)	3(A)	4(C)	5(N)
q137r	.792				
q107r	.721				
q132	.716				
q112	.658				
q122	.653				
q97r	.649				
q102	.613				
q142	.594				
q127r	.559				
q117r	.358				
q109r		.609			
q104		.607			
q99r		.599			
q144		.556			
q119r		.519			
q129r		.485			
q114		.479			
q139r		.458			
q124		.428			
q134		.359			
q140			.413		
q145r			.600		
q115r			.583		
q120			.521		
q130			.469		
q125r			.467		
q100			.457		
q110			.447		
q135r			.402		
q105r			.362		
q103r				.637	
q138				.576	
q113r				.553	
q143r				.544	
q98				.544	
q128				.533	
q118				.481	

Table 3.5 (continued). Factor Analysis Loadings for the five personality traits

	Factor				
	1(E)	2(O)	3(A)	4(C)	5(N)
q123r				.444	
q133r				.430	
q108				.361	
q116					.721
q96					.701
q111r					.603
q106					.574
q126					.537
q141r					.496
q121r					.489
q136					.463
q131r					.380
q101r					.384

Extraction Method: Principal Axis Factoring.
 Rotation Method: Oblimin with Kaiser Normalization.
a Rotation converged in 8 iterations.

Descriptive Statistics

The descriptive statistics for all variables, including means, standard deviations and
Cronbachs alphas are presented in Table 3.6.

Discussing the coping variables first, participants indicated moderate levels of problem-
solving coping with regard to the agentic (1.4) and communal (1.2) situations (see Table
3.6). In contrast, avoidance coping obtained a mean score (.6) in both the agentic and
communal situations which was below the midpoint of (1.0). On average, the participants
indicated they had low levels (2.1) and (1.7) of perceived situational control regarding the
agentic and communal situations. In relation to stressor appraisal at the primary and
secondary level, most respondents indicated they perceived moderate levels of stressor
appraisal in the agentic and communal situations. Primary appraisal (2.8) and secondary
appraisal (2.5) mean scores regarding the agentic situation were below the midpoint (3)
of the scale which means respondents indicated lower levels of stressor appraisal.

A similar pattern of mean scores was found for primary (2.6) and secondary appraisal
(2.1) regarding the communal situation (see Table 3.6). On average most respondents
indicated moderate levels of coping effectiveness in the agentic (2.5) and communal (2.1)
situations. In relation to the personality traits, most respondents indicated moderate to

high levels of each trait. Cronbach's alpha was used to measure the internal consistency of responses. All of the variables displayed acceptable reliability values.

Table 3.6 Descriptive Statistics

Variables	M	SD	Cronbach's Alpha
Agentic Coping (a)			
Problem Solving	1.4	.4	.79
Seeking Social Support	1.0	.5	.90
Avoidance coping	.6	.4	.75
Agentic Control (b)	2.1	.9	.77
Agentic Stressor Appraisal (c) Primary Appraisal	2.8	.5	.74
Agentic Stressor Appraisal (c) Secondary Appraisal	2.5	.7	.84
Agentic Coping Effectiveness (d)	2.5	.9	.89
Communal Coping (a)			
Problem Solving	1.2	.5	.89
Seeking Social Support	1.1	.6	.95
Avoidance Coping	.6	.4	.80
Communal Control (b)	1.7	.9	.85
Communal Stressor Appraisal (c) Primary Appraisal	2.6	.8	.84
Communal Stressor Appraisal (c) Secondary Appraisal	2.1	.8	.88
Communal Coping Effectiveness (d)	2.1	1.0	.76
Personality (e)			
Neuroticism	2.5	.7	.81
Extraversion	3.4	.7	.88
Conscientiousness	3.6	.6	.79
Openness to Experience	3.9	.6	.79
Agreeableness	3.8	.5	.76

Note
(a) was measured on a 3 point scale (0 = Not at all, 2 = A Lot)
(b) was measured on a 5 point scale (1= No Control, 5 = Total Control)
(c) was measured on a 5 point scale (1= Not at all, 5 = Extremely)
(d) was measured on a 5 point scale (1= Not at all, 5 = Extremely)
(e) involved ratings made on a 5 point scale (1= Very Inaccurate, 5 = Very Accurate)
   N Range = 251-257

Correlation and regression

The zero-order correlations were assessed by employing Pearson's correlation coefficient. The correlations and regressions are presented below (see Table 4) for the theoretical model displayed in chapter 1, Figure 1 on page 6.

Table 4. **Correlation Matrix between major variables** Bivariate Pearson product-moment correlation**;** Two tailed test of significance

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. APS	--																		
2. ASS	.11	--																	
3.AAv	-.14*	.01	--																
4.ACon	.01	-.09	-.08	--															
5.AP.A	.19**	.13*	.22**	-.34**	--														
6.AS.A	.30**	-.03	-.41**	.22**	-.16**	--													
7.AC.E	.36**	.02	-.45**	.27**	-.17**	.69**	--												
8. CPS	.31**	.03	.08	.01	.09	.07	.13*	--											
9.CSS	.02	.39**	.13*	.10	-.02	.05	.10	.23**	--										
10.CAv	-.01	.10	.43**	-.06	.12	-.09	-.14*	.12	.17**	--									
11. CCon	.04	.00	-.05	.04	.00	.02	.03	.12	-.06	-.13*	--								
12. CP.A	.03	-.12	.09	.08	.18**	.04	-.01	.34**	.22**	.27**	-.05	--							
13. CS.A	.15*	-.02	-.08	-.03	-.03	.08	.12	.30**	-.01	-.26**	.20**	-.08	--						
14. CC.E	.12	-.04	-.10	-.06	-.02	.07	.08	.35**	-.00	-.26**	.18**	-.02	.81**	--					
15. N	-.17**	.04	.27**	-.20**	.28**	-.27**	-.29**	-.04	-.03	.24**	-.08	.20**	-.25**	-.20**	--				
16. E	.15*	.00	-.06	.09	.21**	.26**	.21**	.09	.20**	-.15*	.05	.35**	.20**	.20**	-.36**	--			
17. C	.28**	.01	-.30**	.13*	-.04	.31**	.36**	.08	-.00	-.21**	.07	.02	.10	.07	-.17**	.20**	--		
18. O	.02	-.14*	-.04	.01	.01	.06	.05	.08	.03	.02	.01	.17**	.06	.09	.01	.20**	.08	--	
19. A	.12	-.01	-.20**	-.03	.00	.14*	.18**	.04	.02	-.14*	-.02	-.10	.08	.05	-.36**	.24**	.18**	.06	--

* Correlation is significant at the 0.05 level (2 tail)
**Correlation is significant at the 0.01 level 2 tail   N=252-258

Note. APS= problem solving coping in the agentic situation; ASS= seeking social support in the agentic situation; AAv= avoidance coping in the agentic situation; ACon=situational control perceptions in the agentic situation; AP.A=stressor appraisal at the primary level in the agentic situation; AS.A= stressor appraisal at the secondary level in the agentic situation; AC.E=Coping effectiveness in the agentic situation.
CPS= problem solving coping in the communal situation; CSS= seeking social support in the communal situation; CAv= avoidance coping in the communal situation; CCon=situational control perceptions in the communal situation; CP.A=stressor appraisal at the primary level in the communal situation; CS.A= stressor appraisal at the secondary level in the communal situation; CC.E=Coping effectiveness in the communal situation; N =neuroticism; E=extraversion; C=conscientiousness; O=openness to experience; A= agreeableness

Hypotheses

Coping and situation (H1-H2)

In order to investigate whether people tended to use certain coping behaviour more often and whether coping styles were consistent across two different situations, a repeated measures t-test was conducted to investigate hypothesis one and two. The results of the t-test analysis are presented in Table 5.

Table 5 Paired samples statistics: Seeking social support and problem-solving coping

	Agentic Situation Mean (SD)	Communal Situation Mean (SD)	t(253)
Seeking Social Support	1.0 (.5)	1.1 (.6)	-.49
Problem-Solving Coping	1.4 (.4)	1.2 (.5)	6.75*

*p<.05, paired sample t-test sig 2 tailed

Table 5 indicates no significant difference in seeking social support ratings in either situation was found, indicating that seeking social support was used in similar amounts across the two situations. Therefore hypothesis 1 (see pg 19) was not supported. The paired samples statistics for problem solving coping presented in Table 5 shows that there was a significant difference with problem solving coping used significantly more in the agentic situation compared to in the communal situation. Therefore support for hypothesis 2 (see pg 19) was demonstrated.

Coping consistency (H3)

Table 4 indicates that problem-solving coping (r=.31,p<0.01) across the agentic and communal situations, seeking social support (r=.39,p<0.01) across the agentic and communal situations and avoidance coping (r=.43,p<0.01) across both the agentic and communal situations had a significant association. All three correlations were significant, however the correlation size was moderate and therefore there was not strong support for hypothesis 3 (see pg 19).

Coping and coping effectiveness (H4-H6)

Analyses were conducted to examine the relationship between the three coping behaviours included in this study and reported coping effectiveness. In examining whether the frequency of problem-solving coping was significantly related to the participants' reported levels of coping effectiveness, Pearson's correlations coefficients were conducted (see Table 4). As expected, problem solving coping was significantly correlated with levels of coping effectiveness in the agentic (r =.36 < p .0.01) and communal situations (r = .35 < p. 0.01). Therefore hypothesis 4 (see pg 21) was supported with regard to both types of stressful situations.

Avoidance coping and coping effectiveness had a significant negative association in the agentic (r = -.45 < p 0.01) and communal (r =-.26, p<.01) situations. The correlation was greater in the agentic situation, however both correlations were significant. Therefore hypothesis 6 (see pg 21) was supported. Seeking social support was found not to be systematically correlated with coping effectiveness. Table 4 displays that there were no significant correlations with the agentic situation (r =.02) or communal situations (r = -.00). Therefore, hypothesis 5 (see pg 21) was not supported.

Personality and stressor appraisal (H7-H10)

Two regressions were run to test hypotheses 7-10. In the first regression, stressor appraisal at the primary level in the agentic situation was included as the criterion variable and neuroticism, extraversion and openness to experience were simultaneously entered as the predictor variables. Table 6 indicates that the correlations and betas for neuroticism and extraversion were significant in both situations. Overall the set of predictors explained 8.2% of the variance in stressor appraisal in the agentic situation.

Table 6. Regression equation: Stressor appraisal (agentic) with personality variables

Predictor	r	Beta	t
Neuroticism	.28**	.33	5.05*
Extraversion	.21**	.14	2.05*
Openness to Experience	.01	-.02	-.25

*p<.05; **p<.01. Adjusted R Square = .082, F=8.53**; df=3, 253

A second regression was run but this time stressor appraisal at the primary level in the communal situation was entered as the criterion variable and neuroticism, extraversion, openness to experience and agreeableness entered simultaneously as predictor variables. Table 7 displays that while the correlations for neuroticism, extraversion and openness to experience were significant, the beta for extraversion and openness to experience were not. Overall the set of predictors explained 4% of the variance in the stressor appraisal of the communal situation.

Table 7. Regression equation: Stressor appraisal (communal) on personality variables

Predictor	r	Beta	t
Neuroticism	.20**	.21	2.93*
Extraversion	.35**	.13	1.92*
Openness	.17**	.20	1.84*
Agreeableness	-.10	-.01	-.15

*p<.05; **p<.01. Adjusted R Square =.04; F=3.84**; df=4, 244

H7-H10

Table 6 and Table 7 indicate that neuroticism had a significant association with stressor appraisal in the agentic (r = .28, p<0.01) and communal situations (r = .20, p<0.01). Extraversion also displayed a significant association with stressor appraisal in the agentic (r= .21, p<0.01) and communal situation (r= .35, p<0.01). Table 6 indicated, openness to experience was not systematically correlated with stressor appraisal in the agentic situation (r = .01), however Table 7 indicated there was a significant correlation with stressor appraisal in the communal situation (r = .17, p < 0.01). Table 7 shows that agreeableness was not systematically correlated with stressor appraisal (r= -.10). Therefore, hypotheses 7a and 7b (see pg 25), were supported. Hypothesis 8a and 8b (see pg 26) stated that extraversion would be

negatively correlated with stressor appraisal in both situations. Significant but positive correlations were found therefore the hypotheses were not supported. Hypothesis 9b (see pg 27) predicted a negative association of openness and stressor appraisal in the communal situation. A positive correlation was found therefore hypothesis 9b was not supported. Hypothesis 9a and 10 were also not supported as the correlations were not significant.

A regression analysis was undertaken to predict stressor appraisal in both situations from the combination of predictors. The regression for stressor appraisal in the agentic situation is presented in Table 6 and the communal situation in Table 7. The results show that neuroticism contributed significantly to stressor appraisal with a slightly greater relationship in the agentic situation.

Personality and coping (H11-15)

Regressions were run in reference to hypothesis 11-15, with each of the three coping subscales (avoidance, problem-solving and seeking social support) as the criterion variable and neuroticism, extraversion, conscientiousness, openness to experience and agreeableness were simultaneously entered as the predictor variables. Tables 8-10 display the regressions for the agentic situation.

Table 8. Regression: All predictors with avoidance coping (agentic stressor)

Predictor	r	Beta	t
Neuroticism	.27**	.21	3.12**
Extraversion	-.06	.08	1.24
Conscientiousness	-.30**	-.27	-4.36**
Openness	-.04	-.03	-.53

*p<0.05; **P<0.01. Adjusted R Square =.13; F =8.63**; df= 5, 252

Table 9. Regression: All predictors with problem-solving coping (agentic stressor)

Predictor	r	Beta	t
Neuroticism	-.17**	-.07	-1.04
Extraversion	.15*	.07	1.09
Conscientiousness	.28**	.25	4.05**
Openness	.02	-.01	-.19

*p<0.05; **P<0.01. Adjusted R Square =.08; F =5.41; df=5 ,252

Table 10. Regression: All predictors with seeking social support (agentic stressor)

Predictor	r	Beta	t
Extraversion	.00	.07	.92
Agreeableness	-.01	.01	.07

*p<0.05; **P<0.01. Adjusted R Square =.01; F =1.31; df=5, 252

Table 8 indicates that two predictors had a significant influence- neuroticism (β= .21, P<0.05), and conscientiousness (β= -.27, P<0.05). The correlations for neuroticism and conscientiousness were also significant. Overall, the set of predictors explained 13% of the variance in avoidance coping in the agentic situation.

Table 9 shows that one predictor had a significant influence- conscientiousness (β = .25, p<0.05). While the correlations in Table 9 for neuroticism and extraversion were significant, the betas were not. Overall, the set of predictors explained 8% of the variance in the use of problem-solving coping when facing an academic workload demand stressor.

The regression for seeking social support in the agentic situation is presented in Table 10. The results show that extraversion and agreeableness did not contribute significantly to the use of seeking social support as a coping mechanism in response to an academic workload stressor. Inclusively the set of predictor variables explained 1% of the variance in the use of seeking social support. Tables 11-13 display regressions regarding the communal situation.

Table 11 indicates that the correlations and betas for neuroticism and conscientiousness were significant and the correlation only for extraversion was significant. Inclusively, the set of predictor variables explained 7% of the variance in

avoidance coping. The results in Table 12 show no significant predictor contributions to the use of problem-solving coping. Inclusively, the set of predictor variables explained 1% of the variance in problem-solving coping. Table 13 shows extraversion produced a positive significant result (β=.24, p<0.05). In combination, the predictors explained 3% of the variance in the use of seeking social support as a coping mechanism when facing a social interaction stressor.

Table 11. Regression: All predictors with avoidance coping (communal situation)

Predictor	r	Beta	T
Neuroticism	.24**	.18	2.52*
Extraversion	-.15*	-.05	-.76
Conscientiousness	-.21**	-.16	-2.61*
Openness	.02	.04	.69

*p<0.05; **P<0.01. Adjusted R Square =.07; F =4.93; df=5, 252

Table 12. Regression: All predictors with problem-solving coping (communal situation)

Predictor	r	Beta	t
Neuroticism	-.04	.00	1.00
Extraversion	.09	.06	.37
Conscientiousness	.08	.06	.40
Openness	.08	.06	.38

*p<0.05; **P<0.01. Adjusted R Square.= .01; F =.75; df=5, 252

Table 13. Regression: All predictors with seeking social support (communal situation)

Predictor	r	Beta	t
Extraversion	.20**	.24	3.41*
Agreeableness	.02	-.01	-.09

*p<0.05; **P<0.01. Adjusted R Square =.03; F =2.43; df=5, 252

H 11-15

The regression for avoidance coping presented in Tables 8 and 11 shows that neuroticism had a significant association with avoidance coping in the agentic situation (r =.27 p<0.01) and communal situation (r = .24 p<0.01). A weak correlation was found between extraversion and avoidance coping in the agentic

situation (r= -.06 p<0.05) and communal situation (r= -.15 p<0.05). Conscientiousness on the other hand had a significant association with avoidance coping in the agentic (r= -.30, p<0.01) and communal situations (r= -.21, p<0.01). Table 8 and 11 displays that openness to experience was not systematically correlated with avoidance coping in the agentic situation (r=-.04) or communal situation (r= .02).

The regressions for problem-solving coping is presented in Tables 9 and 12. Neuroticism had a significant but weak association with problem-solving coping in the agentic situation (r = -.17 p<0.01) but was not systematically correlated with problem-solving coping in the communal situation with a correlation of -.04. Extraversion had a weak association with the use of problem-solving coping in the agentic situation (r = .15 p<0.05) and no significant correlation in the communal situation (r = .09 p<0.05). Conscientiousness was found to have a significant association with problem solving coping in the agentic situation (r =.28, p<0.01) but no systematic correlation in the communal situation (r= .08, p<0.05). As Tables 9 and 12 also display, problem solving was not systematically correlated with openness in the agentic (r=.02) or communal situation (r= .08).

The regressions for seeking social support are presented in Tables 10 and 13. Extraversion was found to have no systematic correlation with seeking social support in the agentic situation (r=.00), however a significant association did exist in the communal situation (r= .20, p<0.01). Agreeableness was not systematically correlated with seeking social support in the agentic situation (r=-.01) or the communal situation (r=.02). Therefore, hypotheses 11a and 13a were supported in both situations and hypotheses 12b, 14a, 14b and 15 were unsupported (see from pg 29).

A regression analysis was undertaken to predict avoidance coping from neuroticism and conscientiousness. Table 8 and 11 results show that neuroticism and conscientiousness did contribute significantly to the use of avoidance coping when facing both types of stressors. The correlations for hypothesis 11b and 12a provided support for the hypotheses in the agentic situation only, but the regression indicated

that when combined with other predictors the contribution of neuroticism and extraversion were not significant. The correlations for hypothesis 12c provided support for the hypothesis in the communal situation only. The regression is presented in Table 13. The results show that extraversion did contribute significantly to the use of seeking social support in the communal situation. The correlations for hypothesis 13b provided support for the hypothesis in the agentic situation only. The regression is presented in Table 9. The results show that conscientiousness did contribute significantly to the use of problem-solving coping in the agentic situation only.

Personality and coping effectiveness (H16-17)

Table 4 indicates that coping effectiveness had a significant association with neuroticism in the agentic ($r = -.29$, $p < 0.01$) and communal situation ($r = -.20$, $p < 0.01$) and with conscientiousness in the agentic situation ($r = .36$, $p < 0.01$). However, no significant result was found in the communal situation ($r = .07$). Therefore hypothesis 16 (see pg 32) was supported in both the agentic and communal situations and hypothesis 17 was supported in the agentic situation only.

Hierarchical regression

Stressor appraisal, personality and coping (H18-21)

The hierarchical regression analyses were used to test hypothesis 18-21 and required two separate blocks of analysis. The first block or step involves regressing the predictor and moderator variable on the criterion (dependent) variable. The second step entails regressing the criterion variable on the interaction variable, obtained through multiplying the predictor and moderator variables. In respect of the moderated relationships, (see theoretical model, Figure 1 on page 6) four of the personality traits (neuroticism, openness, agreeableness and conscientiousness) were tested as a moderator through hierarchical regression. Table 14 presents the findings from the hierarchical regression testing hypothesis 18a, 19a, 20a and 21a (see from pg 34).

Table 14. Hierarchical regression equation: Coping with stressor appraisal and
personality (agentic situation)

Criterion Variable (Agentic)	Predictor Variable		Beta	Adjusted R Square	R Square Change	F Change
Avoidance	Neuroticism; Agentic S.A	Step 1	.11;.26	.08	.09	6.87*
Coping	N x S.A	Step 2	.31*	.10	.02	11.96*
Problem-	Neuroticism; Agentic S.A	Step 1	-.25;-.87	.07	.07	4.59*
Solving	N x S.A	Step 2	.91*	.08	.02	9.84*
Problem-	Openness ; Agentic S.A	Step 1	.07;.17	.02	.03	.32
Solving	O x S.A	Step 2	.30*	.02	.00	3.30*
Seeking	Agreeableness ; Agentic S.A	Step 1	.19;.24	.01	.02	.59
Support	A x S.A	Step 2	.39*	.01	.00	1.94*
Problem-	Conscientiousness; Agentic S.A	Step 1	.49;.56	.10	.11	.88
Solving	C x S.A	Step 2	.42*	.10	.00	15.18*

*F change is significant at 0.05 level   df step 1= 2, 251
Note: Agentic S.A=Stressor appraisal in the agentic situation   df step 2= 1, 250

Table 15 (see Table below) presents the findings from the hierarchical regression

testing hypothesis 18b, 18d, 19b, 20b and 21b (see From page 34).

Table 15. Hierarchical regression equation: Coping with stressor appraisal and
personality (communal situation)

Criterion Variable (communal)	Predictor Variable		Beta	Adjusted R Square	R Square Change	F Change
Avoidance	Neuroticism; Communal S.A	Step 1	02;.01	.11	.12	.93
Coping	N x S.A	Step 2	.33*	.11	.00	15.77*
Problem-	Neuroticism; Communal S.A	Step 1	.66;.16	.14	.15	1.52*
Solving	N x S.A	Step 2	-.41*	.14	.01	21.24*
Problem-	Openness; Communal S.A	Step 1	.11;.11	.13	.14	.63
Solving	O x S.A	Step 2	.31*	.13	.00	19.73*
Seeking	Agreeableness ;Communal S.A	Step 1	.27; .07	.04	.04	.02
Support	A x S.A	Step 2	.07	.03	.00	5.57*
Problem-	Conscientiousness; Communal S.A	Step 1	.15;.25	.14	.14	2.00*
Solving	C x S.A	Step 2	.63*	.14	.01	20.31*

*F change is significant at 0.05 level   df step 1= 2, 242
Note: Communal S.A=Stressor Appraisal in the communal situation   df step 2 =1, 241

Neuroticism

Table 14 presents the findings from the hierarchical regression testing hypothesis 18a. At step one of the hierarchical regressions, agentic stressor appraisal was entered into the equation as the predictor variable in block one, and the trait of neuroticism was entered into the equation as the predictor variable for block two. Avoidance coping was entered into the equation as the criterion variable. At step two the interaction between stressor appraisal and neuroticism was entered into the equation as the moderator and predictor variables. The relationship between neuroticism and stressor appraisal (agentic) was significant indicating an interaction was demonstrated. The moderating effects of neuroticism on stressor appraisal and avoidance coping in the agentic situation is presented in Figure 2.1.

Figure 2.1 displays individuals high in neuroticism use avoidance coping to a similar degree regardless if stress appraisal is low or high. Individuals low in neuroticism appear to use avoidance coping much more when stressor appraisal is high. Figure 2.1 shows that the relationship between the appraisal of an agentic stressor and the use of avoidance coping is greater when neuroticism is high. Therefore hypothesis 18a was supported.

Figure 2.1. Moderating effects of neuroticism on stressor appraisal and
avoidance coping (agentic situation)

Table 15 presents the findings from the hierarchical regression testing hypothesis 18b. At step one of the hierarchical regressions, communal stressor appraisal was entered into the equation as the predictor variable in block one, and the trait of neuroticism was entered into the equation as the predictor variable for block two. Avoidance coping was entered into the equation as the criterion variable. At step two the interaction between stressor appraisal and neuroticism was entered into the equation as the moderator and predictor variables. The relationship between neuroticism and stressor appraisal (communal) was also significant.

Figure 2.2 displays that at high levels of stressor appraisal, individuals high on neuroticism use a higher level of avoidance coping. At both high and low levels of stressor appraisal, individuals low in neuroticism use avoidance coping to a lesser degree compared to individuals high on neuroticism. Avoidance coping was used at differing degrees depending on stressor appraisal by individuals low and high on neuroticism and the relationship between the appraisal of a communal stressor and the use of avoidance coping is greater when neuroticism is high. While the betas displayed a significant interaction effect, the graph depicted a minimal difference between conditions, suggesting perhaps the moderator effects were relatively minor. However in this instance support was still demonstrated for hypothesis 18b.

Figure 2.2. Moderating effects of neuroticism on stressor appraisal and
   avoidance coping (communal situation)
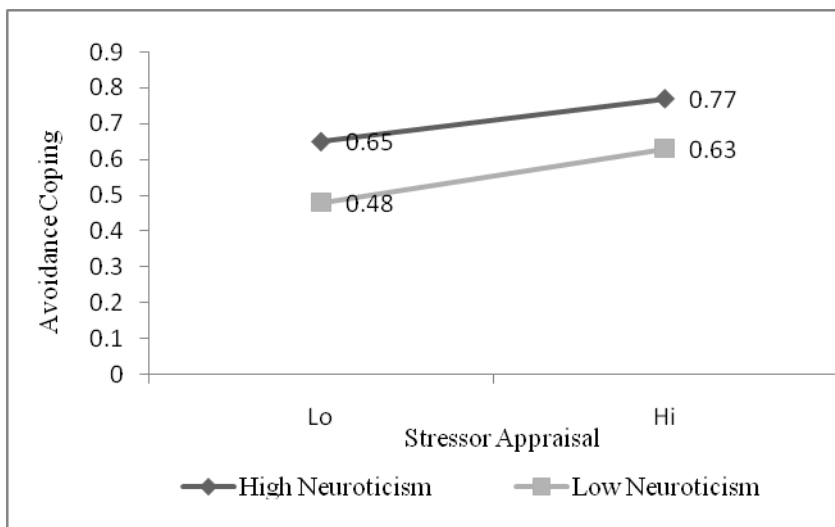
Table 14 presents the findings from the hierarchical regression equation testing hypothesis 18c. In the first step agentic stressor appraisal (predictor) was entered into the equation in block one, and the trait of neuroticism (predictor) was entered into the equation for block two. Problem solving (criterion) was regressed with the two predictors in the first equation. In step two problem- solving was regressed simultaneously on agentic stressor appraisal and neuroticism. The relationship between neuroticism and stressor appraisal (agentic) was significant indicating an interaction was demonstrated.

Figure 2.3 revealed that individuals high on the trait of neuroticism did use problem-solving coping to lesser extent however there was a greater effect when stressor appraisal was low. Therefore hypothesis 18c was supported.

Figure 2.3. Moderating effects of neuroticism on stressor appraisal and
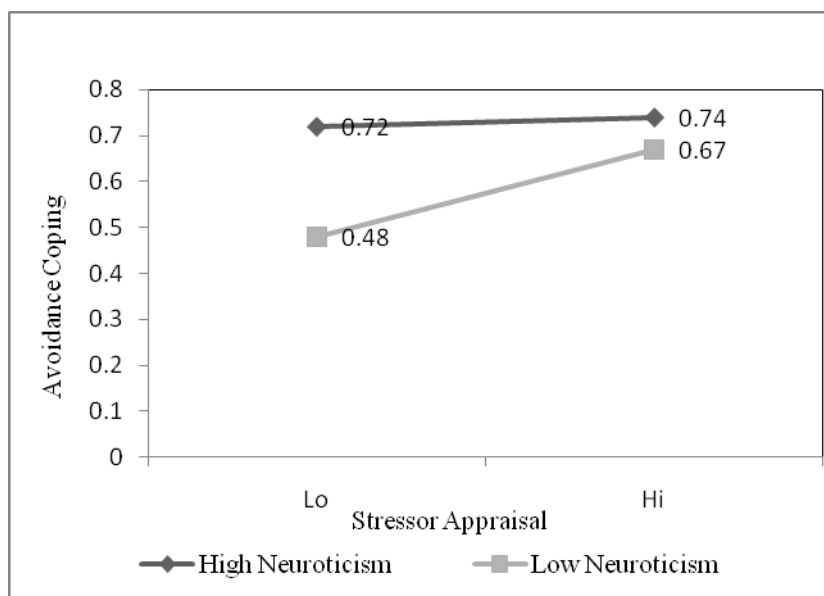problem-solving coping (agentic situation)

Table 15 presents the findings from the hierarchical regression testing hypothesis 18d. At step one of the hierarchical regressions, communal stressor appraisal was entered into the equation as the predictor variable in block one, and the trait of neuroticism was entered into the equation as the predictor variable for block two. Problem-solving coping was entered into the equation as the criterion variable. At

step two the interaction between stressor appraisal and neuroticism was entered into the equation as the moderator and predictor variables. Like the agentic situation, the results of the hierarchical regression reached a significant level indicating an interaction effect was demonstrated.

Figure 2.4 displays that that the relationship between the appraisal of a communal stressor and the use of problem-solving coping was weaker when neuroticism is high. Like the agentic situation, the effect is more apparent when stressor appraisal was low, however hypothesis 18d was also supported.

Figure 2.4. Moderating effects of neuroticism on stressor appraisal and problem-solving coping (communal situation)
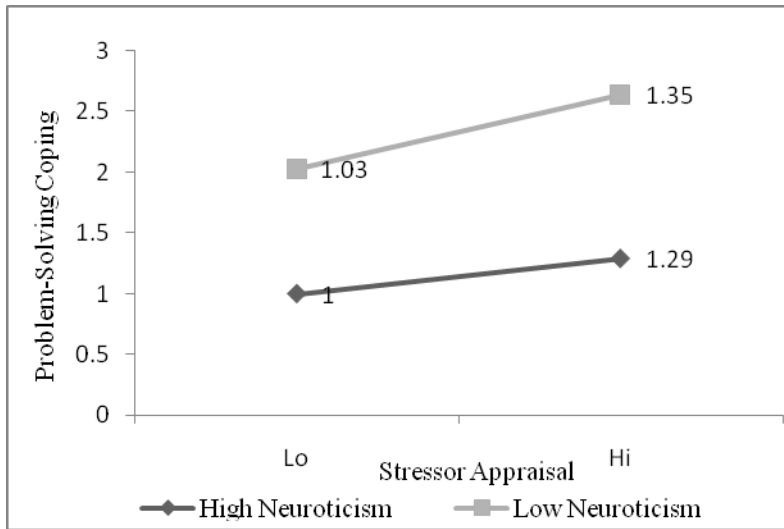
Openness to experience

Table 14 displays the regression for hypothesis 19a. At step one agentic stressor appraisal was entered into the equation as the predictor variable in block one, and the trait of openness to experience was entered into the equation as the predictor variable for block two. Problem-solving coping was entered into the equation as the criterion variable. At step two the interaction between stressor appraisal and openness was entered into the equation as the moderator and predictor variables. The relationship between openness and stressor appraisal (agentic) was significant indicating an interaction effect was demonstrated.

Figure 2.5 displays a comparatively small interaction effect. Problem-solving coping was used to the same degree at low levels of stressor appraisal regardless if an individual was low or high on openness. Individuals low on openness use problem solving slightly more than individuals high on openness when a situation is appraised as highly stressful. Therefore support was not demonstrated for hypothesis 19a.

Figure 2.5. Moderating effects of openness on stressor appraisal and
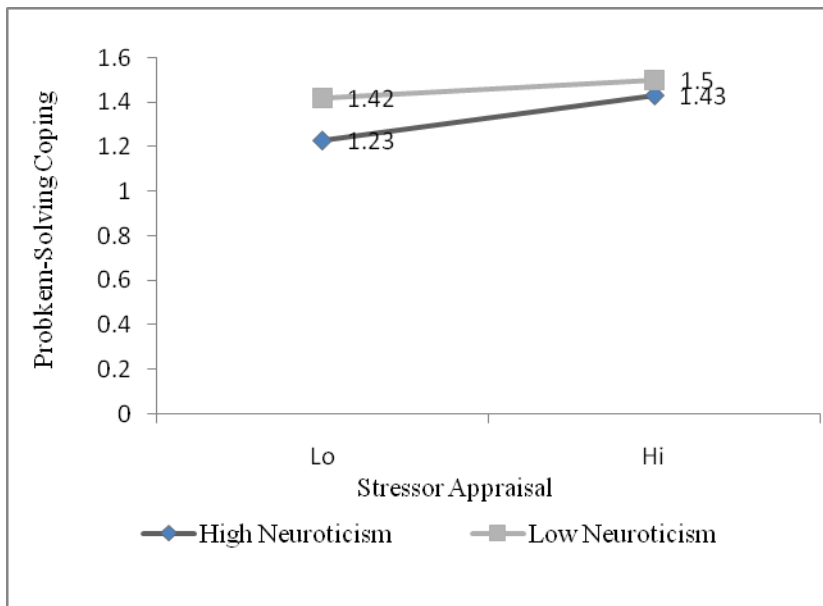problem-solving coping (agentic situation)
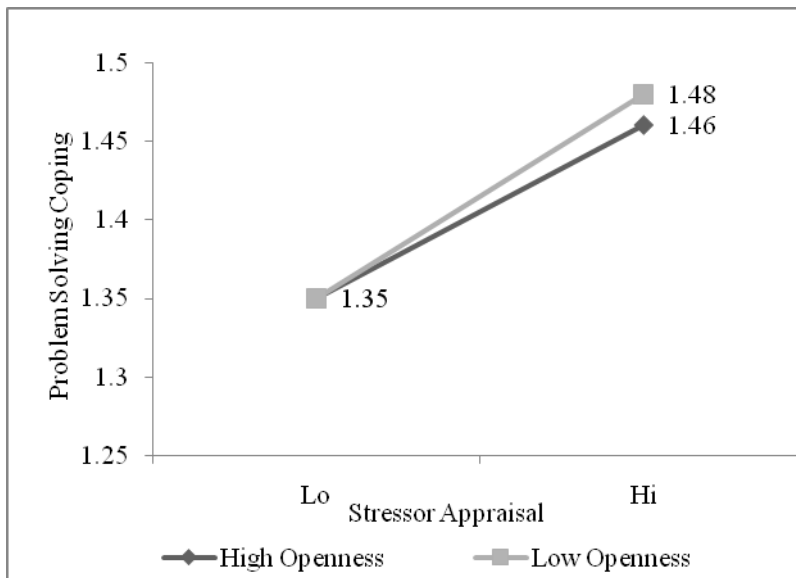
Table 15 presents the findings from the hierarchical regression testing hypothesis 19b. At step one communal stressor appraisal was entered into the equation as the predictor variable in block one, and the trait of openness to experience was entered into the equation as the predictor variable for block two. Problem-solving coping was entered into the equation as the criterion variable. At step two the interaction between stressor appraisal and openness was entered into the equation as the moderator and predictor variables. The relationship between openness and stressor appraisal (communal) was significant indicating an interaction did occur.

Figure 2.6 displays a minimal interaction effect. Problem-solving coping was used to a similar degree by individuals low and high on openness regardless of the degree of stressor appraisal. The relationship between stressor appraisal and problem-solving

coping was not greater when openness is high, hence hypothesis 19b was not supported.

Figure 2.6. Moderating effects of openness on stressor appraisal and
problem-solving coping (communal situation)
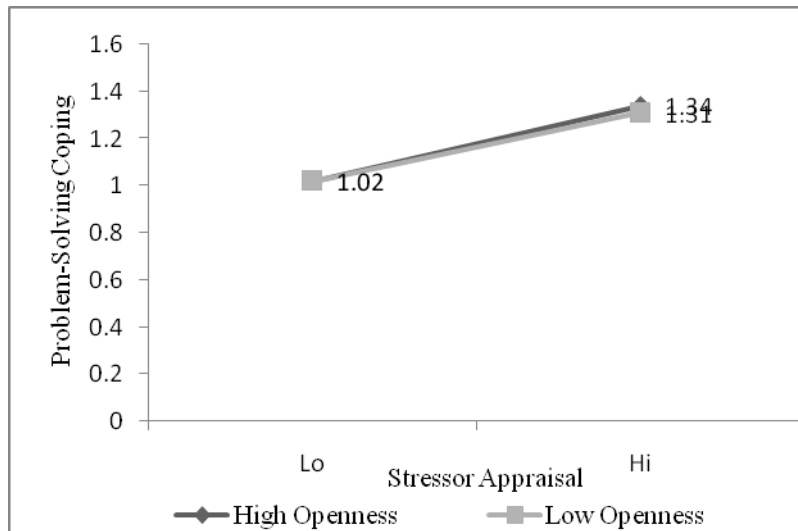
Agreeableness

Table 14 displays the regression for hypothesis 20a. At step one agentic stressor appraisal was entered into the equation as the predictor variable in block one, and the trait of agreeableness was entered into the equation as the predictor variable for block two. Seeking social support was entered into the equation as the criterion variable. At step two the interaction between stressor appraisal and agreeableness was entered into the equation as the moderator and predictor variables. The relationship between agreeableness and stressor appraisal (agentic) was significant indicating an interaction occurred.

Figure 2.7 indicates, individuals high on agreeableness use seeking social support to a greater degree only when stressor appraisal is low, when compared to individuals low on agreeableness. Individuals low on agreeableness use seeking social support to a much higher degree when the situation is appraised as highly stressful. Figure 2.7 displays a 'classic' interaction effect however the direction of the effect does not support hypothesis 20a.

Figure 2.7. Moderating effects of agreeableness on stressor appraisal
        and seeking social support (agentic situation)

Table 15 displays the regression for hypothesis 20b. At step one communal stressor appraisal was entered into the equation as the predictor variable in block one, and the trait of agreeableness was entered into the equation as the predictor variable for block two. Seeking social support was entered into the equation as the criterion variable. At step two the interaction between stressor appraisal and agreeableness was entered into the equation as the moderator and predictor variables. The results show that the beta weight was not significant but the F change was. The significant F change value indicates the combined set of predictors did make a significant contribution to the criterion variable. Since the beta failed to reach a significant level this indicates that some of the variance between stressor appraisal and seeking social support is taken up by other predictors which may themselves be correlated with both the predictor and the criterion. Therefore the relative contribution of the predictor was not great and the predictors are interrelated, hence hypothesis 20b was not supported.

Conscientiousness

Table 14 displays the regression for hypothesis 21a. At step one agentic stressor appraisal was entered into the equation as the predictor variable in block one, and the trait of conscientiousness was entered into the equation as the predictor variable for block two. Problem solving coping was entered into the equation as the criterion

variable. At step two the interaction between stressor appraisal and conscientiousness was entered into the equation as the moderator and predictor variables. The relationship between conscientiousness and stressor appraisal (agentic) was significant indicating an interaction did occur.

Figure 2.8 displays that individuals high on conscientiousness use problem-solving coping more than individuals low on conscientiousness regardless of the level of stressor appraisal. The relationship between the appraisal of an agentic stressor and the use of problem-solving coping is greater when conscientiousness is high regardless of the level of stressor appraisal. Therefore hypothesis 21a is supported.

Figure 2.8. Moderating effects of conscientiousness on stressor appraisal
and problem-solving coping (agentic situation)

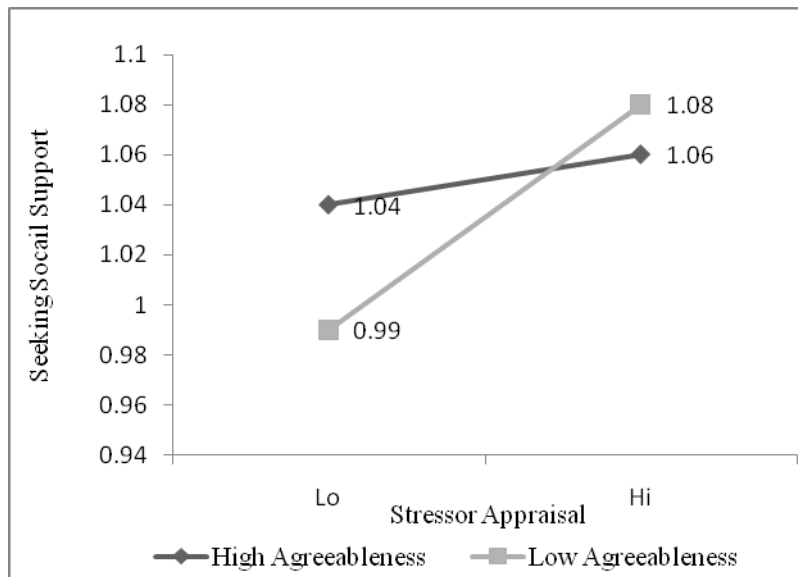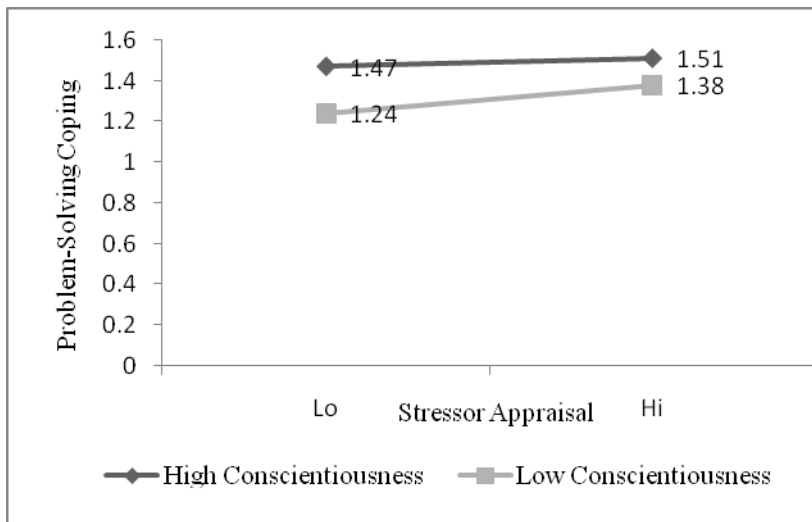Table 15 displays the results of the regression for hypothesis 21b. At step one communal stressor appraisal was entered into the equation as the predictor variable in block one, and the trait of conscientiousness was entered into the equation as the predictor variable for block two. Problem solving coping was entered into the equation as the criterion variable. At step two the interaction between stressor appraisal and conscientiousness was entered into the equation as the moderator and predictor variables. The relationship between conscientiousness and stressor appraisal (communal) was significant indicating a significant interaction was demonstrated.

Figure 2.9 indicates that individuals high on conscientiousness use problem-solving coping to a higher degree compared to individuals low on conscientiousness, regardless of the level of stressor appraisal however the effect is relatively small when low stressor appraisal is perceived. The relationship between the appraisal of a communal stressor and the use of problem-solving coping is greater when conscientiousness is high, hence hypothesis 21b was supported.

Figure 2.9. Moderating effects of conscientiousness on stressor appraisal
and problem-solving coping (communal situation)
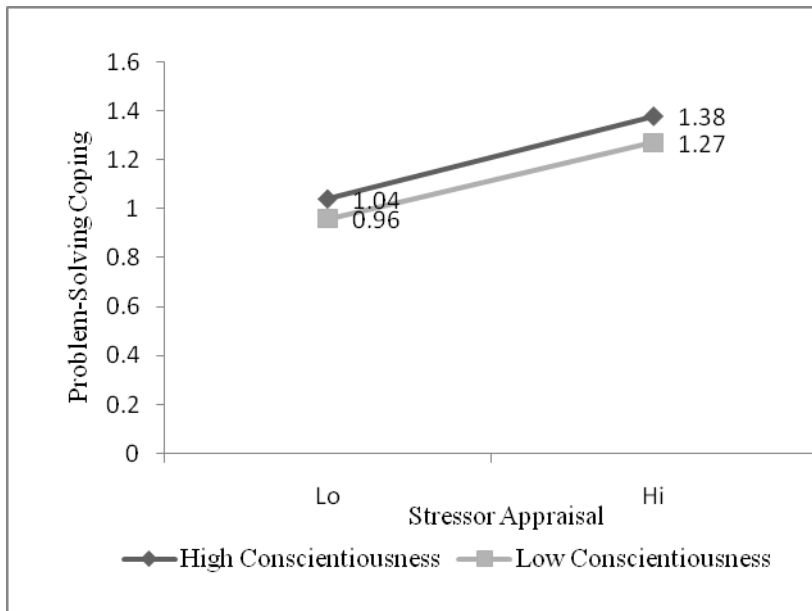
Control perceptions and coping (H 22-23)

Table 4 indicates that control perception was not systematically correlated with the use of avoidance coping in the agentic situation ($r = -.08$, $p<0.05$) or communal situation ($r = -.13$, $p<0.05$). Table 4 also displays no significant results were found with perceived control and problem solving in the agentic ($r = .01$, $p<0.05$) or communal situation ($r = .12$, $p<0.05$). Therefore hypotheses 22a, 22b, 23a and 23b were not supported (see from pg 38).

Hierarchical regression

Coping x control perceptions x coping effectiveness (H24)

To identify whether a moderating effect existed in hypothesis 24a and 24b (see pg 40) hierarchical regression was employed. Four hierarchical regressions were conducted (See Table 16). As the scales used to measure coping and control perceptions were different, the scores for the variables were standardized.

Table 16. Hierarchical regression equation: Coping effectiveness levels with control perceptions and coping (communal and agentic situations)

Criterion Variable	Predictor Variable		Beta	Adjusted R Square	R Square Change	F Change
C.E Agentic	Problem Solving, Control	Step 1	.26;.35	.19	.20	.18
	P.S x Control	Step 2	.03	.19	.00	20.70*
C.E Communal	Problem Solving, Control	Step 1	.33;.14	.13	.14	.34
	P.S x Control	Step 2	-.03	.13	.00	20.46*
C.E Agentic	Seeking Social Support, Control	Step 1	.04;.26	.07	.07	2.55*
	SSS x Control	Step 2	-.10*	.07	.01	9.87*
C.E Communal	Seeking Social Support, Control	Step 1	.01; .18	.03	.03	.05
	SSS x Control	Step 2	-.01	.02	.00	4.28*

*F change is significant at 0.05 level   df step 1= 2, 253
Note: P.S = Problem Solving; SSS=Seeking Social Support;   df step 2= 1, 252
C.E Agentic= Coping effectiveness in the agentic situation;
C.E Communal= Coping effectiveness in the communal situation

Problem solving coping

Table 16 presents the findings from the hierarchical regression testing hypothesis 24a. At step one of the hierarchical regressions, problem solving coping was entered into the equation as the predictor variable in block one, and control perception was entered into the equation as the predictor variable for block two. Coping effectiveness levels were entered into the equation as the criterion variable. At step two the interaction between control perceptions and problem-solving was entered into the equation as the moderator and predictor variables. The results show that the beta weight was not significant in the agentic or communal situation but the F change was. The significant F change value indicates the combined set of predictors made a significant contribution to the criterion variable. Since the beta failed to reach a

significant level this indicates that some of the variance between control perceptions and levels of coping effectiveness was taken up by other predictors which may themselves be correlated with both the predictor and the criterion. Therefore the relative contribution of the predictor was not great and the predictors are interrelated, hence hypothesis 24a was not supported.

Seeking social support

Table 16 also presents the findings from the hierarchical regression testing hypothesis 24b. At step one of the hierarchical regressions, seeking social support was entered into the equation as the predictor variable in block one, and control perception was entered into the equation as the predictor variable for block two. Coping effectiveness levels were entered into the equation as the criterion variable. At step two the interaction between control perceptions and seeking social support was entered into the equation as the moderator and predictor variables. The results indicated that the beta weight was significant in the agentic situation demonstrating an interaction was demonstrated in the agentic situation only.

Figure 3.0. Moderating effects of control perceptions on coping and
coping effectiveness perceptions (Agentic Situation)
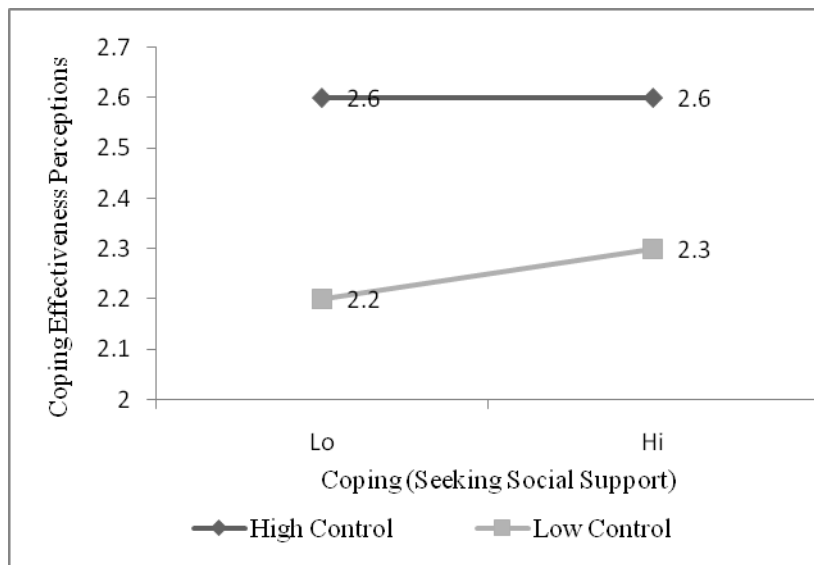
Figure 3.0 demonstrates that individuals with high levels of control perceptions have a much higher perception of coping effectiveness compared to individuals with low levels of control perceptions and have the same level of coping effectiveness perceptions regardless if high or low levels of seeking social support were used. The relationship between seeking social support and coping effectiveness perceptions was not in fact weaker when perceived control was high. Therefore support was not demonstrated for hypothesis 24b.

Chapter Four:

Discussion

The aim of this research was to explore the concept of 'coping styles' in a sample of post-graduate university students in a New Zealand context. University life provides an environment where time and workload pressures become a part of everyday demands in addition to other social and life demands. Managing and responding to stress becomes the key to success and meeting desired objectives and goals. Therefore, the present research has contributed to the understanding of the coping responses of students while facing particular workload and social stressors. The strength of this research was to investigate the direct and moderator effects of stressor appraisal, specific personality traits, and perceived control on coping styles and resulting perceptions of coping effectiveness.

Overall, the results were similar to previously inconclusive research on coping style. Specifically, previous research findings regarding the dispositions of neuroticism and conscientiousness were largely supported. In addition, some factors in the model are valid, whereas others did not seem to apply to the New Zealand sample. The results obtained will have implications for future stressor-coping research, university staff and students.

This chapter is divided into specific sections. Firstly the main findings regarding the direct effects will be discussed, which will include discussion on the relationships between the actual stressor, coping behaviours, effectiveness perceptions, stressor appraisal and personality. Next the moderator effects of personality on coping and stressor appraisal and control perceptions on coping and resulting coping effectiveness perceptions will be discussed. The final section of this chapter will discuss implications of this current research, possible future research, strengths, limitations, and finally conclusions drawn from the findings are presented.

Direct effects

Coping consistency

As acknowledged earlier, this study was based on the dispositional approach, theorising that relatively stable, personal based factors underlie an individual's coping choices. This approach is in contrast to the contextual approach that assumes more situational based factors shape individuals' appraisal and resulting choice of coping behaviours (Moos, 2003). Seeking social support as a coping behaviour was hypothesised to be used more often in communal situations than in agentic situations. The rationale for this hypothesis was that if support was found for a variation across the two situations, the notion of coping styles, which is described as a patterned habitual tendency to respond the same way across stressors, would not be supported (Carver & Scheier, 1994). However, no support was found for the above hypothesis in the present sample of post-graduate students. Social support would appear to be an important coping resource to post graduate university students across time and situations. Hence, this research suggests that seeking social support as a coping resource is relatively stable and is chosen as a coping behaviour in both types of situations after the individual evaluates each stressor. It is likely that seeking social support is used consistently across situations as previous research has found that social support is a strong correlate of most areas of adjustment (Pakenham & Bursnall, 2006).

Problem solving coping was hypothesised to be used more often in agentic compared to communal situations. This hypothesis was also included to provide evidence regarding the notion that individuals have a tendency, as a result of their coping style, to respond the same way across situations and stressors. Problem-solving coping was found to be used more in the agentic situation compared to the communal situation, lending support to the contextual approach as situational cues may have affected appraisal and coping behaviours used, leaving the consistency argument unsupported in this instance. Lazarus and Folkman (1984) refer to coping strategies as continually changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as exceeding the individuals resources

(Pakenham & Bursnall, 2006). The results regarding the use of problem-solving coping lend support for the notion put forward by Lazarus and Folkman (1984).

As mentioned earlier, the principal aim of this study was to explore the notion of a consistent coping style. Coping style refers to stable individual differences in coping behaviours across time and situations, hence a third hypothesis was included stating that coping behaviours would be consistent across both communal and agentic situations. Significant relationships were found for each of the three coping behaviours included in this study, indicating that the bivariate relationships between the variables were significant. At one level it could be argued that support was demonstrated for this hypothesis. However the size of the effect was moderate at best. Therefore, strong support for the existence of a consistent coping style could not be unquestionably concluded leaving the dispositional approach arguably unsupported. This finding is not surprising as the idea of a habitual coping style is surrounded by controversy in the literature. As mentioned earlier, Folkman and Lazarus (1980) have repeatedly emphasised that coping is a dynamic process adapting in different situations. It was proposed in this current study that an additional possibility exists in that people have preferred methods of coping when faced with a stressor. However, the above findings provide limited support for the additional possibility, suggesting only certain coping styles are consistently used across situations.

Stressor appraisal

As stated earlier, stress appraisal is a condition subjectively experienced by an individual who identifies an imbalance between the demands put on them from facing a stressor and the resources available to the individual to help encounter and cope with the demands (Dafna & Tali, 2005). The underpinning premise of this current study is the transactional model put forward by Lazarus and Folkman (1984), who theorised that individuals will experience stress when a situation is appraised as threatening.

It was hypothesised in the current study that cognitive appraisal and the resulting perception of the stressor are dependent on personality. This research provided

substantial evidence that the trait of neuroticism is a significant predictor of stressor appraisal in both the agentic and communal situations, therefore adding to the empirical knowledge of the cognitive appraisal literature. Neuroticism was found to have a slightly greater impact on stressor appraisal in the agentic situation. According to the moderated effect model, the relationship between stress and strain is more (or less) potent for people with certain traits (Grant & Langan-Fox, 2007). Traits such as neuroticism have been found to intensify the appraisal of a situation as stressful and/or guide the selection of less adaptive coping strategies in response to stress (Grant & Langan-Fox, 2007). According to the occupational stress literature, certain people create more frequent or severe stress through their own cognitions and behaviours as a consequence of personality (Spector & O'Connell, 1994). Hence, this research suggests that students high in the trait need to ensure they employ effective coping behaviours that actually deals with the problem or situation faced, to foster a reduction in stressor appraisal and the resulting level of stress experienced, particularly in response to a high academic workload.

Previous research has found that individuals high on E tend to indicate increased levels of self confidence. However, no support was found for the notion that the higher levels of confidence often indicated by individuals high on the trait would result in comparatively lower levels of stressor appraisal reported (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993). Some possible reasons are discussed below.

The results of this study indicated that individuals high on E actually report higher levels of stressor appraisal when confronting workload demands and social interactions. It is possible that this result could be attributed to the individual's perception of their own coping resources. Although an individual high on E may possess more self confidence, they may also need to perceive their coping resources as adequate in coping with the demands of the stressor they face. If they do not perceive their coping resources as adequate, this may increase their resulting stressor appraisal.

Contrary to expectation, openness to experience (O) did not correlate with stressor appraisal in the agentic situation and a significant but positive correlation was found in the communal situation. Hence this finding did not support the strong link found in the previous literature between the trait and positive thinking allowing high O individuals to engage in more positive reappraisal when facing a stressor (O'Brien & DeLongis, 1996). The findings regarding O appear to be comparatively inconsistent compared to the other traits included in the five factor model. The inconsistent results are in harmony with previous research which has often cited variations with regard to the trait. Alternatively, the current findings above could be attributed to the likelihood that individuals high on O will employ humor, engage in distraction and emotional expression when facing a stressor (McCrae & Costa, 1987). These types of reactions may be ineffective responses in a communal situation which could increase resulting stressor appraisal levels especially if the situation involves an interpersonal conflict.

Agreeableness (A) was hypothesised to be positively correlated with stressor appraisal in the communal situation. However, no support was found for the above rationale in the sample of post-graduate students in this study. The results of this study indicated that A was not related to any of the variables included in the theoretical model (see Figure 1, page 6). As stated earlier, high A individuals tend to avoid confrontation in order to maintain their emotional equilibrium and place a high value on maintaining harmonious relationships with others (O'Brien & DeLongis, 1996). The rationale for this hypothesis was that high A individuals will experience high levels of discomfort and stressor appraisal when engaging in a stressful social interaction such as a conflict or disagreement. It is possible that the findings could be attributed to the notion that high A individuals are agreeable by nature, therefore a degree of social desirability may have affected their responses, affecting the findings from the sample used in this study.

Personality and coping behaviour

The present research aimed to clarify previous coping and personality research that presented unclear findings regarding if environmental cues are the major influence on coping styles, or if behaviours chosen are a result of another system such as

personality, or as a result of a combination of the two (Jang, Thordarson, Stein, Cohan, & Taylor, 2007). An important aim of the current research was to identify and examine the effects of personality as a direct effect in the stressor-coping relationship. This rationale was based on the assumption that coping styles are significantly influenced by personality (Hayes & Joseph, 2003).

Neuroticism (N): This present research predicted that neuroticism would be positively correlated with avoidance coping in both situations. The results found which lend support for this hypothesis can be explained through the findings of previous coping literature. Individuals high on N are characterised by a tendency to experience negative affect and a tendency to be impulsive. In considering the relevant research, Endler and Parkers (1990) found N to be substantially correlated with passive and ineffective forms of coping. Further research by Folkman & Lazarus (1980) reported N is associated with increased use of escape or avoidance coping. Specifically, individuals high on the trait report responding to stress typically by giving up in their attempts to achieve their goals, engaging in substitute activities to take their mind off the problem and by pretending their problems do not exist (avoidance coping). The results of this study indicated that individuals high on N engaged in higher levels of avoidance coping when faced with a high academic workload and a stressful social interaction.

The results regarding problem-solving coping, however, were somewhat unexpected as the correlations provided support for the hypotheses in the agentic situation only, indicating high N individuals used problem-solving coping to a lesser degree in the agentic situation but no significant difference was found in the communal situation. The regression implies however that when combined with other predictors the contribution of N was not significant. A possible factor that may explain why a significant negative correlation was not found between neuroticism and problem-solving coping could be that a simple causal relationship does not actually exist and personality may simply influence acquisition and prime what cues from the environment are attended to in a certain situations. Therefore, many additional factors need to be taken into account to explore the relationship. Consistent with previous

research, individuals high on N are likely to engage in avoidance coping when facing an agentic or communal stressor, suggesting a consistency in coping across time and situations. However, individuals high on N use problem-solving coping to a lesser degree in the agentic situation only, indicating post-graduate students high on N may be at risk of engaging in maladaptive coping when confronting a high academic workload.

As stated earlier, individuals high on N are prone to negative appraisal of their environment in general (Watson & Hubbard, 1996). The present research predicted that the trait would be negatively associated with levels of perceived coping effectiveness in both the agentic and communal situations. The rationale was based on the findings that the item content of N has displayed a direct relation to coping effectiveness in that high N individuals generally see themselves as coping ineffectively with stress (Watson & Hubbard, 1996). An explanation of why this hypothesis was supported can be clarified through consistent findings from previous research. The above finding is in harmony with the notion that high N individuals are easily upset and tend to overreact to minor disturbances. In addition, N has been found to correlate with variables that are traditionally used to measure coping effectiveness such as subjective distress or symptoms of anxiety. As predicted, N displayed a negative association with coping effectiveness perceptions in both situations. This implies that regardless of the coping methods employed high N individuals are likely to perceive their coping behaviours as ineffective regardless of the actual effectiveness of the coping behaviour. These differences in perceptions may lead to increased stress levels, whereas others low on N may perceive the situation or problem as less threatening.

Extraversion (E): The present research predicted that individuals high on the trait of extraversion would be more likely to engage in problem-solving coping and seeking social support and less avoidance coping in the agentic and communal situations. This rationale was based on the findings that extraverts are assertive by nature and the strong correlation outlined in the previous literature between E and task-focused coping (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993). Extraverts have been

found to pose a strong interpersonal orientation and typically turn to others as a response to a stressor. Therefore, it is hypothesised in this current study that extraverts should be more likely to engage in seeking social support and less maladaptive forms of emotion focused coping such as avoidance coping.

Contrary to expectations, E did not correlate significantly with avoidance coping therefore high E individuals were not found to engage in lower levels of avoidance coping. As previously mentioned, the rationale for this hypothesis was that previous findings suggest high E individuals use less maladaptive forms of emotion-focused coping and avoidance coping is categorised in this current study as a passive form of emotion-focused coping (O'Brien & DeLongis, 1996). Alternatively, the positive correlations found between E and problem-solving coping provided support for the hypothesis in the agentic situation only, indicating that the bivariate relationship between two variables was significant. Looking at the trait independently from the other predictors, it could be argued that E was a significant predictor of the use of problem-solving coping when facing an academic workload stressor. However, when extraversion's relative contribution compared with the other predictors was examined, the regression indicated that the contribution of E was not significant. The results suggest that the trait of E is not strongly correlated with task-focused coping as outlined in the previous literature (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993). In addition high E individuals in this current sample have not displayed an underlying dimension of effective coping because of their failure to display a tendency to evade the use of avoidance coping (Watson & Hubbard, 1996).

The results of this study indicated that E contributed significantly to the use of seeking social support in the communal situation only, supporting the rationale that extraverts are interpersonally oriented and turn to others in response to stress but discounts the notion that this will be consistent across all stressors faced. Therefore, based on the findings of this study individuals high on E are likely to engage in problem-solving coping when facing a high academic workload demand and use their social networks in the form of seeking social support when coping with a stressful social interaction.

Conscientiousness (C): As predicted from previous research, conscientiousness was negatively correlated with avoidance coping in both situations and was positively correlated with problem-solving in the agentic situation. Individuals high on C were significantly more likely to report engaging in active, problem-focused strategies and to eschew avoidant emotional strategies. These results are consistent with previous research and the expectations in this current study, indicating that those higher on C are more able to cope in active and adaptive styles (Lee-Baggley, Preece, & DeLongis, 2005). The possible reasons are discussed below.

As stated earlier, conscientious individuals tend to report engaging in planning to eliminate problems they face and engage in active coping by giving up other activities or postponing other goals to concentrate on managing the stressor (McCrae & Costa, 1987). The rationale for the above hypotheses was that high C individuals display a greater tendency for disciplined behaviour so are likely to engage in problem-solving coping, carry a plan of action through to completion and are less likely to disengage and avoid a stressor (Watson & Hubbard, 1996). However, no support was found for the use of problem solving coping by high C individuals in the communal situation. One of the central tenants of the transactional model of stress and coping is that stress and coping processes occur through an interaction of person and situation (O'Brien & DeLongis, 1996). The above finding lends support for the above notion that the relationship of personality to coping may actually depend on specific personality traits and the context in which the stressor occurs.

As mentioned above, individuals high on C are often characterised as engaging in planning to eliminate or reduce the stressors they face. It was predicted in this study that C would be positively correlated with perceptions of coping effectiveness in both the agentic and communal situations. The rationale was based on the assumption that high C individuals would engage in active coping behaviours such as problem-solving coping and engage in less avoidance coping as the coping behaviour is not consistent with the characteristics often displayed by a high C individual. Because problem solving coping is often viewed as an adaptive form of coping it was assumed here that a high C individual would engage in adaptive coping and planning

behaviour which may contribute to an increased perception of coping effectiveness, because the actual problem of the stressor may be dealt with successfully. The results of this study indicated that C and coping effectiveness perceptions were positively correlated in the agentic situation only, suggesting high C individuals are more likely to perceive their coping behaviours as effective when facing a high workload demand compared to a stressful social interaction. The above finding is not surprising as it was also found in this study that individuals high in C engaged in higher levels of problem-solving coping in the agentic situation, indicating that active forms of coping such as problem-solving coping are associated with higher levels of effectiveness appraisal that could affect an individual's future coping behaviours employed. This is assuming an individual would employ learning theories and engage in behaviour that was successful in the past, a possible direction for future research. The results of this study therefore indicate that the trait of C may be less relevant in the communal context, in fact being high in the trait of C may actually be a drawback when it comes to interacting in a social situation. This is a possible direction for future research.

Openness to experience (O): As stated earlier, findings with regard to openness appear to be somewhat inconsistent. However, high O individuals may in fact be effective copers as their creative and flexible disposition allows for certain situations to be perceived as a challenge that can be benefited from (O'Brien & DeLongis, 1996). O was hypothesised in this current study as positively correlated with problem solving coping and negatively correlated with avoidance coping in both situations. However, no support was found for either hypothesis. Some possible reasons are discussed below.

Inconsistencies have been highlighted throughout the previous literature regarding the trait of O. An example is the study conducted by Hooker, Frazier and Monahan (1994) that found O to be unrelated to coping in their sample. This latter study examined coping among caregivers, and like Hooker et al (1994) sample, it is likely that differences between those high and low on O were not represented in their coping efforts because of the narrow band of stressors included in theirs and this current study (O'Brien & DeLongis, 1996). The results of this study were inconsistent

with expectations and previous research. However, models of O suggest that those higher on the trait are comfortable experiencing a range of emotions. Therefore, individuals high on O may not feel a great need to distance themselves from the potentially distressing emotions resulting from the stressful circumstances by engaging in adaptive coping styles or avoiding maladaptive styles, as do individuals low on O (Lee-Baggley, Preece, & DeLongis, 2005). This rationale could benefit from future research and if supported, could suggest that no direct relationship exists between the trait and coping behaviours employed across time and situations.

Agreeableness (A): Agreeableness was hypothesised to be positively associated with seeking social support in both the agentic and communal situation. As stated earlier, high A individuals often reflect a tendency to be trusting and pro-social in nature. The rationale for this hypothesis was that high A individuals are likely to engage in more seeking social support as they tend to place a higher value on maintaining close networks and harmonious relationships. No support was found for agreeableness as a predictor of seeking social support in either the agentic or communal situations. High A individuals appear to respond in ways that could be less adaptive. Findings have suggested that although high A individuals tend to be able to respond empathically and non-confrontationally they tend to be unable to use such adaptive strategies that fit the expectation of a high A individuals being non-confrontational and highly agreeable while facing an academic workload demand or an interpersonal stressor. Further research could be conducted that includes a larger, diverse band of stressors and investigate the coping behaviours used by individuals high on the trait of A.

Control perceptions

Perceived situational control was included in the current study as a situational resource to address the theme emerging from previous research suggesting coping behaviours are at least partially influenced by the individuals' perception of stakes involved in the situation and their perceptions of control over the stressor faced (Clements & Sawhney, 2000). Controllability perceptions were regarded in this current study as a variable of importance for determining coping behaviours

employed. Levels of perceived control were hypothesised to be negatively correlated with avoidance coping in both the agentic and communal situations. The logic behind this hypothesis was that findings have suggested people are strongly motivated to believe they can control their environment (Endler, Speer, Johnson, & Flett, 2000). In this study, part of this motivation was attributed to the findings that individuals with a sense of control are better able to cope with stress and are then more effective copers, as they will engage in effective coping behaviours such as problem solving and will avoid maladaptive coping behaviours such as avoidance coping.

However, no support was found for a negative relationship between levels of perceived control and avoidance coping, or a positive relationship between levels of perceived control and problem-solving coping in either situation. No simple relationship has been established in the literature regarding perceptions of control in the stressor-coping process and the resulting effects on stressor appraisal. Some possible reasons are discussed below. Previous research regarding control perceptions and coping is based on the idea that having control reduces stress experienced and not having control increases the level of stress experienced. This suggests a fairly simple causal relationship, however a few studies indicate this view is not always accurate and displays a much more complex relationship (Clements & Sawhney, 2000). The rationale behind the more complex relationships is that potential for control in one situation is likely to be interconnected with many other variables in other domains of an individual's life, that in turn helps explain why the potential for control could also be threat inducing in another aspect of a person's life (Folkman, 1984). For example the potential for control may present a difficult choice, as a person may value controlling a stressor, yet the potential for control may induce distress because of its costs in another area of the persons' life (Folkman, 1984)

Control perceptions were included in this study to explore their effects on the coping behaviours included in this study, however not to imply a simple causal relationship exists with control perceptions in the stressor-coping process, the lack of a significant finding with regard to control perceptions could be attributed to the fact that control perceptions are likely to involve a complex interplay of many variables when

explaining its effects on the stressor-coping process. The lack of a significant relationship regarding control perceptions indicates there was little or no variability in the scores indicated by the sample in this study. This result in itself could imply that the sample of post graduate students perceived little or no control in general over the two situations they faced. This finding could be a possible direction for future research.

Coping effectiveness

Previous coping literature tends to agree that effective coping is associated with better psychological adjustment and better adjustment is positively correlated to life satisfaction (Clark, Bormann, Cropanzano, & James, 1995). Problem-solving coping and seeking social support were hypothesised to be positively associated with reported coping effectiveness and avoidance coping was hypothesised as negatively associated with reported coping effectiveness in both situations. As stated earlier the contextual approach to coping, which is prominent in the existing coping literature, theorises that coping behaviours are neither universally effective nor ineffective. A coping behaviour used may be effective in one situation but could also be ineffective in another depending on the demands of the specific situation.

The rationale for the above hypotheses was that problem-solving as an active, problem-focused strategy is likely to predict greater perceived coping effectiveness because of such perceptions as facing the stressor head on and dealing with the actual problem posed by the stressor, which can contribute to a sense of control over the stressor. Seeking social support can be described as an active, emotion-focused strategy similar to problem-solving efforts, in that as a coping behaviour it is likely to be associated with coping effectiveness because the coping effort is directed toward the actual problem. In addition, the use of social support when facing a problem can aid in information gathering and sharing of ideas regarding the problem that may influence additional viewpoints of the same event or stressor, resulting in a more adaptive coping strategy employed. Therefore, problem-solving coping and seeking social support are likely to be perceived as more effective. Avoidance coping is a passive emotion-focused strategy and is often considered as one of the least effective

coping behaviours' in the literature. The passive emotion focused strategy of avoidance will be associated with lower perceived coping effectiveness, because as a strategy it does not actively deal with the problem or stressor faced.

As predicted, the use of problem-solving coping was found to have a strong association with increased coping effectiveness perceptions in the agentic and communal situations. This implies that individuals who do engage in problem solving coping also perceive their coping efforts to be more effective in managing the situation and stressor. However, no support was found for the positive association between seeking social support and coping effectiveness perceptions in either situation. This result suggests that information gathering from social networks and sharing of ideas that can result from the use of seeking social support does not lead to an individual perceiving their coping as particularly effective or successful. This raises the question that if an individual does not perceive their efforts and outcomes as solely the result of their own inputs they may not attribute the outcome as effective. In addition, a 3 point response scale was used in the coping questionnaire. It has been argued, a 3-point response scale does not permit much variability in responses which may have contributed to some of the un-significant relationships' between coping and other variables included in the theoretical model.

Further, the results suggest as expected that the use of avoidance coping decreased the coping effectiveness of respondents in both situations. However, the negative relationship between avoidance coping and coping effectiveness was relatively stronger in the agentic situation indicating avoidance coping had a more detrimental effect on effectiveness perceptions when facing high academic workload demands compared to an uncomfortable or stressful social situation.

The above findings seem to be in contrast to the contextual approach as it appears that problem-solving is perceived as effective in both types of situations and seeking social support was ineffective in both situations. Avoidance coping lent some support to the contextual approach as coping effectiveness perceptions were lower in the

agentic situation, implying that perceptions of avoidance coping is dependent to a degree on the specific situation and environmental cues.

In summary, after reviewing the direct effects between the variables included in the theoretical model (see Figure 1, page 6), seeking social support as a coping resource was found to be relatively stable and was chosen by the post graduate students in this current sample as a coping behaviour in both types of situations displaying a consistency across situations and time. Problem-solving coping was used slightly more in the agentic situation compared to the communal situation, lending support to the contextual approach indicating situational cues may have affected appraisal and coping behaviours used, leaving the consistency argument unsupported with regard to problem-solving coping. After reviewing the consistency of all three coping behaviours across both situations, the existence of a consistent coping style could not be unquestionably concluded leaving the dispositional approach arguably unsupported.

After reviewing the direct effects of personality on stressor appraisal, N was found to be a significant predictor of stressor appraisal in both the agentic and communal situations while contrary to expectations, individuals' high on E reported higher levels of stressor appraisal when confronting workload demands and social interactions and O did not correlate with stressor appraisal in the agentic situation but a significant but positive effect was found between the trait and stressor appraisal in the communal situation only. It was expected that high A individuals would experience high levels of discomfort and stressor appraisal when engaging in a stressful social interaction. However, no support was found for the above rationale in the sample of post-graduate students in this study.

An additional aim of the current research was to identify and examine the effects of personality as a direct effect in the stressor-coping relationship. The results of this study indicated that individuals high on N did engage in higher levels of avoidance coping when faced with a high academic workload and a stressful social interaction and that high N individuals used problem-solving coping to a lesser degree in the

agentic situation, however no significant result was found in the communal situation. The results of this study indicate that individuals high on N are likely to engage in avoidance coping when facing an agentic or communal stressor, suggesting a consistency in coping across time and situations. However, individuals high on N use problem-solving coping to a lesser degree in the agentic situation only, indicating post-graduate students high on N may be at risk of engaging in maladaptive coping when confronting a high academic workload. As predicted, N displayed a negative association with coping effectiveness perceptions in both situations. This implies that regardless of the coping methods employed high N individuals are likely to perceive their coping behaviours as ineffective regardless of the actual effectiveness of the coping behaviour.

Contrary to expectations, the trait of E did not correlate significantly with avoidance coping, therefore high E individuals were not found to engage in lower levels of maladaptive coping behaviour. Alternatively, the positive correlations found between E and problem-solving coping provided support for the hypothesis in the agentic situation only. The results suggest that the trait of E is not strongly correlated with task-focused coping as outlined in the previous literature. In addition high E individuals in this current sample have not displayed an underlying dimension of effective coping because of their failure to display a tendency to evade the use of avoidance coping. The results of this current study indicated that individuals high on E are likely to engage in problem-solving coping when facing a high academic workload demand and use their social networks in the form of seeking social support when coping with a stressful social interaction.

Individuals high on the trait of C were found to be significantly more likely to report engaging in active, problem-focused strategies and to shun avoidant emotional strategies. These results are consistent with previous research and the expectations in this current study, indicating that those higher on C are more able to cope in active and adaptive styles. The trait of C and coping effectiveness perceptions were positively correlated in the agentic situation only, suggesting high C individuals are

more likely to perceive their coping behaviours as effective when facing a high workload demand compared to a stressful social interaction

The trait of O was hypothesised in this current study as positively correlated with problem solving coping and negatively correlated with avoidance coping in both situations. No significant results were found and it is argued here that individuals higher on the trait are comfortable experiencing a range of emotions. Therefore, individuals high on O may not feel a great need to distance themselves from the potentially distressing emotions resulting from the stressful circumstances by engaging in adaptive coping styles or avoiding maladaptive styles, as do individuals low on O. If support is found for this rationale it could suggest that no direct relationship exists between the trait and coping behaviours employed across time and situations.

No support was found for A as a predictor of seeking social support in either the agentic or communal situations and for a negative relationship between levels of perceived control and avoidance coping, or a positive relationship between levels of perceived control and problem-solving coping in either situation. As predicted, the use of problem-solving coping was found to have a strong association with increased coping effectiveness perceptions in the agentic and communal situations. No support was found for the positive association between seeking social support and coping effectiveness perceptions in either situation. Further, the results suggest, as expected that the use of avoidance coping decreased the coping effectiveness perceptions of respondents in both situations. The above direct effect findings lend support for the idea that the relationship of personality to coping may actually depend on specific personality traits and the context in which the stressor occurs.

In addition to looking at the direct effects of stressor appraisal, personality, control perceptions and effectiveness perceptions of coping behaviours in the stressor-coping process, this research looked at the moderator and interaction effects of personality and control perceptions.

Moderator effects

The moderator effect of personality on stressor appraisal and coping behaviours used will now be discussed.

Moderator effects of personality

This current study was based on the transactional model of coping that views the stressor-coping process as a dynamic process that consists of several components (Gardner, Rose, Mason, Tyler, & Cushway, 2005). Lazarus (1984) theorised that the individual's perception of the specific event determines how stressful the event is which in turn may affect coping behaviours used. The moderating effects of personality on stressor appraisal and coping is included to explore the complex interaction between the person and the situation appraisal in the stress-coping process (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). In examining coping styles in response to the appraisal of two different stressors included in this current study, it was expected that if coping was determined largely by person variables such as personality traits, coping behaviours should be consistent across situations and stressors. However, it was assumed in this current study that if a low consistency in coping behaviours resulted across stressors, coping styles are likely to be more situation specific and environmental factors and situational variables are likely to be the major contributing factors.

Neuroticism: The present study hypothesised that high N would moderate the relationship between stressor appraisal and avoidance coping in the agentic and communal situations, resulting in a greater relationship between the predictor and the criterion and that high N would moderate the relationship between stressor appraisal and problem-solving in both situations, resulting in a weaker relationship between the predictor and the criterion. Hierarchical regression was used to explore the resulting interactions. The results of this study supported the moderator effects of N in the agentic and communal situations. That is, when N was high the use of avoidance coping was high, whereas when N was low the use of avoidance coping was lower. The rationale was that high N individuals tend to report experiencing increased levels of emotional distress when faced with work overload and with interpersonal stress

(Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). For example, O;Brien and DeLongis (1996) found that these differences in experiences often reported by high N individuals might be due to their tendency to engage in maladaptive coping behaviours, a tendency that is supported by the results of this current study. Although the use of avoidance coping may allow a high N individual to bring their level of stress experienced under control initially, an overuse of avoidance and lack of problem solving coping is unlikely to solve the stressor or problem and then in turn an individual's stressor appraisal may increase. From the results it can be concluded that the moderating effects of N are consistent across both situations and stressors indicating support for the notion that person variables may be a significant contributing factor in determining coping behaviours, at least when an individual is high on the trait of N.

Looking at the agentic situation (see Figure 2.1, page 66), individuals high on N used avoidance coping to a much higher degree when compared to low N individuals. The high level of avoidance coping was used regardless if stressor appraisal was low or high indicating high N individuals did not actually change their coping behaviours regardless of the stressfulness perceptions. The correlations indicate that high N individuals are more likely to use avoidance coping. High N individuals mean scores on avoidance coping are higher than those for the low avoidance group. The correlations obtained suggest that high N individuals use avoidance to about the same degree irrespective of their appraisal of the stressor, indicating support for the hypothesis. In contrast, the low N individuals were more likely to use avoidance when their stressor appraisal is high than when it is low. When the stressor appraisal is high, there is little difference between the high N and low N groups in terms of avoidance coping; when stressor appraisal is low, the low N group use avoidance much more than do the high N people.

Consequently, high N individuals used problem-solving coping to a lesser degree, compared to individuals low on N at high or low stressor appraisal levels, however there was a greater effect at low levels of stressor appraisal (see Figure 2.3, page 68). The results of this study indicate a moderate interaction effect, although the

differences between the means are comparatively small. Overall, low N people are more likely to use problem-solving coping, but when stressor appraisal is high, the difference between low N and high N is relatively small. The results suggest that high N individuals do lack in their use of adaptive coping such as problem-solving coping however when the situation does produce much higher levels of stress appraisal they are inclined to start using problem-solving coping.

Looking at the communal situation, at both high and low levels of stressor appraisal, high N individuals use more avoidance coping when compared to individuals low on N (see Figure 2.2, page 67). Looking at the differences between means, at low and high levels of stressor appraisal, the results could support the notion that high N individuals engage in maladaptive coping to temporally satisfy their emotions and generally experience higher levels of stress and this effect is particularly salient in low levels of stressor appraisal. In a similar vein, as stressor appraisal increases, the stressor may become harder to actually avoid and disengage from, nonetheless if it is possible high N individuals tend to prefer to use avoidance coping. As predicted, in the communal situation low N individuals generally used problem-solving coping more than high N people, and this difference is accentuated when stressor appraisals are high (see Figure 2.4, page 69).

With regard to the results concerning avoidance coping and N, it appears support has been demonstrated for the notion that coping behaviours were determined primarily by person variables in the form of N. This is highlighted through the consistency of the use of avoidance coping across situations and stressors by individuals high on the trait. The results concerning the use of problem-solving coping by individuals high on N also demonstrates consistency of the use of the coping behaviour across situations indicating again the trait is likely to be major determinant of coping behaviours regardless of the situational variables.

Avoidance coping has been connected to a variety of negative outcomes in previous research (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). The findings that high N individuals are likely to cope with a stressor in a maladaptive

way suggests coping may pose a significant problem to an individual resulting in ongoing stressors. Therefore from the results it can be concluded that N does have a moderating effect across situations, however it cannot be reliably concluded from the results of this study that stressor appraisal is higher for high N individuals as a result of their personal characteristics or whether it is a result of the maladaptive coping behaviours they tend to engage in that keeps the level of appraisal high. This is a possible direction for future research.

Openness to experience: It was hypothesised that high openness would moderate the relationship between stressor appraisal and problem-solving coping, in both situations resulting in a greater relationship between the predictor and criterion variables. This was based on the rationale that high O individuals possess a cognitive style that helps the individual to take a broader view of a stressor and appraise the situation as challenging and growth enhancing resulting in an adaptive coping style such as problem-solving coping. In this research support was not demonstrated for this hypothesis in the agentic or communal situation.

In the agentic situation problem-solving coping was used to the same degree by individuals low and high on O at low levels of stressor appraisal (see Figure 2.5, page 70). At high levels of stressor appraisal, problem-solving coping was used to a slightly higher degree by low and high O individuals. However, individuals low on O actually used problem-solving coping to a higher degree when compared to individuals high on the trait. Further research could investigate this finding by exclusively looking at the impact of O on specific coping behaviours. A similar result was obtained in the communal situation (see Figure 2.6, page 71). However, a much smaller difference was found between individuals low and high on O and their use of problem-solving coping at high levels of stressor appraisal. These results indicate that the use problem-solving coping is not impacted greatly by the trait. With regard to the above findings, support is demonstrated for the notion that coping is largely situation specific, with the major contributing factor being situational variables or factors from the environment in which the stressor is faced. Future research could investigate the effects of O on other specific coping behaviours.

Agreeableness: It was hypothesised that high levels of agreeableness would moderate the relationship between stressor appraisal and seeking social support in both situations, resulting in a greater relationship between the predictor and criterion variables. The hypothesis was not supported in either situation (see Figure 2.7, page 72). The rationale for this hypothesis was based on the findings that high A individuals tend to hold the belief that others are well intentioned so are generally more trusting of others (McCrae & Costa, 1987). High A individuals are often reported to be more popular and active within a social context, and their ability to act selflessly and be trusting contributed to the hypothesis that when under high levels of stress, high A individuals would be more willing to turn to others and trust their opinions and support (Nightingale & Williams, 2000). However, it needs to be mentioned that the use of seeking social support includes using social networks to gather additional information and may in fact lead to the use of other forms of coping as a result of the additional information, such as then applying problem-solving coping as a result of the advice from social networks used.

In the communal situation, the predictors were interrelated and a significant interaction was not displayed. With regard to the agentic situation, the statistical evidence presented in this current study does not suggest causation or direction to the relationship between seeking social support and the possible resulting use of further coping behaviours. Figure 2.7 displays that high A individuals are less likely to seek social support when compared to low A individuals when stressor appraisal was low. Even though previous findings regarding A have been largely inconsistent, this finding was still unexpected. Some possible reasons for this finding are discussed below.

A possible reason for this unexpected finding could be that the results of this study have provided evidence for the presence of stable individual differences with regard to the trait of A, that is the effect of social desirability on pro-social choice options may have distorted the respondents results (Platow, 1994). The presence of a social desirability norm could be explored further through future research. As mentioned earlier, high A individuals are more likely to cope in ways that engage or protect

social relationships. These types of characteristics would lead to the assumption that seeking support would be a likely coping behaviour for an individual high on A (Lee-Baggley, Preece, & DeLongis, 2005). However, to offer another explanation for the somewhat surprising findings regarding A, coping resources may have to be considered. An aspect that may have contributed to the surprising findings is the characteristics of the individuals who make up the social networks that an individual high on A is likely to use. High A individuals tend to focus on maintaining and protecting relationships. It could be explored that high A individuals used lower levels of seeking social support at high levels of stressor appraisal because they are reluctant to communicate high levels of emotional expression, in order to maintain positive relationships with their social networks.

To explore the inconsistent findings further future research could look at the relationship between agreeableness and an additional method of coping in the form of relationship-focused coping which refers to modes of coping that are aimed at managing, regulating, or preserving relationships during times of stress, as coping in close relationships may involve many different processes that are a lot broader than those involved in the traditional problem-focused and emotion-focused coping strategies included in this study (Lee-Baggley, Preece, & DeLongis, 2005).

Conscientiousness: It was hypothesised that high levels of conscientiousness would moderate the relationship between stressor appraisal and problem-solving coping in both situations, resulting in a greater relationship between the predictor and criterion variables. Both hypotheses were supported. In the agentic situation the results of this study displayed a small interaction effect (see Figure 2.8, page 73). High C individuals appear to use problem-solving to a similar degree when stressor appraisals are low and high when compared to low C individuals. On the other hand, low C individuals used problem-solving more when stressor appraisal was high than when it was low. In the communal situation (see Figure 2.9, page 74), although the interaction effect was small support was demonstrated for the hypothesis as high C individuals did engage in a higher degree of problem-solving coping, when compared to low C individuals, regardless of the level of stress appraisal. Again the above

findings lend support for the notion that when it comes to the trait of C and the use of problem-solving coping, personality may be a major determinant of coping behaviours employed. This is demonstrated by the consistency of the use of problem-solving coping across stressors. The results lend support to the notion that stress perceptions are lower in situations in which the person has some control over and the high C individuals are likely to experience more control over the stressor through the direct nature of coping behaviours generally employed.

Moderator effects of control perceptions

As previously mentioned several coping studies have included control perceptions as a factor in the stress-coping process, with contradicting findings often resulting. The present study hypothesised that the relationship between problem-solving coping and coping effectiveness perceptions would be greater when control perceptions were high and that the relationship between seeking social support and coping effectiveness would be weaker when control perceptions were high. The hypotheses were not supported in either situation. The rationale for the above hypothesis was based on the general findings from the coping literature stating that problem-focused coping seems to be more adaptive when the situation is perceived as controllable, while emotion focused coping in controllable situations is maladaptive (Endler, Speer, Johnson, & Flett, 2000).

The results of this study indicated that the beta weight regarding problem-solving coping was not significant in the agentic or communal situation. The results indicated that the combined set of predictors made a significant contribution to levels of perceived coping effectiveness. Since the beta failed to reach a significant level it can be concluded that some of the variance between control perceptions and levels of coping effectiveness was taken up by other predictors which may themselves be correlated with both problem-solving coping and coping effectiveness perceptions. Therefore the relative contribution of problem-solving coping was not great.

Contrary to expectations, individuals with high levels of perceived situational control appeared to report high levels of perceived coping effectiveness that were unaffected

by the level of seeking social support used (see Figure 3.0, page 76). The results of this study indicated that the use of seeking social support only increases levels of perceived coping effectiveness slightly when an individual indicates low levels of situational control. Previous research has often found that problem-focused coping techniques present greater psychological benefit than emotion focused strategies, in controllable situations (Folkman, 1984). Seeking social support was viewed in this current study as an active emotion focused coping strategy. The effect of the coping behaviour on coping effectiveness perceptions could have been observed because emotion-focused coping behaviours can be used to alter the meaning of the situation and thereby increase the individuals' control perceptions. Seeking social support could be an example of this as seeking the support of social networks could include information sharing to gain additional viewpoint of the same problem, changing the situations meaning to the individual and effectively increasing their control perceptions from the use of seeking social support. The results found could be explained by this aspect of emotion focused coping.

Implications

This research has several practical implications for researchers interested in the stress-coping process, university staff and students. The findings of this research will benefit personality and coping literature by providing evidence from a sample of New Zealand university students and by offering information notifying individuals about their vulnerability in engaging in maladaptive coping responses. As mentioned in the introduction, university life can present many stressful situations, consisting of not only academic workload demands but overwhelming personal commitments and relationships that need to be maintained. University students are particularly vulnerable to experiencing in some stage of their studies, significant levels of stress that if not managed effectively could lead to higher levels of distress and in some cases even illness. The study of more enduring coping behaviours is important for understanding an individual's vulnerability to engaging in ineffective coping patterns across stressors. The basis of this current research was to explore the somewhat controversial notion of coping styles across two different stressors and to determine

the association between personality, appraisal, control perceptions and coping behaviours used; therefore the implications of these results are discussed below.

Coping style

This research provided evidence that reported tendencies to use certain coping reactions to a greater or lesser degree when facing a stressor did exist with regard to certain styles, specifically with regard to the use of seeking social support. Therefore, educational institutions need to put into place facilities that can offer advice and educate individuals on their expected coping repertoire or catalog of strategies they are likely to use when confronting a stressor. This will be particularly useful to individuals who have relatively stable coping behaviours that are maladaptive. If individuals can be made aware of their coping tendencies they can then take steps to improve their responses to future stressors assuming the individual is willing and has the ability to modify their future coping responses.

The results of this study highlights that the type of coping behaviour used is a strong predictor of effectiveness perceptions. If an individual's effectiveness perceptions are high with regard to a certain stressor it seems logical the coping behaviour would be used again to cope with future stressors. This causal relationship could benefit from future research. The results show that problem-solving coping was associated with individuals perceiving their coping efforts as effective with dealing with the stressor. Avoidance coping was perceived to be largely ineffective by the individuals who engaged in avoidance behaviour, however interestingly avoidance coping had the highest consistency across both situations when compared to the other two coping behaviours. Even though individuals felt they were being ineffective when they used avoidance coping they still appear to use it the most consistently across stressors. Further studies may need to look at this association to gain a better understanding of the prevalence of avoidance coping regardless of the low effectiveness perceptions associated with the coping behaviour. Seeking social support was not viewed by the individuals in this current study as significantly effective in either situation. This result could indicate that students may not see the benefits of talking about their problems and seeking advice from others. This could be a problem as students could

enhance their coping efforts and in return their life satisfaction and mental health, by seeking the support and advice from people who can offer effective support (Pakenham & Bursnall, 2006).

Educational institutes could actively promote the benefits to students of sharing problems or feelings of distress with professionals on campus. The results indicate that students do use seeking social support as a coping method to a degree but they may not actually see the benefits of doing so. Effectiveness perceptions could be low because the social networks the students were choosing to seek support from may not be giving the students the support they need to develop effective coping behaviours. Educational institutes could guide students to seek support from others who can give informed, effective support by promoting campus services such as councilors and guidance facilities. The results indicate the tendency to seek out emotional social support could be viewed as a double edge sword with unintended consequences (Lee-Baggley, Preece, & DeLongis, 2005). For example, a student discussing a stressor relating to course work with a student who has completed the paper in the past, may be reassured by this type of support. This strategy could then foster a return to problem-focused coping. On the other hand, sources of emotional support may be used more as outlets for ventilation of the individual's feelings. Similarly, students experiencing difficulties and using maladaptive coping strategies may find one another. Using social support in this way may not foster adaptive coping behaviours (Bosworth, Bastian, Rimer, & Siegler, 2003).

Personality

This research provided evidence that the way that personality manifests itself in the stress and coping process may be highly dependent on the context or situation. It is clear from the results that the stress and coping process is complex and intricate, involving both person and situation factors and their interactions. The results of this current research suggest that certain personality characteristics may predispose people to cope in predictable ways when they confront adversity, lending support for the notion of coping styles, but only with regard to particular traits. In addition, personality was found to interact with stressor type in predicting coping responses.

The results found in this current study which lend support for only certain traits from the FFM could be attributed to the differences in appraisal levels experienced by individuals high on particular traits, resulting in differences in experience for certain individuals.

The findings were generally consistent with previous research and with the expectations of this current study, indicating that those higher on Neuroticism (N), compared to those lower on N, were more likely to report engaging in passive emotion focused strategies such as avoidance coping across stressors. This is consistent with the characterisation that high N individuals have a tendency for experiencing negative emotions and therefore may be more likely to channel their coping efforts toward managing their disruptive emotions. However, it appears that those higher on N are also more likely to appraise stressful situations as threats rather than challenges, which may explain the positive correlation found between the trait and stressor appraisal in both situations. Therefore, it is important that students and campus services are aware of the risks of maladaptive coping, because it is clear from the results of this study that people high on the trait tend to engage in modes of coping that create and maintain stress; thus, they fail to engage in modes of coping that might resolve the problems they are facing (Lee-Baggley, Preece, & DeLongis, 2005).

As indicated by this research, the findings regarding the trait of conscientiousness were generally consistent with previous research, indicating that those higher on C, compared to those lower on C, were more likely to report engaging in lower levels of avoidance coping across both situations and higher levels of problem-solving. These findings lend support for the notion that the characteristics of the trait may predispose people to cope in predictable ways across stressors and generally in an adaptive style.

As expected, personality played a significant role in coping behaviours used. However, the findings also point to the importance of context in understanding and predicting coping behavior. Consistent with previous research, statistical analyses revealed that some individuals did cope differently depending on the stressor,

indicating that contextual factors played a significant and independent role in coping behaviours used. This current study has identified situations students perceived as being significant sources of stress. The three most common sources of stress reported in the agentic situation were: high workload in general, time pressure felt from deadlines and due dates occurring at the same time. In the communal situation the three common sources identified were: conflict with a friend, conflict with a co-worker and disagreement with a partner.

The results concerning extraversion displayed the role of E in coping appears to be highly context dependent. That is, those high on E appear to cope differently depending upon the specific dimensions of the stressful situation with which they are coping. Such situational specificity in coping behavior may be considered to be a sign of flexibility in coping and may indicate high E individuals possess an adaptive coping style. The concept of an adaptive coping style is supported by the significant result concerning the use of problem-solving coping in the agentic situation regardless of the high levels of stress appraisal experienced by high E individuals. These types of results point to the importance of situational factors and environmental cues, particularity for individual's high on E, indicating campus services could include a measure of personality to aid in designing support services to help individuals form more adaptive coping styles. For example an individual high on E would benefit from a campus professional helping them to identify in which situations they tend to engage in maladaptive coping, this type of identification may help them to cope more adaptively in similar situations in the future.

As indicated earlier some individual students are more able to cope adaptively with high levels of stress both inside and outside the academic realm. Thus, campus services need to be aware that some situational and dispositional factors may have an impact on the level of stress each individual is experiencing and their resulting effectiveness with dealing with stressors faced. This study also draws attention to the need for educational institutes to create environments that try to reduce unnecessary stressors and offer services that understand both spheres as essential to consider when

informing and supporting students to enhance their coping behaviours to increase effective functioning and performance.

Strengths of the current research

The present study had a number of strengths, including the complexity of the model, and undertaking research of coping styles within a New Zealand context. This study provided an opportunity to increase knowledge on coping styles by including a complex model of coping with the moderator variables of personality and control perceptions. An additional strength of this research was to control for the perceived severity of the stressor by including a measure of stressor appraisal. In addition, this research built on the existing knowledge of what factors could affect and contribute to an individual's coping style within a New Zealand context. The knowledge base on coping styles within a New Zealand context is limited. Therefore, the complex model developed in this current study could be replicated by other academic institutes. The current study examined only two types of stressors, but even within this limited range of stressors, the effects of situational factors were reported on both coping and in the effect of personality on coping.

The current results were from seven major universities across New Zealand therefore the results are not just specific to one educational environment. Most importantly, this research explored moderator effects as well as direct effects, and included an investigation of the relationship between a wide range of variables that have limited previous research concerning the contributing relationships to the stress-coping process.

Limitations of the current research

The present study had a number of limitations. One limitation is that women were over represented in the sample (79%) and an analysis of the effects of gender was not included, so it is uncertain to what extent these findings can be generalised to males. Another limitation is that evidence is beginning to accumulate to support criticisms of retrospective, cross-sectional studies. For example, Ptacek and colleagues examined the relationship between daily and retrospective measures of coping and found that

retrospective measures were a poorer reflection of daily reports (Ptacek, Smith, Espe, & Raffety, 1994; Smith, Leffingwell, & Ptacek, 1999). Further, the correspondence between daily record and retrospective measures of coping was even further reduced when the participant was experiencing higher levels of stress. These types of findings suggest that although retrospective studies such as this current study have dominated the stress-coping research, the retrospective design may have contributed to the inconclusive and contradictory findings that have frequently occurred in the coping literature and in this current study. A different research design such as the daily process methodology would reduce the retrospective nature of reporting and may minimise any inaccuracy of memory. (Lee-Baggley, Preece, & DeLongis, 2005). It could be argued that cross-sectional studies only offer a snapshot of a process that is dynamic and constantly changing. To uncover coping styles or consistent patterns of coping by individuals, multiple assessments need to be used to detect a pattern of coping. A daily process method such as the use of diaries by participants could be more appropriate to the study of coping styles across stressors as individuals can be studied across time in a variety of naturally occurring stress contexts (Lee-Baggley, Preece, & DeLongis, 2005).

An additional limitation of the current study is that, although all of the five traits from the FFM were included, personality profiles were not. That is, although each of the five traits and their relationships to other factors were examined, personality traits do not actually exist independent of other personality traits. A far richer analysis could have been provided by the inclusion of profiles of coping (e.g., high on N and C, average on O and A, low on E) (Lee-Baggley, Preece, & DeLongis, 2005).

The survey included in this study was also particularly long and time consuming which resulted in some participants indicating scores in the middle of each scale which could suggest a loss of concentration occurred which would skew the results obtained. Because the survey was relatively long it is uncertain to what extent the length affected what type of individuals actually decided to complete the whole survey. A bias may have occurred due to the difference in the students who decided to complete the full survey and students who did not. The effects of such a bias are

difficult to determine. In addition the survey design was self report, therefore responses may have been influenced by issues such as social desirability. As mentioned earlier this may have been particularly salient for individuals high on agreeableness.

Future Research

This research contributed to the area of coping and personality by testing a comprehensive model with a New Zealand sample. Greater understanding is needed in the stress-coping process across time and situations, with future research continuing to develop the empirical theory regarding the effects of traits. However, I suggest it would be valuable to further investigate in greater depth the model presented in this research.

In regard to coping, deeper investigation needs to take place by including coping responses in addition to the two most widely discussed functions of coping: problem-focused and emotion-focused coping. Problem-focused coping was represented by the inclusion of problem-solving coping, while emotion-focused coping was represented through seeking social support (active) and avoidance coping (passive) (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Future research could benefit from the inclusion of an additional function of coping in the form of relationship-focused coping, which refers to modes of coping that are aimed at managing, regulating, or preserving relationships during times of stress (Lee-Baggley, Preece, & DeLongis, 2005).

As mentioned earlier, further research is needed to replicate the current findings and to integrate the role of personality variables within a multidimensional model. Research could benefit from including a model that looks at the characteristics of the event itself, the individuals appraisal of the event and appraisal of their coping responses to the event and also on the post-event period and include characteristics of the coping responses used. Future research could also consider a more detailed analysis of the role of gender. For example, gender may have a direct influence on

coping strategy used or gender may have a significant interaction effect both with personality and coping and between personality, situation, and coping.

Finally, future research could benefit from conducting longitudinal studies to overcome limitation of this current research. Longitudinal research would produce data that could provide useful insights into coping consistency across many situations and over a longer period of time, allowing for stronger causal predictions to be made in the stressor-coping process.

Conclusions

The findings of this study highlight the importance of examining coping behavior within an interactional context in which both the person and environmental features are considered in conjunction .Support was demonstrated for reported tendencies to use certain coping reactions to a greater or lesser degree when facing a stressor. The results of this current research suggests that certain personality characteristics may predispose people to cope in predictable ways when they confront adversity, lending support for the notion of coping styles, but only with regard to particular traits. Neuroticism and conscientiousness were found to be particularity salient. The results also concluded that the context is important in understanding and predicting coping behavior. Analyses revealed that individuals do cope differently depending on the stressor faced. These results were salient for individuals high on extraversion, indicating that contextual factors can also play a significant and independent role in coping behaviours used.

Therefore, campus support services need to focus on how to foster effective coping behaviours with regard to workload and interpersonal stressors, as these findings indicate that New Zealand universities can take positive steps in offering services that would facilitate adaptive coping behaviours and student wellbeing and performance. Previous motivation research has suggested that stress to a degree may be beneficial for students as it can enhance motivational levels and production. However it is important to identify the threshold level at which the positive experience of stress becomes detrimental to the psychological and physical wellbeing of the students. The

findings of this study provide information that will be useful to university staff, students and stressor-coping researchers.

References

Amirkhan, J. H. (1990). A factor analytically derived measure of coping: The Coping Strategy Indicator. *Journal of Personality and Social Psychology*. Vol., 59(5), 1066-1074.

Amirkhan, J. H. (1994). Criterion Validity of a Coping Measure. *Journal of Personality Assessment*, 62(2), 242 - 261.

Amirkhan, J. H., Risinger, R. T., & Swickert, R. J. (1995). Extraversion: A "Hidden" Personality Factor in Coping? *Journal of Personality*, 63(2), 189-212.

Arthur, N. (1998). The effects of stress, depression, and anxiety on postsecondary students' coping strategies. J*ournal of College Student Development,* 39(1), 11.

Bolger, N., DeLongis, A., Kessler, R. C., & Schilling, E. A. (1989). Effects of daily stress on negative mood. *Journal of Personality and Social Psychology. Vol., 57*(5), 808-818.

Bosworth, H. B., Bastian, L. A., Rimer, B. K., & Siegler, I. C. (2003). Coping styles and personality domains related to menopausal stress. *Women's Health Issues, 13*(1), 32-38.

Burch, G. S., & Anderson, N. (2008). Personality as a predictor of work-related behaviour and Perfromance: Recent advances and Directionsfor Future research. *International Review of Industrial and Organizational Psychology, 23*, 261-306.

Cahir, N., & Morris, R. D. (1991). The Psychology Student Stress Questionnaire. *Journal of Clinical Psychology, 47*(3), 414-417.

Carver, C. S., & Scheier, M. F. (1994). Situational coping and coping dispositions in a stressful transaction. *Journal of Personality and Social Psychology. Vol., 66*(1), 184-195.

Carver, C. S., Scheier, M. F., & Kumari Weintraub, J. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology. Vol., 56*(2), 267-283.

Clark, K. K., Bormann, C. A., Cropanzano, R. S., & James, K. (1995). Validation Evidence for Three Coping Measures. *Journal of Personality Assessment, 65*(3), 434.

Clements, C. M., & Sawhney, D. K. (2000). Coping with Domestic Violence: Control Attributions, Dysphoria, and Hopelessness. *Journal of Traumatic Stress, 13*(2), 219.

Dafna, K., & Tali, H. (2005). Task-Oriented Versus Emotion-Oriented Coping Strategies: The Case of College Students. *College Student Journal, 39*(1), 72.

Endler, & Parker, J. D. A. (1990). Multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology. Vol., 58*(5), 844-854.

Endler, Parker, J. D. A., Bagby, R. M., & Cox, B. J. (1991). Multidimensionality of state and trait anxiety: Factor structure of the Endler Multidimensional Anxiety Scales. *Journal of Personality and Social Psychology. Vol., 60*(6), 919-926.

Endler, Speer, R. L., Johnson, J. M., & Flett, G. L. (2000). Controllability, coping, efficacy, and distress. *European Journal of Personality, 14*(3), 245-264.

Fleishman, J. A. (1984). Personality Characteristics and Coping Patterns. *Journal of Health and Social Behavior, 25*(2), 229-244.

Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. *Journal of Personality and Social Psychology. Vol., 46*(4), 839-852.

Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology. Vol., 50*(5), 992-1003.

Folkman, S., & Moskowitz, J., Tedie. (2004). Coping: Pitfalls and Promise. *Annual Review of Psychology, 55*, 745.

Gardner, B., Rose, J., Mason, O., Tyler, P., & Cushway, D. (2005). Cognitive therapy and behavioural coping in the management of work-related stress: An intervention study. *Work & Stress, 19*(2), 137 - 152.

Grant, S., & Langan-Fox, J. (2007). Personality and the Occupational Stressor-Strain Relationship: The Role of the Big Five. *Journal of Occupational Health Psychology. Vol., 12*(1), 20-33.

Guenole, N., Chernyshenko, S., Stark, S., McGregor, K., & Ganesh, S. (2008). Measuring stress reaction style: A construct validity investigation. *Personality and Individual Differences, 44*(1), 250-262.

Hayes, N., & Joseph, S. (2003). Big 5 correlates of three measures of subjective well-being. *Personality and Individual Differences, 34*(4), 723-727.

Heszen-Niejodek, I. (1997). Coping style and its role in coping with stressful encounters. *European Psychologist. Vol., 2*(4), 342-351.

Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 65*(4), 599-610.

International, Personality, Item, & Pool. (2008, Retrieved March 25, 2008, from http://ipip.ori.org/ipip). NEO-PI-R Domains.

Jang, K. L., Thordarson, D. S., Stein, M. B., Cohan, S. L., & Taylor, S. (2007). Coping styles and personality: A biometric analysis. *Anxiety, Stress & Coping, 20*(1), 17 - 24.

Jex, S. M., Bliese, P. D., Buzzell, S., & Primeau, J. (2001). The impact of self-efficacy on stressor-strain relations: Coping style as an explanatory mechanism. *Journal of Applied Psychology.* Vol., 86(3), 401-409.

Jimmieson, N. L., & Terry, D. J. (1997). Responses to an in-basket activity: The role of work stress, behavioral control, and informational control. *Journal of Occupational Health Psychology. Vol., 2*(1), 72-83.

Lachlan A. McWilliams, B. J. C. M. W. E. (2003). Use of the Coping Inventory for Stressful Situations in a clinically depressed sample: Factor structure, personality correlates, and prediction of distress. *Journal of Clinical Psychology, 59*(12), 1371-1385.

Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal and Coping*. New York: Springer Publications.

Lee-Baggley, D., Preece, M., & DeLongis, A. (2005). Coping With Interpersonal Stress: Role of Big Five Traits. *Journal of Personality, 73*(5), 1141-1180.

McAdams, D. P. (1992). The Five-Factor Model in Personality: A Critical Appraisal. *Journal of Personality, 60*(2), 329-361.

McCrae, R. R., & Costa , P. T. (1986). Personality, coping, and coping effectiveness in an adult sample. *Journal of Personality, 54*(2), 385.

McCrae, R. R., & Costa, P. T., Jr. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology. Vol., 52*(1), 81-90.

McWilliams, L. A., Cox, B. J., & Enns, M. W. (2003). Use of the Coping Inventory for Stressful Situations in a clinically depressed sample: Factor structure, personality correlates, and prediction of distress. *Journal of Clinical Psychology, 59*(12), 1371-1385.

Miller, S. M. (1979). Coping with Impending Stress: Psychophysiological and Cognitive Correlates of Choice. *Psychophysiology, 16*(6), 572-581.

Miller, S. M. (1987). Monitoring and blunting: Validation of a questionnaire to assess styles of information seeking under threat. *Journal of Personality and Social Psychology. Vol., 52*(2), 345-353.

Moos, R., H. Holahan, C, J. Beutler, L , E. (2003). Dispositional and contextual perspectives on coping: Introduction to the special issue. *Journal of Clinical Psychology, 59*(12), 1257-1259.

Mutsuhiro, N., Gregory, F., Patricia, C. Z., Patricia, M., & et al. (2001). Effects of gender and marital status on somatic symptoms of patients attending a mind/body medicine clinic. *Behavioral Medicine, 26*(4), 159.

Nightingale, J., & Williams, R. M. (2000). Attitudes to emotional expression and personality in predicting post-traumatic stress disorder. *The British Journal of Clinical Psychology, 39*, 243.

O'Brien, T. B., & DeLongis, A. (1996). The Interactional Context of Problem-, Emotion-, and Relationship-Focused Coping: The Role of the Big Five Personality Factors. *Journal of Personality, 64*(4), 775-813.

O'Driscoll, M., Taylor, P., & Kalliath, T. (2003). Organisational Psychology in Australia and New Zealand: Oxford University Press.

O'Driscoll, M., & Brough, P. (2003). Organisational Psychology in Australia and New Zealand. Melbourne: Oxford University Press.

Pakenham, K. I., & Bursnall, S. (2006). Relations between social support, appraisal and coping and both positive and negative outcomes for children of a parent with multiple sclerosis and comparisons with children of healthy parents. *Clinical Rehabilitation, 20*(8), 709-723.

Pearlin, L. I., Menaghan, E. G., Morton, A. L., & Mullan, J. T. (1981). The Stress Process. *Journal of Health and Social Behavior*, 22(4), 337-356.

Platow, M. J. (1994). An Evaluation of the Social Desirability of Prosocial Self-Other Allocation Choices. *Journal of Social Psychology, 134*(1), 61-68.

Ptacek, J. T., Smith, R. E., Espe, K., & Raffety, B. (1994). Limited correspondence between daily coping reports and restrospective coping recall. *Psychological Assessment. Vol., 6*(1), 41-49.

Salgado, J. F. (2003). Predicting job performance using FFM and non-FFM personality measures. *Journal of Occupational and Organizational Psychology, 76*, 323.

Schneider, T., R. (2008). Evaluations of stressful transactions: what's in an appraisal? *Stress and Health, 24*(2), 151-158.

Smith, R. E., Leffingwell, T. R., & Ptacek, J. T. (1999). Can people remember how they coped? Factors associated with discordance between same-day and retrospective reports. *Journal of Personality and Social Psychology. Vol., 76*(6), 1050-1061.

Spector, P. A., & O'Connell, B. J. (1994). The contribution of personality traits, negative affectivity, locus of control and Type A to the subsequent reports of job stressors and job strains. *Journal of Occupational & Organizational Psychology, 67*(1), 1-12.

Watson, D., & Hubbard, B. (1996). Adaptational Style and Dispositional Structure: Coping in the Context of the Five-Factor Model. *Journal of Personality, 64*(4), 737-774.

Zuckerman, M., Kuhlman, D. M., Joireman, J., Teta, P., & Kraft, M. (1993). A comparison of three structural models for personality: The Big Three, the Big Five, and the Alternative Five. *Journal of Personality and Social Psychology. Vol., 65*(4), 757-768.

Appendix 1: Email to heads of department
Request of support to distribute surveys

Dear Head of Department

I am a Masters student at the University of Waikato, conducting a survey on how students deal with stressful situations they experience. I am undertaking this research for my thesis in the Master of Applied Psychology program. My supervisors are Mike O'Driscoll and Nicola Starkey. I have received ethical approval for my study from the Waikato Department of Psychology Research & Ethics Committee.

To gather my data I have constructed an online questionnaire, which I am hoping to distribute via email to Honours, Masters and PhD students in Psychology and Management in New Zealand universities. Their participation is voluntary and completely confidential.

 The purpose of this email is to ask if it would be possible to circulate an email (containing a link to the online questionnaire) to post-graduate (Honours, Masters, PhD) students in your department/school. Perhaps the most efficient and effective approach would be via a distribution list of post-graduate students. I would be most appreciative if I could call upon your assistance to distribute my questionnaire in this way.

Once the study has been completed and my thesis is written, I would be very happy to distribute a summary of the findings to your department, for circulation to post-graduate students.

I look forward to hearing from you very shortly. If you have any queries about the project, please don't hesitate to contact me at the email address or phone number listed below. If there is someone else I need to discuss this request with, please forward my email to that person or point me in the correct direction.

Thank you for considering my request, and I look forward to your response.

Yours faithfully,

Mary de France
Masters of Applied Psychology
Department of Psychology
University of Waikato
mad11@students.waikato.ac.nz; 021 236 8421

Appendix 2: Cover letter with link to survey sent to students

Dear fellow post-graduate students

I am a Masters student at the University of Waikato, conducting a survey on how students deal with stressful situations they experience. I am undertaking this research for my Master's Thesis in the Masters of Applied Psychology program, offered at the University of Waikato. My supervisors are Mike O'Driscoll and Nicola Starkey. I have received ethical approval for my study from the Waikato Department of Psychology Research & Ethics Committee.

This email invites you to complete my questionnaire, which looks at responses to two different situations. It also looks at factors which affect how people respond to stressful situations. You will be asked to indicate your responses to two different situations. The first situation involves academic workload demand and the second situation involves a social interaction with one other person.

This survey will take about 10-15 minutes to complete and your identity and responses will be completely confidential. The results of the survey will be anonymous and you will not be identified in any publication or dissemination of the research findings.

Your participation would be very beneficial to my research. My proposed research has practical implications for stress management, including providing information on the benefits and limitations of different responses to stress.

Your participation is voluntary and completely confidential. The action of completing the questionnaire represents your consent. In doing so, please read each of the instructions carefully and answer the questions in the order they are presented.

For your interest, a summary of my research results will be sent via email to your department's administrator, and will be made available to you.
 If you want to complete the questionnaire, please click on the link below and follow the instructions.

<u>Link to survey</u>

If you encounter any problems please email me. My contact details are below and I will be happy to answer any questions that you may have.

Thank you

Mary de France
Masters of Applied Psychology
Department of Psychology
University of Waikato
mad11@students.waikato.ac.nz

Appendix 3: Online student survey

Thank you for choosing to participate in my questionnaire, your contribution is really appreciated.

You are going to be asked to describe two situations you found uncomfortable or stressful and how you responded to each situation. The first situation I will ask you to describe, involves an academic workload demand, the second situation involves a social interaction.

Part A: ACADEMIC WORKLOAD DEMAND

We are interested in how people cope with the problems and troubles in their lives.

Try to think of an **academic workload demand** which you found stressful, occurring in the past six months. This should be a situation which was important to you (caused you to worry) and which you experienced as stressful or uncomfortable (examples could be, anything from time pressures or a high quantity workload from an assignment or test).

Please describe this situation in a few words (remember your answer will be kept anonymous):

_____

With this situation in mind, indicate how you responded by checking the appropriate box for each behaviour listed on the following pages. Answer each and every question even though some may sound similar.

Below, several possible ways of responding are listed. We would like you to indicate to what extent you, yourself, used each of these methods. All of the responses will remain anonymous.

Did you remember to write down your stress situation? If not, please do before going on.

Keeping that stressful event in mind, indicate to what extent you....

1 Let your feelings out to a friend? A Lot A little Not at all

2 Rearrange things around you so that your
 problem has the best chance of being resolved? A Lot A little Not at all

3 Brainstorm all possible solutions before
 deciding what to do? A Lot A little Not at all

4 Tried to distract yourself from the problem? A Lot A little Not at all

5 Accepted sympathy and understanding from
 someone? A Lot A little Not at all

6 Did all you could to keep others from seeing
 how bad things really were? A Lot A little Not at all

7 Talked to people about the situation because
 talking about it helped you to feel better? A Lot A little Not at all

8 Set some goals for yourself to deal with the
 situation? A Lot A little Not at all

9 Weighed your options very carefully? A Lot A little Not at all

10 Daydreamed about better times? A Lot A little Not at all

11 Tried different ways to solve the problem
 until you found one that worked? A Lot A little Not at all

12 Confided your fears and worries to a friend
 or relative? A Lot A little Not at all

13 Spent more time than usual alone? A Lot A little Not at all

14 Told people about the situation because just
 talking about it helped you to come up with
 solutions? A Lot A little Not at all

15 Thought about what needed to be done to
 straighten things out? A Lot A little Not at all

16 Turned your full attention to solving the
 problem? A Lot A little Not at all

17 Formed a plan of action in your mind? A Lot A little Not at all

18 Watched television more than usual? A Lot A little Not at all

19 Went to someone (friend or professional) in order to help you feel better? | A Lot | A little | Not at all

20 Stood firm and fought for what you wanted in the situation? | A Lot | A little | Not at all

21 Avoided being with people in general? | A Lot | A little | Not at all

22 Buried yourself in a hobby or sports activity to avoid the problem? | A Lot | A little | Not at all

23 Went to a friend to help you feel better about the problem? | A Lot | A little | Not at all

24 Went to a friend for advice on how to change the situation? | A Lot | A little | Not at all

25 Accepted sympathy and understanding from friends who had the same problem? | A Lot | A little | Not at all

26 Slept more than usual? | A Lot | A little | Not at all

27 Fantasized about how things could have been different? | A Lot | A little | Not at all

28 Identified with characters in novels or movies? | A Lot | A little | Not at all

29 Tried to solve the problem? | A Lot | A little | Not at all

30 Wished that people would just leave you alone? | A Lot | A little | Not at all

31 Accepted help form a friend or relative? | A Lot | A little | Not at all

32 Sought reassurance from those who know you best? | A Lot | A little | Not at all

33 Tried to carefully plan a course of action rather than acting on impulse? | A Lot | A little | Not at all

Consider again the **academic workload demand** you described above.

Please use the rating scale below to respond to each of the following questions that describes the amount of influence or control you believe you had over the situation.

No Control	A little Control	Moderate Control	A lot of Control	Total Control
1	2	3	4	5

34	To what extent were you able to control the order at which you completed the tasks required?	1	2	3	4	5
35	How much control did you have over time pressures associated with your high academic workload?	1	2	3	4	5
36	In general, how much control did you have over your academic workload?	1	2	3	4	5

Please use the rating scale below to indicate how accurately each statement describes your reactions to the situation.

Not at all	A Little	Somewhat	Very	Extremely
1	2	3	4	5

37	How threatening did you experience the situation to be?	1	2	3	4	5
38	How demanding was it?	1	2	3	4	5
39	How stressful was it?	1	2	3	4	5
40	To what extent do you think you needed to exert yourself to deal with it?	1	2	3	4	5
41	How much effort (mental or physical) do you think it required you to expand?	1	2	3	4	5
42	How important was it for you to do well or achieve a good result regarding the situation?	1	2	3	4	5
43	How uncertain were you about what would happen during the situation?	1	2	3	4	5
44	How well do you think you managed the demands imposed on you by the situation?	1	2	3	4	5
45	How able were you to cope with it?	1	2	3	4	5
46	How well do you think you performed during your encounter with it?	1	2	3	4	5
47	How effective do you think your behaviour was at dealing with your academic workload demands?	1	2	3	4	5

Part B: SOCIAL INTERACTION

Now we want you to think about a social interaction you experienced with one other person.

As stated earlier, we are interested in how people cope with the problems and troubles in their lives.

Think of a situation involving a **social interaction** you had involving **one other person**, which you found stressful, occurring in the past six months. This should be a situation which was important to you (caused you to worry) and which you experienced as stressful or uncomfortable (examples could be anything from meeting someone for the first time, or a social interaction where a conflict or a disagreement occurred).

Please describe this situation in a few words, and indicate your relationship to the person involved such as; significant other, family member, close friend, co-worker, acquaintance. Remember your answer will be kept anonymous:

_____

With this situation in mind, indicate how you coped by checking the appropriate box for each coping behaviour listed on the following pages. Answer each and every question even though some may sound similar.
Several possible ways of responding are listed below. Again we would like you to indicate to what extent you, yourself, used each of these methods. All of the responses will remain anonymous.

Did you remember to write down your stressful situation? If not, please do so before going on.

Keeping that stressful event in mind, indicate to what extent you....

1 Let your feelings out to a friend?   A Lot   A little   Not at all

2 Rearrange things around you so that your
 problem has the best chance of being resolved?   A Lot   A little   Not at all

3 Brainstorm all possible solutions before
 deciding what to do?   A Lot   A little   Not at all

4 Tried to distract yourself from the problem?   A Lot   A little   Not at all

5 Accepted sympathy and understanding from
 someone?   A Lot   A little   Not at all

6 Did all you could to keep others from seeing
 how bad things really were?   A Lot   A little   Not at all

7 Talked to people about the situation because
 talking about it helped you to feel better?   A Lot   A little   Not at all

8 Set some goals for yourself to deal with the
 situation?   A Lot   A little   Not at all

9 Weighed your options very carefully?   A Lot   A little   Not at all

10 Daydreamed about better times?   A Lot   A little   Not at all

11 Tried different ways to solve the problem
 until you found one that worked?   A Lot   A little   Not at all

12 Confided your fears and worries to a friend
 or relative?   A Lot   A little   Not at all

13 Spent more time than usual alone?   A Lot   A little   Not at all

14 Told people about the situation because just
 talking about it helped you to come up with
 solutions?   A Lot   A little   Not at all

15 Thought about what needed to be done to
 straighten things out?   A Lot   A little   Not at all

16 Turned your full attention to solving the
 problem?   A Lot   A little   Not at all

17 Formed a plan of action in your mind?   A Lot   A little   Not at all

18 Watched television more than usual?   A Lot   A little   Not at all

19 Went to someone (friend or professional) in order to help you feel better?   A Lot   A little   Not at all

20 Stood firm and fought for what you wanted in the situation?   A Lot   A little   Not at all

21 Avoided being with people in general?   A Lot   A little   Not at all

22 Buried yourself in a hobby or sports activity to avoid the problem?   A Lot   A little   Not at all

23 Went to a friend to help you feel better about the problem?   A Lot   A little   Not at all

24 Went to a friend for advice on how to change the situation?   A Lot   A little   Not at all

25 Accepted sympathy and understanding from friends who had the same problem?   A Lot   A little   Not at all

26 Slept more than usual?   A Lot   A little   Not at all

27 Fantasized about how things could have been different?   A Lot   A little   Not at all

28 Identified with characters in novels or movies?   A Lot   A little   Not at all

29 Tried to solve the problem?   A Lot   A little   Not at all

30 Wished that people would just leave you alone?   A Lot   A little   Not at all

31 Accepted help form a friend or relative?   A Lot   A little   Not at all

32 Sought reassurance from those who know you best?   A Lot   A little   Not at all

33 Tried to carefully plan a course of action rather than acting on impulse?   A Lot   A little   Not at all

Consider again the **<u>social interaction</u>** you described above.

Please use the rating scale below to describe how accurately each statement describes the amount of influence or control you believe you had over the situation.

No Control	A little Control	Moderate Control	A lot of Control	Total Control
1	**2**	**3**	**4**	**5**

81	How much control did you have over why this social interaction occurred?	1	2	3	4	5
82	How much control did you have over how the interaction ended?	1	2	3	4	5
83	To what extent could you control the events which unfolded during the social interaction?	1	2	3	4	5
84	In general, how much control did you have over the social interaction?	1	2	3	4	5

Please use the rating scale below to indicate how accurately each statement describes your reactions to the situation.

Not at all	A Little	Somewhat	Very	Extremely
1	2	3	4	5

85	How threatening did you experience the situation to be?	1	2	3	4	5
86	How demanding was it?	1	2	3	4	5
87	How stressful was it?	1	2	3	4	5
88	To what extent do you think you needed to exert yourself to deal with it?	1	2	3	4	5
89	How much effort (mental or physical) do you think it required you to expand?	1	2	3	4	5
90	How important was it for you to achieve a good end result regarding the situation?	1	2	3	4	5
91	How uncertain were you about what would happen during the situation?	1	2	3	4	5
92	How well do you think you managed the demands imposed on you by the situation?	1	2	3	4	5
93	How able were you to cope with it?	1	2	3	4	5
94	How well do you think you performed during your encounter?	1	2	3	4	5
95	How effective do you think you were at handling the social interaction?	1	2	3	4	5

Thank you, you have now completed Part B you are nearly finished. Please move on to Part C

Part C: PERSONAL CHARACTERISTICS

On the following pages, there are phrases describing people's behaviours. Please use the rating scale below to describe how accurately each statement describes you.

Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
1	2	3	4	5

Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself.

96	Often feel blue.	1	2	3	4	5
97	Have little to say.	1	2	3	4	5
98	Am always prepared.	1	2	3	4	5
99	Am not interested in abstract ideas	1	2	3	4	5
100	Have a good word for everyone	1	2	3	4	5
101	Rarely get irritated.	1	2	3	4	5
102	Feel comfortable around people.	1	2	3	4	5
103	Waste my time.	1	2	3	4	5
104	Believe in the importance of art	1	2	3	4	5
105	Have a sharp tongue.	1	2	3	4	5
106	Dislike myself.	1	2	3	4	5
107	Keep in the background.	1	2	3	4	5

		Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
		1	**2**	**3**	**4**	**5**
108	Pay attention to details		1	2	3	4	5
109	Do not like art.		1	2	3	4	5
110	Believe that others have good intentions		1	2	3	4	5
111	Seldom feel blue.		1	2	3	4	5
112	Make friends easily.		1	2	3	4	5
113	Find it difficult to get down to work.		1	2	3	4	5
114	Have a vivid imagination		1	2	3	4	5
115	Cut others to pieces		1	2	3	4	5
116	Am often down in the dumps.		1	2	3	4	5
117	Would describe my experiences as somewhat dull.		1	2	3	4	5
118	Get chores done right away		1	2	3	4	5
119	Avoid philosophical discussions		1	2	3	4	5
120	Respect others		1	2	3	4	5
121	Feel comfortable with myself.		1	2	3	4	5
122	Am skilled in handling social situations.		1	2	3	4	5
123	Do just enough work to get by.		1	2	3	4	5
124	Tend to vote for liberal political candidates.		1	2	3	4	5
125	Suspect hidden motives in others		1	2	3	4	5
126	Have frequent mood swings		1	2	3	4	5
127	Don't like to draw attention to myself		1	2	3	4	5

		Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
		1	2	3	4	5
128	Carry out my plans.	1	2	3	4	5
129	Do not enjoy going to art museums	1	2	3	4	5
130	Accept people as they are	1	2	3	4	5
131	Am not easily bothered by things	1	2	3	4	5
132	Am the life of the party	1	2	3	4	5
133	Don't see things through.	1	2	3	4	5
134	Carry the conversation to a higher level	1	2	3	4	5
135	Get back at others.	1	2	3	4	5
136	Panic easily.	1	2	3	4	5
137	Don't talk a lot.	1	2	3	4	5
138	Make plans and stick to them.	1	2	3	4	5
139	Tend to vote for conservative political candidates	1	2	3	4	5
140	Make people feel at ease.	1	2	3	4	5
141	Am very pleased with myself.	1	2	3	4	5
142	Know how to captivate people.	1	2	3	4	5
143	Shirk my duties.	1	2	3	4	5
144	Enjoy hearing new ideas	1	2	3	4	5
145	Insult people	1	2	3	4	5

Demographics:

Demographic information is included in this study to give us additional information to simply describe our sample. Again this information is confidential and you will not be identified.

146. SEX: ☐ Male   ☐ Female

147. AGE: _____

148. ETHNICITY:

NZ European /Pakeha ☐ Other European ☐ NZ Maori   ☐

Cook Island Maori ☐ Tongan ☐ Niuean   ☐

Fijian   Other pacific   South East Asian ☐

Indian ☐ Chinese ☐ Other Asian   ☐

Samoan ☐ Tokelauan ☐

Other ethnic group, please specify   _____

149. CURRENT ENROLMENT:

☐ Bachelors Degree with Honours

☐ Masters Thesis

☐ PHD

☐ Other (please specify) _____

150. ARE YOU ENROLLED:

☐ Part time

☐ Full time

That is the end of the questionnaire. Thank you for your time and effort in completing your answers.
Please check you have answered all the items before you submit your questionnaire.

SUBMIT

Appendix 4: Reminder letter sent to heads of department

Dear Head of Department

Recently I contacted you regarding my research into how students deal with stressful situations they experience, which I am conducting for my Master's thesis in organizational psychology at the University of Waikato. You generously agreed to circulate a survey for me to all the post-graduate (Honors, Masters and PHD) students in your school/department.

First of all, can you tell me how many post-graduate students were on the distribution list? If this involves a time consuming investigation to find the actual number, could you give me an educated guess?

I have had a reasonable response rate, however I need to distribute a reminder email to students which reminds them to complete my survey and thanks the students who have taken the time to complete my survey. I have pasted the reminder letter below and would really appreciate it if you could circulate this letter for me.

Please let me know if you are able to do this for me. Thank you again for taking the time to assist me in my research.

Yours faithfully,

Mary de France
Masters of Applied Psychology
Department of Psychology
University of Waikato
mad11@students.waikato.ac.nz

Dear fellow post-graduate students

Recently you received an email inviting you to complete an online survey as part of my Master's Thesis research on how students deal with stressful situations they experience. Thank you very much if you have already taken the time to complete the survey. If you have not already done so and would like to complete my survey, I would appreciate you taking the time to complete and submit the online survey, by clicking on the link below. Your responses will be very beneficial for my research.

Once the study has been completed and my thesis is written, a summary of the findings will be distributed to your school/department for circulation to post-graduate students.

Link to survey

Thanks again if you have already completed my survey. I really appreciate the time and consideration you have put into your answers. If you have yet to complete the survey, your participation would be greatly appreciated.

If you have any further questions with regard to my research please don't hesitate to contact me. This research has received ethical approval from the Department of Psychology Research and Ethics Committee at the University of Waikato
With best wishes,

Mary de France
Masters of Applied Psychology
Department of Psychology
University of Waikato
mad11@students.waikato.ac.nz